

Validation documentation  
*APIs & excipients, liquid/semi-solid (with analysis  
certificate)*

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# Contents

|                                                              |           |
|--------------------------------------------------------------|-----------|
| <b>Introduction</b>                                          | <b>7</b>  |
| Context of this document                                     | 7         |
| Criteria for the inclusion of substances                     | 8         |
| Validation concept                                           | 9         |
| Model creation procedure and validation runs                 | 9         |
| Particularities of individual substance classes              | 12        |
| Significance of testing with <i>Apo-Ident</i>                | 13        |
| Conclusion                                                   | 13        |
| <b>Explanation of terminology</b>                            | <b>14</b> |
| <b>Summary</b>                                               | <b>19</b> |
| Validation samples                                           | 19        |
| Validation results                                           | 19        |
| <b>Validation reports</b>                                    | <b>21</b> |
| (s)-Lactic acid                                              | 21        |
| 1,3-butanediol                                               | 33        |
| 2-ethylhexyl laurate                                         | 37        |
| Acetic acid 30%                                              | 47        |
| Acetic acid 99%                                              | 53        |
| Acetone                                                      | 61        |
| Acorus oil                                                   | 79        |
| All-rac-alpha-tocopheryl acetate                             | 85        |
| Angelica root oil                                            | 95        |
| Anise oil / Star aniseed oil                                 | 101       |
| Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR) | 109       |
| Base cream DAC                                               | 119       |
| Basis Cordes® RK                                             | 243       |
| Benzalkonium chloride solution 50%                           | 263       |
| Benzyl alcohol                                               | 269       |
| Benzyl benzoate                                              | 275       |
| Benzyl nicotinate                                            | 281       |
| Bergamot oil                                                 | 287       |
| Bitter-fennel fruit oil                                      | 293       |
| Cajeput (essentiel oil)                                      | 299       |
| Camphor oil 20%                                              | 305       |
| Camphor ointment                                             | 311       |
| Camphor spirit                                               | 315       |
| Caraway oil                                                  | 323       |
| Castor oil, virgin / Sorbitan- and glycerol monooleate       | 331       |
| Cedar leaf oil                                               | 357       |
| Cedar wood oil                                               | 361       |
| Cetiol® HE                                                   | 367       |
| Cineole                                                      | 373       |
| Cinnamon bark oil, artificial                                | 377       |
| Cinnamon bark oil, Ceylon                                    | 381       |
| Citronella oil                                               | 387       |
| Citrus oils                                                  | 393       |
| Clotrimazole 10% Cordes® RK                                  | 405       |
| Clove oil                                                    | 411       |
| Coal tar spirit SR                                           | 421       |
| Collodion 4%                                                 | 429       |
| Cooling cream / Cooling cream with rose oil                  | 435       |
| Cordes® base solution                                        | 493       |
| Coriander oil                                                | 497       |

|                                                                                   |      |
|-----------------------------------------------------------------------------------|------|
| Dexpanthenol                                                                      | 503  |
| Dexpanthenol concentrate 50%                                                      | 529  |
| Dextrorotary lactic acid 20%                                                      | 541  |
| Dimethyl sulfoxide                                                                | 547  |
| Dimeticon 100 / 350 / 1000                                                        | 561  |
| Dwarf pine oil                                                                    | 569  |
| Ethanol 90%                                                                       | 577  |
| Ethanol 96%                                                                       | 593  |
| Ether                                                                             | 623  |
| Ethyl acetate                                                                     | 633  |
| Eucalyptus oil / Rosmary oil                                                      | 639  |
| Eugenol                                                                           | 657  |
| Gel Cordes®                                                                       | 663  |
| Geranium oil, genuine                                                             | 669  |
| Glucose syrup                                                                     | 675  |
| Glycerine ointment (conserved)                                                    | 681  |
| Glycerol                                                                          | 687  |
| Glycerol 85%                                                                      | 697  |
| Glycolic acid 70%                                                                 | 743  |
| Guaiazulene 25%, water-soluble                                                    | 749  |
| Honeys                                                                            | 757  |
| Hydrophilic base emulsion (NRF p.25)                                              | 763  |
| Hydrophilic ointments                                                             | 781  |
| Hydroxyethyl salicylate                                                           | 973  |
| Isopropyl alcohol                                                                 | 979  |
| Isopropyl alcohol 70%                                                             | 1033 |
| Isopropyl myristate                                                               | 1085 |
| Isopropyl palmitate                                                               | 1095 |
| Juniper oil                                                                       | 1105 |
| Lanette® ointment (conserved)                                                     | 1111 |
| Lanolin DAB                                                                       | 1121 |
| Lavender oil / Clary sage oil                                                     | 1147 |
| Liniment ointments                                                                | 1165 |
| Lipo Lotio Cordes®                                                                | 1209 |
| Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40 | 1213 |
| Macrogol 8 stearate type I                                                        | 1259 |
| Macrogol ointment                                                                 | 1265 |
| Macrogol-2-laurylether                                                            | 1273 |
| Macrogolglycerol ricinoleate                                                      | 1279 |
| Macrogols 300                                                                     | 1285 |
| Macrogols 400                                                                     | 1291 |
| Mandarin oil                                                                      | 1305 |
| Matricaria oil, rich in (-)-alpha-bisabolol                                       | 1309 |
| Melissa oil                                                                       | 1315 |
| Methyl salicylate                                                                 | 1321 |
| Metronidazole 25% in white petrolatum                                             | 1327 |
| Mint oil / Peppermint oil                                                         | 1333 |
| Myrtle oil                                                                        | 1347 |
| Non-ionic hydrophil ointment                                                      | 1353 |
| Octyldodecanol                                                                    | 1367 |
| Oleic acid                                                                        | 1383 |
| Oregano oil                                                                       | 1387 |
| Paraffin classification                                                           | 1393 |
| Pasta Cordes®                                                                     | 1573 |
| Permethrin 25% solution                                                           | 1583 |
| Petroleum ether DAB                                                               | 1591 |
| Petroleum oil, not for internal use                                               | 1617 |

|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| Phenoxyethanol                                                       | .1623       |
| Phytomenadione                                                       | .1627       |
| Pine silvestris oil                                                  | .1631       |
| Pine tar                                                             | .1637       |
| Polyhexanide solution 20%                                            | .1641       |
| Polysorbates / Macrogol 20 glycerol monostearate type II             | .1651       |
| Potash soap DAC                                                      | .1667       |
| Potash soap Ph.Helv.                                                 | .1675       |
| Propylene glycol                                                     | .1679       |
| Psorisol base cream Audor®                                           | .1719       |
| Rose oil (genuine / artificial)                                      | .1725       |
| Sage oil                                                             | .1733       |
| Salicylic acid 50% (paraffin)                                        | .1741       |
| Salicylic acid concentrate 10%, white paraffin basis                 | .1759       |
| Salicylic acid concentrate 5%, white paraffin basis                  | .1763       |
| Sodium laureth sulfate solution 27%                                  | .1767       |
| Sodium-(s)-lactate solution 50%                                      | .1773       |
| Soft ointment                                                        | .1785       |
| Softisan® 378 / Wool fat                                             | .1807       |
| Softisan® 649                                                        | .1845       |
| Sorbitan trioleate                                                   | .1851       |
| Spearmint oil                                                        | .1859       |
| Spirit of ether                                                      | .1865       |
| Spirit soap                                                          | .1869       |
| Spruce needle oil                                                    | .1875       |
| Squalane                                                             | .1881       |
| Syrups                                                               | .1887       |
| Tea tree oil                                                         | .1915       |
| Thyme oil, thymol type                                               | .1921       |
| Triglycerides                                                        | .1929       |
| Triglycerides, medium-chain                                          | .2077       |
| Triglycerol diisostearate                                            | .2121       |
| Verbena oil, nature-identical                                        | .2127       |
| Viscous base solution (NRF p. 20)                                    | .2133       |
| Water and aqueous solutions                                          | .2151       |
| Wines                                                                | .2227       |
| Wood oils                                                            | .2237       |
| Wool alcohols creams                                                 | .2243       |
| Wormwood oil                                                         | .2255       |
| $\alpha$ -Tocopherol                                                 | .2259       |
| <b>Appendix</b>                                                      | <b>2267</b> |
| Additional calibration samples ( <i>Type A</i> )                     | .2267       |
| Additional validation samples ( <i>Type B</i> )                      | .2269       |
| Additional validation samples ( <i>Type C</i> )                      | .2275       |
| Requirements of validation                                           | .2351       |
| Conformity of <i>Apo-Ident</i> with the <i>European pharmacopeia</i> | .2352       |
| Addition to the second-stage models                                  | .2353       |
| <b>References</b>                                                    | <b>2355</b> |
| <b>Index</b>                                                         | <b>2357</b> |



## Introduction

The unequivocal proof of the identity of pharmaceutical raw materials based on a monograph or traditional alternative methods is work-intensive, time-intensive and economically often no longer makes sense. Near-infrared spectroscopy (NIR) provides a new means here. It enables relatively easy, fast and nonetheless safe identity testing via the preparation and evaluation of spectra.

The analysis system *Apo-Ident* was developed specially for pharmacy use. Pharmacists have the duty to check the identity of all raw materials for extemporaneous products in their pharmacies. This normally takes place based on the monographs for the respective substances in the European Pharmacopoeia. But also NIR spectroscopy is described in the European Pharmacopoeia as an identification method which, as opposed to the methods incorporated in the respective monographs, is approved for testing [1] (quotation translated)

*with the prerequisite that the same results (“namely the determination of the identity” [2]), (quotation translated) are achieved as with the described methods and instruments.*

The *Apo-Ident* analysis system serves to identify raw materials for prescriptions in the defined manner according to *ApBetrO* [Pharmacies Rules and Regulations] §§ 6 and 11 at pharmacies (NIR spectroscopy as an alternative testing method). *Apo-Ident* consists of three components:

- An *NIR spectrometer*, which records the spectra of non-preprocessed raw materials in a measuring glass in diffuse reflection or transfection.
- The *QuickStep* spectroscopy software controls the instrument and records the spectra and user inputs via a pharmacy-specific software plug-in. It also generates the test protocol for documentation of the testing and storage of the printout to be signed in the pharmacy.
- The software module *IdentModule* incorporates *reference databases*. The spectra from the *QuickStep* software are presented to it for evaluation.

NIR spectroscopy is a very powerful analytical method. It is also able to establish the identity of several chemical compounds and mixes in as far as an appropriate database (technically correct: a [chemometric model](#)) was created. Identity testing with *Apo-Ident* is a very safe, very fast and easy to operate analytical method for testing a large number of raw materials.

## Context of this document

The suitability of the instrument, method and database is proven as follows:

- *NIR spectroscopy as a method for identity testing*: The *Ph. Eur.* [3] describes NIR spectroscopy in *Section 2.2.40* as an analytical method which is also suitable for the identification of raw materials. Therefore, validation of the method as such is not necessary.
- *Performance of the instrument*: The *Ph. Eur.* [3] furthermore describes the apparatus and the testing of its performance in *Section 2.2.40*. The document *Erfüllung von 2.2.40 Ph. Eur. durch Apo-Ident* [4] compares the implementation by *Apo-Ident* with this monograph in order to prove that *Apo-Ident* meets the specifications of the Pharmacopoeia. Each individual instrument delivered to a pharmacy is qualified in accordance with the tests described in “*Control of Instrument Performance*”. In this test, the unit consisting of analysis instrument hardware and the *QuickStep* spectroscopy software is assessed. The result is documented in a test protocol which is kept at the pharmacy.
- *Validation of the database* is documented separately for each substance class. The report at hand documents the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*.

The *Arbeitsgemeinschaft der Pharmazieräte Deutschlands (APD)* [Working Group of German Pharmacy Inspectors] has clarified the following in its resolution dated October 16, 2013 ([5], quotation translated):

*NIR is a testing method incorporated in the Pharmacopoeia. The testing quality depends on the quality of the database stored. The APD views the use of NIR instruments in case of ensured validation of the databases used in conjunction with it as one of several options for identity testing.*

The APD defined more precisely ([6], quotation translated) on October 1, 2014:

*The use of near-infrared is a recognised testing method according to Ph. Eur. 8. For the use of NIR instruments in pharmacies for testing the identity of raw materials, sufficient and verifiable validation of the instrument used is required. The quality of the database stored by the instrument manufacturer is decisive for quality. Batch-specific differences with the same original substances must be taken into account if present.*

So NIR is basically suitable. The validity of the reference database is proven with the existing validation documentation.

## Criteria for the inclusion of substances

This validation documentation describes the results of the validation of the reference database for the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Validation documentation is created for each published version of the reference database for all substance classes incorporated.

The reference database is incorporated in the software module *IdentModule*. During identification testing with *Apo-Ident*, spectra which are used for evaluation purposes are presented to it by the *QuickStep* software. In the same manner, the *IdentModule* is presented all validation spectra successively during the validation runs for evaluation purposes. The *IdentModule* responds respectively (without taking the initial assumption into account) with the identified substance or rejects it as unknown. The correctness of this response is checked for each possible initial assumption and counted.

The results are summarised for each substance and reproduced in this document. The core statement of this validation report is that the following criteria must be fulfilled for each database entry, so that *Apo-Ident* offers verification of identity by means of NIR for the relevant substance/substance group:

- The database is exclusively generated from spectra which have been recorded by *HiperScan GmbH* on traceable samples in pharmaceutical quality.
  - The samples are procured via typical pharmacy sources (*DAC III.2.: Bezugsquellennachweis für Rezepturbestandteile [reference source for prescription components]* [7]).
  - A valid manufacturer's certificate exists (content, purity and identity of the batch).
  - The identity was confirmed by a certified test laboratory or *HiperScan GmbH*.
- Each version of the reference database (every update) is validated in-full.
  - Calibration spectra (*Type A*), other spectra recorded under the control of *HiperScan GmbH* (*Type B*), and spectra from the field (*Type C*) are presented to the *IdentModule* for evaluation in three separately evaluated validation runs.
  - Here, no single *false positive* result may arise.
  - Here, the various substance classes are also tested for reciprocal rejection, where this is objectively justified (see *Summary* section).
- In the validation with spectra recorded under the control of *HiperScan GmbH*, spectra of at least one independent sample must be considered, i.e. spectra from a batch whose spectra have not been used for the generation of the database. In addition, the set of *Type A* and *Type B* spectra must originate from at least three different batches.
- Spectra of additional substances may be used for the generation of the database even though they will not be offered for identification by this database. The purpose is the reliable distinction from these substances.



- Any positive result of *Apo-Ident* confirms the identity of the substance/substance group and distinguishes it from all other substances of the database. In the case of substance groups, the result is ambiguous: Distinction from all substances not belonging to the group is proven. The substance is identified as a member of this group. However, within the substance group, it is not possible to reliably classify which substance has been tested.
- The criteria for clear identifiability are a [specificity](#) of 100 % ([true negative rate](#)) and a minimum distance in the distance matrix. See 2. d) under [Model creation procedure and validation runs](#).

## Validation concept

[Chemometrics](#) is a statistical technique for the extraction of relevant chemical information from spectra. In mathematics, this method is described as *multivariate data analysis*. Chemometrics proceeds here as follows:

1. Collection of spectra for the *calibration sample*. The results (identities) of the calibration sample must be known. The calibration samples must be representative for the samples which are to be evaluated later. Therefore, they must take the various possible (physical) compositions into account. (Therefore, sourcing calibration samples for NIR from the specialist trade is superior to the use of CRS reference substances.)
2. The first mathematical step is *calibration*. Here, the [chemometric model](#) is calculated from the *calibration sample spectra* ([reference spectra](#)) and limits as well as some parameters are stipulated. The chemometric model is used later to calculate the analysis result (*prediction*).
3. Collection of further spectra for the *validation sample* which should be independent of the *calibration sample*. The results (identities) of the *validation sample* must also be known. The textbook suggests a random sample with a normal scope of 25 % to 50 % of the *calibration sample* [8].
4. The second technical data step is *validation*. Here, the [chemometric model](#) created is evaluated based on the spectra of the *validation samples*. As validation parameters for the identification, the *Ph. Eur. Section 2.2.40* [3] specifies the [specificity](#) and [robustness](#).

The validation step according to the textbook has the target of estimating the performance capability of the model created based on a random sample. In order to achieve the best possible precision, attention is paid to the calibration sample. In the field of pharmaceuticals, the safety of the method has priority. In order to be able to [validate](#) the model within the regulatory scope, the validation step must include probative force. For this purpose, the validation sample must be *representative and complete* in order to enable the testing of all cases.

A *sufficient number of batches* must be secured for validation because validation finally proves whether the number of batches in calibration suffices.

Each substance is validated individually. The validation results are documented per substance in this document. Moreover, the documents show how many and which batches have been used for creating the model or model validation.

At least one certificate is taken in for each substance from an accredited test laboratory for the independent testing of identity of the sample. The identification number of the corresponding test certificate is listed in the report, enabling traceability of a substance tested according to the monographs in the Pharmacopoeia.

## Model creation procedure and validation runs

The safety of the [chemometric models](#) is guaranteed by several measures during model creation, of which the validation step is the final one. Normally, the procedure is as follows. It is in particular valid for the active pharmaceutical ingredients (APIs) *solid API excipients, liquid/semi-solid API excipients (with a test certificate), narcotics - solid medicinal substances and drugs*. If, for individual substance classes, variations are required, they are depicted in the section [Particularities of individual substance classes](#).

## 1. Collecting the reference spectra (calibration sample)

- a) Procurement of the samples from the same sources from which pharmacies source their raw material for compounding (Caelo, Fagron, Euro-OTC, ..., see also *DAC III.2. Bezugsquellen-nachweis für Rezepturbestandteile* [Sources of supply for compounding] [7]).
- b) Testing the suitability according to *ApBetrO* [Pharmacies Rules and Regulations] §§ 6, 11, that is to say the availability of a valid manufacturer certificates via identity, purity and contents of the batch.
- c) Recording standard 40 spectra of the sample in different positions, as a standard on four instruments. Here, handling and presentation of the samples as later in the pharmacy.
- d) Visual checking for anomalies in the spectra. In case of indications of measurement errors, measurement must be repeated. If a signature is missing in the spectrum, the substance may be excluded from the start as not promising (the spectra are nonetheless entered in the database validation as independent *Type B* spectra).
- e) Testing identity. For each substance, a certificate of correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the respective following substance page of this validation documentation the *Mahalanobis distance* to this reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance. Such samples underline the statistical spread of the original reference substance, but cannot add any new characteristics of the substance.

*HiperScan GmbH* cooperates with some suppliers as follows: the raw materials supplier takes a sufficiently large sample in his incoming goods area so that part of it can be used for recording the NIR spectra. The remainder of the sample goes to analytics for market approval. The manufacturer's batch certificate emerges from these identity, contents and purity tests, which consequently also prove the correct identity of the NIR reference sample. Therefore, the NIR spectra are suitable for structuring the database (*Type A*) and can also optionally be used for validation (*Type B*). The samples which this applies to are marked in the validation report with a footnote.

- f) If the identity of the new sample is proven, it is declared as a reference sample and the spectra are approved for structuring the database.

## 2. Generating the chemometric models (calibration)

- a) Determination of the transformation matrix from the reference spectra using variance maximisation [8, 9]. (All reference spectra are always included, even if only a few spectra are added for an update.) All reference spectra receive the same data pre-treatment, which is also later applied to all measurement spectra in the field (in the pharmacies).
- b) Checking that the number of principal components used is still sufficient.
- c) Calculating the limits for each substance from the spread of the reference spectra. The calculation regulation is identical for each substance in a substance class.
- d) Überprüfen der Abstände zwischen den Grenzen der trennbaren Substanzen: Die Distanzmatrix enthält die *Mahalanobis-Abstände* von jeder Substanz zu jeder anderen. Die Werte hin und zurück sind jeweils unterschiedlich, weil die Streuung der Ausgangssubstanz eingeht. Ist eine Distanz kleiner als der Mindestabstand, so gelten die Substanzen als nicht sicher trennbar. Der Mindestabstand ist auf 9 festgelegt. Der Entwickler des Modells darf einen größeren Mindestabstand festlegen (ein Wert für das gesamte *chemometrische Modell*), um die Trennschärfe zu erhöhen.
- e) Überprüfung des Modells anhand der Referenzspektren. Es sind keine *falsch-positiven* Ergebnisse erlaubt.

f) Wird eines der Kriterien verletzt (d) *Unterschnittener Mindestabstand zwischen zwei Substanzen* oder (e) *Eine Substanz wird als eine andere identifiziert*, entscheidet der Entwickler der Datenbank, welche der folgenden Optionen er anwendet:

- Er nimmt beide Substanzen aus der Datenbank. (Die Spektren bleiben in der Validierung und dürfen auch in den Aufbau eingehen. Sie werden aber nicht zur Prüfung angeboten.)
- Er bildet eine Substanzgruppe mehrerer nicht sicher trennbarer Substanzen. Dann ist das Ergebnis mehrdeutig: Das chemometrische Modell stellt fest, dass es sich bei der Probe um eine der Substanzen aus der Gruppe handelt und dass es sich um keine andere Substanz handelt. Es kann aber nicht sagen, um welche der Substanzen es sich handelt. Um die eindeutige Identität festzustellen, muss der Anwender eine geeignete ergänzende Prüfung durchführen.
- Er erstellt ein weiteres *chemometrisches Modell* mit geringerem Umfang, in das mindestens alle Substanzen der nicht sicher trennbaren Substanzgruppe eingehen (Zweite-Stufe-Modell). Zweite-Stufe-Modelle werden nur aufgerufen, wenn die erste Stufe festgestellt hat, dass es sich nur um eine der Substanzen handeln kann, die in den Aufbau der Zweiten Stufe eingegangen ist. Die Zweite-Stufe-Modelle sind im Anhang *Zusatz zu den Modellen der zweiten Stufe* dokumentiert.

### 3. Set of validation spectra (validation samples)

The following is provided for validation:

- a) *Type A*: The reference spectra = calibration spectra from which the database was generated. These also include spectra from substances which the *chemometric model* should not identify, but were also recorded during generation in order to increase selectivity. (As a result, the model “learns” to differentiate from other substances which are actually unknown to it.)
- b) *Type B*: Spectra recorded under the control of *HiperScan GmbH* and not used for the generation of the database. These also include reference spectra of other substance classes, and spectra that are not used as reference spectra. Samples are considered to be independent, if they originate from a batch, of which no spectra have been used for the generation of the database. (Up to *IdentModule 2018-01*, samples were still considered independent if the sampling was done independently, i.e. if they originate from another sales container.)
- c) *Type C*: Spectra from the field, which have not been recorded under the control of *HiperScan GmbH* and have not been used for the generation of the database. The spectra include not only substances of the substance class to be tested, but also substances from other classes.

All manufacturers’ batches from which spectra are used for the validation are listed by substance in this document: for substances included in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)* in the respective validation reports; otherwise in attachments *A*, *B* and *C*.

Furthermore remains valid: validation spectra may only be removed if a error in the spectrum can be proven. Here, the spectra are not deleted, but instead placed on a *blacklist* incorporating the reason, date and initials in the commentary.

The section *Particularities of individual substance classes* treats the other substance classes from which *Type B* and *Type C* spectra are cited for validation purposes.

### 4. Validation runs and approval

- a) Validation spectra are transferred holistically to the *IdentModule* for evaluation in the same way as the spectroscopy software *QuickStep* transfers measured spectra.
- b) Following the provision of each spectrum, the *IdentModule* responds as to whether it has recognised a substance and which substance was recognised.
- c) The correctness of this response is checked for each possible initial assumption (each measurable substance with the substance class) and counted according to *true negative*, *false negative*, *true positive* and *false positive*. These figures are provided for each substance and additionally in the section *Summary*, separated according to types *A*, *B* and *C*.

- d) No *false positive* results whatsoever are permissible.
- e) If the criterion is also met for all substance classes, the *IdentModule* is approved.

## Particularities of individual substance classes

Basically, *HiperScan GmbH* procures and tests the manufacturer's certificate for the batch, commissions external testing of the identity of the sample or carries it out independently and stores the certificates. As described, this process is established for the Pharmacopoeia substances, that is to say for substance classes **APIs & excipients, solid**, **APIs & excipients, liquid/semi-solid (with analysis certificate)**, **Narcotic substances, liquid/semi-solid** and **Drugs**. Therefore, *HiperScan GmbH* is able to furnish proof of the identity of the reference samples. In case of manufacturer-specific substance classes and others, individual steps are organised differently in-part:

The substance class **APIs & excipients, liquid/semi-solid (other)** (often described as cosmetics) incorporates substances for which no specification of the requirements of the pharmaceutical quality is determined, neither in a Pharmacopoeia monograph, a DAC/NRF monograph nor via a manufacturer's specification. Consequently, neither the identity nor contents can be tested independently. No certificates whatsoever exist for the reference samples. So here, merely the matching of the sample with former samples of this product is established and confusion with the other substances is ruled-out. (If the manufacturer of such a substance prepares a specification, determines testing methods and provides manufacturer's certificates in accordance with *ApBetrO* [Pharmacies Rules and Regulations] §§ 6, 11, *HiperScan GmbH* can assign the substance to the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)* again in the future).

Substance class **HCK – nutritional supplements (Hepart)** contains the HCK micro-nutrients from the Swiss company *Hepart AG*. *HiperScan GmbH* receives the reference samples directly from the manufacturer. For each reference sample, *HiperScan GmbH* also receives manufacturer's certificates and keeps these. New checking of the identity of the reference sample is not carried out by *HiperScan GmbH*. The identity of the reference samples is therefore documented by *Hepart AG*. The spectra of all batches provided by *Hepart AG* are recorded by *HiperScan GmbH* and entered in the database.

All the manufacturer's batches are used for the generation and validation of the substance class **HCK**. The expected variation is also represented in the generation and validation if there are less than three batches.

Also, for the substance class **PhytoComm** (TCM-Granulated herbal extracts of the manufacturer *PhytoComm*) spectra for all useable batches are recorded by *HiperScan GmbH* and entered in the database. The supplier organises the respective tests themselves and keeps the test certificates.

A new evaluation option was created for the class *PhytoComm* with the update 2016-01. As the risks are considerably fewer than those from chemical agents, the pharmacist can specify a reasonable criterion for the *specificity* in accordance with internal risk estimation. The database for this is created without taking safety distances into account and no criterion is determined in advance for the *specificity*. Instead, the *specificity* for testing the identity with this concrete substance is calculated in the validation for each substance and provided with the measurement result. The pharmacist then judges himself whether this safety is reasonable with regard to the risk of the substance.

Additionally, a statistical forecast is provided for the *specificity* which is determined according to the *Rule of Three* [10, 11]. For this forecast, it is assumed that there would have been three wrong results more and is provided with a lower limit for *specificity*. This value has a special meaning if a *specificity* of 100 % is achieved for a substance during validation. In this case, the lower limit allows conclusions regarding the scale of existing safety for which with an endless number of validation spectra a value of less than 100 % is to be assumed.

If, for example 14 000 spectra not belonging to the substance are presented and no *false positive* classification is made, a hypothetical number of three *false positive* results is assumed (*Rule of Three* [10, 11]) and the *specificity* is defined with 100.0000 % (> 99.9786 %). Here, it applies that the higher the number of validation spectra which form the statistical basis, the better the *specificity* calculated via the lower *specificity* limit will be approximated.

The positive result of the identity test using *Apo-Ident* establishes that the sample spectrum is in accordance with a batch of the specified granulate from the supplier *PhytoComm*, whereby all useable batches from the supplier are known.

The *PhytoComm* class can only confirm the identity of batches that have been used for the generation of the database. As a consequence there cannot be any validation spectra of other batches. Therefore, the criterion reads that two samples (from different sales containers) from each batch must exist, one for the structure of the database (*Type A*) and one for the validation (*Type B*).

## Significance of testing with *Apo-Ident*

The analysis result is determined using sophisticated statistical methods according to state-of-the-art science and technology. Chemical and pharmaceutical knowledge is applied for the selection of the samples from which the calibration spectra and validation spectra are recorded. Otherwise it does not influence the further steps of model creation.

Verbally, the statement of the analysis result can be expressed as follows. Here “*the spectra match*” means that the criteria *Mahalanobis distance*, *outlier analysis* and *correlation* are met as shown in *Erfüllung von 2.2.40 Ph. Eur. durch Apo-Ident* [4]. “The spectra do not match”, on the other hand, means that at least the criterion *Mahalanobis distance* is not met.

The positive analysis result “*was identified as ...*” is very meaningful because both the quantity of substances to be taken into account and the number of underlying samples is very comprehensive.

1. The spectrum of the sample measured matches spectra of the defined substance.
2. The spectrum of the sample measured does not match any spectrum of any other substance in this substance class. Therefore, all other substances can be clearly ruled-out.
3. As the spectra from other substance classes were used for validation, it is proven that no spectrum of one of these other substances matches the defined substance. (All substance classes with which a spectrum comparison is possible and makes sense are used for validation. This is documented for each substance class in the section *Summary*.)
4. If the defined substance belongs to a *substance group* which in itself is not clearly separable with *Apo-Ident*, matching with the spectra of one or several substances in this group is confirmed. Which of these substances it actually is cannot be determined clearly. All other substances are excluded analogous to 2 and 3.

On the other hand, a negative analysis result “*was not identified as ...*” means:

1. The substance offered could not be recognised based on the spectrum of this sample.
2. The identity of this sample is not confirmed.
3. Testing must be repeated in accordance with the specifications of the Pharmacopoeia.

## Conclusion

NIR spectroscopy is a testing method incorporated in the Pharmacopoeia. In case of successful database validation, it is a possible method for identity testing [5]. *Apo-Ident* meets the criteria of the *European Pharmacopoeia* as a near-infrared spectrometer and proves the validity of the reference database with the existing validation documentation. This means that *Apo-Ident* can be used as an alternative testing method for testing raw materials at pharmacies.



## Explanation of terminology

The following section serves to explain or define specialist terminology which is required in order to understand this document. If necessary, definitions for the analysis system *Apo-Ident* are defined more precisely.

**The term database** is used in this document exactly as in the *Ph. Eur. Section 2.2.40* [3] synonymous with [chemometric model](#). In order to differentiate the databases which are relatively independent of each other, *HiperScan GmbH* frequently also uses the term [substance class](#) (primarily in the plural). On the other hand, the spectra used to structure the database are termed spectrum collection and not database.

**Substance classes** are units of the organisational structure of the *IdentModule*. The substance classes are substance [databases](#) which are also broadly independently subscribable. On the one hand, the liquid and semi-solid substances are separated from the solid powders because they are measured against different references and therefore the spectra cannot be compared. On the other hand, for example the Pharmacopoeia substances are kept separated from the manufacturer-specific database *PhytoComm* for TCM (traditional Chinese medicine) raw materials.

The individual substance classes need only be limited against each other in-part. Often, no risk of confusion exists because they can only be procured from different sources. On the other hand, in several cases we handle substances which need not be distinguished. For example, em Huang Qi granulate from the company *PhytoComm* neither needs to be delimited from *Huang Qi* granulate from the company *HerbaSinica* nor is matching required. Respectively one single [chemometric model](#) is behind a substance class. (Even if several reciprocally secured chemometric models would be permissible.) The terms *substance class*, *chemometric model* and *databases* are mostly used here as synonyms.

**A substance group** respectively summarises all the substances within a [substance class](#) which cannot safely be distinguished from one another based on their NIR spectra. However, all the other substances in the database can be excluded.

**The formation of subgroups** is mentioned in the *Ph. Eur. Section 2.2.40* [3]. In this manner, technical restrictions in case of extensive databases can be avoided and it is possible to prepare individual subgroups with different spectrum pre-treatment. Validation of the subgroups against each other is required. *HiperScan GmbH* has solved these technical restrictions and doesn't use any subgroups within a substance class any longer.

**Principal component analysis (PCA)** [8, 9] is a multivariate statistics process or multivariate data analysis. It serves to structure, simplify and illustrate comprehensive data records by describing a large number of statistical variables by describing a lower number of linear combinations (the *principal components*) which are as significant as possible. In the *Apo-Ident IdentModule*, *PCA* is used to evaluate the recorded spectrum data (corresponding with *Ph. Eur. 2.2.40* [3]).

**The term validation** is defined in both relevant contexts here with different (even if related) meanings.

Within the sense of the expert discipline of *chemometrics*, validation is a process step when creating a [chemometric model](#): after a transformation matrix, limits and various parameters have been calculated or determined from a set of reference spectra during the course of the calibration step [8, 9], the validation step determines the performance capability of the model (selectivity, precision, ...) based on the validation spectra. Normally, random sampling is planned here. In order for the validation to gain strength of proof, the validation spectrum set must be selected with an appropriately wide scope (*representative* and *complete*). The terms *validation run* and *validation step* always actually mean the process step in this sense.

In the regulatory sense (of pharmaceutical production), validation is the documented proof that a process or system meets the previously specified requirements reproducibly when applied practi-

cally. In this sense, the *Apo-Ident* databases only become validated databases with the validation documentation, which this document is part of.

The *European Pharmacopeia* uses the term validation in *Section 2.2.40* within the sense of the specialist discipline of *chemometrics* [3].

**The robustness** of a process is the property of only being influenced by environmental fluctuations (e.g. temperature or humidity) a little. A method is robust if the environmental conditions do not or hardly falsify the final result.

**The specificity** of a classification (of a [chemometric model](#)) is the [true negative rate](#).

**The recognition rate** (also sensitivity) is the [true positive rate](#). It defines in how many percent of cases a correctly set up substance is actually confirmed.

**The true negative rate** describes the share of spectra correctly classified as non-identity during validation. This is equivalent to correct classification. It means that a substance *A* within identity checking as substance *B* is judged as “*not identified*”. The *true negative rate* is equivalent to the conditional frequency

$$h(\text{rejected}|\text{genuinely no identity}) = \frac{r_n}{r_n + f_p}$$

with  $r_n$  as the total number of *true negative* classifications and  $f_p$  as the total number of *false positive* classifications. For successful validation of an *IdentModule*, all spectra presented belonging to this category must be classified as *not in accordance*.

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of this number. The weight of each spectrum of a substance/substance group *i* therefore results as

$$w_i = \frac{1}{n_i}$$

with  $n_i$  number of spectra in this substance/substance group. This weighting ensures that the overall result cannot be enhanced by adding especially large numbers of spectra from easily separable substances.

**The true positive rate** describes the share of spectra correctly classified as identity during validation. This is equivalent to correct classification. It means that a substance *A* within identity checking as substance *A* is judged as “*identified*”. The *true positive rate* is equivalent to the conditional frequency

$$h(\text{identified}|\text{genuine identity}) = \frac{r_p}{r_p + f_n}$$

with  $r_p$  as the total number of *true positive* classifications and  $f_n$  as the total number of *false negative* classifications. The *true positive rate* is a measure for the recognition rate of the validated *Apo-Ident IdentModule*.

In order to ensure that each substance is received with the same weight, the spectra are weighted as described for the [true negative rate](#).

**The true negative result** describes a spectrum correctly classified as non-identity during validation. It is equivalent to correct classification. It means that a substance *A* within identity checking as substance *B* is judged as “*not identified*”.

**The false positive result** describes a spectrum falsely classified as non-identity during validation. This is the most critical type of possible false classification. It means that a substance *A* within identity checking as substance *B* is judged as “*identified*”. For successful validation of an *IdentModule*, a number of false positive events of zero are demanded for all spectra entering the validation. The exception to this restriction is the class of TCM granulates from the company *PhytoComm* as described under [Particularities of individual substance classes](#).

**The true positive result** describes a spectrum correctly classified as identity during validation. It is equivalent to correct classification. It means that a substance *A* within identity checking as substance *A* is judged as “*identified*”.

**The false negative result** describes a spectrum falsely classified as non-identity during validation. It is equivalent to false classification. It means that a substance *A* within identity checking as substance *A* is judged as “*not identified*”.

**The ‘Rule of Three’** says that with a probability of 95 % the next random sample of the same size no more than three false results are to be expected if no false result existed in the existing random sample [10, 11].

The *specificity* and *recognition rate* are determined both globally and from the validation runs for all substances. The information is supplemented with the hypothetical value if there had been three false results more. The percent information is provided in parentheses with the “greater than” symbol ‘>’, e.g. *specificity* 100.000 % (>99.983 %) if 17 567 false spectra have been presented without one single *false positive* result. The larger the statistical basis, the lower the influence of the hypothetical false results.

**The Mahalanobis distance** is a distance measure between two points in *n*-dimensional vector space. Here, the respective direction component of the distance to *standard deviation* [12] of an *n*-dimensional distribution is standardised. In case of the *principal component analysis* [8, 9] this standardisation relates to the distribution of the respective calibration data set for a classification (substance/substance group) in the *principal component space* [8]. The *Mahalanobis distance* of a point (mapping of a spectrum)  $\vec{y}$  in the *n*-dimensional principal component space to the expected value of an *n*-dimensional distribution  $\mathbf{X}$  then results as

$$d(\mathbf{X}, \vec{y}) = \sqrt{(\bar{\mathbf{X}} - \vec{y})^T \mathbf{S}^{-1} (\bar{\mathbf{X}} - \vec{y})} \quad \text{with} \quad \mathbf{X} \in \mathbb{R}^{m \times n}, \vec{y} \in \mathbb{R}^m$$

[13]. Here, *m* is equivalent to the number of principal components used (dimension of the principal component space) and *n* the number of measurements existing in the calibration data set (spectra).  $\bar{\mathbf{X}}$  is the expected value of the resulting distribution for the calibration data set (the average value of *n* measurements received).  $\mathbf{S}^{-1}$  is the inverse covariance matrix [12] for distribution  $\mathbf{X}$ .

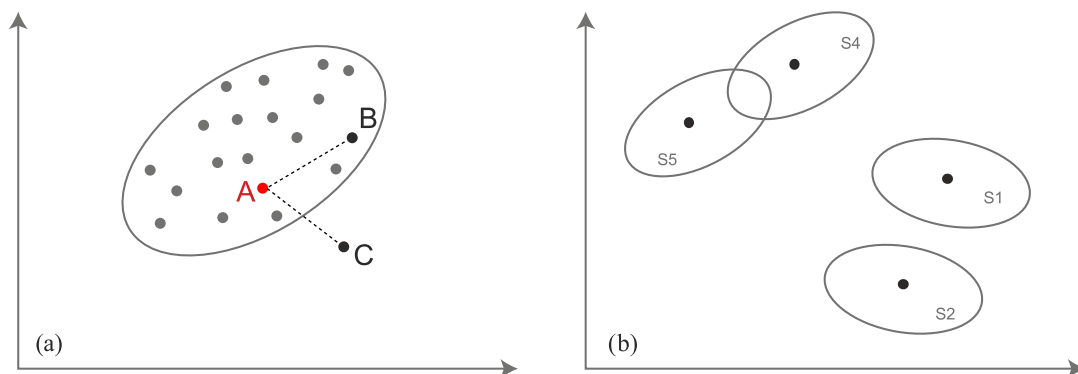


**Figure 1:** (a) The *Mahalanobis distance* from *A* to *B* is less than from *A* to *C*. However, the *Euclidean distances* are identical. (b) The *Mahalanobis distance* between the two measurement series *S4* and *S5* is smaller than between *S1* and *S2*. However, the *Euclidean distances* are identical.

The *Mahalanobis distance* offers advantages compared to the *Euclidean distance*: For the calculation of the distance it takes the statistical properties of a data point distribution (measurement series), i.e. average value, variance and covariance of the data points [14] into account. The *Mahalanobis distance* is applied while creating the reference database for evaluating the spectra from different samples of a substance.



**A chemometric model** is a classifier based on statistical methods [8, 9]. Through the respective algorithm used (e.g. *Principal Component Analysis*, *Cluster Analysis*), a maximum of chemical information is extracted from measurement data. Here, systematical or physical disturbances are eliminated using appropriate data pre-processing [15, 16].

At several places in this document, in order to simplify understanding, the term **database** is used instead of *chemometric model* – in the same manner as in the *Ph. Eur. Section 2.2.40* [3].

**A sample** (with its own sample ID) refers to substance in a sales container. Repeated sampling from the same sales container is listed under the same sample ID. (The suffix “SI” is not part of the sample ID.) Several samples may originate from the same batch. Samples are called “independent”, if they originate from a batch, of which no spectra have been used for the generation of the database. (Up to *IdentModule 2018-01*, samples from different sales packages were considered to be independent.) The information above the list of validation spectra now includes also the number of batches that deliver independent samples for the validation (for both *Type B* and *Type C*).

In case a supplier takes a sample for testing from its incoming goods and splits it to multiple laboratory containers, the substance in all laboratory containers will still be ascribed to the same sample. *HiperScan GmbH* only uses one of the subsamples.

**Reference samples** are used to structure the database. The *reference spectra* originate from these samples. In chemometric technical jargon you would normally say: For *calibration*, a **chemometric model** is generated from the *calibration spectra* recorded from the *calibration samples*, whose quality is subsequently assessed in **validation**.

*Reference samples* are procured via typical pharmacy sources. Their identity is tested. The *reference spectra* are recorded by *HiperScan GmbH*. The documentation also includes the manufacturer’s name and batch number.

*Reference samples* are clearly identified by a sample ID. Samples without sample ID may not be used as *reference samples*.



## Summary

A total of 463 231 spectra from 56 768 different batches for a total of 426 substances were used to validate the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*.

## Validation samples

The validation samples can be categorised as follows:

**Typ A** Calibration spectra. These are the spectra used to generate the chemometric model. They were recorded by *HiperScan GmbH*. Detailed information regarding the batches or samples can be found in the following validation reports under *calibration samples* and under *Type A*. Further information is listed in [Appendix A](#).

| Substance class                                                  | Substances | Batches | Spectra |
|------------------------------------------------------------------|------------|---------|---------|
| APIs & excipients, liquid/semi-solid (with analysis certificate) | 229        | 1379    | 67 159  |

From category *A* a total of 67 159 spectra from 1379 batches for a total of 229 substances were taken into account for validation.

**Typ B** Spectra from independent samples which are not included in database generation. These spectra were recorded by *HiperScan GmbH*. Detailed information regarding the batches or samples can be found in the following validation reports in the section *Type B* or in [Appendix B](#).

| Substance class                                                  | Substances | Batches | Spectra |
|------------------------------------------------------------------|------------|---------|---------|
| APIs & excipients, liquid/semi-solid (with analysis certificate) | 351        | 2504    | 107 363 |

From category *B* a total of 107 363 spectra from 2504 batches for a total of 351 substances were taken into account for validation.

**Typ C** Spectra from independent samples which are not included in database generation. *Apo-Ident* customers carried out the measurements. Detailed information regarding the batches or samples can be found in the following validation reports in the section *Type C* or in [Appendix C](#).

| Substance class                                                  | Substances | Batches | Spectra |
|------------------------------------------------------------------|------------|---------|---------|
| APIs & excipients, liquid/semi-solid (with analysis certificate) | 344        | 53 700  | 288 709 |

From category *C* a total of 288 709 spectra from 53 700 batches for a total of 344 substances were taken into account for validation.

## Validation results

The validation runs checked whether all substances/substance groups in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, the matching of all relevant spectra of various substances with the substances/substance groups in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)* was checked and the correctness of the results was evaluated. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 67 027        | 12             | 9 133 744     |
| Type B | 0              | 99 475        | 173            | 14 606 956    |
| Type C | 0              | 267 619       | 4570           | 39 267 509    |

All substances/substance groups in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)* can be clearly distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|       | Specificity                  | Recognition rate            |
|-------|------------------------------|-----------------------------|
| Typ A | 100.000 00 % (> 99.999 86 %) | 99.984 49 % (> 99.975 57 %) |
| Typ B | 100.000 00 % (> 99.999 76 %) | 98.688 38 % (> 98.671 01 %) |
| Typ C | 100.000 00 % (> 99.997 72 %) | 98.293 21 % (> 98.220 46 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group (s)-Lactic acid  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30021-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

(s)-Lactic acid; Acidum (s)-lacticum

### Special notes

When selecting the (s)-Lactic acid substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| (s)-Lactic acid           | 5      | 3      | 179    |

## Second-stage model

For differentiation of the substance/substance group (s)-Lactic acid the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group (s)-Lactic acid:

| Supplier | Substance       | Batch    | Sample ID | Spectra | Certificate        |
|----------|-----------------|----------|-----------|---------|--------------------|
| Caelo    | (s)-Lactic acid | 12142108 | 30734     | 39      | AR-14-FG-012230-01 |
| Caelo    | (s)-Lactic acid | 13317311 | 31436     | 60      | 20131011           |
| Caelo    | (s)-Lactic acid | 16144212 | 33271     | 40      | 20160527           |
| Caelo    | (s)-Lactic acid | 190447   | 34456     | 40      | 20190416*          |
| Caelo    | (s)-Lactic acid | 190447   | 34739     | 40      | 20190416*          |
| Caelo    | (s)-Lactic acid | 21001697 | 35826     | 50      | 20210908*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 269 spectra of 6 reference samples from the substance/substance group (s)-Lactic acid. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 890 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group (s)-Lactic acid.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance       | Batch    | Sample ID | Spectra |
|----------|-----------------|----------|-----------|---------|
| Caelo    | (s)-Lactic acid | 90646219 | 30021     | 40      |
| Caelo    | (s)-Lactic acid | 172176   | 33694     | 40      |
| Caelo    | (s)-Lactic acid | 20000605 | 35019     | 40      |

- 107243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1660 spectra from 856 *Apo-Ident* customers from 184 batches from the substance/substance group (s)-Lactic acid.
- Among them are spectra of independent samples from 179 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier              | Substance       | Batch               | Spectra |
|-----------------------|-----------------|---------------------|---------|
|                       | (s)-Lactic acid | 71449138            | 2       |
| A.H.D.                | (s)-Lactic acid | 15150402            | 1       |
| AHD, 25.11.13         | (s)-Lactic acid | 1302011             | 1       |
| AHD                   | (s)-Lactic acid | 18034005            | 1       |
| AHD                   | (s)-Lactic acid | 190447005           | 3       |
| AHD; 20.7.15; 5.84EUR | (s)-Lactic acid | 15150402            | 1       |
| Alliance Healthcare   | (s)-Lactic acid | 19044701            | 1       |
| Anzag                 | (s)-Lactic acid | 16144210            | 1       |
| Audor Pharma          | (s)-Lactic acid | APOP-DNL/11/17/001D | 2       |
| Bombastus             | (s)-Lactic acid | 10323202            | 1       |
| Caeleo/ Krieger       | (s)-Lactic acid | 19044701            | 1       |
| Caelo                 | (s)-Lactic acid |                     | 2       |
| Caelo                 | (s)-Lactic acid | 10/AKD1             | 1       |
| Caelo                 | (s)-Lactic acid | 10323202            | 1       |
| Caelo                 | (s)-Lactic acid | 1062014C            | 1       |
| Caelo                 | (s)-Lactic acid | 109447002           | 1       |
| Caelo                 | (s)-Lactic acid | 11111644            | 1       |
| Caelo                 | (s)-Lactic acid | 11179201            | 3       |
| Caelo                 | (s)-Lactic acid | 11179207            | 2       |
| Caelo                 | (s)-Lactic acid | 11179209            | 1       |
| Caelo                 | (s)-Lactic acid | 11179214            | 1       |
| Caelo                 | (s)-Lactic acid | 11179217            | 6       |
| Caelo                 | (s)-Lactic acid | 117I-01034          | 1       |
| Caelo                 | (s)-Lactic acid | 12142101            | 10      |
| Caelo                 | (s)-Lactic acid | 12142102            | 6       |
| Caelo                 | (s)-Lactic acid | 12142104            | 2       |
| Caelo                 | (s)-Lactic acid | 12142108            | 7       |
| Caelo                 | (s)-Lactic acid | 12142109            | 2       |
| Caelo                 | (s)-Lactic acid | 12142112            | 11      |
| Caelo                 | (s)-Lactic acid | 12142162            | 1       |
| Caelo                 | (s)-Lactic acid | 128711-658          | 1       |
| Caelo                 | (s)-Lactic acid | 13020201            | 21      |
| Caelo                 | (s)-Lactic acid | 13020203            | 7       |
| Caelo                 | (s)-Lactic acid | 13020208            | 7       |
| Caelo                 | (s)-Lactic acid | 1302021             | 1       |

*continued on the next page*



*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-----------------|------------------|----------------------|----------------|
| Caelo           | (s)-Lactic acid  | 13020211             | 18             |
| Caelo           | (s)-Lactic acid  | 13020212             | 1              |
| Caelo           | (s)-Lactic acid  | 13020213             | 1              |
| Caelo           | (s)-Lactic acid  | 13020808             | 1              |
| Caelo           | (s)-Lactic acid  | 13030201             | 1              |
| Caelo           | (s)-Lactic acid  | 130360               | 1              |
| Caelo           | (s)-Lactic acid  | 1309211034           | 1              |
| Caelo           | (s)-Lactic acid  | 133117308            | 1              |
| Caelo           | (s)-Lactic acid  | 133173               | 1              |
| Caelo           | (s)-Lactic acid  | 13317301             | 34             |
| Caelo           | (s)-Lactic acid  | 13317303             | 5              |
| Caelo           | (s)-Lactic acid  | 13317304             | 2              |
| Caelo           | (s)-Lactic acid  | 13317307             | 12             |
| Caelo           | (s)-Lactic acid  | 13317308             | 9              |
| Caelo           | (s)-Lactic acid  | 133173082x           | 1              |
| Caelo           | (s)-Lactic acid  | 13317309             | 2              |
| Caelo           | (s)-Lactic acid  | 13317311             | 19             |
| Caelo           | (s)-Lactic acid  | 13317313             | 6              |
| Caelo           | (s)-Lactic acid  | 13317315             | 5              |
| Caelo           | (s)-Lactic acid  | 13317393             | 1              |
| Caelo           | (s)-Lactic acid  | 14112017             | 1              |
| Caelo           | (s)-Lactic acid  | 141121               | 1              |
| Caelo           | (s)-Lactic acid  | 14112106             | 3              |
| Caelo           | (s)-Lactic acid  | 14112107             | 14             |
| Caelo           | (s)-Lactic acid  | 14112112             | 7              |
| Caelo           | (s)-Lactic acid  | 14112114             | 3              |
| Caelo           | (s)-Lactic acid  | 14112115             | 13             |
| Caelo           | (s)-Lactic acid  | 14112116             | 4              |
| Caelo           | (s)-Lactic acid  | 14112119             | 20             |
| Caelo           | (s)-Lactic acid  | 1412112              | 1              |
| Caelo           | (s)-Lactic acid  | 1510402              | 1              |
| Caelo           | (s)-Lactic acid  | 1510421              | 1              |
| Caelo           | (s)-Lactic acid  | 15150401             | 9              |
| Caelo           | (s)-Lactic acid  | 15150402             | 23             |
| Caelo           | (s)-Lactic acid  | 15150405             | 2              |
| Caelo           | (s)-Lactic acid  | 15150410             | 23             |
| Caelo           | (s)-Lactic acid  | 15150413             | 8              |
| Caelo           | (s)-Lactic acid  | 15150418             | 4              |
| Caelo           | (s)-Lactic acid  | 15150421             | 23             |
| Caelo           | (s)-Lactic acid  | 1515402              | 1              |
| Caelo           | (s)-Lactic acid  | 15306608             | 1              |
| Caelo           | (s)-Lactic acid  | 15306613             | 1              |
| Caelo           | (s)-Lactic acid  | 15308601             | 24             |
| Caelo           | (s)-Lactic acid  | 1530860102263531     | 1              |
| Caelo           | (s)-Lactic acid  | 15308602             | 3              |
| Caelo           | (s)-Lactic acid  | 15308608             | 39             |
| Caelo           | (s)-Lactic acid  | 15308609             | 1              |
| Caelo           | (s)-Lactic acid  | 15308613             | 22             |
| Caelo           | (s)-Lactic acid  | 15308615             | 1              |
| Caelo           | (s)-Lactic acid  | 16/44219             | 1              |
| Caelo           | (s)-Lactic acid  | 16121-01034          | 1              |
| Caelo           | (s)-Lactic acid  | 16141212             | 1              |
| Caelo           | (s)-Lactic acid  | 16141218             | 1              |
| Caelo           | (s)-Lactic acid  | 161442               | 1              |
| Caelo           | (s)-Lactic acid  | 16144201             | 30             |
| Caelo           | (s)-Lactic acid  | 16144206             | 3              |
| Caelo           | (s)-Lactic acid  | 16144210             | 37             |
| Caelo           | (s)-Lactic acid  | 16144212             | 75             |
| Caelo           | (s)-Lactic acid  | 16144212-20170704Ma1 | 1              |
| Caelo           | (s)-Lactic acid  | 16144214             | 8              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | (s)-Lactic acid  | 16144216     | 29             |
| Caelo           | (s)-Lactic acid  | 16144218     | 49             |
| Caelo           | (s)-Lactic acid  | 16144219     | 3              |
| Caelo           | (s)-Lactic acid  | 161442216    | 1              |
| Caelo           | (s)-Lactic acid  | 1618U-01034  | 1              |
| Caelo           | (s)-Lactic acid  | 1644201      | 1              |
| Caelo           | (s)-Lactic acid  | 1644212      | 2              |
| Caelo           | (s)-Lactic acid  | 1644218      | 1              |
| Caelo           | (s)-Lactic acid  | 1644219      | 1              |
| Caelo           | (s)-Lactic acid  | 17031502     | 1              |
| Caelo           | (s)-Lactic acid  | 171217601    | 1              |
| Caelo           | (s)-Lactic acid  | 17217601     | 64             |
| Caelo           | (s)-Lactic acid  | 17217811     | 1              |
| Caelo           | (s)-Lactic acid  | 18034        | 1              |
| Caelo           | (s)-Lactic acid  | 180340004    | 1              |
| Caelo           | (s)-Lactic acid  | 180340005    | 1              |
| Caelo           | (s)-Lactic acid  | 18034002     | 6              |
| Caelo           | (s)-Lactic acid  | 18034004     | 48             |
| Caelo           | (s)-Lactic acid  | 18034005     | 116            |
| Caelo           | (s)-Lactic acid  | 180340055756 | 1              |
| Caelo           | (s)-Lactic acid  | 18034006     | 8              |
| Caelo           | (s)-Lactic acid  | 18034010     | 6              |
| Caelo           | (s)-Lactic acid  | 18034013     | 73             |
| Caelo           | (s)-Lactic acid  | 1803404004   | 1              |
| Caelo           | (s)-Lactic acid  | 18034055     | 1              |
| Caelo           | (s)-Lactic acid  | 180344005    | 1              |
| Caelo           | (s)-Lactic acid  | 180345       | 1              |
| Caelo           | (s)-Lactic acid  | 18064004     | 1              |
| Caelo           | (s)-Lactic acid  | 180808187    | 1              |
| Caelo           | (s)-Lactic acid  | 1813A-01034  | 1              |
| Caelo           | (s)-Lactic acid  | 1900447002   | 2              |
| Caelo           | (s)-Lactic acid  | 1900447005   | 1              |
| Caelo           | (s)-Lactic acid  | 1904071      | 1              |
| Caelo           | (s)-Lactic acid  | 1904470      | 1              |
| Caelo           | (s)-Lactic acid  | 190447002    | 84             |
| Caelo           | (s)-Lactic acid  | 190447004    | 6              |
| Caelo           | (s)-Lactic acid  | 190447005    | 66             |
| Caelo           | (s)-Lactic acid  | 19044701     | 77             |
| Caelo           | (s)-Lactic acid  | 19044702     | 17             |
| Caelo           | (s)-Lactic acid  | 19047002     | 1              |
| Caelo           | (s)-Lactic acid  | 19047005     | 1              |
| Caelo           | (s)-Lactic acid  | 200000605005 | 1              |
| Caelo           | (s)-Lactic acid  | 20000605003  | 1              |
| Caelo           | (s)-Lactic acid  | 20000605005  | 17             |
| Caelo           | (s)-Lactic acid  | 20000605009  | 5              |
| Caelo           | (s)-Lactic acid  | 200006505005 | 1              |
| Caelo           | (s)-Lactic acid  | 20004093002  | 9              |
| Caelo           | (s)-Lactic acid  | 20004093003  | 2              |
| Caelo           | (s)-Lactic acid  | 20004096002  | 1              |
| Caelo           | (s)-Lactic acid  | 2000605005   | 2              |
| Caelo           | (s)-Lactic acid  | 2014U-01034  | 1              |
| Caelo           | (s)-Lactic acid  | 20221110-4   | 1              |
| Caelo           | (s)-Lactic acid  | 21001697001  | 1              |
| Caelo           | (s)-Lactic acid  | 2101202      | 1              |
| Caelo           | (s)-Lactic acid  | 2182         | 1              |
| Caelo           | (s)-Lactic acid  | 2263531      | 2              |
| Caelo           | (s)-Lactic acid  | 2710Q-01034  | 1              |
| Caelo           | (s)-Lactic acid  | 2719I-01034  | 1              |
| Caelo           | (s)-Lactic acid  | 3435         | 1              |
| Caelo           | (s)-Lactic acid  | 408Q-01034   | 1              |

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| Supplier                   | Substance       | Batch               | Spectra |
|----------------------------|-----------------|---------------------|---------|
| Caelo                      | (s)-Lactic acid | 4116A-01034         | 1       |
| Caelo                      | (s)-Lactic acid | 5(17217601)         | 1       |
| Caelo                      | (s)-Lactic acid | 5031301             | 1       |
| Caelo                      | (s)-Lactic acid | 5217M-01034         | 1       |
| Caelo                      | (s)-Lactic acid | 62186516            | 1       |
| Caelo                      | (s)-Lactic acid | 81302029            | 1       |
| Caelo                      | (s)-Lactic acid | 9064607             | 1       |
| Caelo                      | (s)-Lactic acid | 90646369            | 1       |
| Caelo                      | (s)-Lactic acid | 913Q-01034          | 1       |
| Caelo                      | (s)-Lactic acid | 9321404             | 1       |
| Caelo                      | (s)-Lactic acid | 9321408             | 2       |
| Caelo                      | (s)-Lactic acid | 9321419             | 1       |
| Caelo                      | (s)-Lactic acid | A-220413-3          | 1       |
| Caelo                      | (s)-Lactic acid | A-310513-1          | 1       |
| Caelo                      | (s)-Lactic acid | AP20                | 1       |
| Caelo                      | (s)-Lactic acid | P-15101921/19044701 | 1       |
| Caelo/Noweda               | (s)-Lactic acid | 15150410            | 1       |
| Caesar & Lorenz GmbH       | (s)-Lactic acid | 19044701            | 1       |
| Caesar & Loretz GmbH / ... | (s)-Lactic acid | 18034013            | 1       |
| Caesar & Loretz GmbH / ... | (s)-Lactic acid | 15308608            | 2       |
| Caesar & Loretz GmbH / ... | (s)-Lactic acid | 18034005            | 1       |
| Caesar & Loretz GmbH / ... | (s)-Lactic acid | 190447005           | 1       |
| Caesar & Loretz GmbH / ... | (s)-Lactic acid | 19044701            | 1       |
| Caesar & Loretz GmbH / ... | (s)-Lactic acid | 18034013            | 1       |
| Caesar & Loretz GmbH Hi... | (s)-Lactic acid | 14112112            | 1       |
| Caesar & Loretz GmbH/ G... | (s)-Lactic acid | 19044701            | 1       |
| Caesar & Loretz GmbH/ G... | (s)-Lactic acid | 19044702            | 1       |
| Caesar & Loretz GmbH/ J... | (s)-Lactic acid | 20000605005         | 1       |
| Caesar & Loretz GmbH/ K... | (s)-Lactic acid | 19044701            | 1       |
| Caesar & Loretz GmbH/ P... | (s)-Lactic acid | 18034013            | 1       |
| Caesar & Loretz GmbH/Al... | (s)-Lactic acid | 19044701            | 1       |
| Caesar & Loretz GmbH/An... | (s)-Lactic acid | 18034013            | 1       |
| Caesar & Loretz GmbH/An... | (s)-Lactic acid | 190447004           | 1       |
| Caesar & Loretz GmbH/Gehe  | (s)-Lactic acid | 190447005           | 1       |
| Caesar & Loretz GmbH/GEHE  | (s)-Lactic acid | 190447005           | 1       |
| Caesar & Loretz GmbH/GEHE  | (s)-Lactic acid | 20004093002         | 1       |
| Caesar & Loretz GmbH/Je... | (s)-Lactic acid | 19044701            | 1       |
| Caesar & Loretz GmbH/Je... | (s)-Lactic acid | 20000605005         | 1       |
| Caesar & Loretz GmbH/Je... | (s)-Lactic acid | 20000605009         | 1       |
| Caesar & Loretz GmbH/Kehr  | (s)-Lactic acid | 190447004           | 1       |
| Caesar & Loretz GmbH/Kr... | (s)-Lactic acid | 190447005           | 1       |
| Caesar & Loretz GmbH/Ph... | (s)-Lactic acid | 18034013            | 1       |
| Caesar & Loretz GmbH/Ph... | (s)-Lactic acid | 20000605005         | 1       |
| Caesar & Loretz GmbH/PP... | (s)-Lactic acid | 190447002           | 1       |
| Caesar & Loretz GmbH/Sa... | (s)-Lactic acid | 18034013            | 1       |
| Caesar & Loretz GmbH/Sa... | (s)-Lactic acid | AP210225-01         | 1       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 13317308            | 1       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 14112107            | 1       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 16144218            | 1       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 18034005            | 12      |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 18034010            | 1       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 18034013            | 10      |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 190447002           | 8       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 190447004           | 2       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 190447005           | 18      |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 19044701            | 15      |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 19044702            | 4       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 20000605003         | 2       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 20000605005         | 6       |
| Caesar & Loretz GmbH       | (s)-Lactic acid | 20000605009         | 6       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH       | (s)-Lactic acid  | 20004093002  | 6              |
| Caesar & Loretz GmbH       | (s)-Lactic acid  | 21001697001  | 2              |
| Caesar & Loretz Hilden     | (s)-Lactic acid  | 18034005     | 1              |
| Caesar & Loretz Hilden     | (s)-Lactic acid  | 18034013     | 1              |
| Caesar & Loretz/Geilenk... | (s)-Lactic acid  | 190447005    | 1              |
| Caesar & Loretz            | (s)-Lactic acid  | 18031013     | 1              |
| Caesar & Loretz            | (s)-Lactic acid  | 18034013     | 1              |
| Caesar und Loretz          | (s)-Lactic acid  | 19044701     | 1              |
| Caesar&Lorenz / Gehe       | (s)-Lactic acid  | 19044701     | 1              |
| Caesar&Loretz GmbH,22.0... | (s)-Lactic acid  | 16144212     | 1              |
| Caesar&Loretz GmbH/ San... | (s)-Lactic acid  | 16144218     | 1              |
| Caesar&Loretz GmbH/Anzag   | (s)-Lactic acid  | 13020211     | 1              |
| Caesar&Loretz GmbH         | (s)-Lactic acid  | 15308601     | 1              |
| Caesar&lorenz,AHC          | (s)-Lactic acid  | 13317309     | 1              |
| Caesar&Loretz/Noweda       | (s)-Lactic acid  | 15150402     | 1              |
| Caesar/Lorenz              | (s)-Lactic acid  | 13020201     | 1              |
| Caolo- Noweda              | (s)-Lactic acid  | 13020211     | 1              |
| Cealo/Kehr                 | (s)-Lactic acid  | 13317312     | 1              |
| Cealo/Sanacorp             | (s)-Lactic acid  | 18034005     | 1              |
| Celo/Kehr/06.04.2020       | (s)-Lactic acid  | 190447002    | 1              |
| Euro OTC                   | (s)-Lactic acid  | 14112112     | 1              |
| Euro OTC                   | (s)-Lactic acid  | 1503086-03   | 1              |
| Euro OTC                   | (s)-Lactic acid  | 15150410     | 1              |
| Euro OTC                   | (s)-Lactic acid  | 16144210     | 1              |
| Euro OTC                   | (s)-Lactic acid  | 18034005     | 1              |
| Euro OTC                   | (s)-Lactic acid  | 18034013     | 1              |
| Fagron                     | (s)-Lactic acid  | 14112112     | 2              |
| Fagron                     | (s)-Lactic acid  | 16144216     | 1              |
| Fagron                     | (s)-Lactic acid  | 18034005     | 1              |
| Fiebig                     | (s)-Lactic acid  | 18034004     | 1              |
| Fiebig                     | (s)-Lactic acid  | 18034005     | 1              |
| Fiebig                     | (s)-Lactic acid  | 18034013     | 1              |
| Fischar/Phönix             | (s)-Lactic acid  | 18034013     | 1              |
| Gatt-Koller                | (s)-Lactic acid  | 1802081      | 1              |
| Gehe 03.11.21 EK:9,63EUR   | (s)-Lactic acid  | 211108M      | 1              |
| Gehe amax                  | (s)-Lactic acid  | 16144212     | 1              |
| Gehe amax                  | (s)-Lactic acid  | 190447005    | 1              |
| Gehe                       | (s)-Lactic acid  | 11179217     | 1              |
| Gehe                       | (s)-Lactic acid  | 13020208     | 1              |
| Gehe                       | (s)-Lactic acid  | 14112119     | 3              |
| Gehe                       | (s)-Lactic acid  | 15150402     | 2              |
| Gehe                       | (s)-Lactic acid  | 15150410     | 1              |
| Gehe                       | (s)-Lactic acid  | 15308608     | 1              |
| Gehe                       | (s)-Lactic acid  | 16144201     | 2              |
| GEHE                       | (s)-Lactic acid  | 16144201     | 1              |
| Gehe                       | (s)-Lactic acid  | 16144212     | 1              |
| Gehe                       | (s)-Lactic acid  | 16144218     | 1              |
| Gehe                       | (s)-Lactic acid  | 17217601     | 2              |
| GEHE                       | (s)-Lactic acid  | 17217601     | 1              |
| GEHE                       | (s)-Lactic acid  | 18034004     | 1              |
| Gehe                       | (s)-Lactic acid  | 18034005     | 3              |
| GEHE                       | (s)-Lactic acid  | 18034005     | 1              |
| Gehe                       | (s)-Lactic acid  | 190447002    | 1              |
| Gehe                       | (s)-Lactic acid  | 190447005    | 1              |
| GEHE                       | (s)-Lactic acid  | 19044701     | 1              |
| Gehe                       | (s)-Lactic acid  | 19044702     | 2              |
| GEHE                       | (s)-Lactic acid  | 21021180/2   | 1              |
| Gumo                       | (s)-Lactic acid  | 18034005     | 1              |
| Gutenberg-Apotheke         | (s)-Lactic acid  | 13317303     | 1              |
| Henry Lamotte / Gehe       | (s)-Lactic acid  | 108034005    | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Henry Lamotte/Phoenix      | (s)-Lactic acid  | 16144218     | 1              |
| Kehr                       | (s)-Lactic acid  | 17217601     | 1              |
| Kehr                       | (s)-Lactic acid  | 190447002    | 1              |
| Kögl                       | (s)-Lactic acid  | 1700073      | 2              |
| Kögl                       | (s)-Lactic acid  | 261708161217 | 1              |
| Kögl                       | (s)-Lactic acid  | 261708164816 | 1              |
| L12                        | (s)-Lactic acid  | 16144201     | 1              |
| Lamotte/Ebert              | (s)-Lactic acid  | 16144212     | 1              |
| Lamotte                    | (s)-Lactic acid  | 19044701     | 1              |
| Noweda 18.05.2015          | (s)-Lactic acid  | 141121119    | 1              |
| Noweda                     | (s)-Lactic acid  | 13020208     | 1              |
| Noweda                     | (s)-Lactic acid  | 15150410     | 2              |
| Noweda                     | (s)-Lactic acid  | 16144212     | 1              |
| Noweda                     | (s)-Lactic acid  | 16144218     | 1              |
| Noweda                     | (s)-Lactic acid  | 18034004     | 1              |
| Noweda                     | (s)-Lactic acid  | 18034010     | 1              |
| Noweda                     | (s)-Lactic acid  | 190447002    | 1              |
| Noweda                     | (s)-Lactic acid  | 20000605005  | 1              |
| Noweda                     | (s)-Lactic acid  | 81302139     | 1              |
| Phoenix 26.01.2019         | (s)-Lactic acid  | 18034010     | 1              |
| Phoenix Goettin            | (s)-Lactic acid  | 14112115     | 1              |
| Phoenix                    | (s)-Lactic acid  | 15308608     | 1              |
| Phoenix                    | (s)-Lactic acid  | 15308613     | 1              |
| Phoenix                    | (s)-Lactic acid  | 18034004     | 1              |
| Phoenix                    | (s)-Lactic acid  | 18034013     | 1              |
| Phoenix                    | (s)-Lactic acid  | 191260611    | 1              |
| Phoenix                    | (s)-Lactic acid  | 3062         | 1              |
| Phoenix                    | (s)-Lactic acid  | 3413         | 1              |
| Phönix 26.07.2019          | (s)-Lactic acid  | 19044702     | 2              |
| Phönix, 21.03.2013         | (s)-Lactic acid  | 13020201     | 1              |
| Phönix                     | (s)-Lactic acid  | 13020211     | 1              |
| Phönix                     | (s)-Lactic acid  | 16144210     | 1              |
| Phönix                     | (s)-Lactic acid  | 16144216     | 1              |
| Phönix                     | (s)-Lactic acid  | 16144219     | 1              |
| Phönix                     | (s)-Lactic acid  | 19044702     | 1              |
| Phönix                     | (s)-Lactic acid  | 20000605005  | 1              |
| Phönix                     | (s)-Lactic acid  | 20000605009  | 2              |
| Purren Apotheke            | (s)-Lactic acid  | 12069        | 1              |
| Rondell Apotheke           | (s)-Lactic acid  | 15150402     | 1              |
| Rondell Apotheke           | (s)-Lactic acid  | 15308613     | 1              |
| Samariter Apotheke         | (s)-Lactic acid  | 15308613     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 13020201     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 13317307     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 13317311     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 13317315     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 14112107     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 15150410     | 2              |
| Sanacorp                   | (s)-Lactic acid  | 16144201     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 16144212     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 16144218     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 17217601     | 1              |
| Sanacorp                   | (s)-Lactic acid  | 18034005     | 2              |
| Sanacorp                   | (s)-Lactic acid  | 190447005    | 3              |
| Sanacorp                   | (s)-Lactic acid  | 19044701     | 2              |
| Sanacorp                   | (s)-Lactic acid  | 20004093002  | 1              |
| siehe alte Protokoll       | (s)-Lactic acid  | 170719       | 2              |
| Spangro 7.11.2018          | (s)-Lactic acid  | 18034006     | 1              |
| Taoasis                    | (s)-Lactic acid  | 17217601     | 1              |
| Unisan                     | (s)-Lactic acid  | 13020208     | 2              |
| WEPA Apothekenbedarf Gm... | (s)-Lactic acid  | LOTAP0074    | 1              |

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| Supplier | Substance       | Batch        | Spectra |
|----------|-----------------|--------------|---------|
| xxx / SW | (s)-Lactic acid | xx270519/332 | 1       |

- 287 049 spectra from 1294 *Apo-Ident* customers from a total of 51 708 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *(s)-Lactic acid* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *(s)-Lactic acid* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 269           | 0              | 66 890        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 1647          | 13             | 287 049       |

The substance/substance group *(s)-Lactic acid* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.7695 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.2169 % (> 99.0361 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *(s)-Lactic acid* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance | Distance in main model | Distance in second-stage model |
|-----------|------------------------|--------------------------------|
| Pine tar  | 112.86                 | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the sub-

stance/substance group (*S*)-*Lactic acid* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30734     | 30734               | 0.00                         | 165.95                          |
| 31436     | 34456               | 0.46                         | 161.21                          |
| 33271     | 30734               | 4.94                         | 165.01                          |
| 34456     | 34456               | 0.00                         | 161.54                          |
| 34739     | 34739               | 0.00                         | 161.95                          |
| 35826     | 35826               | 0.00                         | 164.89                          |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **1,3-butanediol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30851-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

1,3-butanediol; 1,3-Butandiolium

### Special notes

When selecting the *1,3-butanediol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| 1,3-butanediol            | 2      | 2      | 14     |

## Second-stage model

For differentiation of the substance/substance group *1,3-butanediol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *1,3-butanediol*:

| Supplier | Substance      | Batch            | Sample ID | Spectra | Certificate |
|----------|----------------|------------------|-----------|---------|-------------|
| Fagron   | 1,3-butanediol | 12J02-N07        | 30851     | 40      | 1402682     |
| Fagron   | 1,3-butanediol | 14G16-B01-296698 | 31594     | 60      | 20140804    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 100 spectra of 2 reference samples from the substance/substance group *1,3-butanediol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 059 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *1,3-butanediol*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch            | Sample ID | Spectra |
|----------|----------------|------------------|-----------|---------|
| Fagron   | 1,3-butanediol | 15E15-B02-332109 | 33788     | 40      |
| Fagron   | 1,3-butanediol | 17E22-B02-343289 | 34480     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 15 spectra from 11 *Apo-Ident* customers from 14 batches from the substance/substance group *1,3-butanediol*.
- Among them are spectra of independent samples from 14 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance      | Batch            | Spectra |
|----------|----------------|------------------|---------|
| Caelo    | 1,3-butanediol | 13L19-B03-291208 | 1       |
| Fagron   | 1,3-butanediol | 13A17-N03        | 1       |
| Fagron   | 1,3-butanediol | 14G16-B01-301882 | 1       |
| Fagron   | 1,3-butanediol | 15E15-B02        | 1       |
| Fagron   | 1,3-butanediol | 15E15-B02-325757 | 1       |
| Fagron   | 1,3-butanediol | 15E15-B02-332109 | 1       |
| Fagron   | 1,3-butanediol | 17E22-B02        | 1       |
| Fagron   | 1,3-butanediol | 17E22-B02-343289 | 1       |
| Fagron   | 1,3-butanediol | 17E22-B02-35823  | 1       |
| Fagron   | 1,3-butanediol | 17E22B02-358234  | 1       |
| Fagron   | 1,3-butanediol | 17E22-B02-358234 | 1       |
| Fagron   | 1,3-butanediol | 17E22-B02-365583 | 1       |
| Fagron   | 1,3-butanediol | B02-3655803      | 1       |
| Fagron   | 1,3-butanediol | S6526964         | 1       |
| PHÖNIX   | 1,3-butanediol | 15E15-B02        | 1       |

- 288 694 spectra from 1294 *Apo-Ident* customers from a total of 51 874 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *1,3-butanediol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *1,3-butanediol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 100           | 0              | 67 059        |
| <b>Type B</b> | 0              | 74            | 6              | 107 283       |
| <b>Type C</b> | 0              | 15            | 0              | 288 694       |

The substance/substance group *1,3-butanediol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9806 %) | 100.0000 % (> 94.0000 %) |
| Type B | 100.0000 % (> 99.9676 %) | 92.5000 % (> 88.7500 %)  |
| Type C | 100.0000 % (> 99.6876 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *1,3-butanediol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                    | Distance in main model | Distance in second-stage model |
|------------------------------|------------------------|--------------------------------|
| Dexpanthenol                 | 30.79                  | –                              |
| Dexpanthenol concentrate 50% | 86.09                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *1,3-butanediol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30851     | 30851               | 0.00                         | 49.74                           |
| 31594     | 30851               | 6.42                         | 51.02                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **2-ethylhexyl laurate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30849-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

2-ethylhexyl laurate; 2-Ethylhexylis lauras

### Special notes

When selecting the *2-ethylhexyl laurate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| 2-ethylhexyl laurate      | 6      | 3      | 124    |

## Second-stage model

For differentiation of the substance/substance group *2-ethylhexyl laurate* the following second-stage model is used:

- [Submodel 06](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *2-ethylhexyl laurate*:

| Supplier  | Substance           | Batch    | Sample ID | Spectra | Certificate |
|-----------|---------------------|----------|-----------|---------|-------------|
| Bombastus | 2-ethylhexyl lau... | 21001639 | 35849     | 50      | 20210413    |
| Caelo     | 2-ethylhexyl lau... | 14129303 | 31373     | 40      | 20140429    |
| Caelo     | 2-ethylhexyl lau... | 14129304 | 31507     | 60      | 20140429    |
| Caelo     | 2-ethylhexyl lau... | 153825   | 31878     | 60      | 20151113*   |
| Caelo     | 2-ethylhexyl lau... | 163157   | 33086     | 40      | 20161124*   |
| Caelo     | 2-ethylhexyl lau... | 163482   | 33087     | 40      | 20170106*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 290 spectra of 6 reference samples from the substance/substance group *2-ethylhexyl laurate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 869 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *2-ethylhexyl laurate*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance            | Batch          | Sample ID | Spectra |
|----------|----------------------|----------------|-----------|---------|
| apomix   | 2-ethylhexyl laurate | 148-8013011120 | 36244     | 40      |
| Caelo    | 2-ethylhexyl laurate | 17065201       | 33786     | 40      |
| Caelo    | 2-ethylhexyl laurate | 180194         | 33885     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 832 spectra from 446 *Apo-Ident* customers from 126 batches from the substance/substance group *2-ethylhexyl laurate*.
- Among them are spectra of independent samples from 124 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance            | Batch                  | Spectra |
|----------------------------|----------------------|------------------------|---------|
| AHD / Pharmachem Pößneck   | 2-ethylhexyl laurate | 50414                  | 2       |
| AHD/Pharmachem.            | 2-ethylhexyl laurate | 10515                  | 8       |
| AHD/Pharmachem             | 2-ethylhexyl laurate | 10616                  | 5       |
| AHD                        | 2-ethylhexyl laurate | 13010719               | 1       |
| Allianc. Health. / Phar... | 2-ethylhexyl laurate | 10515                  | 1       |
| Allianz                    | 2-ethylhexyl laurate | 18121804               | 1       |
| Allinace                   | 2-ethylhexyl laurate | 17065201               | 1       |
| apomiNeid                  | 2-ethylhexyl laurate | 14880140010618         | 1       |
| apomix                     | 2-ethylhexyl laurate | 13010719               | 1       |
| apomix                     | 2-ethylhexyl laurate | 13011120               | 3       |
| apomix                     | 2-ethylhexyl laurate | 148_8014010618         | 1       |
| apomix                     | 2-ethylhexyl laurate | 1488013010218          | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-8013010218         | 24      |
| apomix                     | 2-ethylhexyl laurate | 148-8013010218ZA52/18  | 1       |
| apomix                     | 2-ethylhexyl laurate | 1488013010616          | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-8013010616         | 21      |
| apomix                     | 2-ethylhexyl laurate | 148-8013010616ZA210    | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-80130106ZA182/16   | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-8013010719         | 16      |
| apomix                     | 2-ethylhexyl laurate | 148-8013011116         | 13      |
| apomix                     | 2-ethylhexyl laurate | 148-8013011120         | 8       |
| apomix                     | 2-ethylhexyl laurate | 148-8013011120ZA13/21  | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-8013011116         | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-801310616          | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-8014010517         | 12      |
| apomix                     | 2-ethylhexyl laurate | 1488014010618          | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-8014010618         | 10      |
| apomix                     | 2-ethylhexyl laurate | 148-8014010618ZA252/18 | 1       |
| apomix                     | 2-ethylhexyl laurate | 148-8014010720         | 3       |
| apomix                     | 2-ethylhexyl laurate | 148-8014010720ZA176/20 | 2       |

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| Supplier  | Substance            | Batch               | Spectra |
|-----------|----------------------|---------------------|---------|
| apomix    | 2-ethylhexyl laurate | 148-8014010815      | 1       |
| apomix    | 2-ethylhexyl laurate | 148-80140618        | 1       |
| apomix    | 2-ethylhexyl laurate | 148-8015010319      | 16      |
| apomix    | 2-ethylhexyl laurate | 16348202            | 1       |
| apomix    | 2-ethylhexyl laurate | 2119I-03641         | 1       |
| apomix    | 2-ethylhexyl laurate | 2140817             | 1       |
| apomix    | 2-ethylhexyl laurate | 2516Q-03641         | 1       |
| apomix    | 2-ethylhexyl laurate | 2817E-03641         | 1       |
| apomix    | 2-ethylhexyl laurate | 2918E-03641         | 2       |
| apomix    | 2-ethylhexyl laurate | 3114U-03641         | 1       |
| apomix    | 2-ethylhexyl laurate | 40514               | 1       |
| apomix    | 2-ethylhexyl laurate | 48-8013011120       | 1       |
| apomix    | 2-ethylhexyl laurate | 8014010618          | 1       |
| apomix    | 2-ethylhexyl laurate | 8014210112          | 1       |
| apomix    | 2-ethylhexyl laurate | 8014260413          | 4       |
| apomix    | 2-ethylhexyl laurate | 8015010115          | 6       |
| apomix    | 2-ethylhexyl laurate | 8015010115ZA48/15   | 1       |
| apomix    | 2-ethylhexyl laurate | 8015010515          | 1       |
| apomix    | 2-ethylhexyl laurate | 8015050414          | 5       |
| apomix    | 2-ethylhexyl laurate | 8015050414ZA96/14   | 1       |
| apomix    | 2-ethylhexyl laurate | 813M-03324          | 1       |
| apomix    | 2-ethylhexyl laurate | 8325111111          | 1       |
| apomix    | 2-ethylhexyl laurate | ZA131/19            | 1       |
| apomix    | 2-ethylhexyl laurate | ZA182/16            | 1       |
| Bombastus | 2-ethylhexyl laurate | 148-8013010616      | 1       |
| Bombastus | 2-ethylhexyl laurate | 18001251            | 2       |
| Bombastus | 2-ethylhexyl laurate | 18004026P-181227-6  | 1       |
| Bombastus | 2-ethylhexyl laurate | 221010              | 1       |
| Bombastus | 2-ethylhexyl laurate | 289553              | 1       |
| Bombastus | 2-ethylhexyl laurate | 304559              | 1       |
| Caelo     | 2-ethylhexyl laurate |                     | 1       |
| Caelo     | 2-ethylhexyl laurate | 10515               | 1       |
| Caelo     | 2-ethylhexyl laurate | 13018601            | 1       |
| Caelo     | 2-ethylhexyl laurate | 130312              | 1       |
| Caelo     | 2-ethylhexyl laurate | 13252003            | 1       |
| Caelo     | 2-ethylhexyl laurate | 14129304            | 1       |
| Caelo     | 2-ethylhexyl laurate | 14182802            | 1       |
| Caelo     | 2-ethylhexyl laurate | 1482802             | 1       |
| Caelo     | 2-ethylhexyl laurate | 1488013010218       | 1       |
| Caelo     | 2-ethylhexyl laurate | 148-8013010218      | 1       |
| Caelo     | 2-ethylhexyl laurate | 1488013010616       | 1       |
| Caelo     | 2-ethylhexyl laurate | 148-8013010616      | 3       |
| Caelo     | 2-ethylhexyl laurate | 148-8013010719      | 1       |
| Caelo     | 2-ethylhexyl laurate | 148-8013011116      | 1       |
| Caelo     | 2-ethylhexyl laurate | 1488014010517       | 1       |
| Caelo     | 2-ethylhexyl laurate | 148-8014010517      | 1       |
| Caelo     | 2-ethylhexyl laurate | 148-8014010517ZA241 | 1       |
| Caelo     | 2-ethylhexyl laurate | 148-8014010618      | 1       |
| Caelo     | 2-ethylhexyl laurate | 148-8014010815      | 2       |
| Caelo     | 2-ethylhexyl laurate | 148-801410618       | 1       |
| Caelo     | 2-ethylhexyl laurate | 15382601            | 4       |
| Caelo     | 2-ethylhexyl laurate | 16143801            | 1       |
| Caelo     | 2-ethylhexyl laurate | 16143802            | 2       |
| Caelo     | 2-ethylhexyl laurate | 16143803            | 4       |
| Caelo     | 2-ethylhexyl laurate | 16143804            | 2       |
| Caelo     | 2-ethylhexyl laurate | 16245001            | 8       |
| Caelo     | 2-ethylhexyl laurate | 16245003            | 3       |
| Caelo     | 2-ethylhexyl laurate | 16245004            | 2       |
| Caelo     | 2-ethylhexyl laurate | 16315701            | 7       |
| Caelo     | 2-ethylhexyl laurate | 16315703            | 4       |

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| Supplier                   | Substance            | Batch          | Spectra |
|----------------------------|----------------------|----------------|---------|
| Caelo                      | 2-ethylhexyl laurate | 163348201      | 1       |
| Caelo                      | 2-ethylhexyl laurate | 16348201       | 14      |
| Caelo                      | 2-ethylhexyl laurate | 16348202       | 10      |
| Caelo                      | 2-ethylhexyl laurate | 17065201       | 7       |
| Caelo                      | 2-ethylhexyl laurate | 17065202       | 6       |
| Caelo                      | 2-ethylhexyl laurate | 170665201      | 1       |
| Caelo                      | 2-ethylhexyl laurate | 18019403       | 7       |
| Caelo                      | 2-ethylhexyl laurate | 18019405       | 6       |
| Caelo                      | 2-ethylhexyl laurate | 181211802      | 1       |
| Caelo                      | 2-ethylhexyl laurate | 18121802       | 27      |
| Caelo                      | 2-ethylhexyl laurate | 18121804       | 12      |
| Caelo                      | 2-ethylhexyl laurate | 1812802        | 2       |
| Caelo                      | 2-ethylhexyl laurate | 18225901       | 46      |
| Caelo                      | 2-ethylhexyl laurate | 18234902       | 8       |
| Caelo                      | 2-ethylhexyl laurate | 18234905       | 2       |
| Caelo                      | 2-ethylhexyl laurate | 19121001       | 1       |
| Caelo                      | 2-ethylhexyl laurate | 1912404        | 1       |
| Caelo                      | 2-ethylhexyl laurate | 191241001      | 26      |
| Caelo                      | 2-ethylhexyl laurate | 19124101       | 10      |
| Caelo                      | 2-ethylhexyl laurate | 19124104       | 30      |
| Caelo                      | 2-ethylhexyl laurate | 191251001      | 1       |
| Caelo                      | 2-ethylhexyl laurate | 1924104        | 1       |
| Caelo                      | 2-ethylhexyl laurate | 20002646001    | 12      |
| Caelo                      | 2-ethylhexyl laurate | 20004416002    | 15      |
| Caelo                      | 2-ethylhexyl laurate | 20004416003    | 14      |
| Caelo                      | 2-ethylhexyl laurate | 21004021002    | 2       |
| Caelo                      | 2-ethylhexyl laurate | 21091303       | 1       |
| Caelo                      | 2-ethylhexyl laurate | 220401EL       | 1       |
| Caelo                      | 2-ethylhexyl laurate | 50414          | 6       |
| Caelo                      | 2-ethylhexyl laurate | 779002         | 1       |
| Caelo                      | 2-ethylhexyl laurate | 8014210112     | 1       |
| Caelo                      | 2-ethylhexyl laurate | 8015180213     | 1       |
| Caerol/Noweda              | 2-ethylhexyl laurate | 19124104       | 1       |
| Caerolo / ahd              | 2-ethylhexyl laurate | 17065201       | 1       |
| Caesar & Loretz GmbH / ... | 2-ethylhexyl laurate | 17065202       | 1       |
| Caesar & Loretz GmbH/ J... | 2-ethylhexyl laurate | 191241001      | 1       |
| Caesar & Loretz GmbH/ S... | 2-ethylhexyl laurate | 20004416003    | 1       |
| Caesar & Loretz GmbH/Fi... | 2-ethylhexyl laurate | 191241001      | 1       |
| Caesar & Loretz GmbH/Fi... | 2-ethylhexyl laurate | 19124104       | 1       |
| Caesar & Loretz GmbH/Fi... | 2-ethylhexyl laurate | 20002646001    | 1       |
| Caesar & Loretz GmbH/Sa... | 2-ethylhexyl laurate | 18225901       | 1       |
| Caesar & Loretz GmbH/Sa... | 2-ethylhexyl laurate | 18234905       | 1       |
| Caesar & Loretz GmbH/Sa... | 2-ethylhexyl laurate | AP210204-03    | 1       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 17065201       | 1       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 18225901       | 2       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 1822901        | 1       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 18234902       | 2       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 191241001      | 8       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 19124101       | 1       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 19124104       | 9       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 20002646001    | 2       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 20004416002    | 5       |
| Caesar & Loretz GmbH       | 2-ethylhexyl laurate | 20004416003    | 4       |
| Caesar&Loretz GmbH/ San... | 2-ethylhexyl laurate | 17065202       | 1       |
| DHW GmbH Rodleben          | 2-ethylhexyl laurate | 148-8014010720 | 1       |
| DHW/AHD                    | 2-ethylhexyl laurate | 148-8013010218 | 1       |
| E Plus                     | 2-ethylhexyl laurate | 16348202       | 1       |
| EuRho/Noweda               | 2-ethylhexyl laurate | 18019403       | 1       |
| Euro OTC                   | 2-ethylhexyl laurate | 148-8014010618 | 1       |
| Euro OTC                   | 2-ethylhexyl laurate | 16348202       | 2       |

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| Supplier                   | Substance            | Batch            | Spectra |
|----------------------------|----------------------|------------------|---------|
| Fagron                     | 2-ethylhexyl laurate | 148-8013010218   | 1       |
| Fagron                     | 2-ethylhexyl laurate | 148-8013010616   | 1       |
| Fagron                     | 2-ethylhexyl laurate | 19E20-B02-192819 | 1       |
| Fagron                     | 2-ethylhexyl laurate | 50414            | 2       |
| Gehe / Pharmachem. Pöfn... | 2-ethylhexyl laurate | 10616            | 2       |
| Gehe                       | 2-ethylhexyl laurate | 130312           | 2       |
| Gehe                       | 2-ethylhexyl laurate | 148-8013010218   | 1       |
| GEHE                       | 2-ethylhexyl laurate | 148-8013010218   | 2       |
| Gehe                       | 2-ethylhexyl laurate | 148-8015010319   | 1       |
| Hepart                     | 2-ethylhexyl laurate | 10616            | 1       |
| Ichthyol                   | 2-ethylhexyl laurate | 8015180213       | 1       |
| Kehr/Pharmachem            | 2-ethylhexyl laurate | 1501202          | 1       |
| Kehr                       | 2-ethylhexyl laurate | 18121802         | 1       |
| L10                        | 2-ethylhexyl laurate | 18019405         | 1       |
| L10                        | 2-ethylhexyl laurate | 18225901         | 1       |
| L12                        | 2-ethylhexyl laurate | 148-8013011116   | 1       |
| Nachtestung-Verlängerung   | 2-ethylhexyl laurate | 275/18           | 1       |
| Noeweda                    | 2-ethylhexyl laurate | 1501201          | 1       |
| Noweda                     | 2-ethylhexyl laurate | 130312           | 2       |
| Noweda                     | 2-ethylhexyl laurate | 16348202         | 2       |
| Noweda                     | 2-ethylhexyl laurate | 18019405         | 3       |
| Noweda                     | 2-ethylhexyl laurate | 1812202          | 2       |
| Noweda                     | 2-ethylhexyl laurate | 18234902         | 1       |
| Noweda                     | 2-ethylhexyl laurate | 19001244         | 1       |
| Noweda                     | 2-ethylhexyl laurate | 191241001        | 4       |
| Noweda                     | 2-ethylhexyl laurate | 19124101         | 1       |
| Noweda                     | 2-ethylhexyl laurate | 19124104         | 1       |
| Noweda                     | 2-ethylhexyl laurate | 200002646001     | 1       |
| Noweda                     | 2-ethylhexyl laurate | 20004416003      | 1       |
| Nowedea 15.7.17            | 2-ethylhexyl laurate | 16348202         | 1       |
| Pharm.Pöfneck/AHD          | 2-ethylhexyl laurate | 10616            | 3       |
| Pharma Pöfneck             | 2-ethylhexyl laurate | 10515            | 1       |
| Pharma Pöfneck             | 2-ethylhexyl laurate | 240314           | 1       |
| Pharmach.Pöfneck/AHD       | 2-ethylhexyl laurate | 260418           | 2       |
| Pharmach.Pöfneck/AHD       | 2-ethylhexyl laurate | 290317           | 5       |
| Pharmachem / Alliance H... | 2-ethylhexyl laurate | 10616            | 1       |
| Pharmachem / Anzag         | 2-ethylhexyl laurate | 2304194          | 1       |
| Pharmachem / Phoenix       | 2-ethylhexyl laurate | 260418           | 1       |
| Pharmachem / Phönix        | 2-ethylhexyl laurate | 10213            | 1       |
| Pharmachem Anzag           | 2-ethylhexyl laurate | 130312           | 2       |
| Pharmachem GmbH & Co KG    | 2-ethylhexyl laurate | 10616            | 1       |
| Pharmachem GmbH & Co KG    | 2-ethylhexyl laurate | 1501201          | 1       |
| Pharmachem GmbH & Co KG    | 2-ethylhexyl laurate | 260418           | 2       |
| Pharmachem GmbH & Co KG    | 2-ethylhexyl laurate | 290317           | 1       |
| Pharmachem GmbH & Co. K... | 2-ethylhexyl laurate | 260418           | 1       |
| pharmachem GmbH Pöfneck    | 2-ethylhexyl laurate | 10213            | 1       |
| Pharmachem GmbH Pöfneck    | 2-ethylhexyl laurate | 15012005         | 1       |
| Pharmachem GmbH&Co.KG/N... | 2-ethylhexyl laurate | 10616            | 1       |
| Pharmachem GmbH&Co.KG      | 2-ethylhexyl laurate | 10515            | 1       |
| Pharmachem GmbH&Co.KG      | 2-ethylhexyl laurate | 130312           | 1       |
| Pharmachem GmbH&Co.KG      | 2-ethylhexyl laurate | 1501202          | 1       |
| Pharmachem GmbH&Co.KG      | 2-ethylhexyl laurate | 260418           | 1       |
| Pharmachem GmbH&Co.KG      | 2-ethylhexyl laurate | 290317           | 1       |
| Pharmachem GmbH/ Gehe      | 2-ethylhexyl laurate | 1501202          | 1       |
| Pharmachem GmbH/Gehe       | 2-ethylhexyl laurate | 1501202          | 1       |
| Pharmachem GmbH/Gehe       | 2-ethylhexyl laurate | 2304195          | 1       |
| Pharmachem GmbH            | 2-ethylhexyl laurate | 10213            | 2       |
| pharmachem gmbh            | 2-ethylhexyl laurate | 10616            | 1       |
| Pharmachem GmbH            | 2-ethylhexyl laurate | 10616            | 1       |
| Pharmachem GmbH            | 2-ethylhexyl laurate | 130312           | 1       |

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| <b>Supplier</b>            | <b>Substance</b>     | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|----------------------|--------------|----------------|
| Pharmachem GmbH            | 2-ethylhexyl laurate | 131111       | 2              |
| Pharmachem GmbH            | 2-ethylhexyl laurate | 1812203      | 1              |
| Pharmachem GmbH            | 2-ethylhexyl laurate | 2304191      | 1              |
| pharmachem gmbh            | 2-ethylhexyl laurate | 50414        | 1              |
| Pharmachem GmbH            | 2-ethylhexyl laurate | 50414        | 1              |
| Pharmachem pöneck/Phönix   | 2-ethylhexyl laurate | 260418       | 1              |
| Pharmachem Pösneck/Noweda  | 2-ethylhexyl laurate | 10515        | 4              |
| Pharmachem Pösneck         | 2-ethylhexyl laurate | 50414        | 2              |
| Pharmachem Pösneck /Now... | 2-ethylhexyl laurate | 10515        | 3              |
| Pharmachem Pösneck /Now... | 2-ethylhexyl laurate | 50414        | 2              |
| Pharmachem Pösneck GmbH... | 2-ethylhexyl laurate | 10616        | 1              |
| Pharmachem Pösneck GmbH... | 2-ethylhexyl laurate | 260418       | 1              |
| Pharmachem Pösneck GmbH... | 2-ethylhexyl laurate | 290317       | 1              |
| Pharmachem Pösneck, GEHE   | 2-ethylhexyl laurate | 10515        | 1              |
| Pharmachem Pösneck/ Now... | 2-ethylhexyl laurate | 2304193      | 1              |
| Pharmachem Pösneck/Sana... | 2-ethylhexyl laurate | 10515        | 1              |
| Pharmachem Pösneck/Sana... | 2-ethylhexyl laurate | 50414        | 1              |
| Pharmachem Pösneck         | 2-ethylhexyl laurate | 10213        | 2              |
| Pharmachem Pösneck         | 2-ethylhexyl laurate | 10616        | 1              |
| Pharmachem Pösneck         | 2-ethylhexyl laurate | 260418       | 2              |
| Pharmachem Pösneck         | 2-ethylhexyl laurate | 290317       | 1              |
| Pharmachem./Allianc.H.     | 2-ethylhexyl laurate | 50414        | 1              |
| Pharmachem.Pösneck/Phönix  | 2-ethylhexyl laurate | 260418       | 1              |
| Pharmachem.Pösneck         | 2-ethylhexyl laurate | 10515        | 3              |
| Pharmachem/ Gehe 28.03.19  | 2-ethylhexyl laurate | 260418       | 1              |
| Pharmachem/ Gehe           | 2-ethylhexyl laurate | 1501202      | 1              |
| Pharmachem/ Noweda         | 2-ethylhexyl laurate | 10616        | 2              |
| Pharmachem/ Noweda         | 2-ethylhexyl laurate | 130312       | 1              |
| Pharmachem/ Noweda         | 2-ethylhexyl laurate | 50414        | 1              |
| Pharmachem/ Sanacorp       | 2-ethylhexyl laurate | 10515        | 1              |
| Pharmachem/ Sanacorp       | 2-ethylhexyl laurate | 130312       | 1              |
| Pharmachem/ Sanacorp       | 2-ethylhexyl laurate | 50414        | 1              |
| Pharmachem/AHD             | 2-ethylhexyl laurate | 10213        | 4              |
| Pharmachem/AHD             | 2-ethylhexyl laurate | 1812202      | 1              |
| Pharmachem/AHD             | 2-ethylhexyl laurate | 2304193      | 1              |
| Pharmachem/Alliance        | 2-ethylhexyl laurate | 260418       | 2              |
| Pharmachem/Gehe/14.04.21   | 2-ethylhexyl laurate | 1501202      | 1              |
| Pharmachem/Gehe            | 2-ethylhexyl laurate | 131111       | 1              |
| Pharmachem/Gehe            | 2-ethylhexyl laurate | 1501201      | 1              |
| Pharmachem/gehe            | 2-ethylhexyl laurate | 1812203      | 1              |
| Pharmachem/Krieger         | 2-ethylhexyl laurate | 1812202      | 1              |
| Pharmachem/Noweda          | 2-ethylhexyl laurate | 10616        | 1              |
| Pharmachem/Noweda          | 2-ethylhexyl laurate | 131111       | 2              |
| Pharmachem/Noweda          | 2-ethylhexyl laurate | 2304191      | 1              |
| Pharmachem/Noweda          | 2-ethylhexyl laurate | 290317       | 1              |
| Pharmachem/Phoenix         | 2-ethylhexyl laurate | 290317       | 1              |
| Pharmachem/Phönix          | 2-ethylhexyl laurate | 10213        | 1              |
| Pharmachem/Phönix          | 2-ethylhexyl laurate | 10616        | 2              |
| Pharmachem/Phönix          | 2-ethylhexyl laurate | 260418       | 1              |
| Pharmachem/Phönix          | 2-ethylhexyl laurate | 290317       | 1              |
| Pharmachem/Sanacorp        | 2-ethylhexyl laurate | 10515        | 5              |
| Pharmachem/Sanacorp        | 2-ethylhexyl laurate | 10616        | 2              |
| Pharmachem/Sanacorp        | 2-ethylhexyl laurate | 2304195      | 1              |
| Pharmachem/Sanacorp        | 2-ethylhexyl laurate | 260418       | 2              |
| Pharmachem/Sanacorp        | 2-ethylhexyl laurate | 290317       | 1              |
| Pharmachem/Sanacorp        | 2-ethylhexyl laurate | 50414        | 6              |
| Pharmachem                 | 2-ethylhexyl laurate | 10515        | 6              |
| Pharmachem                 | 2-ethylhexyl laurate | 10616        | 5              |
| Pharmachem                 | 2-ethylhexyl laurate | 131111       | 2              |
| Pharmachem                 | 2-ethylhexyl laurate | 1812202      | 1              |

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| Supplier                  | Substance            | Batch          | Spectra |
|---------------------------|----------------------|----------------|---------|
| Pharmachem                | 2-ethylhexyl laurate | 2304193        | 1       |
| Pharmachem                | 2-ethylhexyl laurate | 260418         | 4       |
| Pharmachem                | 2-ethylhexyl laurate | 290317         | 4       |
| Pharmachem                | 2-ethylhexyl laurate | 50414          | 6       |
| pharmachemie /phönix      | 2-ethylhexyl laurate | 260418         | 1       |
| Pharmachemie GmbH&co.KG   | 2-ethylhexyl laurate | 290317         | 1       |
| Pharmachen GmbH/Sanacorp  | 2-ethylhexyl laurate | 1501201        | 1       |
| Pharmachen GmbH           | 2-ethylhexyl laurate | 1501201        | 1       |
| Pharmachen/Gehe           | 2-ethylhexyl laurate | 2304195        | 1       |
| Pharmachen/Sanacorp       | 2-ethylhexyl laurate | 1812204        | 1       |
| Pharmamacher/Noweda       | 2-ethylhexyl laurate | 260418         | 2       |
| Pharmamchem/Sanacorp      | 2-ethylhexyl laurate | 260418         | 2       |
| Phoenix                   | 2-ethylhexyl laurate | 148-8013010616 | 1       |
| Phoenix                   | 2-ethylhexyl laurate | 18225901       | 1       |
| Phönix / Pharmachem       | 2-ethylhexyl laurate | 10616          | 1       |
| Phönix / Pharmachem       | 2-ethylhexyl laurate | 50414          | 2       |
| Phönix Gotha              | 2-ethylhexyl laurate | 10213          | 1       |
| Phönix Gotha              | 2-ethylhexyl laurate | 131111         | 1       |
| phönix Pharmochem         | 2-ethylhexyl laurate | 290317         | 1       |
| Phönix/Pharmachem Pößneck | 2-ethylhexyl laurate | 290317         | 1       |
| Phönix                    | 2-ethylhexyl laurate | 10616          | 1       |
| Phönix                    | 2-ethylhexyl laurate | 18019405       | 1       |
| Phönix                    | 2-ethylhexyl laurate | 20002646001    | 1       |
| PHÖNIX                    | 2-ethylhexyl laurate | 20002646001    | 1       |
| Phönix                    | 2-ethylhexyl laurate | 290317         | 1       |
| PKH GmbH / Phönix         | 2-ethylhexyl laurate | 148-8013011120 | 1       |
| PKH GmbH Halle/ AHD       | 2-ethylhexyl laurate | 148-8015010319 | 1       |
| pkh gmbh/Noweda           | 2-ethylhexyl laurate | 1488013010218  | 1       |
| PKH GmbH                  | 2-ethylhexyl laurate | 148-8013010218 | 1       |
| PKH GmbH                  | 2-ethylhexyl laurate | 148-8013010719 | 1       |
| PKH GmbH                  | 2-ethylhexyl laurate | 148-8015010319 | 2       |
| PKH Halle,Anzag           | 2-ethylhexyl laurate | 148-8013010616 | 1       |
| PKH Halle/Sanacorp        | 2-ethylhexyl laurate | 8013120913     | 1       |
| Röntgen                   | 2-ethylhexyl laurate | 18121802       | 1       |
| Röntgen                   | 2-ethylhexyl laurate | 19124104       | 2       |
| Sanacorp /Pharmachem      | 2-ethylhexyl laurate | 2304191        | 2       |
| Sanacorp/Pharmachem       | 2-ethylhexyl laurate | 1501201        | 1       |
| Sanacorp/Pharmachem       | 2-ethylhexyl laurate | 260418         | 1       |
| Sanacorp/Pharmachem       | 2-ethylhexyl laurate | 290317         | 2       |
| Sanacorp                  | 2-ethylhexyl laurate | 19124104       | 1       |
| THC Noweda                | 2-ethylhexyl laurate | 18225901       | 1       |

- 287877 spectra from 1294 *Apo-Ident* customers from a total of 51766 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *2-ethylhexyl laurate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *2-ethylhexyl laurate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 290           | 0              | 66 869        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 827           | 5              | 287 877       |

The substance/substance group *2-ethylhexyl laurate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.9310 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.3990 % (> 99.0385 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *2-ethylhexyl laurate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                            | Distance in<br>main model | Distance in<br>second-stage model |
|--------------------------------------|---------------------------|-----------------------------------|
| Squalane                             | 9.02                      | 72.14                             |
| Triglycerides, medium-chain          | 15.79                     | —                                 |
| Wool fat                             | 17.23                     | —                                 |
| Hydrophobic base gel DAC             | 24.42                     | —                                 |
| Emulsifying hydrophobic base gel DAC | 26.65                     | —                                 |
| Camphor ointment                     | 31.32                     | —                                 |
| Softisan <sup>®</sup> 649            | 32.04                     | —                                 |
| Soy lecithin, liquid                 | 32.82                     | —                                 |
| Laurel oil                           | 33.00                     | —                                 |
| Wheatgerm oil, refined               | 33.82                     | —                                 |
| Rapeseed oil, refined                | 33.98                     | —                                 |
| Peanut oil, refined                  | 35.13                     | —                                 |
| Apricot kernel oil, refined          | 36.07                     | —                                 |
| Shea butter, refined                 | 36.11                     | —                                 |
| Olive oil, native                    | 36.15                     | —                                 |
| Grape seed oil, refined              | 36.53                     | —                                 |
| Paraffin, light liquid               | 36.80                     | —                                 |
| Corn oil, refined                    | 37.51                     | —                                 |
| Pasta Cordes <sup>®</sup>            | 38.26                     | —                                 |
| Isopropyl myristate                  | 40.39                     | —                                 |
| Isopropyl palmitate                  | 40.76                     | —                                 |
| Decyl oleate                         | 40.77                     | —                                 |
| Petroleum oil, not for internal use  | 40.92                     | —                                 |
| Sorbitan trioleate                   | 40.93                     | —                                 |
| Sesame oil, refined                  | 41.49                     | —                                 |
| Avocado oil, refined                 | 41.90                     | —                                 |
| Soy oil, refined                     | 42.62                     | —                                 |

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| Substanz                                  | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Sunflower oil, refined                    | 43.06                     | —                                 |
| Guaiazulene 25%, water-soluble            | 45.30                     | —                                 |
| Borage oil, refined, stabilised           | 51.92                     | —                                 |
| ⋮                                         | ⋮                         | ⋮                                 |
| Wool alcohol cream SR                     | >50                       | 34.65                             |
| Base cream DAC                            | >50                       | 43.34                             |
| Eucerin <sup>®</sup> cum Aqua             | >50                       | 51.73                             |
| Non-ionic hydrophil ointment              | >50                       | 54.30                             |
| Wool alcohol cream DAB                    | >50                       | 68.66                             |
| Lanette <sup>®</sup> ointment (conserved) | >50                       | 92.37                             |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *2-ethylhexyl laurate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31373     | 31878                  | 2.07                            | 11.20                              |
| 31507     | 31878                  | 2.51                            | 10.70                              |
| 31878     | 31878                  | 0.00                            | 10.89                              |
| 33086     | 33086                  | 0.00                            | 10.55                              |
| 33087     | 33087                  | 0.00                            | 11.28                              |
| 35849     | 31878                  | 3.66                            | 10.82                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Acetic acid 30%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30487-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Acetic acid 30%; Acidum aceticum dilutum 30%

### Special notes

When selecting the *Acetic acid 30%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Acetic acid 30%           | 3      | 2      | 21     |



## Second-stage model

For differentiation of the substance/substance group *Acetic acid 30%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Acetic acid 30%*:

| Supplier | Substance       | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------------|----------|-----------|---------|-------------|
| Caelo    | Acetic acid 30% | 12376101 | 31131     | 40      | 20130107    |
| Caelo    | Acetic acid 30% | 12376101 | 31318     | 60      | 20130107    |
| Caelo    | Acetic acid 30% | 16079301 | 33426     | 40      | 1801528     |
| Caelo    | Acetic acid 30% | 172744   | 33889     | 40      | 20171027*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 180 spectra of 4 reference samples from the substance/substance group *Acetic acid 30%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 66 979 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Acetic acid 30%*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



| Supplier | Substance       | Batch    | Sample ID | Spectra |
|----------|-----------------|----------|-----------|---------|
| Caelo    | Acetic acid 30% | 18123201 | 34236     | 40      |
| Caelo    | Acetic acid 30% | 191085   | 34632     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 270 spectra from 185 *Apo-Ident* customers from 24 batches from the substance/substance group *Acetic acid 30%*.
- Among them are spectra of independent samples from 21 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance       | Batch       | Spectra |
|----------------------------|-----------------|-------------|---------|
| Allianz Healthcare         | Acetic acid 30% | 18123201    | 1       |
| Bombastus                  | Acetic acid 30% | 16079301    | 1       |
| Caelo                      | Acetic acid 30% | 11271701    | 4       |
| Caelo                      | Acetic acid 30% | 12376101    | 14      |
| Caelo                      | Acetic acid 30% | 12376102    | 2       |
| Caelo                      | Acetic acid 30% | 14058001    | 3       |
| Caelo                      | Acetic acid 30% | 1408501     | 1       |
| Caelo                      | Acetic acid 30% | 14208501    | 32      |
| Caelo                      | Acetic acid 30% | 1428501     | 1       |
| Caelo                      | Acetic acid 30% | 16049301    | 1       |
| Caelo                      | Acetic acid 30% | 16076101    | 1       |
| Caelo                      | Acetic acid 30% | 16079101    | 3       |
| Caelo                      | Acetic acid 30% | 16079301    | 54      |
| Caelo                      | Acetic acid 30% | 17274401    | 6       |
| Caelo                      | Acetic acid 30% | 1727441     | 1       |
| Caelo                      | Acetic acid 30% | 1812301     | 2       |
| Caelo                      | Acetic acid 30% | 18123201    | 71      |
| Caelo                      | Acetic acid 30% | 19108501    | 6       |
| Caelo                      | Acetic acid 30% | 192812002   | 4       |
| Caelo                      | Acetic acid 30% | 19281202    | 1       |
| Caelo                      | Acetic acid 30% | 2000341001  | 1       |
| Caelo                      | Acetic acid 30% | 20003461001 | 16      |
| Caelo                      | Acetic acid 30% | 2003461001  | 1       |
| Caesar & Loretz GmbH/AEP   | Acetic acid 30% | 18123201    | 1       |
| Caesar & Loretz GmbH'/GÖ   | Acetic acid 30% | 18123201    | 1       |
| Caesar & Loretz GmbH/Kehr  | Acetic acid 30% | 18123201    | 1       |
| Caesar & Loretz GmbH/Ph... | Acetic acid 30% | 20003461001 | 1       |
| Caesar & Loretz GmbH       | Acetic acid 30% | 14208501    | 1       |
| Caesar & Loretz GmbH       | Acetic acid 30% | 18123201    | 2       |
| Caesar & Loretz GmbH'      | Acetic acid 30% | 18123201    | 7       |
| Caesar & Loretz GmbH       | Acetic acid 30% | 20003461001 | 5       |
| Caesar & Loretz Hilden     | Acetic acid 30% | 18123201    | 1       |
| Caesar & Loretz/Geilenk... | Acetic acid 30% | 18123201    | 1       |
| Caesar&Loretz              | Acetic acid 30% | 16079301    | 1       |
| Cealo/Noweda               | Acetic acid 30% | 16079301    | 4       |
| E Plus                     | Acetic acid 30% | 18123201    | 1       |

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| Supplier           | Substance       | Batch       | Spectra |
|--------------------|-----------------|-------------|---------|
| Fagron             | Acetic acid 30% | 16079301    | 1       |
| GEHE am 21.05.2014 | Acetic acid 30% | 12376101    | 1       |
| GEHE               | Acetic acid 30% | 18123201    | 1       |
| L12                | Acetic acid 30% | 16079301    | 1       |
| Labor              | Acetic acid 30% | Z578066045  | 1       |
| Noweda             | Acetic acid 30% | 18123201    | 1       |
| Phoenix            | Acetic acid 30% | 11271702    | 1       |
| Phoenix            | Acetic acid 30% | 20003461001 | 3       |
| Phönix             | Acetic acid 30% |             | 1       |
| Phönix             | Acetic acid 30% | 16079301    | 3       |
| Phönix             | Acetic acid 30% | 18123201    | 1       |
| Sanacorp           | Acetic acid 30% | 18123201    | 1       |

- 288 439 spectra from 1294 *Apo-Ident* customers from a total of 51 865 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Acetic acid 30%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Acetic acid 30%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 180           | 0              | 66 979        |
| <b>Type B</b> | 0              | 80            | 0              | 107 283       |
| <b>Type C</b> | 0              | 256           | 14             | 288 439       |

The substance/substance group *Acetic acid 30%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.6667 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 94.8148 % (> 93.7037 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Acetic acid 30%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Hydrated liniment SR/DAC (NRF p.40)       | 30.60                     | —                                 |
| Hydrophilic base emulsion (NRF p.25)      | 30.99                     | —                                 |
| Dextrorotary lactic acid 20%              | 33.09                     | —                                 |
| Non-ionic hydrous liniment SR/DAC (NRF... | 37.76                     | —                                 |
| Glycolic acid 70%                         | 45.51                     | —                                 |
| Hydrophilic cream, non-ionic SR (NRF p... | 46.49                     | —                                 |
| Aluminium acetotartrate solution          | 48.73                     | —                                 |
| Hydrophilic cream, non-ionic without p... | 50.64                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Acetic acid 30%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31131     | 33889                  | 7.28                            | 34.87                              |
| 31318     | 33889                  | 3.29                            | 31.94                              |
| 33426     | 33426                  | 0.00                            | 30.99                              |
| 33889     | 33889                  | 0.00                            | 31.80                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Acetic acid 99%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30486-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Acetic acid 99%; Acidum aceticum glaciale

### Special notes

When selecting the *Acetic acid 99%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Acetic acid 99%           | 5      | 3      | 58     |

## Second-stage model

For differentiation of the substance/substance group *Acetic acid 99%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Acetic acid 99%*:

| Supplier | Substance       | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------------|----------|-----------|---------|-------------|
| Caelo    | Acetic acid 99% | 13013101 | 31132     | 39      | 20130114    |
| Caelo    | Acetic acid 99% | 13013101 | 31319     | 60      | 20130114    |
| Caelo    | Acetic acid 99% | 16238401 | 33423     | 40      | 1801527     |
| Caelo    | Acetic acid 99% | 182767   | 34473     | 40      | 20181105*   |
| Caelo    | Acetic acid 99% | 20003519 | 35256     | 40      | 20201120*   |
| Hedinger | Acetic acid 99% | 223083B  | 33428     | 40      | 20160727    |
| Hedinger | Acetic acid 99% | 223083B  | 33429     | 40      | 20160727    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 299 spectra of 7 reference samples from the substance/substance group *Acetic acid 99%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 860 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Acetic acid 99%*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance       | Batch    | Sample ID | Spectra |
|----------|-----------------|----------|-----------|---------|
| Caelo    | Acetic acid 99% | 11186701 | 30486     | 40      |
| Caelo    | Acetic acid 99% | 191119   | 34474     | 40      |
| Caelo    | Acetic acid 99% | 191120   | 34475     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 335 spectra from 244 *Apo-Ident* customers from 61 batches from the substance/substance group *Acetic acid 99%*.
- Among them are spectra of independent samples from 55 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance       | Batch       | Spectra |
|----------------------------|-----------------|-------------|---------|
| ACM                        | Acetic acid 99% | KNC1163J14  | 1       |
| Anzag                      | Acetic acid 99% | 223088B     | 1       |
| Anzag                      | Acetic acid 99% | 7002101     | 1       |
| Anzag                      | Acetic acid 99% | 7004111     | 1       |
| Bombastus                  | Acetic acid 99% | 7006091     | 1       |
| Caelo                      | Acetic acid 99% | 10135706    | 1       |
| Caelo                      | Acetic acid 99% | 11186701    | 1       |
| Caelo                      | Acetic acid 99% | 11349901    | 7       |
| Caelo                      | Acetic acid 99% | 1186701     | 1       |
| Caelo                      | Acetic acid 99% | 13013101    | 7       |
| Caelo                      | Acetic acid 99% | 13218301    | 24      |
| Caelo                      | Acetic acid 99% | 13218401    | 1       |
| Caelo                      | Acetic acid 99% | 13218501    | 2       |
| Caelo                      | Acetic acid 99% | 15280701    | 13      |
| Caelo                      | Acetic acid 99% | 15280702    | 6       |
| Caelo                      | Acetic acid 99% | 16238401    | 32      |
| Caelo                      | Acetic acid 99% | 17200401    | 29      |
| Caelo                      | Acetic acid 99% | 18031701    | 1       |
| Caelo                      | Acetic acid 99% | 18276701    | 35      |
| Caelo                      | Acetic acid 99% | 19111901    | 20      |
| Caelo                      | Acetic acid 99% | 19112001    | 4       |
| Caelo                      | Acetic acid 99% | 1911901     | 4       |
| Caelo                      | Acetic acid 99% | 20003521001 | 6       |
| Caelo                      | Acetic acid 99% | 5117A-01010 | 1       |
| Caelo                      | Acetic acid 99% | 7002101     | 1       |
| Caelo                      | Acetic acid 99% | 7006091     | 3       |
| Caesar & Loretz GmbH / ... | Acetic acid 99% | 15280701    | 1       |
| Caesar & Loretz GmbH/Je... | Acetic acid 99% | 20003521001 | 1       |
| Caesar & Loretz GmbH/No... | Acetic acid 99% | 117M-01010  | 1       |
| Caesar & Loretz GmbH'      | Acetic acid 99% | 18276701    | 2       |

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| <b>Supplier</b>         | <b>Substance</b> | <b>Batch</b>    | <b>Spectra</b> |
|-------------------------|------------------|-----------------|----------------|
| Caesar & Loretz GmbH    | Acetic acid 99%  | 19111901        | 3              |
| Caesar & Loretz GmbH    | Acetic acid 99%  | 20003521001     | 2              |
| Cealo/ AHD              | Acetic acid 99%  | 18276701        | 1              |
| Devisa/Noweda           | Acetic acid 99%  | 13218301        | 1              |
| EuRho/Noweda            | Acetic acid 99%  | 16238401        | 1              |
| Euro OTC                | Acetic acid 99%  | 7006091         | 1              |
| Fagron                  | Acetic acid 99%  | 13218301        | 1              |
| Fiebig                  | Acetic acid 99%  | 18276701        | 1              |
| Fischar / Anzag         | Acetic acid 99%  | 7002031         | 1              |
| Fischar / Noweda        | Acetic acid 99%  | 7006091         | 1              |
| Fischar / Phönix        | Acetic acid 99%  | 7006091         | 1              |
| Fischar GmbH & Co.KG    | Acetic acid 99%  | 7008091         | 1              |
| Fischar Otto / Sanacorp | Acetic acid 99%  | 7005091         | 1              |
| Fischar, Saarbrücken    | Acetic acid 99%  | 7008091         | 1              |
| Fischar/ AHD            | Acetic acid 99%  | 7008091         | 1              |
| Fischar/Alkun           | Acetic acid 99%  | 7005091         | 1              |
| Fischar/Ebert           | Acetic acid 99%  | 7006091         | 1              |
| Fischar/Gehe            | Acetic acid 99%  | 7002031         | 1              |
| Fischar/Gehe            | Acetic acid 99%  | 7003053         | 1              |
| Fischar/Gehe            | Acetic acid 99%  | 7006091         | 1              |
| Fischar/Gehe            | Acetic acid 99%  | 7009082         | 1              |
| Fischar/Jenne           | Acetic acid 99%  | 23(7006091)     | 1              |
| Fischar/Kehr            | Acetic acid 99%  | 7005091         | 1              |
| Fischar/Noweda          | Acetic acid 99%  | 7004051         | 2              |
| Fischar/Noweda          | Acetic acid 99%  | 7006091         | 3              |
| Fischar/Phoenix         | Acetic acid 99%  | 7002101         | 1              |
| Fischar/Phoenix         | Acetic acid 99%  | 7006091         | 1              |
| Fischar/Phoenix         | Acetic acid 99%  | 7008091         | 2              |
| Fischar/Phönix          | Acetic acid 99%  | 70006091        | 1              |
| Fischar/Phönix          | Acetic acid 99%  | 7006091         | 5              |
| Fischar/Phönix          | Acetic acid 99%  | 7008091         | 1              |
| Fischar/Sanacorp        | Acetic acid 99%  | 7006091         | 4              |
| fischar                 | Acetic acid 99%  | 180406E/7006091 | 1              |
| Fischar                 | Acetic acid 99%  | 7003053         | 1              |
| Fischar                 | Acetic acid 99%  | 7004051         | 1              |
| Fischar                 | Acetic acid 99%  | 7004111         | 1              |
| Fischar                 | Acetic acid 99%  | 7005091         | 2              |
| Fischar                 | Acetic acid 99%  | 7006091         | 5              |
| fischar                 | Acetic acid 99%  | 7008091         | 1              |
| Fischar                 | Acetic acid 99%  | 7008091         | 2              |
| fischar                 | Acetic acid 99%  | 7009082         | 1              |
| Fischar                 | Acetic acid 99%  | 7009082         | 2              |
| Fischar                 | Acetic acid 99%  | 90212/1         | 1              |
| Fischer/Phönix          | Acetic acid 99%  | 7004111         | 1              |
| Fischer/Phönix          | Acetic acid 99%  | 7006091         | 1              |
| Fischer/Sanacorp        | Acetic acid 99%  | 7006091         | 1              |
| Fischer                 | Acetic acid 99%  | 7005091         | 1              |
| Fischar/AHD             | Acetic acid 99%  | 7004111         | 1              |
| fishar/Gehe             | Acetic acid 99%  | 7009082         | 1              |
| Fischar/Phoenix         | Acetic acid 99%  | 7002101         | 1              |
| Gehe amax               | Acetic acid 99%  | 19111901        | 1              |
| Gehe/Hedinger           | Acetic acid 99%  | 223088B         | 1              |
| Gehe                    | Acetic acid 99%  | 15280701        | 1              |
| GEHE                    | Acetic acid 99%  | 17200401        | 1              |
| Gehe                    | Acetic acid 99%  | 18276701        | 1              |
| GEHE                    | Acetic acid 99%  | 7006091         | 2              |
| Hänseler                | Acetic acid 99%  |                 | 3              |
| Hänseler                | Acetic acid 99%  | 2019030535      | 1              |
| Hedinger / Kehr         | Acetic acid 99%  | 223079B         | 1              |
| Hedinger/AHD            | Acetic acid 99%  | 2230128         | 1              |

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| Supplier              | Substance       | Batch        | Spectra |
|-----------------------|-----------------|--------------|---------|
| Hedinger/Gehe         | Acetic acid 99% | 223007B      | 1       |
| Hedinger/Jenne        | Acetic acid 99% | 223044B      | 1       |
| Hedinger/NOWEDA       | Acetic acid 99% | 223012B      | 1       |
| Hedinger/Noweda       | Acetic acid 99% | 223134B      | 1       |
| Hedinger/Sanacorp     | Acetic acid 99% | 223134B      | 2       |
| Hedinger              | Acetic acid 99% | 223018B      | 1       |
| Hedinger              | Acetic acid 99% | 223052B      | 2       |
| Hedinger              | Acetic acid 99% | 223055B      | 1       |
| Hedinger              | Acetic acid 99% | 223066b      | 1       |
| Hedinger              | Acetic acid 99% | 223079B      | 1       |
| Hedinger              | Acetic acid 99% | 223083B      | 2       |
| Hedinger              | Acetic acid 99% | 223104B      | 1       |
| Hedinger              | Acetic acid 99% | 223109B      | 1       |
| Hedinger              | Acetic acid 99% | 223134B      | 1       |
| Hedinger              | Acetic acid 99% | 5113M-01010  | 1       |
| Merck                 | Acetic acid 99% | K49316056729 | 1       |
| Merck                 | Acetic acid 99% | K51835456938 | 1       |
| Noweda/Fischar        | Acetic acid 99% | 7005091      | 1       |
| Noweda                | Acetic acid 99% | 7006091      | 1       |
| Otto Fischar GmbH     | Acetic acid 99% | 7003053      | 1       |
| Otto Fischar/ Phoenix | Acetic acid 99% | 7002101      | 1       |
| Otto Fischar/Phönix   | Acetic acid 99% | 7007081      | 1       |
| otto fischar          | Acetic acid 99% | 7004111      | 1       |
| Otto Fischbar GmbH    | Acetic acid 99% | 7006091      | 1       |
| Otto Fischer/Noweda   | Acetic acid 99% | 70006091     | 1       |
| Otto Fischer          | Acetic acid 99% | 7006091      | 1       |
| ph.eur /phönix        | Acetic acid 99% | 7002101      | 1       |
| Phoenix               | Acetic acid 99% | 7003053      | 1       |
| PHÖNIX                | Acetic acid 99% | 18276701     | 1       |
| Phönix                | Acetic acid 99% | 2230888      | 1       |
| Roth                  | Acetic acid 99% | 200296679    | 1       |
| Roth                  | Acetic acid 99% | 348274101    | 1       |
| Sanacorp/ Lamotte     | Acetic acid 99% | 17200401     | 1       |
| Sanacorp/ Noweda      | Acetic acid 99% | 14072501     | 1       |
| Sanacorp              | Acetic acid 99% | 11349901     | 1       |
| Sanacorp              | Acetic acid 99% | 13218301     | 1       |
| Sanacorp              | Acetic acid 99% | 7006091      | 1       |
| Spangropharm          | Acetic acid 99% | 2231098      | 1       |
| Wacker Chemie AG      | Acetic acid 99% | 223079B      | 1       |

- 288374 spectra from 1294 *Apo-Ident* customers from a total of 51 828 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Acetic acid 99%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Acetic acid 99%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 299           | 0              | 66 860        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 334           | 1              | 288 374       |

The substance/substance group *Acetic acid 99%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.9933 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.7015 % (> 98.8060 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Acetic acid 99%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in main model | Distance in second-stage model |
|-------------------------------|------------------------|--------------------------------|
| Salicylic acid 50% (paraffin) | 39.36                  | –                              |
| Permethrin 25% solution       | 182.65                 | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Acetic acid 99%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31132     | 34473               | 4.72                         | 99.44                           |
| 31319     | 35256               | 3.99                         | 92.48                           |
| 33423     | 33423               | 0.00                         | 93.90                           |
| 33428     | 33423               | 1.85                         | 95.91                           |
| 33429     | 33423               | 1.82                         | 95.80                           |
| 34473     | 34473               | 0.00                         | 98.71                           |
| 35256     | 35256               | 0.00                         | 94.41                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Acetone**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30539-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Acetone; Acetinum

### Special notes

When selecting the *Acetone* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Acetone                   | 4      | 3      | 309    |

## Second-stage model

For differentiation of the substance/substance group *Acetone* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Acetone*:

| Supplier     | Substance | Batch   | Sample ID | Spectra | Certificate |
|--------------|-----------|---------|-----------|---------|-------------|
| Hedinger     | Acetone   | 011215B | 31575     | 59      | 1505477     |
| Hedinger     | Acetone   | 011242B | 31793     | 60      | 20150703    |
| Hedinger     | Acetone   | 011361B | 35851     | 50      | 20200706    |
| Otto Fischar | Acetone   | 4205031 | 31796     | 60      | 20150305    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 229 spectra of 4 reference samples from the substance/substance group *Acetone*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 930 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Acetone*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier     | Substance | Batch   | Sample ID | Spectra |
|--------------|-----------|---------|-----------|---------|
| Hedinger     | Acetone   | 011236B | 32920     | 40      |
| Hedinger     | Acetone   | 011297B | 33946     | 40      |
| Otto Fischar | Acetone   | 4201051 | 35850     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1019 spectra from 411 *Apo-Ident* customers from 316 batches from the substance/substance group *Acetone*.
- Among them are spectra of independent samples from 304 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance | Batch      | Spectra |
|----------------------------|-----------|------------|---------|
|                            | Acetone   | 281013A    | 1       |
| 01.09.20/AHD/Hedinger      | Acetone   | 11349B     | 1       |
| A.Hedinger/ Sanacorp       | Acetone   | 11345B     | 1       |
| A.Hedinger/Sana            | Acetone   | 11331B     | 1       |
| Aallianc. Healthc. / Fi... | Acetone   | 4208041    | 1       |
| ACM                        | Acetone   | KNC0783J13 | 2       |
| ACM                        | Acetone   | KNC1133J14 | 1       |
| AHD / Hedinger             | Acetone   | 11203B     | 1       |
| AHD 29.10.14 EK 6,70       | Acetone   | 11210B     | 1       |
| AHD Hedinger               | Acetone   | 11260B     | 1       |
| AHD/18.11.14/Hedinger      | Acetone   | 11215B     | 1       |
| AHD/Hedinger               | Acetone   | 11302B     | 1       |
| AHD/Hedinger               | Acetone   | 11323B     | 1       |
| AHD                        | Acetone   | 11319B     | 1       |
| Alliance Health 04.06.2... | Acetone   | 11199B     | 1       |
| Alliance health 12.01.15   | Acetone   | 11218B     | 1       |
| Alliance Healthcare/Hed... | Acetone   | 11224B     | 1       |
| Anzag/ Hedinger            | Acetone   | 11158B     | 1       |
| Anzag/ Otto Fischar Gmb... | Acetone   | 4204032    | 1       |
| Anzag/Dr. Seeger           | Acetone   | 111488     | 1       |
| Anzag/Seeger               | Acetone   | 11185B     | 1       |
| Anzag                      | Acetone   | 11173B     | 1       |
| Apoth.E.Bartel / Noweda    | Acetone   | 11173B     | 1       |
| Apoth.E.Bartel             | Acetone   | 11283B     | 1       |
| Aug. Hedinger GmbH & Co... | Acetone   | 11358B     | 1       |
| Barthel                    | Acetone   | 11177B     | 1       |
| Caelo                      | Acetone   |            | 1       |
| Caelo                      | Acetone   | 1017051    | 1       |
| Caelo                      | Acetone   | 1017082    | 1       |
| Caelo                      | Acetone   | 1018091    | 1       |
| Caelo                      | Acetone   | 1018121    | 1       |
| Caelo                      | Acetone   | 1019082    | 1       |
| Caelo                      | Acetone   | 11148B     | 2       |
| Caelo                      | Acetone   | 11152b     | 1       |
| Caelo                      | Acetone   | 11171B     | 2       |
| Caelo                      | Acetone   | 111738     | 1       |
| Caelo                      | Acetone   | 11185B     | 2       |
| Caelo                      | Acetone   | 111938     | 1       |
| Caelo                      | Acetone   | 11210B     | 1       |
| Caelo                      | Acetone   | 11215B     | 2       |
| Caelo                      | Acetone   | 11218B     | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caelo                      | Acetone          | 11224B       | 1              |
| Caelo                      | Acetone          | 11227B       | 1              |
| Caelo                      | Acetone          | 11234B       | 2              |
| Caelo                      | Acetone          | 11236B       | 1              |
| Caelo                      | Acetone          | 11247B       | 2              |
| Caelo                      | Acetone          | 11250B       | 1              |
| Caelo                      | Acetone          | 11252B       | 1              |
| Caelo                      | Acetone          | 11260B       | 1              |
| Caelo                      | Acetone          | 11263B       | 3              |
| Caelo                      | Acetone          | 11271B       | 2              |
| Caelo                      | Acetone          | 112828       | 1              |
| Caelo                      | Acetone          | 11282B       | 1              |
| Caelo                      | Acetone          | 11283B       | 1              |
| Caelo                      | Acetone          | 112868       | 2              |
| Caelo                      | Acetone          | 11288b       | 1              |
| Caelo                      | Acetone          | 112898       | 1              |
| Caelo                      | Acetone          | 11289B       | 3              |
| Caelo                      | Acetone          | 11297B       | 3              |
| Caelo                      | Acetone          | 11302B       | 3              |
| Caelo                      | Acetone          | 11308B       | 2              |
| Caelo                      | Acetone          | 11319B       | 2              |
| Caelo                      | Acetone          | 11328B       | 1              |
| Caelo                      | Acetone          | 11345B       | 3              |
| Caelo                      | Acetone          | 11349B       | 1              |
| Caelo                      | Acetone          | 123456       | 1              |
| Caelo                      | Acetone          | 4200092      | 1              |
| Caelo                      | Acetone          | 4204031      | 1              |
| Caelo                      | Acetone          | 4205062      | 2              |
| Caelo                      | Acetone          | 420571       | 1              |
| Caelo                      | Acetone          | 4206012      | 1              |
| Caelo                      | Acetone          | 4207102      | 1              |
| Caelo                      | Acetone          | 4208061      | 2              |
| Caelo                      | Acetone          | 4208062      | 4              |
| Caelo                      | Acetone          | 420891       | 1              |
| Caelo                      | Acetone          | 59/AKD1      | 1              |
| Caelo                      | Acetone          | 606001008    | 1              |
| Caesar & Loretz GmbH Hi... | Acetone          | 420511       | 2              |
| Caesar & Loretz GmbH Hi... | Acetone          | 4205111      | 1              |
| Delta                      | Acetone          | 4207013      | 1              |
| Dextro                     | Acetone          | 5209-126     | 1              |
| Dextro                     | Acetone          | 52509-123    | 1              |
| Dextro                     | Acetone          | 52509-130    | 1              |
| Dr.Seeger GmbH             | Acetone          | 11199B       | 1              |
| Dr.Seeger/Jenne            | Acetone          | 11188B       | 1              |
| Ebert KKH 29.09.2016       | Acetone          | 4206042      | 1              |
| Ebert/Fischar              | Acetone          | 4207101      | 1              |
| Euro OTC                   | Acetone          | 11193B       | 1              |
| Euro OTC                   | Acetone          | 112618       | 1              |
| Euro OTC                   | Acetone          | 11297B       | 1              |
| Euro OTC                   | Acetone          | 12001        | 1              |
| Euro OTC                   | Acetone          | 4204032      | 1              |
| Fagron                     | Acetone          | 1019031      | 1              |
| Fagron                     | Acetone          | 4207012      | 1              |
| Fagron                     | Acetone          | bfdvg        | 1              |
| Fiebig/Hedinger            | Acetone          | 11333B       | 1              |
| Fischar / Alliance Heal... | Acetone          | 1019101      | 1              |
| fischar / ahd              | Acetone          | 1017092      | 2              |
| Fischar / Alliance Heal... | Acetone          | 4206012      | 1              |
| Fischar / Alliance Heal... | Acetone          | 4206071      | 1              |
| Fischar / Alliance Heal... | Acetone          | 4209092      | 1              |

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| Supplier                   | Substance | Batch       | Spectra |
|----------------------------|-----------|-------------|---------|
| Fischar / Gehe             | Acetone   |             | 1       |
| Fischar / Gehe             | Acetone   | 1015062     | 1       |
| Fischar / Gehe             | Acetone   | 4207013     | 1       |
| Fischar / Geilenkirchen    | Acetone   | 1010012     | 1       |
| Fischar / Sanacorp         | Acetone   | 4207041     | 1       |
| Fischar Anzag              | Acetone   | 1(4207102)  | 1       |
| Fischar Anzag              | Acetone   | 90205/2     | 1       |
| Fischar GmbH/Krieger       | Acetone   | 4206071     | 1       |
| Fischar GmbH               | Acetone   | 1016101     | 1       |
| Fischar GmbH               | Acetone   | 1018052     | 1       |
| Fischar GmbH               | Acetone   | 11341B      | 1       |
| Fischar GmbH               | Acetone   | 4200032     | 1       |
| Fischar/ Anzag             | Acetone   | 2(4208084)  | 1       |
| Fischar/ Krieger           | Acetone   | 4208021     | 1       |
| Fischar/ Krieger           | Acetone   | 4208092     | 1       |
| Fischar/ Now               | Acetone   | 4203111     | 1       |
| Fischar/ Noweda            | Acetone   | 1018011     | 1       |
| Fischar/ Noweda            | Acetone   | 1018021     | 1       |
| Fischar/ Noweda            | Acetone   | 1018101     | 1       |
| Fischar/ Noweda            | Acetone   | 4201051     | 1       |
| Fischar/ Noweda            | Acetone   | 4208041     | 1       |
| Fischar/ Noweda            | Acetone   | 4209052     | 1       |
| Fischar/ Phönix            | Acetone   | 4207012     | 1       |
| fischar/AHD                | Acetone   | 10180315628 | 1       |
| Fischar/Alliance Heathc... | Acetone   | 4206011     | 1       |
| Fischar/E&J                | Acetone   | 4206071     | 1       |
| Fischar/E&J                | Acetone   | 4207071     | 1       |
| Fischar/Fiebig             | Acetone   | 4207012     | 1       |
| Fischar/Fiebig             | Acetone   | 4207073     | 1       |
| Fischar/Fiebig             | Acetone   | 4208062     | 1       |
| Fischar/Gehe               | Acetone   | 1010061     | 2       |
| Fischar/Gehe               | Acetone   | 1016051     | 1       |
| Fischar/Gehe               | Acetone   | 1018052     | 1       |
| Fischar/Gehe               | Acetone   | 4202101     | 1       |
| Fischar/Gehe               | Acetone   | 4203031     | 3       |
| Fischar/Gehe               | Acetone   | 4203101     | 1       |
| Fischar/Gehe               | Acetone   | 4204031     | 1       |
| Fischar/Gehe               | Acetone   | 4204032     | 1       |
| Fischar/Gehe               | Acetone   | 4204071     | 1       |
| Fischar/Gehe               | Acetone   | 4205032     | 1       |
| Fischar/Gehe               | Acetone   | 4205071     | 1       |
| Fischar/Gehe               | Acetone   | 4205092     | 1       |
| fischar/Gehe               | Acetone   | 4206011     | 1       |
| Fischar/Gehe               | Acetone   | 4207043     | 1       |
| Fischar/Gehe               | Acetone   | 4208091     | 1       |
| Fischar/Gehe               | Acetone   | 4209032     | 1       |
| fischar/gehe               | Acetone   | 4209052     | 1       |
| Fischar/Gehe               | Acetone   | 4209052     | 1       |
| Fischar/Jenne              | Acetone   | 1018062     | 1       |
| Fischar/Jenne              | Acetone   | 11336B      | 1       |
| Fischar/Jenne              | Acetone   | 4200011     | 1       |
| Fischar/Jenne              | Acetone   | 4208092     | 1       |
| Fischar/Kehr               | Acetone   | 4200011     | 1       |
| Fischar/Kehr               | Acetone   | 4207042     | 1       |
| Fischar/Kehr               | Acetone   | 4209031     | 1       |
| Fischar/Novatis            | Acetone   | 1010042     | 1       |
| Fischar/Noweda             | Acetone   | 1010061     | 1       |
| Fischar/Noweda             | Acetone   | 1018091     | 1       |
| Fischar/Noweda             | Acetone   | 1018111     | 1       |
| Fischar/Noweda             | Acetone   | 4200011     | 2       |

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| <b>Supplier</b>  | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|------------------|------------------|---------------|----------------|
| Fischar/Noweda   | Acetone          | 4200072       | 2              |
| Fischar/Noweda   | Acetone          | 4200121       | 1              |
| Fischar/Noweda   | Acetone          | 4203101       | 1              |
| Fischar/Noweda   | Acetone          | 4205062       | 1              |
| Fischar/Noweda   | Acetone          | 4206092       | 1              |
| Fischar/Noweda   | Acetone          | 4207011       | 1              |
| fischar/Noweda   | Acetone          | 4208091       | 3              |
| Fischar/Noweda   | Acetone          | 4208121       | 2              |
| fischar/noweda   | Acetone          | 4209031       | 1              |
| Fischar/Noweda   | Acetone          | 4209101       | 2              |
| Fischar/Phoenix  | Acetone          | 4205031       | 1              |
| Fischar/Phoenix  | Acetone          | 4207013       | 1              |
| Fischar/Phoenix  | Acetone          | 4208041       | 3              |
| Fischar/Phoenix  | Acetone          | 4208061       | 1              |
| Fischar/Phoenix  | Acetone          | 4208092       | 1              |
| Fischar/Phoenix  | Acetone          | 4209031       | 1              |
| Fischar/Phoenix  | Acetone          | 4209032       | 1              |
| Fischar/Phönix   | Acetone          | 1017092       | 1              |
| Fischar/Phönix   | Acetone          | 1018021       | 1              |
| Fischar/Phönix   | Acetone          | 1018081       | 1              |
| Fischar/Phönix   | Acetone          | 1019041       | 2              |
| Fischar/Phönix   | Acetone          | 11349B        | 1              |
| Fischar/Phönix   | Acetone          | 1918052       | 1              |
| Fischar/Phönix   | Acetone          | 4200031       | 1              |
| Fischar/Phönix   | Acetone          | 4204012       | 2              |
| Fischar/Phönix   | Acetone          | 4205072       | 1              |
| Fischar/Phönix   | Acetone          | 4206011       | 1              |
| Fischar/Phönix   | Acetone          | 4206041       | 1              |
| Fischar/Phönix   | Acetone          | 4206071       | 1              |
| Fischar/Phönix   | Acetone          | 4208021       | 1              |
| Fischar/PX       | Acetone          | 4209102       | 1              |
| Fischar/Sanacorp | Acetone          | 1019071       | 1              |
| fischar/staren   | Acetone          | 4207072       | 1              |
| Fischar          | Acetone          | 1016041       | 1              |
| Fischar          | Acetone          | 1016051       | 1              |
| Fischar          | Acetone          | 1017021       | 1              |
| Fischar          | Acetone          | 1017032       | 1              |
| Fischar          | Acetone          | 10170323      | 1              |
| Fischar          | Acetone          | 1017092       | 1              |
| Fischar          | Acetone          | 1018052       | 1              |
| Fischar          | Acetone          | 1018062       | 2              |
| Fischar          | Acetone          | 1019051       | 1              |
| Fischar          | Acetone          | 1019071       | 1              |
| Fischar          | Acetone          | 1019082       | 2              |
| Fischar          | Acetone          | 11195B        | 1              |
| Fischar          | Acetone          | 123456        | 1              |
| Fischar          | Acetone          | 14101702      | 1              |
| Fischar          | Acetone          | 16101206      | 1              |
| Fischar          | Acetone          | 20101803      | 1              |
| Fischar          | Acetone          | 2051408       | 1              |
| Fischar          | Acetone          | 22111302      | 1              |
| Fischar          | Acetone          | 24101803      | 1              |
| Fischar          | Acetone          | 25101302      | 1              |
| Fischar          | Acetone          | 27101711      | 1              |
| Fischar          | Acetone          | 28031301      | 1              |
| Fischar          | Acetone          | 29061801      | 1              |
| Fischar          | Acetone          | 30081301      | 1              |
| Fischar          | Acetone          | 4008978161101 | 1              |
| Fischar          | Acetone          | 4091513       | 1              |
| Fischar          | Acetone          | 4200011       | 1              |

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| <b>Supplier</b>     | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|---------------------|------------------|--------------|----------------|
| Fischar             | Acetone          | 4200012      | 1              |
| Fischar             | Acetone          | 4200032      | 1              |
| Fischar             | Acetone          | 4200092      | 1              |
| Fischar             | Acetone          | 4202061      | 1              |
| Fischar             | Acetone          | 4202101      | 1              |
| Fischar             | Acetone          | 4202121      | 2              |
| Fischar             | Acetone          | 4203032      | 1              |
| Fischar             | Acetone          | 4203091      | 1              |
| Fischar             | Acetone          | 4204031      | 4              |
| Fischar             | Acetone          | 4204032      | 1              |
| Fischar             | Acetone          | 4204051      | 1              |
| Fischar             | Acetone          | 4204052      | 2              |
| Fischar             | Acetone          | 4204072      | 1              |
| Fischar             | Acetone          | 4205011      | 1              |
| fishar              | Acetone          | 4205031      | 1              |
| Fischar             | Acetone          | 4205031      | 1              |
| Fischar             | Acetone          | 4205061      | 1              |
| Fischar             | Acetone          | 4205062      | 2              |
| Fischar             | Acetone          | 4205071      | 1              |
| Fischar             | Acetone          | 4206011      | 2              |
| Fischar             | Acetone          | 4206012      | 3              |
| Fischar             | Acetone          | 4206041      | 2              |
| Fischar             | Acetone          | 4206071      | 1              |
| Fischar             | Acetone          | 4207013      | 2              |
| Fischar             | Acetone          | 4207041      | 1              |
| Fischar             | Acetone          | 4207042      | 1              |
| Fischar             | Acetone          | 4207072      | 1              |
| Fischar             | Acetone          | 4207102      | 1              |
| fishar              | Acetone          | 4208021      | 1              |
| Fischar             | Acetone          | 4208021      | 1              |
| Fischar             | Acetone          | 4208041      | 1              |
| fishar              | Acetone          | 4208061      | 1              |
| fishar              | Acetone          | 4208062      | 1              |
| Fischar             | Acetone          | 4208084      | 1              |
| fishar              | Acetone          | 4208092      | 1              |
| Fischar             | Acetone          | 4208092      | 5              |
| Fischar             | Acetone          | 4208121      | 1              |
| Fischar             | Acetone          | 4208122      | 2              |
| Fischar             | Acetone          | 4209031      | 1              |
| Fischar             | Acetone          | 4209052      | 1              |
| Fischar             | Acetone          | 4209092      | 2              |
| Fischar             | Acetone          | 4209101      | 1              |
| Fischar             | Acetone          | 45204052     | 1              |
| Fischar             | Acetone          | 5041403      | 1              |
| Fischar             | Acetone          | 5051704      | 1              |
| Fischar             | Acetone          | 6021303      | 1              |
| Fischar             | Acetone          | 7051801      | 1              |
| Fischar             | Acetone          | 7091706      | 1              |
| Fischar             | Acetone          | 90110/1      | 2              |
| Fischar             | Acetone          | 9C205/1      | 1              |
| Fischbar            | Acetone          | 1016041      | 1              |
| Fischbar            | Acetone          | 17091206     | 1              |
| Fischbar            | Acetone          | 2101205      | 1              |
| Fischbar            | Acetone          | 22091201     | 1              |
| Fischbar            | Acetone          | 4101302      | 1              |
| Fischbar            | Acetone          | 4208121      | 1              |
| Fischer GmbH/Anzag  | Acetone          | 1010111      | 1              |
| Fischer GmbH/Phönix | Acetone          | 4207041      | 1              |
| Fischer/Alliance    | Acetone          | 1018021      | 1              |
| fisher/Anzag        | Acetone          | 4202061      | 1              |

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| <b>Supplier</b>           | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|------------------|--------------|----------------|
| fischer/Anzag             | Acetone          | 4203032      | 2              |
| Fischer/Fiebig            | Acetone          | 4207102      | 1              |
| Fischer/Gehe 3.11.15      | Acetone          | 4205062      | 1              |
| Fischer/Gehe              | Acetone          | 1015041      | 1              |
| Fischer/Gehe              | Acetone          | 4201051      | 1              |
| Fischer/Gehe              | Acetone          | 4204091      | 1              |
| Fischer/Gehe              | Acetone          | 4209031      | 1              |
| Fischer/Phönix            | Acetone          | 4209052      | 1              |
| Fischer/Sanacorp          | Acetone          | 420301       | 1              |
| fischer                   | Acetone          | 1011071      | 1              |
| Fischer                   | Acetone          | 1015081      | 1              |
| Fischer                   | Acetone          | 1016051      | 1              |
| Fischer                   | Acetone          | 1016101      | 1              |
| Fischer                   | Acetone          | 1018031      | 1              |
| Fischer                   | Acetone          | 4205032      | 1              |
| fischer                   | Acetone          | 4206061      | 1              |
| Fischer                   | Acetone          | 4207102      | 1              |
| Fischer                   | Acetone          | 4209031      | 1              |
| Fischer                   | Acetone          | A-040613-3   | 1              |
| fishar Krieger            | Acetone          | 4209092      | 1              |
| fishar/noweda             | Acetone          | 1019012      | 2              |
| fishar/Phoenix            | Acetone          | 4208022      | 2              |
| Gehe / Fischar            | Acetone          | 1017081      | 1              |
| Gehe/Fischar              | Acetone          | 1019041      | 1              |
| Gehe/Fischar              | Acetone          | 4207012      | 1              |
| Gehe/Fischar              | Acetone          | 90110/2      | 1              |
| Gehe/Hedinger             | Acetone          | 11272B       | 1              |
| Gehe/Hedinger             | Acetone          | 11277B       | 1              |
| Gehe                      | Acetone          | 112248       | 1              |
| Gehe                      | Acetone          | 11226B       | 1              |
| Gehe                      | Acetone          | 11247B       | 1              |
| Gehe                      | Acetone          | 11256B       | 1              |
| Gehe                      | Acetone          | 11263B       | 1              |
| GEHE                      | Acetone          | 11308B       | 1              |
| Gehe                      | Acetone          | 11319B       | 1              |
| Gehe                      | Acetone          | 11323B       | 1              |
| GEHE                      | Acetone          | 4202052      | 1              |
| Gehe                      | Acetone          | 4207013      | 1              |
| Geibo                     | Acetone          | 4207041      | 1              |
| H.Lamotte/Noweda          | Acetone          | 11210B       | 2              |
| Hänseler                  | Acetone          |              | 4              |
| Hed                       | Acetone          | 11203B       | 2              |
| hedding                   | Acetone          | 11185B       | 2              |
| Heding./Phoenix           | Acetone          | 11330B       | 1              |
| Hedinger , Noweda         | Acetone          | 11168B       | 1              |
| Hedinger , Stuttgart      | Acetone          | 11182B       | 1              |
| Hedinger / Anzag          | Acetone          | 111323B      | 1              |
| Hedinger / Anzag          | Acetone          | 11283B       | 1              |
| Hedinger / Anzag          | Acetone          | 11288B       | 1              |
| Hedinger / Anzag          | Acetone          | 11336B       | 1              |
| Hedinger / Noveda         | Acetone          | 11289B       | 1              |
| Hedinger / Gehe           | Acetone          | 11173B       | 1              |
| Hedinger / Gehe           | Acetone          | 11282B       | 1              |
| Hedinger / Gehe           | Acetone          | 11319B       | 1              |
| Hedinger / Noweda 26.9... | Acetone          | 11302B       | 1              |
| Hedinger / Noweda         | Acetone          | 11199B       | 1              |
| Hedinger / Noweda         | Acetone          | 11203B       | 1              |
| Hedinger / Noweda         | Acetone          | 11210B       | 2              |
| Hedinger / Noweda         | Acetone          | 112158       | 1              |
| Hedinger / Noweda         | Acetone          | 11226B       | 1              |

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| Supplier                   | Substance | Batch       | Spectra |
|----------------------------|-----------|-------------|---------|
| Hedinger / Noweda          | Acetone   | 11319B      | 1       |
| Hedinger / Noweda          | Acetone   | 11328B      | 1       |
| Hedinger / Noweda          | Acetone   | 11333B      | 1       |
| Hedinger / Phoenix         | Acetone   | 11195B      | 1       |
| Hedinger / Phönix          | Acetone   | 11333B      | 1       |
| Hedinger / Phönix          | Acetone   | 11377B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11188B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11203B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11210B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11295B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11333B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11336B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11341B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11348B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 11377B      | 1       |
| Hedinger / Sanacorp        | Acetone   | 4209102     | 1       |
| Hedinger /Sana             | Acetone   | 11323B      | 1       |
| Hedinger AHD 08.06.17 E... | Acetone   | 11286B      | 1       |
| Hedinger GmbH & Co. KG     | Acetone   | 11282B      | 2       |
| Hedinger GmbH&Co. KG       | Acetone   | 11349B      | 1       |
| Hedinger GmbH/Phenix       | Acetone   | 112189B     | 1       |
| Hedinger GmbH/Phenix       | Acetone   | 11302B      | 1       |
| Hedinger GmbH/Phenix       | Acetone   | 11308B      | 1       |
| Hedinger GmbH/Phenix       | Acetone   | 11330B      | 1       |
| Hedinger GmbH              | Acetone   | 11271B      | 1       |
| Hedinger Jenne             | Acetone   | 11158B      | 1       |
| Hedinger Jenne             | Acetone   | 11193B      | 1       |
| Hedinger Noweda 13.7.18... | Acetone   | 11302B      | 1       |
| Hedinger Phönix            | Acetone   | 11200B      | 1       |
| Hedinger Phönix            | Acetone   | 11308B      | 1       |
| Hedinger über Phoenix      | Acetone   | 11247B      | 1       |
| Hedinger, Heiligenwiese... | Acetone   | 11148B      | 1       |
| Hedinger, Noweda           | Acetone   | 11163B      | 1       |
| Hedinger, Noweda           | Acetone   | 11188B      | 1       |
| Hedinger, Stuttgart        | Acetone   | 11372B      | 1       |
| Hedinger/ Anzag            | Acetone   | 11158B      | 1       |
| Hedinger/ Fiebig           | Acetone   | 11349B      | 1       |
| Hedinger/ Gehe             | Acetone   | 11295B      | 1       |
| Hedinger/ Gehe             | Acetone   | 11308B      | 1       |
| Hedinger/ Jenne            | Acetone   | 11200B      | 1       |
| Hedinger/ Noweda           | Acetone   | 11177B      | 1       |
| Hedinger/ Noweda           | Acetone   | 11187B      | 1       |
| Hedinger/ NOWEDA           | Acetone   | 11252B      | 1       |
| Hedinger/ Noweda           | Acetone   | 11283B      | 1       |
| Hedinger/ Noweda           | Acetone   | 11302B      | 1       |
| Hedinger/ Phoenix          | Acetone   | 1214M1002   | 1       |
| Hedinger/ Phönix           | Acetone   | 11341B      | 3       |
| Hedinger/ Sanacorp         | Acetone   | 11247B      | 1       |
| Hedinger/ Sanacorp         | Acetone   | 11336B      | 1       |
| Hedinger/ VDL              | Acetone   | 111328B     | 1       |
| Hedinger/ VDL              | Acetone   | 11277B      | 1       |
| Hedinger/ VDL              | Acetone   | 11328B      | 1       |
| Hedinger/                  | Acetone   | 11333B      | 1       |
| Hedinger/AHD               | Acetone   | 110958A2010 | 1       |
| Hedinger/AHD               | Acetone   | 11158B      | 1       |
| Hedinger/AHD               | Acetone   | 11227B      | 1       |
| Hedinger/AHD               | Acetone   | 11282B      | 1       |
| Hedinger/AHD               | Acetone   | 11331B      | 1       |
| Hedinger/AHD               | Acetone   | 11333B      | 1       |
| Hedinger/AHD               | Acetone   | 11349B      | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Hedinger/Aliaance          | Acetone          | 11297B       | 1              |
| Hedinger/Alliance Haelt... | Acetone          | 11277B       | 1              |
| Hedinger/Alliance          | Acetone          | 112958       | 1              |
| Hedinger/Alliance          | Acetone          | 11323B       | 1              |
| Hedinger/Alliance          | Acetone          | 11328B       | 1              |
| Hedinger/Alliance          | Acetone          | 11333B       | 2              |
| Hedinger/Alliance11        | Acetone          | 11341B       | 1              |
| Hedinger/Anzag             | Acetone          | 11173B       | 1              |
| Hedinger/Anzg              | Acetone          | 11256B       | 1              |
| Hedinger/Fiebig            | Acetone          | 11241        | 1              |
| Hedinger/Fiebig            | Acetone          | 11361B       | 1              |
| Hedinger/Gehe              | Acetone          |              | 1              |
| Hedinger/Gehe              | Acetone          | 11158B       | 1              |
| Hedinger/Gehe              | Acetone          | 11177B       | 1              |
| Hedinger/Gehe              | Acetone          | 11210B       | 1              |
| Hedinger/Gehe              | Acetone          | 11227B       | 1              |
| Hedinger/Gehe              | Acetone          | 11333B       | 1              |
| Hedinger/GEHE              | Acetone          | 11372B       | 1              |
| Hedinger/Gehe              | Acetone          | 311092       | 1              |
| Hedinger/Geibo             | Acetone          | 11185B       | 1              |
| Hedinger/Geibo             | Acetone          | 11282B       | 1              |
| Hedinger/Geibo             | Acetone          | 11336B       | 1              |
| Hedinger/Jenne 24.06.20... | Acetone          | 11341B       | 1              |
| Hedinger/Jenne             | Acetone          | 11358B       | 1              |
| Hedinger/Kehr              | Acetone          | 11227B       | 1              |
| Hedinger/Krieger           | Acetone          | 11308B       | 2              |
| Hedinger/Krieger           | Acetone          | 11341B       | 1              |
| Hedinger/Now               | Acetone          | 11289B       | 1              |
| Hedinger/Noweda            | Acetone          | 111528       | 1              |
| Hedinger/Noweda            | Acetone          | 11168B       | 1              |
| Hedinger/Noweda            | Acetone          | 111858       | 1              |
| Hedinger/Noweda            | Acetone          | 11210B       | 1              |
| Hedinger/Noweda            | Acetone          | 11224B       | 1              |
| Hedinger/Noweda            | Acetone          | 11226B       | 2              |
| Hedinger/Noweda            | Acetone          | 11232B       | 2              |
| Hedinger/Noweda            | Acetone          | 11252B       | 1              |
| Hedinger/Noweda            | Acetone          | 11263B       | 1              |
| Hedinger/Noweda            | Acetone          | 11271B       | 2              |
| Hedinger/Noweda            | Acetone          | 11272B       | 1              |
| HEDINGER/NOWEDA            | Acetone          | 11283B       | 1              |
| Hedinger/Noweda            | Acetone          | 112868       | 1              |
| Hedinger/Noweda            | Acetone          | 11308B       | 1              |
| Hedinger/Noweda            | Acetone          | 11322B       | 2              |
| Hedinger/Noweda            | Acetone          | 11323B       | 1              |
| Hedinger/Noweda            | Acetone          | 11333B       | 3              |
| HEDINGER/NOWEDA            | Acetone          | 11333B       | 1              |
| Hedinger/Noweda            | Acetone          | 11336B       | 5              |
| Hedinger/Noweda            | Acetone          | 11341B       | 1              |
| Hedinger/Noweda            | Acetone          | 11349B       | 2              |
| Hedinger/Noweda            | Acetone          | 11358B       | 2              |
| Hedinger/Otto              | Acetone          | 111738       | 1              |
| Hedinger/Otto              | Acetone          | 11193B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11185B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11187B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11215B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11224B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11232B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11260B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11272B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11278B       | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Hedinger/Phoenix           | Acetone          | 11283B       | 1              |
| Hedinger/Phoenix           | Acetone          | 112893       | 1              |
| Hedinger/Phoenix           | Acetone          | 11289B       | 1              |
| Hedinger/Phoenix           | Acetone          | 112958       | 1              |
| Hedinger/Phoenix           | Acetone          | 11302B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11308B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11341B       | 1              |
| Hedinger/Phoenix           | Acetone          | 11361B       | 1              |
| Hedinger/Phönix            | Acetone          | 11168B       | 1              |
| Hedinger/Phönix            | Acetone          | 11173B       | 2              |
| Hedinger/Phönix            | Acetone          | 11182B       | 1              |
| Hedinger/Phönix            | Acetone          | 11195B       | 1              |
| Hedinger/Phönix            | Acetone          | 11224B       | 1              |
| Hedinger/Phönix            | Acetone          | 11232B       | 1              |
| Hedinger/Phönix            | Acetone          | 11234B       | 1              |
| Hedinger/Phönix            | Acetone          | 11250B       | 1              |
| Hedinger/Phönix            | Acetone          | 11260B       | 1              |
| HEDINGER/Phönix            | Acetone          | 11260B       | 1              |
| Hedinger/Phönix            | Acetone          | 11278B       | 1              |
| Hedinger/Phönix            | Acetone          | 11282B       | 1              |
| Hedinger/Phönix            | Acetone          | 112838       | 1              |
| Hedinger/Phönix            | Acetone          | 11286B       | 1              |
| Hedinger/Phönix            | Acetone          | 11289B       | 2              |
| Hedinger/Phönix            | Acetone          | 112958       | 1              |
| Hedinger/Phönix            | Acetone          | 11302B       | 3              |
| Hedinger/Phönix            | Acetone          | 11319B       | 2              |
| Hedinger/Phönix            | Acetone          | 11323B       | 1              |
| Hedinger/Phönix            | Acetone          | 11328B       | 2              |
| Hedinger/Phönix            | Acetone          | 11349B       | 1              |
| Hedinger/Phönix            | Acetone          | 113588       | 1              |
| Hedinger/Phönix            | Acetone          | 11361B       | 1              |
| Hedinger/Phönix            | Acetone          | 11372B       | 1              |
| Hedinger/phönix            | Acetone          | 140131/3     | 1              |
| Hedinger/Sanacorp 27.09... | Acetone          | 11372B       | 1              |
| Hedinger/Sanacorp          | Acetone          | 11185B       | 2              |
| Hedinger/Sanacorp          | Acetone          | 11187B       | 2              |
| Hedinger/Sanacorp          | Acetone          | 11200B       | 1              |
| Hedinger/Sanacorp          | Acetone          | 11210B       | 1              |
| Hedinger/Sanacorp          | Acetone          | 11215B       | 1              |
| Hedinger/Sanacorp          | Acetone          | 11232B       | 1              |
| Hedinger/Sanacorp          | Acetone          | 112332B      | 1              |
| Hedinger/Sanacorp          | Acetone          | 11234B       | 2              |
| Hedinger/Sanacorp          | Acetone          | 112788       | 1              |
| Hedinger/Sanacorp          | Acetone          | 11302B       | 1              |
| Hedinger/Sanacorp          | Acetone          | 11322B       | 2              |
| Hedinger/Sanacorp          | Acetone          | 11349B       | 3              |
| Hedinger/Sanacorp          | Acetone          | 11372B       | 2              |
| Hedinger/Spangro           | Acetone          | 11295B       | 1              |
| Hedinger/V.d.L.            | Acetone          | 11199B       | 1              |
| Hedinger                   | Acetone          | 10091304     | 1              |
| Hedinger                   | Acetone          | 11065B       | 1              |
| Hedinger                   | Acetone          | 11134B       | 1              |
| Hedinger                   | Acetone          | 11139B       | 1              |
| Hedinger                   | Acetone          | 11143B       | 3              |
| Hedinger                   | Acetone          | 11148B       | 1              |
| Hedinger                   | Acetone          | 11152B       | 1              |
| Hedinger                   | Acetone          | 11158B       | 3              |
| Hedinger                   | Acetone          | 11163B       | 1              |
| Hedinger                   | Acetone          | 111688       | 1              |
| Hedinger                   | Acetone          | 11168B       | 1              |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Hedinger        | Acetone          | 111738       | 2              |
| Hedinger        | Acetone          | 11173B       | 13             |
| Hedinger        | Acetone          | 11177B       | 2              |
| Hedinger        | Acetone          | 111828       | 1              |
| Hedinger        | Acetone          | 11182B       | 2              |
| Hedinger        | Acetone          | 11187B       | 2              |
| Hedinger        | Acetone          | 111888       | 1              |
| Hedinger        | Acetone          | 11188B       | 4              |
| Hedinger        | Acetone          | 111938       | 1              |
| Hedinger        | Acetone          | 11193B       | 1              |
| Hedinger        | Acetone          | 11195B       | 2              |
| Hedinger        | Acetone          | 11199B       | 4              |
| Hedinger        | Acetone          | 11200B       | 2              |
| Hedinger        | Acetone          | 112108       | 1              |
| hedinger        | Acetone          | 11210B       | 4              |
| Hedinger        | Acetone          | 11210B       | 6              |
| Hedinger        | Acetone          | 11215B       | 3              |
| hedinger        | Acetone          | 11218B       | 2              |
| Hedinger        | Acetone          | 11226B       | 1              |
| Hedinger        | Acetone          | 11232B       | 6              |
| Hedinger        | Acetone          | 11234B       | 2              |
| Hedinger        | Acetone          | 11236B       | 1              |
| Hedinger        | Acetone          | 11241b       | 1              |
| Hedinger        | Acetone          | 11242B       | 1              |
| Hedinger        | Acetone          | 11247B       | 4              |
| hedinger        | Acetone          | 11250B       | 1              |
| Hedinger        | Acetone          | 11250B       | 5              |
| hedinger        | Acetone          | 11252B       | 2              |
| Hedinger        | Acetone          | 11252B       | 1              |
| Hedinger        | Acetone          | 11256B       | 4              |
| Hedinger        | Acetone          | 11258B       | 1              |
| Hedinger        | Acetone          | 11260B       | 3              |
| Hedinger        | Acetone          | 112618       | 2              |
| Hedinger        | Acetone          | 11261B       | 1              |
| Hedinger        | Acetone          | 11263B       | 1              |
| Hedinger        | Acetone          | 112718       | 2              |
| hedinger        | Acetone          | 11271B       | 1              |
| Hedinger        | Acetone          | 11271B       | 1              |
| Hedinger        | Acetone          | 11272B       | 2              |
| hedinger        | Acetone          | 11277B       | 1              |
| Hedinger        | Acetone          | 11277B       | 4              |
| Hedinger        | Acetone          | 112788       | 1              |
| Hedinger        | Acetone          | 11278B       | 6              |
| Hedinger        | Acetone          | 11282B       | 2              |
| hedinger        | Acetone          | 11283B       | 1              |
| Hedinger        | Acetone          | 11283B       | 3              |
| Hedinger        | Acetone          | 11288B       | 3              |
| Hedinger        | Acetone          | 112898       | 2              |
| Hedinger        | Acetone          | 11289B       | 7              |
| Hedinger        | Acetone          | 11295B       | 1              |
| Hedinger        | Acetone          | 11297B       | 3              |
| Hedinger        | Acetone          | 11301B       | 1              |
| Hedinger        | Acetone          | 11302B       | 8              |
| Hedinger        | Acetone          | 11308B       | 2              |
| Hedinger        | Acetone          | 113198       | 1              |
| Hedinger        | Acetone          | 11319B       | 4              |
| Hedinger        | Acetone          | 11322B       | 2              |
| Hedinger        | Acetone          | 11323B       | 7              |
| Hedinger        | Acetone          | 11328B       | 2              |
| Hedinger        | Acetone          | 11330B       | 1              |

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| Supplier                   | Substance | Batch        | Spectra |
|----------------------------|-----------|--------------|---------|
| Hedinger                   | Acetone   | 113318       | 1       |
| Hedinger                   | Acetone   | 11331B       | 6       |
| Hedinger                   | Acetone   | 11333B       | 6       |
| Hedinger                   | Acetone   | 11336B       | 4       |
| hedinger                   | Acetone   | 11341B       | 1       |
| Hedinger                   | Acetone   | 11341B       | 7       |
| Hedinger                   | Acetone   | 11349B       | 7       |
| Hedinger                   | Acetone   | 11361B       | 2       |
| Hedinger                   | Acetone   | 11372B       | 4       |
| Hedinger                   | Acetone   | 123456       | 1       |
| Hedinger                   | Acetone   | 1261B        | 1       |
| Hedinger                   | Acetone   | 13364B       | 1       |
| Hedinger                   | Acetone   | 15230        | 1       |
| Hedinger                   | Acetone   | 16061404     | 1       |
| Hedinger                   | Acetone   | 16081301     | 1       |
| Hedinger                   | Acetone   | 16101402     | 1       |
| Hedinger                   | Acetone   | 18011306     | 1       |
| Hedinger                   | Acetone   | 19041301     | 1       |
| Hedinger                   | Acetone   | 220114       | 1       |
| Hedinger                   | Acetone   | 25071411     | 1       |
| Hedinger                   | Acetone   | 2704211002   | 1       |
| Hedinger                   | Acetone   | 2713M1002    | 1       |
| Hedinger                   | Acetone   | 4061306      | 1       |
| Hedinger                   | Acetone   | 8121401      | 1       |
| Hedonher/Sanacorp          | Acetone   | 113338       | 1       |
| Herdinger Phönix           | Acetone   | 11173B       | 1       |
| Herdinger                  | Acetone   | 11210B       | 1       |
| Hiperscan                  | Acetone   |              | 1       |
| Holdermann                 | Acetone   | 11158B       | 1       |
| Hubertus Apotheke          | Acetone   | 4205062      | 1       |
| Infectopharm               | Acetone   | 11227B       | 1       |
| JENNE                      | Acetone   | 11302B       | 2       |
| Kehr/A. Hedinger           | Acetone   | 112828       | 1       |
| Kögl                       | Acetone   | 162005152015 | 1       |
| L10/Fischar                | Acetone   | 4201021      | 1       |
| L10                        | Acetone   | 11302B       | 2       |
| L12/Apoth.E.Bartel         | Acetone   | 11272B       | 1       |
| L12                        | Acetone   | 11322B       | 1       |
| Merck                      | Acetone   | 212K17501605 | 1       |
| Noweda/Hedinger            | Acetone   | 11252B       | 1       |
| Noweda/Hedinger            | Acetone   | 11272B       | 1       |
| Noweda/Hedinger            | Acetone   | 112883       | 1       |
| Noweda/Hedinger            | Acetone   | 11302B       | 2       |
| Noweda/Hedinger            | Acetone   | 11308B       | 1       |
| Noweda/Hedinger            | Acetone   | 11333B       | 3       |
| Noweda/Hedinger            | Acetone   | 11377B       | 1       |
| Noweda                     | Acetone   | 11224B       | 1       |
| Noweda                     | Acetone   | 11226B       | 1       |
| Noweda                     | Acetone   | 11323B       | 1       |
| Noweda                     | Acetone   | 4207013      | 1       |
| Noweda                     | Acetone   | 4207073      | 1       |
| Noweda                     | Acetone   | 4208041      | 1       |
| Noweda                     | Acetone   | 4208092      | 1       |
| Noweda                     | Acetone   | 4209052      | 1       |
| Noweda                     | Acetone   | 901101       | 1       |
| O.Fischer GmbH/Anzag 25... | Acetone   | 4209092      | 1       |
| Otto Fischar / Noweda      | Acetone   | 4206012      | 1       |
| Otto Fischar               | Acetone   | 9011/01      | 1       |
| Otto Fischar GmbH & Co ... | Acetone   | 4205012      | 1       |
| Otto Fischar GmbH & Co...  | Acetone   | 1015041      | 1       |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------------------|------------------|--------------|----------------|
| Otto Fischar GmbH & Co....  | Acetone          | 1018011      | 1              |
| Otto Fischar GmbH & Co....  | Acetone          | 4204051      | 1              |
| Otto Fischar GmbH & Co....  | Acetone          | 4205071      | 1              |
| Otto Fischar GmbH & Co....  | Acetone          | 4206012      | 1              |
| Otto Fischar GmbH & Co. ... | Acetone          | 4200091      | 1              |
| Otto Fischar GmbH & Co. ... | Acetone          | 4209031      | 1              |
| Otto Fischar GmbH & Co. KG  | Acetone          | 1018051      | 1              |
| Otto Fischar GmbH / Gehe    | Acetone          | 4205092      | 1              |
| Otto Fischar GmbH Noweda    | Acetone          | 4208121      | 1              |
| Otto Fischar GmbH&Co.KG...  | Acetone          | 4204032      | 1              |
| Otto Fischar GmbH/AHD       | Acetone          | 4204092      | 1              |
| Otto Fischar GmbH/Phönix    | Acetone          | 4208091      | 1              |
| Otto Fischar GmbH/Phönix    | Acetone          | 4209091      | 1              |
| Otto Fischar GmbH/Sanac...  | Acetone          | 1018121      | 1              |
| Otto Fischar gmbh           | Acetone          | 1017092      | 1              |
| Otto Fischar GmbH           | Acetone          | 1017101      | 2              |
| Otto Fischar GmbH           | Acetone          | 1018062      | 1              |
| Otto Fischar GmbH           | Acetone          | 4204032      | 1              |
| Otto Fischar GmbH           | Acetone          | 4206091      | 1              |
| Otto Fischar GmbH           | Acetone          | 4207041      | 1              |
| Otto Fischar GmbH           | Acetone          | 4207072      | 1              |
| Otto Fischar/ Phönix        | Acetone          | 4209102      | 1              |
| Otto Fischar/ Sanacorp      | Acetone          | 4207042      | 2              |
| Otto Fischar/Anzag          | Acetone          | 4208021      | 2              |
| Otto Fischar/Anzag          | Acetone          | 4208062      | 1              |
| Otto Fischar/Ebert          | Acetone          | 4205071      | 1              |
| otto fischar/gehe           | Acetone          | 4204032      | 1              |
| Otto Fischar/Gehe           | Acetone          | 4205062      | 1              |
| Otto Fischar/Gehe           | Acetone          | 4207041      | 2              |
| Otto Fischar/Ge-hh          | Acetone          | 4209032      | 1              |
| Otto Fischar/Phoenix        | Acetone          | 4202112      | 1              |
| Otto Fischar/Phönix         | Acetone          | 1018091      | 1              |
| Otto Fischar/Phönix         | Acetone          | 1018111      | 1              |
| Otto Fischar/Phönix         | Acetone          | 1019011      | 2              |
| Otto Fischar/Phönix         | Acetone          | 4205012      | 1              |
| Otto Fischar/Phönix         | Acetone          | 4209092      | 1              |
| Otto Fischar/Sanacorp       | Acetone          | 1017101      | 3              |
| otto fischar                | Acetone          | 1015081      | 1              |
| Otto Fischar                | Acetone          | 1016031      | 1              |
| Otto Fischar                | Acetone          | 1018012      | 1              |
| Otto Fischar                | Acetone          | 1018062      | 1              |
| Otto Fischar                | Acetone          | 1018081      | 1              |
| otto fischar                | Acetone          | 1019011      | 1              |
| otto fischar                | Acetone          | 12011501     | 1              |
| otto fischar                | Acetone          | 14031502     | 1              |
| Otto fischar                | Acetone          | 22121812     | 1              |
| otto fischar                | Acetone          | 23061503     | 1              |
| Otto Fischar                | Acetone          | 4203101      | 1              |
| Otto Fischar                | Acetone          | 4204091      | 1              |
| Otto Fischar                | Acetone          | 4208061      | 1              |
| Otto Fischar                | Acetone          | 4208122      | 1              |
| otto Fischar                | Acetone          | 4209031      | 1              |
| Otto Fischar                | Acetone          | 90110/1      | 1              |
| Otto Fischar                | Acetone          | 90205/1      | 1              |
| Otto Fischbar               | Acetone          | 4204052      | 1              |
| Otto Fischer Gehe           | Acetone          | 4209091      | 1              |
| otto fischer noweda 17...   | Acetone          | 1018062      | 1              |
| Otto Fischer GmbH/Gehe      | Acetone          | 4207012      | 1              |
| Otto Fischer GmbH/Gehe      | Acetone          | 4207071      | 1              |
| Otto Fischer GmbH           | Acetone          | 4205092      | 1              |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------------------|------------------|--------------|----------------|
| Otto Fischer GmbH           | Acetone          | 4207073      | 1              |
| Otto Fischer GmbH           | Acetone          | 4208084      | 1              |
| Otto Fischer GmbH           | Acetone          | 4208092      | 1              |
| Otto Fischer GmbH           | Acetone          | 4209101      | 1              |
| Otto Fischer/ Gehe          | Acetone          | 4203101      | 1              |
| Otto Fischer/ Gehe          | Acetone          | 4204091      | 1              |
| Otto Fischer/ Jenne         | Acetone          | 1010042      | 1              |
| Otto Fischer/Krieger        | Acetone          | 4207071      | 1              |
| Otto Fischer/Sanacorp       | Acetone          | 1018041      | 1              |
| Otto Fischer                | Acetone          | 4206061      | 1              |
| otto fischer                | Acetone          | 4206071      | 1              |
| OttoFischer/Phönix          | Acetone          | 4208061      | 1              |
| Ph/Hedinger                 | Acetone          | 11341B       | 1              |
| Phoen                       | Acetone          | 4208121      | 2              |
| Phoenix/Cealo               | Acetone          | 112898       | 1              |
| Phoenix/Fischar             | Acetone          | 1019082      | 1              |
| Phoenix/Fischar             | Acetone          | 106091       | 1              |
| PHOENIX                     | Acetone          | 11195B       | 2              |
| Phoenix                     | Acetone          | 11234B       | 1              |
| Phoenix                     | Acetone          | 11271b       | 1              |
| Phoenix                     | Acetone          | 11283B       | 1              |
| Phoenix                     | Acetone          | 11289B       | 1              |
| Phönix Hedinger             | Acetone          | 11295B       | 1              |
| Phönix W.E:2.03.18 E...     | Acetone          | 11271B       | 1              |
| Phönix / Hedinger           | Acetone          | 11283B       | 1              |
| Phönix Gotha                | Acetone          | 4204032      | 1              |
| Phönix/Fischar              | Acetone          | 4202062      | 1              |
| Phönix/Fischer              | Acetone          | 4202052      | 1              |
| Phönix                      | Acetone          | 1016111      | 2              |
| Phönix                      | Acetone          | 11242B       | 1              |
| Phönix                      | Acetone          | 11250B       | 1              |
| PHÖNIX                      | Acetone          | 11331B       | 1              |
| Phönix                      | Acetone          | 4202112      | 1              |
| Phönix                      | Acetone          | 4209031      | 1              |
| Roth                        | Acetone          | 409288928    | 2              |
| Roth                        | Acetone          | 70293445     | 1              |
| Sana Hedinger 22.08.19 ...  | Acetone          | 11333B       | 1              |
| Sanacorp / Hedinger WE:...  | Acetone          | 11227B       | 1              |
| Sanacorp Hedinger 13.3...   | Acetone          | 11323B       | 1              |
| sanacorp, 6,64EUR, 20.04... | Acetone          | 11256B       | 1              |
| Sanacorp/ Fischar           | Acetone          | 4203111      | 1              |
| Sanacorp/ Hedinger          | Acetone          | 11308B       | 1              |
| Sanacorp/ Hedinger          | Acetone          | 11322B       | 2              |
| Sanacorp/ Hedinger          | Acetone          | 11328B       | 1              |
| Sanacorp/ Hedinger          | Acetone          | 11331B       | 1              |
| Sanacorp/ Hedinger          | Acetone          | 11341B       | 1              |
| Sanacorp/ Hedinger          | Acetone          | 11349B       | 1              |
| Sanacorp/ Hedinger          | Acetone          | 11358B       | 1              |
| Sanacorp/Phoenix            | Acetone          | 11210B       | 1              |
| Sanacorp                    | Acetone          |              | 2              |
| Sanacorp                    | Acetone          | 11260B       | 1              |
| Sanacorp                    | Acetone          | 11261B       | 1              |
| Sanacorp                    | Acetone          | 11271B       | 1              |
| Sanacorp                    | Acetone          | 11278B       | 1              |
| Sanacorp                    | Acetone          | 11282B       | 1              |
| Sanacorp                    | Acetone          | 11286B       | 1              |
| Sanacorp                    | Acetone          | 11288B       | 1              |
| Sanacorp                    | Acetone          | 11323B       | 1              |
| sanacorp                    | Acetone          | 4200012      | 1              |
| Sanacorp                    | Acetone          | 4202062      | 1              |

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| Supplier        | Substance | Batch     | Spectra |
|-----------------|-----------|-----------|---------|
| Sanacorp        | Acetone   | 4206091   | 1       |
| Scharr KG       | Acetone   | 143460    | 1       |
| Scharr          | Acetone   | 127656    | 2       |
| Seege/ Jenne    | Acetone   | 11199B    | 2       |
| Stumpf/Hedinger | Acetone   | 11210B    | 1       |
| VWR             | Acetone   | 19C264012 | 1       |

- 287 690 spectra from 1294 *Apo-Ident* customers from a total of 51 576 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Acetone* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Acetone* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 229           | 0              | 66 930        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 1013          | 6              | 287 690       |

The substance/substance group *Acetone* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.3799 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.4112 % (> 99.1168 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Acetone* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance          | Distance in<br>main model | Distance in<br>second-stage model |
|--------------------|---------------------------|-----------------------------------|
| Dimethyl sulfoxide | 128.45                    | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Acetone* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31575     | 31575                  | 0.00                            | 156.11                             |
| 31793     | 31575                  | 2.84                            | 155.62                             |
| 31796     | 31575                  | 6.20                            | 150.07                             |
| 35851     | 31575                  | 9.12                            | 161.36                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Acorus oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31159-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Acorus oil; Oleum calami rectific.

### Special notes

When selecting the *Acorus oil* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Acorus oil                | 3      | 1      | 0      |

## Second-stage model

For differentiation of the substance/substance group *Acorus oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Acorus oil*:

| Supplier | Substance  | Batch    | Sample ID | Spectra | Certificate |
|----------|------------|----------|-----------|---------|-------------|
| Caelo    | Acorus oil | 12356706 | 31159     | 40      | 1404623     |
| Caelo    | Acorus oil | 15081901 | 32180     | 40      | 20150320    |
| Caelo    | Acorus oil | 15081901 | 32348     | 40      | 20150320    |
| Caelo    | Acorus oil | 15081901 | 33251     | 40      | 20150320    |
| Caelo    | Acorus oil | 15081901 | 33835     | 40      | 20150320    |
| Caelo    | Acorus oil | 172878   | 34704     | 40      | 20171017*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 240 spectra of 6 reference samples from the substance/substance group *Acorus oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 66 919 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Acorus oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance  | Batch    | Sample ID | Spectra |
|----------|------------|----------|-----------|---------|
| Caelo    | Acorus oil | 15081902 | 32347     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 0 spectra from 0 *Apo-Ident* customers from 0 batches from the substance/substance group *Acorus oil*.
- Among them are spectra of independent samples from 0 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.
- 288 709 spectra from 1294 *Apo-Ident* customers from a total of 51 888 batches from a further 344 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Acorus oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Acorus oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 240           | 0              | 66 919        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 0             | 0              | 288 709       |

The substance/substance group *Acorus oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.5000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6894 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Acorus oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Bergamot oil                              | 21.96                     | —                                 |
| Cedar wood oil                            | 33.43                     | —                                 |
| Lavender oil                              | 34.60                     | —                                 |
| Coriander oil                             | 37.02                     | —                                 |
| Juniper oil                               | 38.31                     | —                                 |
| Verbena oil, nature-identical             | 40.79                     | —                                 |
| Caraway oil                               | 46.73                     | —                                 |
| Dwarf pine oil                            | 47.14                     | —                                 |
| Matricaria oil, rich in (-)-alpha-bisa... | 50.07                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Acorus oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31159     | 31159                  | 0.00                            | 39.27                              |
| 32180     | 31159                  | 4.97                            | 34.07                              |
| 32348     | 31159                  | 5.36                            | 32.26                              |
| 33251     | 31159                  | 5.20                            | 35.48                              |
| 33835     | 31159                  | 5.59                            | 36.67                              |
| 34704     | 34704                  | 0.00                            | 33.43                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **All-rac-alpha-tocopheryl acetate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31020-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

All-rac-alpha-tocopheryl acetate; int-rac-alpha-Tocopherylis acetate

### Special notes

When selecting the *All-rac-alpha-tocopheryl acetate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group        | Type A | Type B | Type C |
|----------------------------------|--------|--------|--------|
| All-rac-alpha-tocopheryl acetate | 6      | 12     | 217    |

## Second-stage model

For differentiation of the substance/substance group *All-rac-alpha-tocopheryl acetate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *All-rac-alpha-tocopheryl acetate*:

| Supplier | Substance           | Batch      | Sample ID | Spectra | Certificate |
|----------|---------------------|------------|-----------|---------|-------------|
| Caelo    | All-rac-alpha-to... | 12362307   | 31020     | 40      | 1402688     |
| Caelo    | All-rac-alpha-to... | 13396304   | 31371     | 40      | 20131211    |
| Euro OTC | All-rac-alpha-to... | 1411025-01 | 31646     | 58      | 20141216    |
| Euro OTC | All-rac-alpha-to... | 1512007    | 31817     | 60      | 20151216*   |
| Euro OTC | All-rac-alpha-to... | 1901048    | 34422     | 40      | 20190304*   |
| Euro OTC | All-rac-alpha-to... | 2002035    | 34828     | 40      | 20200311*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 278 spectra of 6 reference samples from the substance/substance group *All-rac-alpha-tocopheryl acetate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 881 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 520 spectra of 13 reference samples from the substance/substance group *All-rac-alpha-tocopheryl acetate*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 12 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch   | Sample ID | Spectra |
|----------|---------------------------------|---------|-----------|---------|
| Caelo    | All-rac-alpha-tocopheryl ace... | 172397  | 33688     | 40      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 180877  | 34223     | 40      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 190620  | 34652     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 1604060 | 32286     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 1606011 | 32469     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 1704014 | 33446     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 1710024 | 33842     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 1803012 | 34096     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 1910026 | 34750     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 2010025 | 35123     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 2105015 | 35493     | 40      |
| Euro OTC | All-rac-alpha-tocopheryl ace... | 2203013 | 36226     | 40      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 172397  | 33886     | 40      |

- 106 843 spectra from a total of 2489 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1074 spectra from 441 *Apo-Ident* customers from 228 batches from the substance/substance group *All-rac-alpha-tocopheryl acetate*.
- Among them are spectra of independent samples from 217 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                 | Substance                       | Batch       | Spectra |
|--------------------------|---------------------------------|-------------|---------|
| AHD                      | All-rac-alpha-tocopheryl ace... | 18087703    | 1       |
| AHD                      | All-rac-alpha-tocopheryl ace... | 18087710    | 1       |
| Alliance health 05.01.15 | All-rac-alpha-tocopheryl ace... | 13396305    | 1       |
| Anzag ek: 7.71           | All-rac-alpha-tocopheryl ace... | 11300002    | 1       |
| ANZAG                    | All-rac-alpha-tocopheryl ace... | 12319401    | 1       |
| Anzag                    | All-rac-alpha-tocopheryl ace... | 20003759002 | 2       |
| Anzag                    | All-rac-alpha-tocopheryl ace... | 82943389    | 1       |
| Anzag                    | All-rac-alpha-tocopheryl ace... | AP16128607T | 1       |
| Apolda/Gehe              | All-rac-alpha-tocopheryl ace... | 18H20-B02   | 1       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | 12362305T   | 2       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | 13396303    | 1       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | 2415E-02500 | 1       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP11300004  | 1       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP11300004T | 5       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP12362305  | 1       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP12362305T | 5       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP13396303  | 2       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP13396303T | 6       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP143634003 | 1       |
| Audor Pharma             | All-rac-alpha-tocopheryl ace... | AP14363403T | 8       |

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| Supplier     | Substance                       | Batch         | Spectra |
|--------------|---------------------------------|---------------|---------|
| Audor Pharma | All-rac-alpha-tocopheryl ace... | AP15239006T   | 4       |
| Audor Pharma | All-rac-alpha-tocopheryl ace... | ap16128607t   | 1       |
| Audor Pharma | All-rac-alpha-tocopheryl ace... | AP16128607T   | 5       |
| Audor Pharma | All-rac-alpha-tocopheryl ace... | AP161286T     | 4       |
| Audor Pharma | All-rac-alpha-tocopheryl ace... | AP161286T5735 | 1       |
| Audor Pharma | All-rac-alpha-tocopheryl ace... | AP42555136W0T | 3       |
| Audor Pharma | All-rac-alpha-tocopheryl ace... | AP42555136W0T | 1       |
| Bombastus    | All-rac-alpha-tocopheryl ace... | 17239704      | 1       |
| Brenntag     | All-rac-alpha-tocopheryl ace... | 101907        | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... |               | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 10247405      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 11043007      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 11043011      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 11300001      | 3       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 11300002      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 11300003      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 11300005      | 3       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12053802      | 9       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12053803      | 6       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12091809      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12319042      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12319401      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12319402      | 3       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12319403      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12362302      | 13      |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12362307      | 17      |
| Caelo        | All-rac-alpha-tocopheryl ace... | 12362404      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13075202      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13201102      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 1321702       | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13217201      | 13      |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13217202      | 4       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13217205      | 13      |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13217207      | 13      |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13396304      | 4       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13396305      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 13396306      | 6       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14011512      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14076805      | 6       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14076806      | 7       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14076808      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14076812      | 10      |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14076813      | 4       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14101714      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 1411025       | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363401      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363402      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363405      | 5       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363406      | 6       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363407      | 7       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363408      | 4       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363409      | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 14363410      | 5       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 1504020-01    | 4       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 1504020-02    | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 1512007-01    | 1       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 15126801      | 2       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 15238806      | 4       |
| Caelo        | All-rac-alpha-tocopheryl ace... | 15238807      | 10      |
| Caelo        | All-rac-alpha-tocopheryl ace... | 15238808      | 4       |

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| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | All-rac-alpha-tocopheryl ace... | 15239001    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 15239002    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 15239003    | 21      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 15239009    | 5       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 15239010    | 8       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 15239011    | 7       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 15239012    | 11      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 160601102   | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 1606011-02  | 3       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16091301    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 1612809     | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128604    | 5       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128609    | 20      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128610    | 6       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128613    | 3       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128614    | 11      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128615    | 20      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128624    | 5       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 16128625    | 19      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 161286T     | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 1628624     | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 1710024-02  | 2       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 17239702    | 5       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 17239704    | 21      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 17359201    | 13      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 17359203    | 16      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 17359204    | 2       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 17359211    | 7       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 17359212    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 1803012-01  | 3       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 18087702    | 7       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 18087703    | 18      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 180877033   | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 18087710    | 17      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 18087711    | 4       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 18087716    | 3       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 1813M-02500 | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 190620001   | 4       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 190620002   | 2       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 190620003   | 9       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 19062001    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 19062003    | 10      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 19062004    | 31      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 19071302    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 192849003   | 5       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 192849004   | 10      |
| Caelo    | All-rac-alpha-tocopheryl ace... | 20003754010 | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 20003759002 | 3       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 20003759003 | 2       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 20003759005 | 7       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 20003759008 | 2       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 20003759010 | 2       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 20231012-4  | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 21003953007 | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 26011601    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 3312M-02500 | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 40448164    | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 42555136W0  | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 611toc      | 1       |
| Caelo    | All-rac-alpha-tocopheryl ace... | 70913Toc    | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caelo                      | All-rac-alpha-tocopheryl ace... | 7123623     | 1       |
| Caelo                      | All-rac-alpha-tocopheryl ace... | 928490041   | 1       |
| Caelo                      | All-rac-alpha-tocopheryl ace... | Ap16128607T | 1       |
| Caelo                      | All-rac-alpha-tocopheryl ace... | UT17040100  | 1       |
| Caeolo/Noweda              | All-rac-alpha-tocopheryl ace... | 16128610    | 1       |
| Caesae & Loretz /Sanacorp  | All-rac-alpha-tocopheryl ace... | 16128614    | 1       |
| Caesar & Loretz GmbH / ... | All-rac-alpha-tocopheryl ace... | 18087710    | 1       |
| Caesar & Loretz GmbH / ... | All-rac-alpha-tocopheryl ace... | 18087703    | 1       |
| Caesar & Loretz GmbH / ... | All-rac-alpha-tocopheryl ace... | 18087702    | 2       |
| Caesar & Loretz GmbH / ... | All-rac-alpha-tocopheryl ace... | 19062003    | 2       |
| Caesar & Loretz GmbH Hi... | All-rac-alpha-tocopheryl ace... | 11300004    | 1       |
| Caesar & Loretz GmbH/ G... | All-rac-alpha-tocopheryl ace... | 18087703    | 2       |
| Caesar & Loretz GmbH/ J... | All-rac-alpha-tocopheryl ace... | 19062003    | 1       |
| Caesar & Loretz GmbH/ P... | All-rac-alpha-tocopheryl ace... | 190620001   | 1       |
| Caesar & Loretz GmbH/ P... | All-rac-alpha-tocopheryl ace... | 20003759002 | 1       |
| Caesar & Loretz GmbH/ P... | All-rac-alpha-tocopheryl ace... | 20003759008 | 1       |
| Caesar & Loretz GmbH/ S... | All-rac-alpha-tocopheryl ace... | 20003759005 | 1       |
| Caesar & Loretz GmbH/Fi... | All-rac-alpha-tocopheryl ace... | 19062004    | 1       |
| Caesar & Loretz GmbH/Gehe  | All-rac-alpha-tocopheryl ace... | 20003759003 | 1       |
| Caesar & Loretz GmbH/Ph... | All-rac-alpha-tocopheryl ace... | 18087711    | 1       |
| Caesar & Loretz GmbH/Sa... | All-rac-alpha-tocopheryl ace... | 19062004    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 12053802    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 13217202    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 15239011    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 18087702    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 18087703    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 18087704    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 18087710    | 3       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 18087711    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 18087716    | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 190620001   | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 190620003   | 2       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 19062003    | 3       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 19062004    | 3       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 192849003   | 2       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 192849004   | 3       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 20003759002 | 4       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 20003759005 | 1       |
| Caesar & Loretz GmbH       | All-rac-alpha-tocopheryl ace... | 20003759008 | 3       |
| Caesar und Loretz          | All-rac-alpha-tocopheryl ace... | 19062003    | 1       |
| Caeser&Lorenz GmbH/Gehe    | All-rac-alpha-tocopheryl ace... | 19062004    | 1       |
| Caleo                      | All-rac-alpha-tocopheryl ace... | 14363407    | 1       |
| Cealo/Sanacorp             | All-rac-alpha-tocopheryl ace... | 21003953006 | 1       |
| DSM Nutritional Prod./...  | All-rac-alpha-tocopheryl ace... | 15E18-B07   | 1       |
| DSM Nutritional Prod./ ... | All-rac-alpha-tocopheryl ace... | 12E16-N06   | 1       |
| Ebert & Jacobi             | All-rac-alpha-tocopheryl ace... | 1901048     | 1       |
| EuRho/Phoenix              | All-rac-alpha-tocopheryl ace... | 14B03-B06   | 1       |
| EuRho                      | All-rac-alpha-tocopheryl ace... | 1901048-01  | 1       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 11300002    | 1       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1208020-01  | 4       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 12362307    | 1       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1301010-01  | 3       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1310005-01  | 3       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 140503201   | 1       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1405032-01  | 9       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1411025     | 1       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1411025-01  | 10      |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1504020     | 1       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1504020-01  | 9       |
| Euro OTC                   | All-rac-alpha-tocopheryl ace... | 1504020-02  | 2       |

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| Supplier      | Substance                       | Batch                | Spectra |
|---------------|---------------------------------|----------------------|---------|
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1504020-1            | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1511I-02500          | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1512007-01           | 12      |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 15E18-B07-317323     | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1604060-01           | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1604060-02           | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 16040601             | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1606011_02           | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1606011-01           | 5       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 160601102            | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1606011-02           | 10      |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 160611-02            | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 170401401            | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1704014-01           | 6       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 171002401            | 2       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1710024-01           | 13      |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 17355903             | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 180301201            | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1803012-01           | 31      |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1803012-01-T20190115 | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1803012-31           | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 180312-01            | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 18087703             | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1901048              | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 190104801            | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1901048-01           | 24      |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1901048-02           | 7       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 1910026-01           | 6       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 2002035-01           | 10      |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 2010025-01           | 6       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 2010025-02           | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 201201601101         | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 201201707103         | 2       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 201201710102         | 2       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 2105015-01           | 3       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 303462               | 1       |
| Euro OTC      | All-rac-alpha-tocopheryl ace... | 42555136W0           | 1       |
| EUro/AHD      | All-rac-alpha-tocopheryl ace... | 1301010-01           | 1       |
| Euro/Fiebig   | All-rac-alpha-tocopheryl ace... | 1606011-02           | 1       |
| Euro/Sanacorp | All-rac-alpha-tocopheryl ace... | 1803012-01           | 1       |
| Euro/Sanacorp | All-rac-alpha-tocopheryl ace... | 1901048-02           | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 118H20-B02           | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 12/28-B40-288705     | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 1228-B40-288705      | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 12362307             | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 12E16-N06            | 2       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 12G12-No7            | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 12I28-B40            | 2       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 12L14-N06            | 4       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 14363407             | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 14602-B05-303462     | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 14B03-B06-294690     | 4       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 14G02-B05            | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 14G02-B05-303462     | 4       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 14G02-B05-3043462    | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 15E18-B07            | 2       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 15e18-b07-311818     | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 15E18-B07-311818     | 5       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 15E18-B07-317323     | 1       |
| Fagron        | All-rac-alpha-tocopheryl ace... | 15E18-B07-322952     | 1       |

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| Supplier              | Substance                       | Batch            | Spectra |
|-----------------------|---------------------------------|------------------|---------|
| Fagron                | All-rac-alpha-tocopheryl ace... | 15E18-B07-326638 | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 16128604         | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 17J02-B07        | 3       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 17j02-B07-343845 | 2       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 17J02B07343845   | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 17J02-B07-343845 | 9       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 17J02-B07-343845 | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 17J02-B07        | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02        | 2       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02-355660 | 4       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02-359684 | 4       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02-363717 | 2       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02-366200 | 2       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02-369503 | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02-363717 | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | 18H20-B02-369503 | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | UT12020065       | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | UT13110302       | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | UT14030070       | 1       |
| Fagron                | All-rac-alpha-tocopheryl ace... | UT18060172       | 1       |
| Fargon                | All-rac-alpha-tocopheryl ace... | 17J02-B07-343845 | 1       |
| Fargon                | All-rac-alpha-tocopheryl ace... | 18H20-B02-363717 | 1       |
| Finteler Apotheke     | All-rac-alpha-tocopheryl ace... | 15E18-B07-326638 | 1       |
| Fischar/PX            | All-rac-alpha-tocopheryl ace... | 17359211         | 1       |
| Gatt-Koller           | All-rac-alpha-tocopheryl ace... | 1802578          | 1       |
| Gehe                  | All-rac-alpha-tocopheryl ace... | 14363401         | 1       |
| Gehe                  | All-rac-alpha-tocopheryl ace... | 1512007-01       | 1       |
| GEHE                  | All-rac-alpha-tocopheryl ace... | 15E18-B07-311818 | 2       |
| Gehe                  | All-rac-alpha-tocopheryl ace... | 16128609         | 1       |
| GEHE                  | All-rac-alpha-tocopheryl ace... | 16128610         | 1       |
| Gehe                  | All-rac-alpha-tocopheryl ace... | 16128624         | 1       |
| Gehe                  | All-rac-alpha-tocopheryl ace... | 16128625         | 1       |
| Geibo                 | All-rac-alpha-tocopheryl ace... | 1803012-01       | 1       |
| Jenne                 | All-rac-alpha-tocopheryl ace... | AP161286T        | 1       |
| Kehr                  | All-rac-alpha-tocopheryl ace... |                  | 1       |
| Kögl                  | All-rac-alpha-tocopheryl ace... | 146905172417     | 1       |
| Kögl                  | All-rac-alpha-tocopheryl ace... | 20171469         | 3       |
| Kögl                  | All-rac-alpha-tocopheryl ace... | 31209164216      | 1       |
| Kögl                  | All-rac-alpha-tocopheryl ace... | 312309164216     | 1       |
| L12                   | All-rac-alpha-tocopheryl ace... | 1803012-01       | 1       |
| Max Jenne             | All-rac-alpha-tocopheryl ace... | 820303113        | 1       |
| Noweda 06.04.2016     | All-rac-alpha-tocopheryl ace... | 14363406         | 1       |
| Noweda                | All-rac-alpha-tocopheryl ace... | 14363410         | 1       |
| Noweda                | All-rac-alpha-tocopheryl ace... | 15239011         | 1       |
| Noweda                | All-rac-alpha-tocopheryl ace... | 16128625         | 1       |
| Noweda                | All-rac-alpha-tocopheryl ace... | 17239704         | 1       |
| Noweda                | All-rac-alpha-tocopheryl ace... | 1803012-01       | 3       |
| PHOENIX am 27.03.2014 | All-rac-alpha-tocopheryl ace... | 1310005-01       | 1       |
| Phoenix               | All-rac-alpha-tocopheryl ace... | 1803012-01       | 2       |
| Phoenix               | All-rac-alpha-tocopheryl ace... | 1901048-01       | 1       |
| Phönix Gotha          | All-rac-alpha-tocopheryl ace... | 19062004         | 1       |
| phönix                | All-rac-alpha-tocopheryl ace... | 1512007-01       | 1       |
| Phönix                | All-rac-alpha-tocopheryl ace... | 15239010         | 5       |
| phönix                | All-rac-alpha-tocopheryl ace... | 16128615         | 1       |
| Phönix                | All-rac-alpha-tocopheryl ace... | 1803012-01       | 1       |
| Phönix                | All-rac-alpha-tocopheryl ace... | 191048-01        | 1       |
| Phönix                | All-rac-alpha-tocopheryl ace... | 20003759005      | 1       |
| Sanacorp              | All-rac-alpha-tocopheryl ace... | 12362307         | 1       |
| Sanacorp              | All-rac-alpha-tocopheryl ace... | 1301010-01       | 1       |
| Sanacorp              | All-rac-alpha-tocopheryl ace... | 18087703         | 1       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Sanacorp                   | All-rac-alpha-tocopheryl ace... | 19062004     | 1       |
| Sanacorp                   | All-rac-alpha-tocopheryl ace... | AP11300004T  | 1       |
| Sanacorp                   | All-rac-alpha-tocopheryl ace... | Ap12362305T  | 1       |
| Sanacorp                   | All-rac-alpha-tocopheryl ace... | AP161286     | 1       |
| Spinnrad / Gehe            | All-rac-alpha-tocopheryl ace... | 116303111    | 1       |
| Spinnrad                   | All-rac-alpha-tocopheryl ace... | 1116303113   | 2       |
| Spinnrad                   | All-rac-alpha-tocopheryl ace... | 217303111    | 1       |
| Spinnrad                   | All-rac-alpha-tocopheryl ace... | 220303111    | 1       |
| Spinnrad                   | All-rac-alpha-tocopheryl ace... | 915303112    | 1       |
| Stumpf / Hedinger          | All-rac-alpha-tocopheryl ace... | 15126801     | 1       |
| Taoasis                    | All-rac-alpha-tocopheryl ace... | 18087703     | 2       |
| VDL; 24,15EUR; 26.01.2015  | All-rac-alpha-tocopheryl ace... | 13217206     | 1       |
| Wepa                       | All-rac-alpha-tocopheryl ace... | AP15239006T  | 1       |
| zhedjiang Medicine         | All-rac-alpha-tocopheryl ace... | 1704014-01   | 3       |
| Zhejiang Medicine / Phönix | All-rac-alpha-tocopheryl ace... | 1901048-01   | 1       |
| Zhejiang Medicine          | All-rac-alpha-tocopheryl ace... | 1803012-01   | 1       |
| Zhejiang Medicine          | All-rac-alpha-tocopheryl ace... | 201201710102 | 1       |
| Zhejiang, Gehe             | All-rac-alpha-tocopheryl ace... |              | 1       |

- 287 635 spectra from 1294 *Apo-Ident* customers from a total of 51 662 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *All-rac-alpha-tocopheryl acetate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *All-rac-alpha-tocopheryl acetate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 278           | 0              | 66 881        |
| <b>Type B</b> | 0              | 520           | 0              | 106 843       |
| <b>Type C</b> | 0              | 1070          | 4              | 287 635       |

The substance/substance group *All-rac-alpha-tocopheryl acetate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.8417 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.8462 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.6276 % (> 99.3482 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *All-rac-alpha-tocopheryl acetate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance       | Distance in<br>main model | Distance in<br>second-stage model |
|-----------------|---------------------------|-----------------------------------|
| Camphor oil 20% | 59.76                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *All-rac-alpha-tocopheryl acetate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31020     | 31020                  | 0.00                            | 74.78                              |
| 31371     | 31817                  | 2.45                            | 74.90                              |
| 31646     | 34422                  | 2.47                            | 74.75                              |
| 31817     | 31817                  | 0.00                            | 75.88                              |
| 34422     | 34422                  | 0.00                            | 74.79                              |
| 34828     | 34828                  | 0.00                            | 75.01                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Angelica root oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30939-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Angelica root oil; Oleum angelicae (e radice)

### Special notes

When selecting the *Angelica root oil* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Angelica root oil         | 4      | 2      | 3      |

## Second-stage model

For differentiation of the substance/substance group *Angelica root oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Angelica root oil*:

| Supplier | Substance         | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------------|----------|-----------|---------|-------------|
| Caelo    | Angelica root oil | 11352704 | 30939     | 50      | 1403252     |
| Caelo    | Angelica root oil | 13157610 | 31632     | 60      | 1511618     |
| Caelo    | Angelica root oil | 163376   | 33082     | 40      | 20161213*   |
| Caelo    | Angelica root oil | 172038   | 33909     | 40      | 20170728*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 190 spectra of 4 reference samples from the substance/substance group *Angelica root oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 969 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Angelica root oil*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



| Supplier | Substance         | Batch    | Sample ID | Spectra |
|----------|-------------------|----------|-----------|---------|
| Caelo    | Angelica root oil | 15337207 | 32929     | 40      |
| Caelo    | Angelica root oil | 15337209 | 33513     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 3 spectra from 3 *Apo-Ident* customers from 3 batches from the substance/substance group *Angelica root oil*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance         | Batch    | Spectra |
|----------|-------------------|----------|---------|
| Caelo    | Angelica root oil | 11352706 | 1       |
| Caelo    | Angelica root oil | 15337205 | 1       |
| Caelo    | Angelica root oil | 21111819 | 1       |

- 288 706 spectra from 1294 *Apo-Ident* customers from a total of 51 885 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Angelica root oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Angelica root oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 190           | 0              | 66 969        |
| <b>Type B</b> | 0              | 69            | 11             | 107 283       |
| <b>Type C</b> | 0              | 3             | 0              | 288 706       |

The substance/substance group *Angelica root oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.8421 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 86.2500 % (> 82.5000 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6900 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Angelica root oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance           | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------|---------------------------|-----------------------------------|
| Dwarf pine oil      | 13.58                     | —                                 |
| Juniper oil         | 23.55                     | —                                 |
| Bergamot oil        | 29.50                     | —                                 |
| Pine silvestris oil | 30.64                     | —                                 |
| Caraway oil         | 38.23                     | —                                 |
| Bitter orange oil   | 40.19                     | —                                 |
| Cedar wood oil      | 42.39                     | —                                 |
| Eucalyptus oil      | 42.84                     | —                                 |
| Spearmint oil       | 43.77                     | —                                 |
| Grapefruit oil      | 45.32                     | —                                 |
| Acorus oil          | 48.07                     | —                                 |
| Cypress oil         | 51.34                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Angelica root oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30939     | 30939                  | 0.00                            | 26.92                              |
| 31632     | 31632                  | 0.00                            | 20.61                              |
| 33082     | 33082                  | 0.00                            | 23.52                              |
| 33909     | 33909                  | 0.00                            | 20.07                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances,

thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Anise oil / Star aniseed oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31158-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Anise oil / Star aniseed oil; Anise oil; Anisi aetheroleum; Anisi stellati aetheroleum; Star anise oil

### Special notes

When selecting the *Anise oil / Star aniseed oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group    | Type A | Type B | Type C |
|------------------------------|--------|--------|--------|
| Anise oil / Star aniseed oil | 10     | 8      | 106    |

## Second-stage model

For differentiation of the substance/substance group *Anise oil* / *Star aniseed oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Anise oil* / *Star aniseed oil*:

| Supplier | Substance      | Batch       | Sample ID | Spectra | Certificate        |
|----------|----------------|-------------|-----------|---------|--------------------|
| Caelo    | Anise oil      | 14230101    | 31596     | 60      | AR-15-FG-004287-01 |
| Caelo    | Anise oil      | 15148901    | 31785     | 60      | 20150518           |
| Caelo    | Anise oil      | 16306802    | 32930     | 40      | 20161111           |
| Caelo    | Anise oil      | 16306803    | 33507     | 40      | 20161111           |
| Caelo    | Anise oil      | 16306803    | 33509     | 40      | 20161111           |
| Caelo    | Star anise oil | 13056105    | 31158     | 40      | 1405104            |
| Caelo    | Star anise oil | 13358202    | 31404     | 40      | 20131105           |
| Caelo    | Star anise oil | 20003664001 | 35839     | 50      | 20201113           |
| Euro OTC | Star anise oil | 1303017-01  | 31525     | 60      | 20130422           |
| Euro OTC | Star anise oil | 511026      | 31810     | 60      | 20151214*          |
| Euro OTC | Star anise oil | 1609007     | 32775     | 40      | 20160919*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 530 spectra of 11 reference samples from the substance/substance group *Anise oil* / *Star aniseed oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 10 different batches.
- 66 629 spectra from a total of 1369 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- 320 spectra of 8 reference samples from the substance/substance group *Anise oil / Star aniseed oil*.
- Among them are spectra of independent samples from 8 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch    | Sample ID | Spectra |
|----------|----------------|----------|-----------|---------|
| Caelo    | Anise oil      | 171500   | 33908     | 40      |
| Caelo    | Anise oil      | 183151   | 34640     | 40      |
| Caelo    | Anise oil      | 19000778 | 35025     | 40      |
| Caelo    | Star anise oil | 170162   | 33061     | 30      |
| Caelo    | Star anise oil | 15337007 | 33468     | 40      |
| Caelo    | Star anise oil | 183075   | 34988     | 40      |
| Euro OTC | Star anise oil | 1903016  | 34497     | 40      |
| Euro OTC | Star anise oil | 2111013  | 35900     | 50      |

- 107043 spectra from a total of 2493 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 294 spectra from 144 *Apo-Ident* customers from 103 batches from the substance/substance group *Anise oil / Star aniseed oil*.
- Among them are spectra of independent samples from 96 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                  | Substance      | Batch        | Spectra |
|---------------------------|----------------|--------------|---------|
| Anzag 10.12.12            | Star anise oil | 1206014-01   | 1       |
| Apotheke Bauer & Cie. oHG | Anise oil      | 68952-43-2   | 1       |
| Beiersdorf/Noweda         | Star anise oil | 15337007     | 2       |
| Bergland                  | Anise oil      | C700200      | 1       |
| Caelo                     | Star anise oil | 11352402     | 4       |
| Caelo                     | Star anise oil | 11352409     | 9       |
| Caelo                     | Star anise oil | 12011904     | 1       |
| Caelo                     | Star anise oil | 1232207      | 1       |
| Caelo                     | Star anise oil | 12322501     | 2       |
| Caelo                     | Star anise oil | 12322503     | 3       |
| Caelo                     | Star anise oil | 12322505     | 1       |
| Caelo                     | Star anise oil | 12322507     | 5       |
| Caelo                     | Star anise oil | 13051404     | 1       |
| Caelo                     | Star anise oil | 13056103     | 1       |
| Caelo                     | Star anise oil | 13056105     | 8       |
| Caelo                     | Star anise oil | 13358201     | 1       |
| Caelo                     | Star anise oil | 13358202     | 3       |
| Caelo                     | Star anise oil | 13358208     | 1       |
| Caelo                     | Star anise oil | 13358209     | 3       |
| Caelo                     | Anise oil      | 14(16306803) | 1       |
| Caelo                     | Star anise oil | 14125501     | 1       |
| Caelo                     | Star anise oil | 14150301     | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Caelo           | Star anise oil   | 14150303          | 1              |
| Caelo           | Star anise oil   | 14195202          | 6              |
| Caelo           | Star anise oil   | 14195205          | 1              |
| Caelo           | Star anise oil   | 14195208          | 2              |
| Caelo           | Star anise oil   | 14230102          | 1              |
| Caelo           | Star anise oil   | 14230104          | 2              |
| Caelo           | Star anise oil   | 145230101         | 1              |
| Caelo           | Star anise oil   | 15(18307502)      | 1              |
| Caelo           | Star anise oil   | 15085801          | 1              |
| Caelo           | Star anise oil   | 15085805          | 18             |
| Caelo           | Star anise oil   | 15085806          | 2              |
| Caelo           | Anise oil        | 15119401          | 5              |
| Caelo           | Anise oil        | 15148901          | 1              |
| Caelo           | Anise oil        | 15148904          | 2              |
| Caelo           | Star anise oil   | 15337004          | 1              |
| Caelo           | Star anise oil   | 15337007          | 7              |
| Caelo           | Star anise oil   | 15337013          | 6              |
| Caelo           | Star anise oil   | 15337014          | 1              |
| Caelo           | Star anise oil   | 15337020          | 16             |
| Caelo           | Star anise oil   | 15337021          | 1              |
| Caelo           | Anise oil        | 15428901          | 2              |
| Caelo           | Anise oil        | 15428903          | 3              |
| Caelo           | Anise oil        | 15428906          | 5              |
| Caelo           | Anise oil        | 1612120A/15428901 | 1              |
| Caelo           | Anise oil        | 16306802          | 2              |
| Caelo           | Anise oil        | 16306803          | 4              |
| Caelo           | Anise oil        | 16306806          | 1              |
| Caelo           | Anise oil        | 16308602          | 1              |
| Caelo           | Star anise oil   | 17016201          | 3              |
| Caelo           | Star anise oil   | 17016206          | 12             |
| Caelo           | Star anise oil   | 17016209          | 1              |
| Caelo           | Anise oil        | 17150001          | 15             |
| Caelo           | Anise oil        | 17364104          | 1              |
| Caelo           | Anise oil        | 18066202          | 1              |
| Caelo           | Star anise oil   | 18066204          | 2              |
| Caelo           | Star anise oil   | 18066208          | 1              |
| Caelo           | Star anise oil   | 18066209          | 2              |
| Caelo           | Star anise oil   | 18111712          | 1              |
| Caelo           | Anise oil        | 1824450           | 1              |
| Caelo           | Anise oil        | 182445002         | 3              |
| Caelo           | Anise oil        | 18244502          | 8              |
| Caelo           | Anise oil        | 18244505          | 3              |
| Caelo           | Anise oil        | 18244508          | 5              |
| Caelo           | Anise oil        | 1824505           | 1              |
| Caelo           | Star anise oil   | 183075006         | 1              |
| Caelo           | Star anise oil   | 18307502          | 3              |
| Caelo           | Star anise oil   | 18307513          | 4              |
| Caelo           | Anise oil        | 19000778003       | 4              |
| Caelo           | Star anise oil   | 20003664001       | 1              |
| Caelo           | Anise oil        | 20003988002       | 1              |
| Caelo           | Anise oil        | 202170A15428901   | 1              |
| Caelo           | Anise oil        | 21002399003       | 1              |
| Caelo           | Star anise oil   | 21102014B         | 1              |
| Caelo           | Star anise oil   | 21111302          | 1              |
| Caelo           | Star anise oil   | 22122014C         | 1              |
| Caelo           | Star anise oil   | 22122014D         | 1              |
| Caelo           | Star anise oil   | 25021702          | 1              |
| Caelo           | Star anise oil   | 25082015C         | 1              |
| Caelo           | Star anise oil   | 27041501          | 1              |
| Caelo           | Star anise oil   | 28051310          | 1              |

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| Supplier                   | Substance      | Batch        | Spectra |
|----------------------------|----------------|--------------|---------|
| Caelo                      | Star anise oil | 29081504     | 1       |
| Caelo                      | Star anise oil | 31032014C    | 1       |
| Caelo                      | Star anise oil | 3324         | 1       |
| Caelo                      | Anise oil      | 5014M-01953  | 1       |
| Caelo                      | Star anise oil | 5021403      | 1       |
| Caelo                      | Star anise oil | 8012014A     | 1       |
| Caesar & Loretz GmbH       | Anise oil      | 15337016     | 1       |
| Caesar & Loretz GmbH       | Anise oil      | 18244502     | 4       |
| Caesar & Loretz GmbH       | Anise oil      | 18244505     | 3       |
| Caesar & Loretz GmbH       | Anise oil      | 18244508     | 2       |
| Caesar & Loretz GmbH       | Anise oil      | 183075002    | 1       |
| Caesar & Loretz GmbH       | Star anise oil | 18307510     | 1       |
| Caesar & Loretz GmbH       | Star anise oil | 18307513     | 2       |
| Caesar & Loretz GmbH       | Anise oil      | 19000778003  | 1       |
| Caesar & Loretz/ Noweda    | Anise oil      | 17150001     | 1       |
| Caesar & Loretz            | Anise oil      | 14230104     | 1       |
| Caesar & Loretz            | Anise oil      | 15148904     | 1       |
| Caesar&Loretz/Noweda       | Anise oil      | 16306802     | 1       |
| Caesar/Noweda              | Star anise oil | 411I-01953   | 1       |
| Caleo/Noweda               | Star anise oil | 15337020     | 3       |
| E Plus                     | Star anise oil | 17016201     | 1       |
| EuRho/GEHE                 | Star anise oil | 1303017-01   | 1       |
| Euro OTC                   | Star anise oil | 1303017-01   | 1       |
| Euro OTC                   | Star anise oil | 1502037-01   | 2       |
| Euro OTC                   | Star anise oil | 1609007-01   | 1       |
| Fiebig                     | Anise oil      | 18066208     | 1       |
| Fiebig                     | Anise oil      | 18244502     | 1       |
| Gatt-Koller                | Star anise oil | 1803381      | 2       |
| Gatt-Koller                | Star anise oil | 803381       | 1       |
| GEHE                       | Anise oil      | 17150001     | 1       |
| Ichthyol                   | Anise oil      | 17016206     | 1       |
| Kögl                       | Star anise oil | 20162385     | 1       |
| L12                        | Anise oil      | 15428906     | 1       |
| L12                        | Anise oil      | 17364102     | 1       |
| nachprüfung 19.06.2017     | Star anise oil | 15337020     | 1       |
| Noweda                     | Star anise oil | 18066202     | 1       |
| Noweda                     | Anise oil      | 18244502     | 1       |
| Noweda                     | Star anise oil | 18307508     | 1       |
| Phoenix 07.01.2019         | Anise oil      | 17150001     | 1       |
| Phoenix                    | Anise oil      | 15337020     | 1       |
| Phoenix                    | Anise oil      | 18066204     | 1       |
| Phönix                     | Star anise oil | 11352402     | 1       |
| Phönix                     | Star anise oil | 1502037-01   | 1       |
| Phönix                     | Star anise oil | 17016209     | 2       |
| Sanacorp/ Lamotte          | Anise oil      | 42803-3438   | 1       |
| Sanacorp                   | Anise oil      | 18244502     | 1       |
| Taoasis                    | Star anise oil | 106155       | 1       |
| Taoasis                    | Anise oil      | 42803-127870 | 1       |
| Taoasis                    | Anise oil      | 42803-2851   | 1       |
| WE:Sanacorp 14.06.2014...  | Anise oil      | 13358202     | 1       |
| WE:Sanacorp14.06.2014 E... | Star anise oil | 13358202     | 1       |

- 288 415 spectra from 1294 *Apo-Ident* customers from a total of 51 785 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Anise oil / Star aniseed oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Anise oil / Star aniseed oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 530           | 0              | 66 629        |
| Type B | 0              | 320           | 0              | 107 043       |
| Type C | 0              | 293           | 1              | 288 415       |

The substance/substance group *Anise oil / Star aniseed oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.8679 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.1250 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.6599 % (> 98.6395 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Anise oil / Star aniseed oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance               | Distance in main model | Distance in second-stage model |
|-------------------------|------------------------|--------------------------------|
| Bitter-fennel fruit oil | 59.96                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Anise oil / Star aniseed oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31158     | 31158               | 0.00                         | 53.07                           |
| 31404     | 31810               | 2.49                         | 55.62                           |
| 31525     | 31810               | 4.17                         | 54.78                           |
| 31596     | 31596               | 0.00                         | 62.44                           |
| 31785     | 31596               | 1.43                         | 60.43                           |
| 31810     | 31810               | 0.00                         | 57.11                           |
| 32775     | 32775               | 0.00                         | 57.31                           |
| 32930     | 31596               | 5.40                         | 59.38                           |
| 33507     | 31596               | 4.31                         | 59.23                           |
| 33509     | 31596               | 3.02                         | 59.80                           |
| 35839     | 31810               | 7.19                         | 53.89                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                     |
|-------------------------------------|---------------------------------------------------------------------|
| Validated substance/substance group | <b>Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)</b> |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate)    |
| Report date                         | 10/09/2022                                                          |
| Report number                       | 30520-2022-09-10                                                    |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany     |

### Relevant substance names

Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)

### Special notes

When selecting the *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                                    | Type A | Type B | Type C |
|--------------------------------------------------------------|--------|--------|--------|
| Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR) | 4      | 4      | 144    |

## Second-stage model

For differentiation of the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)*:

| Supplier | Substance           | Batch     | Sample ID | Spectra | Certificate |
|----------|---------------------|-----------|-----------|---------|-------------|
| apomix   | Aqueous salicyli... | 21A250913 | 31119     | 40      | 1404661     |
| apomix   | Aqueous salicyli... | 13B291216 | 32992     | 40      | 20161230    |
| apomix   | Aqueous salicyli... | 06B090617 | 33493     | 40      | 20170609    |
| apomix   | Aqueous salicyli... | 10B011019 | 34682     | 40      | 20191002    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 160 spectra of 4 reference samples from the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 999 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                        | Batch     | Sample ID | Spectra |
|----------|----------------------------------|-----------|-----------|---------|
| apomix   | Aqueous salicylic acid 50% (...) | 05B160517 | 33492     | 40      |
| apomix   | Aqueous salicylic acid 50% (...) | 11B021117 | 34035     | 40      |
| apomix   | Aqueous salicylic acid 50% (...) | 04B200421 | 35458     | 40      |
| apomix   | Aqueous salicylic acid 50% (...) | 03B170322 | 36236     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 549 spectra from 138 *Apo-Ident* customers from 169 batches from the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)*.
- Among them are spectra of independent samples from 144 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance                        | Batch         | Spectra |
|----------|----------------------------------|---------------|---------|
| AHD      | Aqueous salicylic acid 50% (...) | 10B231118     | 1       |
| AHD      | Aqueous salicylic acid 50% (...) | 13B291216     | 1       |
| AHD      | Aqueous salicylic acid 50% (...) | 2B050318      | 1       |
| AHD      | Aqueous salicylic acid 50% (...) | 382803317     | 1       |
| AHD      | Aqueous salicylic acid 50% (...) | 5B060519      | 1       |
| AHD      | Aqueous salicylic acid 50% (...) | 6B020718      | 1       |
| aoi-mix  | Aqueous salicylic acid 50% (...) | 11B021117     | 1       |
| Apomi    | Aqueous salicylic acid 50% (...) | 10B231118     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 108271020     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 10B011019     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 10B011214     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 10B121016     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 10B121017     | 9       |
| apomix   | Aqueous salicylic acid 50% (...) | 10B231118     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 10B261015     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 10B271020     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 10C2601015    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 11a300513     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 11B021117     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 11B021215     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 11b041116     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 11B041116     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 11B041116     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 11B101218     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 11B231019     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 11C021215     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 12A300513     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 12B111117     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 12b211117     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 12B211117     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 12B2111175532 | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 12b211215     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 12B211215     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 12B251116     | 4       |

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| Supplier | Substance                        | Batch        | Spectra |
|----------|----------------------------------|--------------|---------|
| apomix   | Aqueous salicylic acid 50% (...) | 12b281119    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 12B281119    | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 12C211215    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 13B131217    | 6       |
| apomix   | Aqueous salicylic acid 50% (...) | 13B191219    | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 13B291216    | 8       |
| apomix   | Aqueous salicylic acid 50% (...) | 16a250713    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 16A250713    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 19A160913    | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 1b030119     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 1B030119     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 1B040121     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 1b070218     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 1B070218     | 10      |
| apomix   | Aqueous salicylic acid 50% (...) | 1B170120     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 1b200116     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 1B20016      | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 1B240117     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 1B260115     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 1b270114     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 1C200116     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 22C161013    | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 25B041213    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2b050318     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B050318     | 6       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B0503185606 | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B090222     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B120219     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B200220     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B2002220    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B230215     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B230216     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B250121     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 2B270217     | 8       |
| apomix   | Aqueous salicylic acid 50% (...) | 2C060314     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2C230215     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 2C230216     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3b11032      | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B110320     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B120319     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B140918     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3b160418     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B160418     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 3b230316     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B230316     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B260315     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 3b280317     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B280317     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B290321     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3b310314     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3B310314     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 3C230316     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 3C310314     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 4a0400313    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 4B030516     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 4B120520     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 4b150518     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 4B150518     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 4B180417     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 4B200421     | 4       |

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| Supplier | Substance                        | Batch        | Spectra |
|----------|----------------------------------|--------------|---------|
| apomix   | Aqueous salicylic acid 50% (...) | 4B200514     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 4B280319     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 4B280415     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 4C030516     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B040615     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B060519     | 6       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B070618     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B100621     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B160517     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B1605175356 | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 5b250516     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B250516     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B260620     | 8       |
| apomix   | Aqueous salicylic acid 50% (...) | 5B270614     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 6A030413     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 6b020718     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B020718     | 10      |
| apomix   | Aqueous salicylic acid 50% (...) | 6B0207185732 | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B080715     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B090617     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B130721     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B140616     | 8       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B170619     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B170714     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B1708714    | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 6B220720     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 6C080715     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 6c170714     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 6C170714     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B030719     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B060716     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B080818     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B140820     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B170821     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B180814     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B280715     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 7B300617     | 6       |
| apomix   | Aqueous salicylic acid 50% (...) | 7C280715     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B080817     | 6       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B0808175412 | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B100920     | 4       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B110816     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B121021     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B140918     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 8b180719     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B180719     | 7       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B18079      | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 8B250815     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 8C170914     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 9A020812     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B051020     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B051114     | 2       |
| apomix   | Aqueous salicylic acid 50% (...) | 9b060916     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B060916     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B070917     | 9       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B111018     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B111121     | 1       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B210819     | 5       |
| apomix   | Aqueous salicylic acid 50% (...) | 9B240915     | 3       |
| apomix   | Aqueous salicylic acid 50% (...) | 9C051114     | 1       |

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| Supplier                   | Substance                        | Batch        | Spectra |
|----------------------------|----------------------------------|--------------|---------|
| apomix                     | Aqueous salicylic acid 50% (...) | 9C111121     | 1       |
| apomix                     | Aqueous salicylic acid 50% (...) | 9c240915     | 1       |
| apomix                     | Aqueous salicylic acid 50% (...) | 9C240915     | 1       |
| apomix                     | Aqueous salicylic acid 50% (...) | o6B170619    | 1       |
| Beiersdorf/Phönix          | Aqueous salicylic acid 50% (...) | 7B060716     | 1       |
| Bombastus                  | Aqueous salicylic acid 50% (...) | 2B050318     | 1       |
| Bombastus                  | Aqueous salicylic acid 50% (...) | 6C170714     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 10B121016    | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 11B021215    | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 1B200116     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 1B240117     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 2B050318     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 2B120219     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 2C060314     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 3B120319     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 3B2803175320 | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 4B280319     | 2       |
| Caelo                      | Aqueous salicylic acid 50% (...) | 9B111018     | 1       |
| Caelo                      | Aqueous salicylic acid 50% (...) | o9C111121    | 1       |
| Cealo/Röntgen              | Aqueous salicylic acid 50% (...) | 3B160418     | 2       |
| Euro OTC                   | Aqueous salicylic acid 50% (...) | 10B231118    | 1       |
| Euro OTC                   | Aqueous salicylic acid 50% (...) | 4B150518     | 1       |
| Fagron                     | Aqueous salicylic acid 50% (...) | 1B200116     | 1       |
| Fagron                     | Aqueous salicylic acid 50% (...) | 3B120319     | 1       |
| Fagron                     | Aqueous salicylic acid 50% (...) | 7B060716     | 1       |
| Frago/Noweda               | Aqueous salicylic acid 50% (...) | 11B021117    | 1       |
| GEHE                       | Aqueous salicylic acid 50% (...) | 10B121016    | 1       |
| Gehe                       | Aqueous salicylic acid 50% (...) | 11A300513    | 1       |
| GEHE                       | Aqueous salicylic acid 50% (...) | 11B021117    | 1       |
| GEHE                       | Aqueous salicylic acid 50% (...) | 11B041116    | 2       |
| Gehe                       | Aqueous salicylic acid 50% (...) | 13B131217    | 1       |
| GEHE                       | Aqueous salicylic acid 50% (...) | 13B291216    | 1       |
| Gehe                       | Aqueous salicylic acid 50% (...) | 22B161013    | 1       |
| GEHE                       | Aqueous salicylic acid 50% (...) | 2B050318     | 1       |
| Gehe                       | Aqueous salicylic acid 50% (...) | 3B120319     | 1       |
| Gehe                       | Aqueous salicylic acid 50% (...) | 4A040313     | 1       |
| GEHE                       | Aqueous salicylic acid 50% (...) | 6B090617     | 1       |
| GEHE                       | Aqueous salicylic acid 50% (...) | 7B300617     | 1       |
| Gehe                       | Aqueous salicylic acid 50% (...) | 8B140918     | 1       |
| Gehe                       | Aqueous salicylic acid 50% (...) | 9A020812     | 1       |
| Henry Lamotte Oils GmbH    | Aqueous salicylic acid 50% (...) | 5B040615     | 1       |
| JENNE                      | Aqueous salicylic acid 50% (...) | 11B041116    | 1       |
| Jenne                      | Aqueous salicylic acid 50% (...) | 6B090617     | 1       |
| Klenk                      | Aqueous salicylic acid 50% (...) | 22B161013    | 1       |
| Noweda/PKH GmbH            | Aqueous salicylic acid 50% (...) | 4C280415     | 1       |
| Noweda/PKH GmbH            | Aqueous salicylic acid 50% (...) | 5B250516     | 1       |
| Noweda                     | Aqueous salicylic acid 50% (...) | 11B231019    | 1       |
| Noweda                     | Aqueous salicylic acid 50% (...) | 12B-281119   | 1       |
| Noweda                     | Aqueous salicylic acid 50% (...) | 9B051020     | 1       |
| Pharmachem/30              | Aqueous salicylic acid 50% (...) | 38310314     | 1       |
| Phoenix (PKH Halle)        | Aqueous salicylic acid 50% (...) | 3A110213     | 1       |
| Phoenix/ PKH Halle         | Aqueous salicylic acid 50% (...) | 5A030413     | 1       |
| Phoenix                    | Aqueous salicylic acid 50% (...) | 10B271020    | 1       |
| Phoenix                    | Aqueous salicylic acid 50% (...) | 6B130721     | 1       |
| PhR Neidhardt              | Aqueous salicylic acid 50% (...) | 2B050318     | 1       |
| PhR/Sanacorp               | Aqueous salicylic acid 50% (...) | 4A05/13      | 1       |
| PKH / Noweda               | Aqueous salicylic acid 50% (...) | 1B260115     | 2       |
| PKH GmbH, Phönix 28.03...  | Aqueous salicylic acid 50% (...) | 3B120319     | 1       |
| PKH GmbH/ Alliance Heal... | Aqueous salicylic acid 50% (...) | 4B150518     | 1       |
| PKH GmbH/ Alliance Heal... | Aqueous salicylic acid 50% (...) | 8B080817     | 1       |

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| Supplier            | Substance                        | Batch      | Spectra |
|---------------------|----------------------------------|------------|---------|
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 12A300513  | 1       |
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 13B191219  | 1       |
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 25C041213  | 1       |
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 2C060314   | 1       |
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 3B110320   | 1       |
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 4B280415   | 1       |
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 6B170714   | 1       |
| PKH GmbH            | Aqueous salicylic acid 50% (...) | 7B060716   | 1       |
| PKH Halle / Phoenix | Aqueous salicylic acid 50% (...) | 21A250913  | 1       |
| PKH Halle/ GEHE     | Aqueous salicylic acid 50% (...) | 2B050318   | 1       |
| PKH Halle/ Noweda   | Aqueous salicylic acid 50% (...) | 10B011214  | 1       |
| PKH Halle/ Phoenix  | Aqueous salicylic acid 50% (...) | 1C270114   | 1       |
| PKH Halle/ Phoenix  | Aqueous salicylic acid 50% (...) | 22C161013  | 1       |
| PKH Halle/ Phönix   | Aqueous salicylic acid 50% (...) | 11B041116  | 1       |
| PKH Halle/AHD       | Aqueous salicylic acid 50% (...) | 2B050318   | 1       |
| PKH Halle/Noweda    | Aqueous salicylic acid 50% (...) | 4B120520   | 1       |
| PKH Halle/Noweda    | Aqueous salicylic acid 50% (...) | 7B140820   | 1       |
| PKH Halle/Phoenix   | Aqueous salicylic acid 50% (...) | 7B030719   | 1       |
| PKH Halle/Phönix    | Aqueous salicylic acid 50% (...) | 88100920   | 1       |
| PKH Halle/Phönix    | Aqueous salicylic acid 50% (...) | 9B051020   | 1       |
| PKH Halle/Sanacorp  | Aqueous salicylic acid 50% (...) | 1B270114   | 1       |
| PKH Halle/Sanacorp  | Aqueous salicylic acid 50% (...) | 5B250516   | 2       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 11B231019  | 1       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 12B211117  | 1       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 13B191219  | 1       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 2B270217   | 3       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 3B110320   | 1       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 4b150518   | 1       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 4B150518   | 1       |
| PKH Halle           | Aqueous salicylic acid 50% (...) | 9B111018   | 1       |
| PKH Pharm.          | Aqueous salicylic acid 50% (...) | 1B170120   | 1       |
| PKH                 | Aqueous salicylic acid 50% (...) | 6B130721   | 1       |
| Sanacorp            | Aqueous salicylic acid 50% (...) | 12B211117  | 1       |
| Sanacorp            | Aqueous salicylic acid 50% (...) | 3B160418   | 1       |
| Sanacorp            | Aqueous salicylic acid 50% (...) | 4B120520   | 2       |
| Unisan              | Aqueous salicylic acid 50% (...) | 15001674/0 | 1       |

- 288 160 spectra from 1294 *Apo-Ident* customers from a total of 51 720 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 160           | 0              | 66 999        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 546           | 3              | 288 160       |

The substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.2500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.4536 % (> 98.9071 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b> | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|------------------|-------------------------------|---------------------------------------|
| (s)-Lactic acid  | 135.64                        | —                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31119            | 31119                      | 0.00                                | 150.77                                 |
| 32992            | 31119                      | 10.33                               | 158.88                                 |
| 33493            | 31119                      | 11.69                               | 153.62                                 |
| 34682            | 31119                      | 8.38                                | 152.54                                 |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances,

thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | Base cream DAC                                                   |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30211-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Base cream DAC; Cremor basalis

### Special notes

When selecting the *Base cream DAC* substance/substance group, the following information is displayed to the user:

- Advice for the identification of base cream DAC: Improper storage of samples can result in identification problems. Please homogenise the sample and let it adapt to room temperature before the measurement.

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Base cream DAC            | 32     | 320    | 4117   |

## Second-stage model

For differentiation of the substance/substance group *Base cream DAC* the following second-stage model is used:

- [Submodel 06](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Base cream DAC*:

| Supplier      | Substance      | Batch            | Sample ID | Spectra | Certificate        |
|---------------|----------------|------------------|-----------|---------|--------------------|
| Bombastus     | Base cream DAC | 18005744         | 34318     | 40      | 128927             |
| Bombastus     | Base cream DAC | 19002698         | 34503     | 40      | 20190604           |
| Caelo         | Base cream DAC | 13139901         | 31043     | 40      | 20130513           |
| Caelo         | Base cream DAC | 14052901         | 31474     | 40      | AR-15-FG-000163-02 |
| Caelo         | Base cream DAC | 154204           | 31964     | 60      | 20151218*          |
| Caelo         | Base cream DAC | 17028801         | 34030     | 40      | AR-18-FG-013988-01 |
| Caelo         | Base cream DAC | 20002868         | 35174     | 40      | 20201009*          |
| Caelo         | Base cream DAC | 20002869         | 35175     | 40      | 20201009*          |
| Caelo         | Base cream DAC | 20002870         | 35176     | 40      | 20201009*          |
| Caelo         | Base cream DAC | 20002872         | 35178     | 40      | 20201009*          |
| Caelo         | Base cream DAC | 20002876         | 35182     | 40      | 20201009*          |
| Caelo         | Base cream DAC | 20003469         | 35200     | 40      | 20210111*          |
| Caelo         | Base cream DAC | 20004323         | 35424     | 40      | 20210120*          |
| Caelo         | Base cream DAC | 21001260         | 35557     | 50      | 20210427*          |
| Caelo         | Base cream DAC | 21001255         | 35559     | 50      | 20210503*          |
| Caelo         | Base cream DAC | 21001256         | 35560     | 50      | 20210426*          |
| Caelo         | Base cream DAC | 21001257         | 35561     | 50      | 20210422*          |
| Caelo         | Base cream DAC | 21001258         | 35562     | 50      | 20210423*          |
| Caelo         | Base cream DAC | 21001259         | 35563     | 50      | 20210427*          |
| Euro OTC      | Base cream DAC | 1304006-01       | 31252     | 40      | AR-15-FG-014906-01 |
| Euro OTC      | Base cream DAC | 39210516         | 32345     | 40      | 20160623           |
| Euro OTC      | Base cream DAC | 88590321         | 35488     | 40      | 2109595            |
| Euro OTC      | Base cream DAC | 88610321         | 35489     | 40      | 20210309           |
| Euro OTC      | Base cream DAC | 88620321         | 35490     | 40      | 20210309           |
| Euro OTC      | Base cream DAC | 88600321         | 35491     | 40      | 2109594            |
| Euro OTC      | Base cream DAC | 68911121         | 35906     | 50      | 20211110*          |
| Euro OTC      | Base cream DAC | 68941121         | 35907     | 50      | 20211110*          |
| Euro OTC      | Base cream DAC | 68921121         | 35908     | 50      | 20211110*          |
| Fagron        | Base cream DAC | 18L19-T15-062894 | 34482     | 40      | 1909294            |
| Fagron        | Base cream DAC | 18L20-T12-062935 | 34485     | 40      | 20190408           |
| Henry Lamotte | Base cream DAC | 5215300          | 30923     | 80      | 20120102           |
| Henry Lamotte | Base cream DAC | 8004996002       | 34504     | 40      | 20190319           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



- 1430 spectra of 32 reference samples from the substance/substance group *Base cream DAC*. These samples are listed above in the *calibration samples* section. The reference samples come from 32 different batches.
- 65 729 spectra from a total of 1347 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this *chemometric model*, the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in *Appendix A*. The samples in *Appendix A* were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a †. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 12 420 spectra of 333 reference samples from the substance/substance group *Base cream DAC*.
- Among them are spectra of independent samples from 320 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance      | Batch    | Sample ID | Spectra |
|-----------|----------------|----------|-----------|---------|
| Bombastus | Base cream DAC | 22000475 | 36208     | 40      |
| Caelo     | Base cream DAC | 154198   | 31963     | 60      |
| Caelo     | Base cream DAC | 154201   | 31965     | 60      |
| Caelo     | Base cream DAC | 153911   | 31966     | 60      |
| Caelo     | Base cream DAC | 153910   | 31967     | 60      |
| Caelo     | Base cream DAC | 153909   | 31968     | 60      |
| Caelo     | Base cream DAC | 153905   | 31969     | 60      |
| Caelo     | Base cream DAC | 153904   | 31970     | 60      |
| Caelo     | Base cream DAC | 153903   | 31971     | 60      |
| Caelo     | Base cream DAC | 153902   | 31972     | 60      |
| Caelo     | Base cream DAC | 153578   | 31973     | 60      |
| Caelo     | Base cream DAC | 153869   | 31974     | 60      |
| Caelo     | Base cream DAC | 153872   | 31975     | 60      |
| Caelo     | Base cream DAC | 153868   | 31976     | 60      |
| Caelo     | Base cream DAC | 153576   | 31977     | 60      |
| Caelo     | Base cream DAC | 160051   | 31978     | 60      |
| Caelo     | Base cream DAC | 160052   | 31979     | 60      |
| Caelo     | Base cream DAC | 160053   | 31980     | 60      |
| Caelo     | Base cream DAC | 160054   | 31981     | 60      |
| Caelo     | Base cream DAC | 160055   | 31982     | 60      |
| Caelo     | Base cream DAC | 161021   | 32236     | 40      |
| Caelo     | Base cream DAC | 161347   | 32237     | 40      |
| Caelo     | Base cream DAC | 161348   | 32238     | 40      |
| Caelo     | Base cream DAC | 161349   | 32239     | 40      |
| Caelo     | Base cream DAC | 161356   | 32240     | 40      |
| Caelo     | Base cream DAC | 161357   | 32241     | 40      |
| Caelo     | Base cream DAC | 161358   | 32244     | 40      |
| Caelo     | Base cream DAC | 161359   | 32245     | 40      |
| Caelo     | Base cream DAC | 161360   | 32246     | 40      |
| Caelo     | Base cream DAC | 161361   | 32247     | 40      |
| Caelo     | Base cream DAC | 161362   | 32248     | 40      |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Sample ID</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|------------------|----------------|
| Caelo           | Base cream DAC   | 161363       | 32249            | 40             |
| Caelo           | Base cream DAC   | 161456       | 32250            | 40             |
| Caelo           | Base cream DAC   | 161038       | 32251            | 40             |
| Caelo           | Base cream DAC   | 160556       | 32252            | 40             |
| Caelo           | Base cream DAC   | 160588       | 32253            | 40             |
| Caelo           | Base cream DAC   | 160559       | 32254            | 40             |
| Caelo           | Base cream DAC   | 161020       | 32255            | 40             |
| Caelo           | Base cream DAC   | 161022       | 32260            | 40             |
| Caelo           | Base cream DAC   | 161501       | 32368            | 40             |
| Caelo           | Base cream DAC   | 161522       | 32369            | 40             |
| Caelo           | Base cream DAC   | 161460       | 32521            | 40             |
| Caelo           | Base cream DAC   | 162378       | 32522            | 40             |
| Caelo           | Base cream DAC   | 161499       | 32524            | 40             |
| Caelo           | Base cream DAC   | 161554       | 32525            | 40             |
| Caelo           | Base cream DAC   | 162204       | 32526            | 40             |
| Caelo           | Base cream DAC   | 162205       | 32527            | 40             |
| Caelo           | Base cream DAC   | 162379       | 32528            | 40             |
| Caelo           | Base cream DAC   | 162380       | 32529            | 40             |
| Caelo           | Base cream DAC   | 162381       | 32530            | 40             |
| Caelo           | Base cream DAC   | 162382       | 32531            | 40             |
| Caelo           | Base cream DAC   | 162383       | 32532            | 40             |
| Caelo           | Base cream DAC   | 162403       | 32533            | 40             |
| Caelo           | Base cream DAC   | 162406       | 32534            | 40             |
| Caelo           | Base cream DAC   | 162407       | 32535            | 40             |
| Caelo           | Base cream DAC   | 162410       | 32539            | 40             |
| Caelo           | Base cream DAC   | 162416       | 32540            | 40             |
| Caelo           | Base cream DAC   | 162417       | 32541            | 40             |
| Caelo           | Base cream DAC   | 162420       | 32542            | 40             |
| Caelo           | Base cream DAC   | 162422       | 32543            | 40             |
| Caelo           | Base cream DAC   | 162617       | 32544            | 40             |
| Caelo           | Base cream DAC   | 161500       | 32547            | 40             |
| Caelo           | Base cream DAC   | 161524       | 32548            | 40             |
| Caelo           | Base cream DAC   | 161558       | 32549            | 40             |
| Caelo           | Base cream DAC   | 171542       | 33380            | 40             |
| Caelo           | Base cream DAC   | 171533       | 33381            | 40             |
| Caelo           | Base cream DAC   | 171474       | 33382            | 40             |
| Caelo           | Base cream DAC   | 171532       | 33383            | 40             |
| Caelo           | Base cream DAC   | 171473       | 33384            | 40             |
| Caelo           | Base cream DAC   | 171082       | 33385            | 40             |
| Caelo           | Base cream DAC   | 171543       | 33386            | 40             |
| Caelo           | Base cream DAC   | 171004       | 33387            | 40             |
| Caelo           | Base cream DAC   | 171039       | 33388            | 40             |
| Caelo           | Base cream DAC   | 171476       | 33389            | 40             |
| Caelo           | Base cream DAC   | 171005       | 33390            | 40             |
| Caelo           | Base cream DAC   | 171557       | 33391            | 40             |
| Caelo           | Base cream DAC   | 171038       | 33392            | 40             |
| Caelo           | Base cream DAC   | 171475       | 33393            | 40             |
| Caelo           | Base cream DAC   | 171477       | 33394            | 40             |
| Caelo           | Base cream DAC   | 171170       | 33395            | 40             |
| Caelo           | Base cream DAC   | 171240       | 33397            | 40             |
| Caelo           | Base cream DAC   | 171534       | 33526            | 40             |
| Caelo           | Base cream DAC   | 171535       | 33527            | 40             |
| Caelo           | Base cream DAC   | 171536       | 33528            | 40             |
| Caelo           | Base cream DAC   | 171537       | 33529            | 40             |
| Caelo           | Base cream DAC   | 171538       | 33530            | 40             |
| Caelo           | Base cream DAC   | 171539       | 33531            | 40             |
| Caelo           | Base cream DAC   | 171540       | 33532            | 40             |
| Caelo           | Base cream DAC   | 171545       | 33533            | 40             |
| Caelo           | Base cream DAC   | 171546       | 33534            | 40             |
| Caelo           | Base cream DAC   | 171547       | 33535            | 40             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Sample ID</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|------------------|----------------|
| Caelo           | Base cream DAC   | 171548       | 33536            | 40             |
| Caelo           | Base cream DAC   | 171549       | 33537            | 40             |
| Caelo           | Base cream DAC   | 171550       | 33538            | 40             |
| Caelo           | Base cream DAC   | 171541       | 33539            | 40             |
| Caelo           | Base cream DAC   | 171551       | 33540            | 40             |
| Caelo           | Base cream DAC   | 171552       | 33541            | 40             |
| Caelo           | Base cream DAC   | 171554       | 33542            | 40             |
| Caelo           | Base cream DAC   | 171555       | 33543            | 40             |
| Caelo           | Base cream DAC   | 171556       | 33544            | 40             |
| Caelo           | Base cream DAC   | 171544       | 33546            | 40             |
| Caelo           | Base cream DAC   | 172259       | 33767            | 40             |
| Caelo           | Base cream DAC   | 182723       | 34352            | 40             |
| Caelo           | Base cream DAC   | 192701       | 34823            | 40             |
| Caelo           | Base cream DAC   | 191702       | 34824            | 40             |
| Caelo           | Base cream DAC   | 191737       | 34825            | 40             |
| Caelo           | Base cream DAC   | 20000048     | 34977            | 40             |
| Caelo           | Base cream DAC   | 20001689     | 34978            | 40             |
| Caelo           | Base cream DAC   | 20002867     | 35167            | 40             |
| Caelo           | Base cream DAC   | 20002866     | 35173            | 40             |
| Caelo           | Base cream DAC   | 20002871     | 35177            | 40             |
| Caelo           | Base cream DAC   | 20002873     | 35179            | 40             |
| Caelo           | Base cream DAC   | 20002874     | 35180            | 40             |
| Caelo           | Base cream DAC   | 20002875     | 35181            | 40             |
| Caelo           | Base cream DAC   | 20002877     | 35183            | 40             |
| Caelo           | Base cream DAC   | 20003181     | 35184            | 40             |
| Caelo           | Base cream DAC   | 20003182     | 35185            | 40             |
| Caelo           | Base cream DAC   | 20003183     | 35186            | 40             |
| Caelo           | Base cream DAC   | 20003185     | 35187            | 40             |
| Caelo           | Base cream DAC   | 20003186     | 35188            | 40             |
| Caelo           | Base cream DAC   | 20003188     | 35189            | 40             |
| Caelo           | Base cream DAC   | 20003189     | 35190            | 40             |
| Caelo           | Base cream DAC   | 20003191     | 35191            | 40             |
| Caelo           | Base cream DAC   | 20003192     | 35192            | 40             |
| Caelo           | Base cream DAC   | 20003193     | 35193            | 40             |
| Caelo           | Base cream DAC   | 20003194     | 35194            | 40             |
| Caelo           | Base cream DAC   | 20003195     | 35195            | 40             |
| Caelo           | Base cream DAC   | 20003196     | 35196            | 40             |
| Caelo           | Base cream DAC   | 20003197     | 35197            | 40             |
| Caelo           | Base cream DAC   | 20003287     | 35198            | 40             |
| Caelo           | Base cream DAC   | 20003288     | 35199            | 40             |
| Caelo           | Base cream DAC   | 20003470     | 35201            | 40             |
| Caelo           | Base cream DAC   | 20003471     | 35202            | 40             |
| Caelo           | Base cream DAC   | 20003472     | 35203            | 40             |
| Caelo           | Base cream DAC   | 20003473     | 35204            | 40             |
| Caelo           | Base cream DAC   | 20003474     | 35205            | 40             |
| Caelo           | Base cream DAC   | 20003475     | 35206            | 40             |
| Caelo           | Base cream DAC   | 20003476     | 35207            | 40             |
| Caelo           | Base cream DAC   | 20003830     | 35208            | 40             |
| Caelo           | Base cream DAC   | 20003831     | 35209            | 40             |
| Caelo           | Base cream DAC   | 20003832     | 35210            | 40             |
| Caelo           | Base cream DAC   | 20003833     | 35211            | 40             |
| Caelo           | Base cream DAC   | 20003834     | 35212            | 40             |
| Caelo           | Base cream DAC   | 20003835     | 35213            | 40             |
| Caelo           | Base cream DAC   | 20003836     | 35214            | 40             |
| Caelo           | Base cream DAC   | 20004315     | 35215            | 40             |
| Caelo           | Base cream DAC   | 20004316     | 35216            | 40             |
| Caelo           | Base cream DAC   | 20004324     | 35423            | 40             |
| Caelo           | Base cream DAC   | 20004328     | 35425            | 40             |
| Caelo           | Base cream DAC   | 20004329     | 35426            | 40             |
| Caelo           | Base cream DAC   | 20004330     | 35427            | 40             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Sample ID</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|------------------|----------------|
| Caelo           | Base cream DAC   | 20004331     | 35428            | 40             |
| Caelo           | Base cream DAC   | 20004317     | 35429            | 40             |
| Caelo           | Base cream DAC   | 20004318     | 35430            | 40             |
| Caelo           | Base cream DAC   | 21000601     | 35431            | 40             |
| Caelo           | Base cream DAC   | 21000812     | 35432            | 40             |
| Caelo           | Base cream DAC   | 21000813     | 35433            | 40             |
| Caelo           | Base cream DAC   | 21000814     | 35434            | 40             |
| Caelo           | Base cream DAC   | 21000815     | 35435            | 40             |
| Caelo           | Base cream DAC   | 21000816     | 35436            | 40             |
| Caelo           | Base cream DAC   | 21000817     | 35437            | 40             |
| Caelo           | Base cream DAC   | 21000818     | 35438            | 40             |
| Caelo           | Base cream DAC   | 21000819     | 35439            | 40             |
| Caelo           | Base cream DAC   | 21000820     | 35440            | 40             |
| Caelo           | Base cream DAC   | 21000821     | 35441            | 40             |
| Caelo           | Base cream DAC   | 21000822     | 35442            | 40             |
| Caelo           | Base cream DAC   | 21001243     | 35443            | 40             |
| Caelo           | Base cream DAC   | 21001244     | 35444            | 40             |
| Caelo           | Base cream DAC   | 21001245     | 35445            | 40             |
| Caelo           | Base cream DAC   | 21001246     | 35446            | 40             |
| Caelo           | Base cream DAC   | 21001247     | 35447            | 40             |
| Caelo           | Base cream DAC   | 21001249     | 35448            | 40             |
| Caelo           | Base cream DAC   | 21001250     | 35449            | 40             |
| Caelo           | Base cream DAC   | 21001251     | 35450            | 40             |
| Caelo           | Base cream DAC   | 21001252     | 35451            | 40             |
| Caelo           | Base cream DAC   | 21001253     | 35452            | 40             |
| Caelo           | Base cream DAC   | 21001764     | 35511            | 50             |
| Caelo           | Base cream DAC   | 21001254     | 35558            | 50             |
| Caelo           | Base cream DAC   | 21001765     | 35682            | 50             |
| Caelo           | Base cream DAC   | 21001766     | 35683            | 50             |
| Caelo           | Base cream DAC   | 21001767     | 35684            | 50             |
| Caelo           | Base cream DAC   | 21001769     | 35685            | 50             |
| Caelo           | Base cream DAC   | 21001770     | 35686            | 50             |
| Caelo           | Base cream DAC   | 21001771     | 35687            | 50             |
| Caelo           | Base cream DAC   | 21001772     | 35688            | 50             |
| Caelo           | Base cream DAC   | 21001773     | 35689            | 50             |
| Caelo           | Base cream DAC   | 21001774     | 35690            | 50             |
| Caelo           | Base cream DAC   | 21001775     | 35691            | 50             |
| Caelo           | Base cream DAC   | 21001776     | 35692            | 50             |
| Caelo           | Base cream DAC   | 21001777     | 35693            | 50             |
| Caelo           | Base cream DAC   | 21001778     | 35694            | 50             |
| Caelo           | Base cream DAC   | 21001779     | 35695            | 50             |
| Caelo           | Base cream DAC   | 21001780     | 35696            | 50             |
| Caelo           | Base cream DAC   | 21002384     | 35697            | 50             |
| Caelo           | Base cream DAC   | 21002385     | 35698            | 50             |
| Caelo           | Base cream DAC   | 21002386     | 35699            | 50             |
| Caelo           | Base cream DAC   | 21002387     | 35700            | 50             |
| Caelo           | Base cream DAC   | 21002388     | 35701            | 50             |
| Caelo           | Base cream DAC   | 21002389     | 35702            | 50             |
| Caelo           | Base cream DAC   | 21002390     | 35703            | 50             |
| Caelo           | Base cream DAC   | 21002391     | 35704            | 50             |
| Caelo           | Base cream DAC   | 21002521     | 35705            | 50             |
| Caelo           | Base cream DAC   | 21002523     | 35706            | 50             |
| Caelo           | Base cream DAC   | 21002524     | 35707            | 50             |
| Caelo           | Base cream DAC   | 21002525     | 35708            | 50             |
| Caelo           | Base cream DAC   | 21002526     | 35709            | 50             |
| Caelo           | Base cream DAC   | 21002527     | 35710            | 50             |
| Caelo           | Base cream DAC   | 21002528     | 35711            | 50             |
| Caelo           | Base cream DAC   | 21002529     | 35712            | 50             |
| Caelo           | Base cream DAC   | 21002604     | 35713            | 50             |
| Caelo           | Base cream DAC   | 21002605     | 35714            | 50             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Sample ID</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|------------------|----------------|
| Caelo           | Base cream DAC   | 21002606     | 35715            | 50             |
| Caelo           | Base cream DAC   | 21002607     | 35716            | 50             |
| Caelo           | Base cream DAC   | 21002608     | 35717            | 50             |
| Caelo           | Base cream DAC   | 21002610     | 35718            | 50             |
| Caelo           | Base cream DAC   | 21002708     | 35878            | 50             |
| Caelo           | Base cream DAC   | 21002709     | 35879            | 50             |
| Caelo           | Base cream DAC   | 21002710     | 35880            | 50             |
| Caelo           | Base cream DAC   | 21002711     | 35881            | 50             |
| Caelo           | Base cream DAC   | 21002712     | 35882            | 50             |
| Caelo           | Base cream DAC   | 21002713     | 35883            | 50             |
| Caelo           | Base cream DAC   | 21002714     | 35884            | 50             |
| Caelo           | Base cream DAC   | 21002715     | 35885            | 50             |
| Caelo           | Base cream DAC   | 21002716     | 35886            | 50             |
| Caelo           | Base cream DAC   | 21002718     | 35887            | 50             |
| Caelo           | Base cream DAC   | 21002719     | 35888            | 50             |
| Caelo           | Base cream DAC   | 21003063     | 35889            | 50             |
| Caelo           | Base cream DAC   | 21003064     | 35890            | 50             |
| Caelo           | Base cream DAC   | 21003068     | 35891            | 50             |
| Caelo           | Base cream DAC   | 21003069     | 35892            | 50             |
| Caelo           | Base cream DAC   | 21003072     | 35893            | 50             |
| Caelo           | Base cream DAC   | 21003065     | 35968            | 40             |
| Caelo           | Base cream DAC   | 21003070     | 35969            | 10             |
| Caelo           | Base cream DAC   | 21003071     | 35970            | 10             |
| Caelo           | Base cream DAC   | 21004032     | 35971            | 10             |
| Caelo           | Base cream DAC   | 21003073     | 35972            | 10             |
| Caelo           | Base cream DAC   | 21003077     | 35973            | 10             |
| Caelo           | Base cream DAC   | 21003079     | 35974            | 10             |
| Caelo           | Base cream DAC   | 21003066     | 36022            | 10             |
| Caelo           | Base cream DAC   | 21003067     | 36023            | 10             |
| Caelo           | Base cream DAC   | 21003074     | 36024            | 10             |
| Caelo           | Base cream DAC   | 21003075     | 36025            | 10             |
| Caelo           | Base cream DAC   | 21003076     | 36026            | 10             |
| Caelo           | Base cream DAC   | 21003080     | 36027            | 10             |
| Caelo           | Base cream DAC   | 21003803     | 36028            | 10             |
| Caelo           | Base cream DAC   | 21004025     | 36029            | 10             |
| Caelo           | Base cream DAC   | 21004026     | 36030            | 10             |
| Caelo           | Base cream DAC   | 21004028     | 36031            | 10             |
| Caelo           | Base cream DAC   | 21004029     | 36032            | 10             |
| Caelo           | Base cream DAC   | 21004030     | 36033            | 10             |
| Caelo           | Base cream DAC   | 21004031     | 36034            | 10             |
| Caelo           | Base cream DAC   | 21004033     | 36035            | 10             |
| Caelo           | Base cream DAC   | 22000271     | 36118            | 40             |
| Caelo           | Base cream DAC   | 22000272     | 36119            | 40             |
| Caelo           | Base cream DAC   | 22000273     | 36120            | 10             |
| Caelo           | Base cream DAC   | 22000274     | 36121            | 10             |
| Caelo           | Base cream DAC   | 22000275     | 36122            | 10             |
| Caelo           | Base cream DAC   | 22000276     | 36123            | 10             |
| Caelo           | Base cream DAC   | 22000277     | 36124            | 10             |
| Caelo           | Base cream DAC   | 22000278     | 36125            | 10             |
| Caelo           | Base cream DAC   | 22000279     | 36126            | 10             |
| Caelo           | Base cream DAC   | 22000280     | 36127            | 10             |
| Caelo           | Base cream DAC   | 22000281     | 36128            | 10             |
| Caelo           | Base cream DAC   | 22000282     | 36129            | 10             |
| Caelo           | Base cream DAC   | 22000283     | 36130            | 10             |
| Caelo           | Base cream DAC   | 22000284     | 36131            | 10             |
| Caelo           | Base cream DAC   | 22000285     | 36132            | 10             |
| Caelo           | Base cream DAC   | 22000623     | 36133            | 10             |
| Caelo           | Base cream DAC   | 22000625     | 36134            | 10             |
| Caelo           | Base cream DAC   | 22000627     | 36135            | 10             |
| Caelo           | Base cream DAC   | 22000635     | 36136            | 10             |

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| Supplier  | Substance      | Batch    | Sample ID | Spectra |
|-----------|----------------|----------|-----------|---------|
| Caelo     | Base cream DAC | 22000636 | 36137     | 10      |
| Caelo     | Base cream DAC | 22000618 | 36259     | 40      |
| Caelo     | Base cream DAC | 22000619 | 36260     | 10      |
| Caelo     | Base cream DAC | 22000620 | 36261     | 10      |
| Caelo     | Base cream DAC | 22000621 | 36262     | 10      |
| Caelo     | Base cream DAC | 22000622 | 36263     | 10      |
| Caelo     | Base cream DAC | 22000628 | 36264     | 10      |
| Caelo     | Base cream DAC | 22000630 | 36265     | 10      |
| Caelo     | Base cream DAC | 22000631 | 36266     | 10      |
| Caelo     | Base cream DAC | 22000632 | 36267     | 10      |
| Caelo     | Base cream DAC | 22000633 | 36268     | 10      |
| Caelo     | Base cream DAC | 22000634 | 36269     | 10      |
| Caelo     | Base cream DAC | 22001035 | 36270     | 10      |
| Caelo     | Base cream DAC | 22001036 | 36271     | 10      |
| Caelo     | Base cream DAC | 22001037 | 36272     | 10      |
| Caelo     | Base cream DAC | 22001039 | 36273     | 10      |
| Caelo     | Base cream DAC | 22001038 | 36274     | 10      |
| Caelo     | Base cream DAC | 22001047 | 36275     | 10      |
| Caelo     | Base cream DAC | 22001048 | 36322     | 10      |
| Caelo     | Base cream DAC | 22001049 | 36323     | 10      |
| Caelo     | Base cream DAC | 22001050 | 36324     | 10      |
| Caelo     | Base cream DAC | 22001051 | 36325     | 10      |
| Caelo     | Base cream DAC | 22001052 | 36326     | 10      |
| Caelo     | Base cream DAC | 22001053 | 36327     | 10      |
| Caelo     | Base cream DAC | 22001054 | 36328     | 10      |
| D'Oroderm | Base cream DAC | 1346001  | 31315     | 40      |
| Euro OTC  | Base cream DAC | 07570418 | 34319     | 40      |
| Euro OTC  | Base cream DAC | 76581018 | 34320     | 40      |
| Euro OTC  | Base cream DAC | 92060819 | 34699     | 40      |
| Euro OTC  | Base cream DAC | 40180120 | 34826     | 40      |
| Euro OTC  | Base cream DAC | 15650621 | 35575     | 50      |
| Euro OTC  | Base cream DAC | 15640621 | 35576     | 50      |
| Euro OTC  | Base cream DAC | 15620621 | 35577     | 50      |
| Euro OTC  | Base cream DAC | 15630621 | 35578     | 50      |
| Euro OTC  | Base cream DAC | 58681021 | 35765     | 50      |
| Euro OTC  | Base cream DAC | 58671021 | 35766     | 50      |
| Euro OTC  | Base cream DAC | 48540921 | 35767     | 50      |
| Euro OTC  | Base cream DAC | 58661021 | 35768     | 40      |
| Euro OTC  | Base cream DAC | 48550921 | 35769     | 40      |
| Euro OTC  | Base cream DAC | 48510921 | 35770     | 40      |
| Euro OTC  | Base cream DAC | 48530921 | 35771     | 50      |
| Euro OTC  | Base cream DAC | 58651021 | 35772     | 50      |
| Euro OTC  | Base cream DAC | 79161121 | 35934     | 40      |
| Euro OTC  | Base cream DAC | 79131121 | 35935     | 40      |
| Euro OTC  | Base cream DAC | 79141121 | 35936     | 40      |
| Euro OTC  | Base cream DAC | 15920322 | 36220     | 40      |
| Euro OTC  | Base cream DAC | 15900322 | 36221     | 10      |
| Euro OTC  | Base cream DAC | 15890322 | 36222     | 10      |
| Euro OTC  | Base cream DAC | 15910322 | 36223     | 10      |
| Caelo     | Base cream DAC | 161357   | 32242     | 40      |
| Caelo     | Base cream DAC | 161357   | 32243     | 40      |
| Caelo     | Base cream DAC | 161020   | 32256     | 40      |
| Caelo     | Base cream DAC | 161020   | 32257     | 40      |
| Caelo     | Base cream DAC | 161021   | 32258     | 40      |
| Caelo     | Base cream DAC | 161021   | 32259     | 40      |
| Caelo     | Base cream DAC | 161022   | 32261     | 40      |
| Caelo     | Base cream DAC | 161361   | 32523     | 40      |
| Caelo     | Base cream DAC | 162407   | 32536     | 40      |
| Caelo     | Base cream DAC | 162407   | 32537     | 40      |
| Caelo     | Base cream DAC | 162407   | 32538     | 40      |

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| Supplier | Substance      | Batch  | Sample ID | Spectra |
|----------|----------------|--------|-----------|---------|
| Caelo    | Base cream DAC | 162617 | 32545     | 40      |
| Caelo    | Base cream DAC | 162617 | 32546     | 40      |

- 94943 spectra from a total of 2183 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 21 579 spectra from 1217 *Apo-Ident* customers from 4179 batches from the substance/substance group *Base cream DAC*.
- Among them are spectra of independent samples from 4106 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance      | Batch            | Spectra |
|----------------------------|----------------|------------------|---------|
|                            | Base cream DAC |                  | 3       |
|                            | Base cream DAC | 19000944         | 1       |
|                            | Base cream DAC | 19118301         | 1       |
|                            | Base cream DAC | 27290917         | 1       |
|                            | Base cream DAC | 287114           | 1       |
|                            | Base cream DAC | 289527           | 1       |
|                            | Base cream DAC | 5909300          | 2       |
|                            | Base cream DAC | 8004134004       | 1       |
| / Anzag                    | Base cream DAC |                  | 1       |
| /Noweda                    | Base cream DAC | 17C16-T08-042619 | 1       |
| 10,99                      | Base cream DAC | 15630621         | 1       |
| 13.07. Geibo               | Base cream DAC | 18138201         | 1       |
| 17000922                   | Base cream DAC | 17000922         | 4       |
| 18.10.2016 Phoenix 12,6... | Base cream DAC | 303422           | 1       |
| 18105101                   | Base cream DAC | 18105101         | 1       |
| AEP/Phönix                 | Base cream DAC | 19270401         | 1       |
| AEP                        | Base cream DAC | 19170301         | 2       |
| AEP                        | Base cream DAC | 19172501         | 1       |
| AEP                        | Base cream DAC | 296222           | 1       |
| AH Henry Lamotte GmbH      | Base cream DAC | 6003682017       | 2       |
| AH Henry Lamotte GmbH      | Base cream DAC | 6004860001       | 1       |
| AHC 27.06.13 EK 32,95      | Base cream DAC | 1212025-01       | 1       |
| AHC/Lamotte                | Base cream DAC | 8004134006       | 1       |
| AHC                        | Base cream DAC | 21002710001      | 1       |
| AHD / P.W. Beyvers GmbH    | Base cream DAC | 18001            | 1       |
| AHD / P.W. Beyvers GmbH    | Base cream DAC | 731/4            | 2       |
| AHD 11.12.14 EK 8,79       | Base cream DAC | 289664           | 1       |
| AHD Lamotte GmbH           | Base cream DAC | 5910000          | 1       |
| AHD Lamotte GmbH           | Base cream DAC | 6004860002       | 1       |
| AHD Lamotte GmbH           | Base cream DAC | 800287008        | 1       |
| AHD Lamotte GmbH           | Base cream DAC | 8003325009       | 1       |
| AHD, 02.12.13              | Base cream DAC | 280079           | 1       |
| AHD, 05.04.2013            | Base cream DAC | 275439           | 1       |
| AHD/ Beyvers               | Base cream DAC | 19001            | 2       |
| AHD/ Beyvers               | Base cream DAC | 640/2            | 2       |
| AHD/ Beyvers               | Base cream DAC | 640/3            | 3       |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------------------|------------------|--------------|----------------|
| AHD/ Beyvers                | Base cream DAC   | 731/1        | 1              |
| AHD/Beyvers                 | Base cream DAC   | 515/2        | 3              |
| AHD/Beyvers                 | Base cream DAC   | 538/1        | 1              |
| AHD/Henry Lamotte           | Base cream DAC   | 6003682016   | 2              |
| AHD/Lamotte                 | Base cream DAC   | 8004134010   | 1              |
| AHD/Lamotte                 | Base cream DAC   | 8004996006   | 1              |
| AHD/Lamotte                 | Base cream DAC   | 8005713003   | 1              |
| AHD                         | Base cream DAC   | 16101201     | 1              |
| AHD                         | Base cream DAC   | 17240301     | 1              |
| AHD                         | Base cream DAC   | 18003943     | 1              |
| AHD                         | Base cream DAC   | 18192601     | 1              |
| AHD                         | Base cream DAC   | 18232601     | 1              |
| AHD                         | Base cream DAC   | 19003701     | 1              |
| AHD                         | Base cream DAC   | 19005669     | 1              |
| AHD                         | Base cream DAC   | 19053201     | 1              |
| AHD                         | Base cream DAC   | 19118101     | 1              |
| AHD                         | Base cream DAC   | 19240501     | 1              |
| AHD                         | Base cream DAC   | 20000687001  | 2              |
| AHD                         | Base cream DAC   | 5650700      | 5              |
| AHDE 21.05.,2015            | Base cream DAC   | 1346001      | 1              |
| ALH                         | Base cream DAC   | 16227001     | 1              |
| Alliance H.                 | Base cream DAC   | 17023601     | 2              |
| Alliance Health 17.01.2...  | Base cream DAC   | 5490100      | 1              |
| Alliance Healthcare/Ens...  | Base cream DAC   | 15730518     | 1              |
| Alliance Healthcare/Ens...  | Base cream DAC   | 80340218     | 1              |
| Alliance Healthcare/Hed...  | Base cream DAC   | 1502026-01   | 2              |
| Alliance Healthcare         | Base cream DAC   | 12305301     | 1              |
| Alliance Healthcare         | Base cream DAC   | 13139801     | 1              |
| Alliance Healthcare         | Base cream DAC   | 13188101     | 1              |
| Alliance Healthcare         | Base cream DAC   | 14238501     | 1              |
| Alliance Healthcare         | Base cream DAC   | 18005236     | 1              |
| Alliance Healthcare         | Base cream DAC   | 19001        | 2              |
| Alliance Healthcare         | Base cream DAC   | 303417       | 1              |
| Alliance Healthcare         | Base cream DAC   | 304353       | 1              |
| Alliance Healthcare         | Base cream DAC   | 5322400      | 1              |
| Alliance Healthcare         | Base cream DAC   | 79000916     | 2              |
| Alliance Healthcare         | Base cream DAC   | 87251118     | 1              |
| Alliance/Beyvers            | Base cream DAC   | 19005        | 1              |
| Alliance/Henry              | Base cream DAC   | 6004859002   | 1              |
| alliance/henry-lamotte      | Base cream DAC   | 8007236001   | 2              |
| Alliance/Lamotte            | Base cream DAC   | 8005713009   | 3              |
| Alliance                    | Base cream DAC   | 8004996002   | 1              |
| alliance                    | Base cream DAC   | 8005713004   | 3              |
| Alliance                    | Base cream DAC   | 8007236007   | 1              |
| Allianz Healthcare 20.0...  | Base cream DAC   | 14232201     | 1              |
| Allianz Healthcare          | Base cream DAC   | 8005713004   | 1              |
| Allianz Healthcare          | Base cream DAC   | 92080819     | 1              |
| Allianz                     | Base cream DAC   | 69530118     | 1              |
| Anzag 09.11.12              | Base cream DAC   | 272216       | 1              |
| Anzag 14.01.2013            | Base cream DAC   | 1210011-01   | 1              |
| Anzag 19.02.2013            | Base cream DAC   | 275444       | 1              |
| Anzag 19.12.14 3,82         | Base cream DAC   | 14177501     | 1              |
| Anzag 25.10.12 ek:33,15EUR  | Base cream DAC   | 1205005-01   | 1              |
| anzag 29.01.13 ek: 33,15EUR | Base cream DAC   | 1212027-01   | 1              |
| anzag/ lamotte              | Base cream DAC   | 6018791002   | 1              |
| anzag/ lamotte              | Base cream DAC   | 6018791004   | 1              |
| Anzag/Henry Lamotte         | Base cream DAC   | 5289100      | 1              |
| Anzag/Lamotte               | Base cream DAC   | 5408300      | 1              |
| Anzag/Lamotte               | Base cream DAC   | 591000       | 1              |
| Anzag/Lamotte               | Base cream DAC   | 6003682004   | 1              |

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| Supplier               | Substance      | Batch            | Spectra |
|------------------------|----------------|------------------|---------|
| Anzag                  | Base cream DAC | 1205006-01       | 1       |
| Anzag                  | Base cream DAC | 14177801         | 1       |
| anzag                  | Base cream DAC | 18137001         | 1       |
| Anzag                  | Base cream DAC | 18270601         | 1       |
| Anzag                  | Base cream DAC | 18H20-T16-059356 | 1       |
| Anzag                  | Base cream DAC | 19004713         | 1       |
| Anzag                  | Base cream DAC | 19117001         | 1       |
| Anzag                  | Base cream DAC | 19G08-T09-069166 | 1       |
| Anzag                  | Base cream DAC | 2000068001       | 1       |
| Anzag                  | Base cream DAC | 207/2            | 1       |
| Anzag                  | Base cream DAC | 21002523001      | 1       |
| Anzag                  | Base cream DAC | 292258           | 1       |
| Anzag                  | Base cream DAC | 292260           | 2       |
| Anzag                  | Base cream DAC | 293196           | 1       |
| Anzag                  | Base cream DAC | 39590217         | 1       |
| Anzag                  | Base cream DAC | 5215600          | 1       |
| Anzag                  | Base cream DAC | 5321000          | 1       |
| Anzag                  | Base cream DAC | 69510118         | 1       |
| Anzag                  | Base cream DAC | 72270417         | 1       |
| Anzag;8.14EUR;17.6.15  | Base cream DAC | 14232301         | 2       |
| Anzag                  | Base cream DAC | 5910000          | 2       |
| AnzagIchthyol          | Base cream DAC | 16329201         | 1       |
| Anzag / Henry lamotte  | Base cream DAC | 57788600         | 1       |
| apomix                 | Base cream DAC | 17000066         | 2       |
| apomix                 | Base cream DAC | 17108101         | 1       |
| apomix                 | Base cream DAC | 17243401         | 1       |
| apomix                 | Base cream DAC | 281328006/14     | 1       |
| apomix                 | Base cream DAC | 2B030221         | 1       |
| apomix                 | Base cream DAC | 2B110220         | 1       |
| apomix                 | Base cream DAC | 3001016          | 1       |
| apomix                 | Base cream DAC | 3B250616         | 1       |
| apomix                 | Base cream DAC | 4D061014         | 1       |
| apomix                 | Base cream DAC | 88620321         | 1       |
| apomix                 | Base cream DAC | 9B171019         | 1       |
| Apotec/Noweda          | Base cream DAC | 4210919          | 1       |
| Bambastus              | Base cream DAC | 293736           | 1       |
| Basiscreme             | Base cream DAC | 1510027-01       | 1       |
| Bayers                 | Base cream DAC | 538/2            | 1       |
| Bayvers/ AHD           | Base cream DAC | 515/3            | 1       |
| Bayvers/Phönix         | Base cream DAC | 538/2            | 1       |
| Bayvers                | Base cream DAC | 440/1            | 1       |
| Bayvers                | Base cream DAC | 731/1            | 3       |
| Bayvers                | Base cream DAC | 731/3            | 4       |
| Berkel AHK             | Base cream DAC | 17f08-T04-045271 | 1       |
| Berkel AHK             | Base cream DAC | 17K24-T04-050495 | 1       |
| Beyavers               | Base cream DAC | 18001            | 1       |
| Beyers                 | Base cream DAC | 234/1            | 1       |
| Beyvers / AHD          | Base cream DAC | 18001            | 1       |
| Beyvers / AHD          | Base cream DAC | 19001            | 1       |
| Beyvers / Alliance     | Base cream DAC | 19001x2          | 1       |
| Beyvers / Alliance     | Base cream DAC | 731/4            | 3       |
| Beyvers / Gehe         | Base cream DAC | 19003            | 1       |
| Beyvers / Phönix       | Base cream DAC | 515/2            | 2       |
| Beyvers / Phönix       | Base cream DAC | 731/4            | 1       |
| Beyvers / Sanacorp     | Base cream DAC | 19003            | 5       |
| Beyvers GmbH /Sanacorp | Base cream DAC | 18002            | 1       |
| Beyvers GmbH/ Noweda   | Base cream DAC | 18002            | 1       |
| Beyvers GmbH/ Noweda   | Base cream DAC | 19001            | 1       |
| Beyvers GmbH/ Noweda   | Base cream DAC | 19002            | 1       |
| Beyvers GmbH/ Noweda   | Base cream DAC | 329/1            | 1       |

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| <b>Supplier</b>      | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------|------------------|--------------|----------------|
| Beyvers GmbH/ Noweda | Base cream DAC   | 731/1        | 1              |
| Beyvers GmbH/ Noweda | Base cream DAC   | 731/3        | 1              |
| Beyvers GmbH         | Base cream DAC   | 12170717     | 1              |
| Beyvers GmbH         | Base cream DAC   | 13170717     | 1              |
| Beyvers GmbH         | Base cream DAC   | 18002        | 4              |
| Beyvers GmbH         | Base cream DAC   | 19001        | 2              |
| Beyvers GmbH         | Base cream DAC   | 329/2        | 1              |
| Beyvers GmbH         | Base cream DAC   | 440/1        | 1              |
| Beyvers GmbH         | Base cream DAC   | 538/2        | 2              |
| Beyvers GmbH         | Base cream DAC   | 640/1        | 1              |
| Beyvers GmbH         | Base cream DAC   | 731/1        | 1              |
| Beyvers GmbH         | Base cream DAC   | 731/4        | 4              |
| Beyvers/ Phönix      | Base cream DAC   | 19004        | 3              |
| Beyvers/ Phönix      | Base cream DAC   | 538/2        | 1              |
| Beyvers/AEP          | Base cream DAC   | 731/4        | 1              |
| Beyvers/AHD          | Base cream DAC   |              | 1              |
| Beyvers/Alliance     | Base cream DAC   | 18001        | 4              |
| Beyvers/Alliance     | Base cream DAC   | 731/2        | 3              |
| Beyvers/Anzag        | Base cream DAC   | 19003        | 3              |
| Beyvers/Anzag        | Base cream DAC   | 340/1        | 1              |
| Beyvers/Anzag        | Base cream DAC   | 640/3        | 1              |
| Beyvers/Anzag        | Base cream DAC   | 731/2        | 2              |
| Beyvers/Anzag        | Base cream DAC   | 731/3        | 1              |
| Beyvers/Beyvers      | Base cream DAC   | 19001        | 1              |
| Beyvers/Beyvers      | Base cream DAC   | 19002        | 1              |
| Beyvers/Gehe         | Base cream DAC   | 180-01       | 1              |
| Beyvers/GEHE         | Base cream DAC   | 18002        | 2              |
| Beyvers/Gehe         | Base cream DAC   | 538/1        | 2              |
| Beyvers/Gumo         | Base cream DAC   | 340/2        | 1              |
| Beyvers/Noweda       | Base cream DAC   | 18001        | 2              |
| Beyvers/Noweda       | Base cream DAC   | 19002        | 6              |
| Beyvers/Noweda       | Base cream DAC   | 538/1        | 1              |
| Beyvers/Noweda       | Base cream DAC   | 538/2        | 1              |
| Beyvers/Noweda       | Base cream DAC   | 640/2        | 3              |
| Beyvers/Noweda       | Base cream DAC   | 640/3        | 7              |
| Beyvers/Noweda       | Base cream DAC   | 731/1        | 1              |
| Beyvers/Noweda       | Base cream DAC   | 731/2        | 1              |
| Beyvers/Phönix       | Base cream DAC   | 329/1        | 1              |
| Beyvers/Phönix       | Base cream DAC   | 340/2        | 4              |
| Beyvers/Phönix       | Base cream DAC   | 412/1        | 1              |
| Beyvers/Phönix       | Base cream DAC   | 440/3        | 1              |
| Beyvers/Sanacorp     | Base cream DAC   | 19002        | 1              |
| Beyvers/VDL          | Base cream DAC   | 18001        | 1              |
| Beyvers/VDL          | Base cream DAC   | 731/3        | 1              |
| Beyvers              | Base cream DAC   |              | 6              |
| Beyvers              | Base cream DAC   | 18001        | 5              |
| Beyvers              | Base cream DAC   | 18002        | 5              |
| Beyvers              | Base cream DAC   | 19002        | 1              |
| Beyvers              | Base cream DAC   | 19005        | 2              |
| Beyvers              | Base cream DAC   | 219/1        | 1              |
| Beyvers              | Base cream DAC   | 234/2        | 2              |
| Beyvers              | Base cream DAC   | 234/3        | 1              |
| Beyvers              | Base cream DAC   | 319/1        | 3              |
| Beyvers              | Base cream DAC   | 319/2        | 1              |
| Beyvers              | Base cream DAC   | 319-1        | 1              |
| Beyvers              | Base cream DAC   | 329/1        | 1              |
| Beyvers              | Base cream DAC   | 329/2        | 4              |
| Beyvers              | Base cream DAC   | 340/1        | 1              |
| Beyvers              | Base cream DAC   | 340/2        | 3              |
| Beyvers              | Base cream DAC   | 412/1        | 2              |

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| <b>Supplier</b>          | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|--------------------------|------------------|------------------|----------------|
| Beyvers                  | Base cream DAC   | 412/3            | 4              |
| Beyvers                  | Base cream DAC   | 440/1            | 3              |
| Beyvers                  | Base cream DAC   | 440/2            | 2              |
| beyvers                  | Base cream DAC   | 440/3            | 1              |
| Beyvers                  | Base cream DAC   | 440/3            | 2              |
| Beyvers                  | Base cream DAC   | 515/2            | 1              |
| Beyvers                  | Base cream DAC   | 515/3            | 2              |
| Beyvers                  | Base cream DAC   | 515/5            | 1              |
| Beyvers                  | Base cream DAC   | 5153             | 1              |
| Beyvers                  | Base cream DAC   | 538/1            | 2              |
| beyvers                  | Base cream DAC   | 538/2            | 2              |
| Beyvers                  | Base cream DAC   | 538/2            | 1              |
| Beyvers                  | Base cream DAC   | 538-1            | 1              |
| Beyvers                  | Base cream DAC   | 640/1            | 5              |
| Beyvers                  | Base cream DAC   | 640/2            | 1              |
| Beyvers                  | Base cream DAC   | 640/3            | 1              |
| Beyvers                  | Base cream DAC   | 731/1            | 3              |
| Beyvers                  | Base cream DAC   | 731/2            | 9              |
| Beyvers                  | Base cream DAC   | 731/3            | 8              |
| beyvers                  | Base cream DAC   | 731/4            | 1              |
| Beyvers                  | Base cream DAC   | 731/4            | 4              |
| Bionorica/ Gehe          | Base cream DAC   | 18003942         | 1              |
| Bmbastus/Noweda          | Base cream DAC   | 292256           | 1              |
| bomastus                 | Base cream DAC   | 19000948         | 1              |
| Bomastus                 | Base cream DAC   | 20003538         | 1              |
| Bomastus-Werke / Noweda  | Base cream DAC   | 18003939         | 1              |
| Bomastus-Werke AG / Kehr | Base cream DAC   | 20002386         | 2              |
| Bomastus-Werke AG        | Base cream DAC   | 18001969         | 1              |
| Bomastus-Werke AG        | Base cream DAC   | 18003108         | 1              |
| Bomastus-Werke AG        | Base cream DAC   | 18005236         | 1              |
| Bomastus-Werke AG        | Base cream DAC   | 18005240         | 1              |
| Bombastus                | Base cream DAC   |                  | 3              |
| Bombastus                | Base cream DAC   | 10753            | 1              |
| Bombastus                | Base cream DAC   | 108000966        | 1              |
| Bombastus                | Base cream DAC   | 1210043-01       | 1              |
| Bombastus                | Base cream DAC   | 1212029-01       | 3              |
| Bombastus                | Base cream DAC   | 130161           | 1              |
| Bombastus                | Base cream DAC   | 13064203         | 1              |
| Bombastus                | Base cream DAC   | 137105           | 1              |
| Bombastus                | Base cream DAC   | 140068           | 1              |
| Bombastus                | Base cream DAC   | 1401020-01       | 1              |
| Bombastus                | Base cream DAC   | 1508001-01       | 2              |
| Bombastus                | Base cream DAC   | 1511002-01       | 1              |
| Bombastus                | Base cream DAC   | 15387001         | 1              |
| Bombastus                | Base cream DAC   | 15C-11T05-020388 | 1              |
| Bombastus                | Base cream DAC   | 16005201         | 1              |
| Bombastus                | Base cream DAC   | 16232201         | 1              |
| Bombastus                | Base cream DAC   | 16319501         | 4              |
| Bombastus                | Base cream DAC   | 16B15-T02-030277 | 1              |
| Bombastus                | Base cream DAC   | 17000064         | 1              |
| Bombastus                | Base cream DAC   | 17000065         | 5              |
| Bombastus                | Base cream DAC   | 17000066         | 3              |
| Bombastus                | Base cream DAC   | 17000067         | 2              |
| Bombastus                | Base cream DAC   | 17000068         | 1              |
| Bombastus                | Base cream DAC   | 17000069         | 5              |
| Bombastus                | Base cream DAC   | 17000070         | 2              |
| Bombastus                | Base cream DAC   | 17000071         | 3              |
| Bombastus                | Base cream DAC   | 17000072         | 3              |
| Bombastus                | Base cream DAC   | 17000026         | 1              |
| Bombastus                | Base cream DAC   | 17000896         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 17000897     | 2              |
| Bombastus       | Base cream DAC   | 17000899     | 4              |
| Bombastus       | Base cream DAC   | 17000902     | 1              |
| Bombastus       | Base cream DAC   | 17000904     | 5              |
| Bombastus       | Base cream DAC   | 17000905     | 5              |
| Bombastus       | Base cream DAC   | 17000906     | 3              |
| Bombastus       | Base cream DAC   | 17000907     | 5              |
| Bombastus       | Base cream DAC   | 17000908     | 3              |
| Bombastus       | Base cream DAC   | 17000909     | 2              |
| Bombastus       | Base cream DAC   | 17000910     | 3              |
| Bombastus       | Base cream DAC   | 17000911     | 4              |
| Bombastus       | Base cream DAC   | 17000912     | 1              |
| Bombastus       | Base cream DAC   | 17000913     | 1              |
| Bombastus       | Base cream DAC   | 17000914     | 1              |
| Bombastus       | Base cream DAC   | 17000915     | 5              |
| Bombastus       | Base cream DAC   | 17000916     | 1              |
| Bombastus       | Base cream DAC   | 17000917     | 4              |
| Bombastus       | Base cream DAC   | 17000918     | 2              |
| Bombastus       | Base cream DAC   | 17000919     | 4              |
| Bombastus       | Base cream DAC   | 17000920     | 5              |
| Bombastus       | Base cream DAC   | 17000921     | 5              |
| Bombastus       | Base cream DAC   | 17000922     | 4              |
| Bombastus       | Base cream DAC   | 17000923     | 5              |
| Bombastus       | Base cream DAC   | 17000924     | 6              |
| Bombastus       | Base cream DAC   | 17000925     | 4              |
| Bombastus       | Base cream DAC   | 17000926     | 9              |
| Bombastus       | Base cream DAC   | 17000927     | 1              |
| Bombastus       | Base cream DAC   | 1700905      | 1              |
| Bombastus       | Base cream DAC   | 1700908      | 1              |
| Bombastus       | Base cream DAC   | 17266601     | 1              |
| Bombastus       | Base cream DAC   | 180001971    | 1              |
| Bombastus       | Base cream DAC   | 180001973    | 1              |
| Bombastus       | Base cream DAC   | 180003931    | 2              |
| Bombastus       | Base cream DAC   | 180003943    | 1              |
| Bombastus       | Base cream DAC   | 18000485     | 1              |
| Bombastus       | Base cream DAC   | 18000487     | 2              |
| Bombastus       | Base cream DAC   | 18000491     | 1              |
| Bombastus       | Base cream DAC   | 18000492     | 1              |
| Bombastus       | Base cream DAC   | 18000493     | 3              |
| Bombastus       | Base cream DAC   | 18000494     | 4              |
| Bombastus       | Base cream DAC   | 18000496     | 1              |
| Bombastus       | Base cream DAC   | 18000497     | 2              |
| Bombastus       | Base cream DAC   | 18000498     | 1              |
| Bombastus       | Base cream DAC   | 180005749    | 1              |
| Bombastus       | Base cream DAC   | 18000690     | 1              |
| Bombastus       | Base cream DAC   | 18000949     | 2              |
| Bombastus       | Base cream DAC   | 18000954     | 4              |
| Bombastus       | Base cream DAC   | 18000955     | 1              |
| Bombastus       | Base cream DAC   | 18000956     | 5              |
| Bombastus       | Base cream DAC   | 18000957     | 4              |
| Bombastus       | Base cream DAC   | 18000958     | 3              |
| Bombastus       | Base cream DAC   | 18000959     | 4              |
| Bombastus       | Base cream DAC   | 18000960     | 7              |
| Bombastus       | Base cream DAC   | 18000961     | 5              |
| Bombastus       | Base cream DAC   | 18000962     | 6              |
| Bombastus       | Base cream DAC   | 18000963     | 2              |
| Bombastus       | Base cream DAC   | 18000964     | 4              |
| Bombastus       | Base cream DAC   | 18000965     | 5              |
| Bombastus       | Base cream DAC   | 18000966     | 6              |
| Bombastus       | Base cream DAC   | 18000967     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Bombastus       | Base cream DAC   | 18000968           | 4              |
| Bombastus       | Base cream DAC   | 18000969           | 2              |
| Bombastus       | Base cream DAC   | 18000971           | 2              |
| Bombastus       | Base cream DAC   | 18000972           | 5              |
| Bombastus       | Base cream DAC   | 18001401           | 1              |
| Bombastus       | Base cream DAC   | 18001962           | 2              |
| Bombastus       | Base cream DAC   | 18001964           | 4              |
| Bombastus       | Base cream DAC   | 18001965           | 4              |
| Bombastus       | Base cream DAC   | 18001967           | 4              |
| Bombastus       | Base cream DAC   | 18001968           | 8              |
| Bombastus       | Base cream DAC   | 18001969           | 6              |
| Bombastus       | Base cream DAC   | 18001970           | 3              |
| Bombastus       | Base cream DAC   | 18001971           | 4              |
| Bombastus       | Base cream DAC   | 18001972           | 4              |
| Bombastus       | Base cream DAC   | 18001973           | 1              |
| Bombastus       | Base cream DAC   | 18001974           | 6              |
| Bombastus       | Base cream DAC   | 18003094           | 2              |
| Bombastus       | Base cream DAC   | 18003097           | 6              |
| Bombastus       | Base cream DAC   | 18003098           | 1              |
| Bombastus       | Base cream DAC   | 18003098P-180827-4 | 1              |
| Bombastus       | Base cream DAC   | 18003099           | 1              |
| Bombastus       | Base cream DAC   | 18003102           | 4              |
| Bombastus       | Base cream DAC   | 18003107           | 6              |
| Bombastus       | Base cream DAC   | 18003108           | 2              |
| Bombastus       | Base cream DAC   | 18003109           | 2              |
| Bombastus       | Base cream DAC   | 18003110           | 4              |
| Bombastus       | Base cream DAC   | 18003111           | 5              |
| Bombastus       | Base cream DAC   | 18003112           | 5              |
| Bombastus       | Base cream DAC   | 18003113           | 3              |
| Bombastus       | Base cream DAC   | 18003114           | 2              |
| Bombastus       | Base cream DAC   | 180032925          | 1              |
| Bombastus       | Base cream DAC   | 18003925           | 3              |
| Bombastus       | Base cream DAC   | 18003927           | 1              |
| Bombastus       | Base cream DAC   | 18003928           | 4              |
| Bombastus       | Base cream DAC   | 18003929           | 2              |
| Bombastus       | Base cream DAC   | 18003929P-181129-1 | 1              |
| Bombastus       | Base cream DAC   | 18003931           | 1              |
| Bombastus       | Base cream DAC   | 18003932           | 1              |
| Bombastus       | Base cream DAC   | 18003933           | 2              |
| Bombastus       | Base cream DAC   | 18003934           | 2              |
| Bombastus       | Base cream DAC   | 18003935           | 4              |
| Bombastus       | Base cream DAC   | 18003936           | 4              |
| Bombastus       | Base cream DAC   | 18003937           | 3              |
| Bombastus       | Base cream DAC   | 18003938           | 5              |
| Bombastus       | Base cream DAC   | 18003940           | 9              |
| Bombastus       | Base cream DAC   | 18003941           | 4              |
| Bombastus       | Base cream DAC   | 18003942           | 4              |
| Bombastus       | Base cream DAC   | 18003943           | 11             |
| Bombastus       | Base cream DAC   | 18003944           | 4              |
| Bombastus       | Base cream DAC   | 18003945           | 5              |
| Bombastus       | Base cream DAC   | 18003946           | 4              |
| Bombastus       | Base cream DAC   | 18005230           | 1              |
| Bombastus       | Base cream DAC   | 18005231           | 1              |
| Bombastus       | Base cream DAC   | 18005232           | 1              |
| Bombastus       | Base cream DAC   | 18005233           | 3              |
| Bombastus       | Base cream DAC   | 18005234           | 3              |
| Bombastus       | Base cream DAC   | 18005235           | 2              |
| Bombastus       | Base cream DAC   | 18005236           | 3              |
| Bombastus       | Base cream DAC   | 18005237           | 3              |
| Bombastus       | Base cream DAC   | 18005238           | 4              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Bombastus       | Base cream DAC   | 18005239           | 7              |
| Bombastus       | Base cream DAC   | 18005240           | 4              |
| Bombastus       | Base cream DAC   | 18005242           | 1              |
| Bombastus       | Base cream DAC   | 18005740           | 2              |
| Bombastus       | Base cream DAC   | 18005741           | 2              |
| Bombastus       | Base cream DAC   | 18005742           | 1              |
| Bombastus       | Base cream DAC   | 18005743           | 3              |
| Bombastus       | Base cream DAC   | 18005744           | 5              |
| Bombastus       | Base cream DAC   | 18005745           | 2              |
| Bombastus       | Base cream DAC   | 18005746           | 2              |
| Bombastus       | Base cream DAC   | 18005747           | 4              |
| Bombastus       | Base cream DAC   | 18005748           | 6              |
| Bombastus       | Base cream DAC   | 18005749           | 4              |
| Bombastus       | Base cream DAC   | 18005750           | 8              |
| Bombastus       | Base cream DAC   | 18005751           | 2              |
| Bombastus       | Base cream DAC   | 18005754           | 12             |
| Bombastus       | Base cream DAC   | 18005760           | 1              |
| Bombastus       | Base cream DAC   | 18006629           | 1              |
| Bombastus       | Base cream DAC   | 18006764           | 2              |
| Bombastus       | Base cream DAC   | 18006765           | 1              |
| Bombastus       | Base cream DAC   | 18006766           | 1              |
| Bombastus       | Base cream DAC   | 18006769           | 1              |
| Bombastus       | Base cream DAC   | 18006770           | 2              |
| Bombastus       | Base cream DAC   | 18006771           | 5              |
| Bombastus       | Base cream DAC   | 18006772           | 4              |
| Bombastus       | Base cream DAC   | 18006773           | 6              |
| Bombastus       | Base cream DAC   | 18006774           | 14             |
| Bombastus       | Base cream DAC   | 18006775           | 2              |
| Bombastus       | Base cream DAC   | 18006776           | 1              |
| Bombastus       | Base cream DAC   | 18006777           | 3              |
| Bombastus       | Base cream DAC   | 18006778           | 1              |
| Bombastus       | Base cream DAC   | 1800960            | 1              |
| Bombastus       | Base cream DAC   | 1800969            | 2              |
| Bombastus       | Base cream DAC   | 1800970            | 1              |
| Bombastus       | Base cream DAC   | 18167001           | 1              |
| Bombastus       | Base cream DAC   | 188006778          | 1              |
| Bombastus       | Base cream DAC   | 18E23-T16-056321   | 1              |
| Bombastus       | Base cream DAC   | 190000954          | 1              |
| Bombastus       | Base cream DAC   | 190004715          | 1              |
| Bombastus       | Base cream DAC   | 19000927           | 1              |
| Bombastus       | Base cream DAC   | 19000928           | 2              |
| Bombastus       | Base cream DAC   | 19000929           | 2              |
| Bombastus       | Base cream DAC   | 19000930           | 3              |
| Bombastus       | Base cream DAC   | 19000931P-190312-5 | 1              |
| Bombastus       | Base cream DAC   | 19000935           | 1              |
| Bombastus       | Base cream DAC   | 19000936           | 1              |
| Bombastus       | Base cream DAC   | 19000937           | 2              |
| Bombastus       | Base cream DAC   | 19000937P-190531-2 | 1              |
| Bombastus       | Base cream DAC   | 19000938           | 4              |
| Bombastus       | Base cream DAC   | 19000940           | 1              |
| Bombastus       | Base cream DAC   | 19000941           | 3              |
| Bombastus       | Base cream DAC   | 19000942           | 9              |
| Bombastus       | Base cream DAC   | 19000943           | 9              |
| Bombastus       | Base cream DAC   | 19000944           | 3              |
| Bombastus       | Base cream DAC   | 19000945           | 5              |
| Bombastus       | Base cream DAC   | 19000946           | 2              |
| Bombastus       | Base cream DAC   | 19000947           | 3              |
| Bombastus       | Base cream DAC   | 19000948           | 4              |
| Bombastus       | Base cream DAC   | 19000950           | 6              |
| Bombastus       | Base cream DAC   | 19000951           | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Bombastus       | Base cream DAC   | 19000952           | 11             |
| Bombastus       | Base cream DAC   | 19000953           | 4              |
| Bombastus       | Base cream DAC   | 19002670           | 2              |
| Bombastus       | Base cream DAC   | 19002671           | 5              |
| Bombastus       | Base cream DAC   | 19002674           | 1              |
| Bombastus       | Base cream DAC   | 19002676           | 4              |
| Bombastus       | Base cream DAC   | 19002677           | 4              |
| Bombastus       | Base cream DAC   | 19002678P-190718-5 | 1              |
| Bombastus       | Base cream DAC   | 19002679           | 15             |
| Bombastus       | Base cream DAC   | 19002680           | 6              |
| Bombastus       | Base cream DAC   | 19002681           | 4              |
| Bombastus       | Base cream DAC   | 19002682           | 4              |
| Bombastus       | Base cream DAC   | 19002683           | 2              |
| Bombastus       | Base cream DAC   | 19002684           | 6              |
| Bombastus       | Base cream DAC   | 19002685           | 3              |
| Bombastus       | Base cream DAC   | 19002686           | 2              |
| Bombastus       | Base cream DAC   | 19002687           | 3              |
| Bombastus       | Base cream DAC   | 19002688           | 1              |
| Bombastus       | Base cream DAC   | 19002689           | 9              |
| Bombastus       | Base cream DAC   | 19002690           | 7              |
| Bombastus       | Base cream DAC   | 19002691           | 1              |
| Bombastus       | Base cream DAC   | 19002692           | 5              |
| Bombastus       | Base cream DAC   | 19002693           | 5              |
| Bombastus       | Base cream DAC   | 19002694           | 4              |
| Bombastus       | Base cream DAC   | 19002695           | 4              |
| Bombastus       | Base cream DAC   | 19002697           | 1              |
| Bombastus       | Base cream DAC   | 19002698           | 2              |
| Bombastus       | Base cream DAC   | 190026989          | 1              |
| Bombastus       | Base cream DAC   | 1900292            | 1              |
| Bombastus       | Base cream DAC   | 19003274           | 1              |
| Bombastus       | Base cream DAC   | 19003277           | 1              |
| Bombastus       | Base cream DAC   | 19003278           | 2              |
| Bombastus       | Base cream DAC   | 19003279           | 2              |
| Bombastus       | Base cream DAC   | 19003280           | 3              |
| Bombastus       | Base cream DAC   | 19003287           | 5              |
| Bombastus       | Base cream DAC   | 19003288           | 9              |
| Bombastus       | Base cream DAC   | 19003289           | 3              |
| Bombastus       | Base cream DAC   | 19003290           | 6              |
| Bombastus       | Base cream DAC   | 19003291           | 3              |
| Bombastus       | Base cream DAC   | 19003292           | 15             |
| Bombastus       | Base cream DAC   | 19003293           | 4              |
| Bombastus       | Base cream DAC   | 19003294           | 6              |
| Bombastus       | Base cream DAC   | 19003295           | 4              |
| Bombastus       | Base cream DAC   | 19003296           | 2              |
| Bombastus       | Base cream DAC   | 19003297           | 7              |
| Bombastus       | Base cream DAC   | 19003298           | 12             |
| Bombastus       | Base cream DAC   | 19003299           | 12             |
| Bombastus       | Base cream DAC   | 19003300           | 4              |
| Bombastus       | Base cream DAC   | 19003301           | 2              |
| Bombastus       | Base cream DAC   | 19003302           | 6              |
| Bombastus       | Base cream DAC   | 19004701P-191028-2 | 1              |
| Bombastus       | Base cream DAC   | 19004702           | 2              |
| Bombastus       | Base cream DAC   | 19004707           | 2              |
| Bombastus       | Base cream DAC   | 19004708           | 1              |
| Bombastus       | Base cream DAC   | 19004709           | 1              |
| Bombastus       | Base cream DAC   | 19004709P-200116-4 | 1              |
| Bombastus       | Base cream DAC   | 19004710           | 1              |
| Bombastus       | Base cream DAC   | 19004711           | 6              |
| Bombastus       | Base cream DAC   | 19004712           | 4              |
| Bombastus       | Base cream DAC   | 19004713           | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Bombastus       | Base cream DAC   | 19004714           | 2              |
| Bombastus       | Base cream DAC   | 19004715           | 3              |
| Bombastus       | Base cream DAC   | 19004716           | 1              |
| Bombastus       | Base cream DAC   | 19004717           | 3              |
| Bombastus       | Base cream DAC   | 19004718           | 4              |
| Bombastus       | Base cream DAC   | 19004719           | 3              |
| Bombastus       | Base cream DAC   | 19004720           | 6              |
| Bombastus       | Base cream DAC   | 19004721           | 6              |
| Bombastus       | Base cream DAC   | 19004723           | 1              |
| Bombastus       | Base cream DAC   | 19004724           | 4              |
| Bombastus       | Base cream DAC   | 19004725           | 3              |
| Bombastus       | Base cream DAC   | 19004726           | 3              |
| Bombastus       | Base cream DAC   | 19004727           | 8              |
| Bombastus       | Base cream DAC   | 19005662           | 5              |
| Bombastus       | Base cream DAC   | 19005663           | 2              |
| Bombastus       | Base cream DAC   | 19005666           | 1              |
| Bombastus       | Base cream DAC   | 19005667           | 4              |
| Bombastus       | Base cream DAC   | 19005668P-200326-5 | 1              |
| Bombastus       | Base cream DAC   | 19005669           | 10             |
| Bombastus       | Base cream DAC   | 19005670           | 8              |
| Bombastus       | Base cream DAC   | 190056702x         | 1              |
| Bombastus       | Base cream DAC   | 19005671           | 4              |
| Bombastus       | Base cream DAC   | 19005672           | 6              |
| Bombastus       | Base cream DAC   | 19005673           | 6              |
| Bombastus       | Base cream DAC   | 19005675           | 2              |
| Bombastus       | Base cream DAC   | 19005677           | 1              |
| Bombastus       | Base cream DAC   | 19005678           | 3              |
| Bombastus       | Base cream DAC   | 19005681           | 4              |
| Bombastus       | Base cream DAC   | 190205670          | 1              |
| Bombastus       | Base cream DAC   | 190322802          | 1              |
| Bombastus       | Base cream DAC   | 1903298            | 1              |
| Bombastus       | Base cream DAC   | 190431104          | 1              |
| Bombastus       | Base cream DAC   | 190522705          | 1              |
| Bombastus       | Base cream DAC   | 19052901           | 1              |
| Bombastus       | Base cream DAC   | 190682106          | 1              |
| Bombastus       | Base cream DAC   | 190872108          | 2              |
| Bombastus       | Base cream DAC   | 200000471          | 2              |
| Bombastus       | Base cream DAC   | 200000473          | 1              |
| Bombastus       | Base cream DAC   | 20000461           | 2              |
| Bombastus       | Base cream DAC   | 20000462           | 4              |
| Bombastus       | Base cream DAC   | 20000466           | 3              |
| Bombastus       | Base cream DAC   | 20000468           | 1              |
| Bombastus       | Base cream DAC   | 20000469           | 1              |
| Bombastus       | Base cream DAC   | 20000470           | 1              |
| Bombastus       | Base cream DAC   | 20000471           | 4              |
| Bombastus       | Base cream DAC   | 20000472           | 7              |
| Bombastus       | Base cream DAC   | 20000473           | 6              |
| Bombastus       | Base cream DAC   | 20000474           | 4              |
| Bombastus       | Base cream DAC   | 20000475           | 4              |
| Bombastus       | Base cream DAC   | 20000476           | 3              |
| Bombastus       | Base cream DAC   | 20000477           | 3              |
| Bombastus       | Base cream DAC   | 20000478           | 3              |
| Bombastus       | Base cream DAC   | 20000479           | 2              |
| Bombastus       | Base cream DAC   | 20000480           | 3              |
| Bombastus       | Base cream DAC   | 20000481           | 6              |
| Bombastus       | Base cream DAC   | 20000482           | 2              |
| Bombastus       | Base cream DAC   | 20000483           | 6              |
| Bombastus       | Base cream DAC   | 20000484           | 2              |
| Bombastus       | Base cream DAC   | 20000485           | 5              |
| Bombastus       | Base cream DAC   | 20000486           | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 20000487     | 3              |
| Bombastus       | Base cream DAC   | 20000488     | 6              |
| Bombastus       | Base cream DAC   | 20001571     | 1              |
| Bombastus       | Base cream DAC   | 20001578     | 2              |
| Bombastus       | Base cream DAC   | 20001579     | 3              |
| Bombastus       | Base cream DAC   | 20001580     | 2              |
| Bombastus       | Base cream DAC   | 20001581     | 5              |
| Bombastus       | Base cream DAC   | 20001583     | 5              |
| Bombastus       | Base cream DAC   | 20001584     | 5              |
| Bombastus       | Base cream DAC   | 20001585     | 6              |
| Bombastus       | Base cream DAC   | 20001586     | 3              |
| Bombastus       | Base cream DAC   | 20002379     | 4              |
| Bombastus       | Base cream DAC   | 20002381     | 1              |
| Bombastus       | Base cream DAC   | 20002383     | 1              |
| Bombastus       | Base cream DAC   | 20002384     | 4              |
| Bombastus       | Base cream DAC   | 20002385     | 3              |
| Bombastus       | Base cream DAC   | 20002386     | 4              |
| Bombastus       | Base cream DAC   | 20002388     | 2              |
| Bombastus       | Base cream DAC   | 20002389     | 4              |
| Bombastus       | Base cream DAC   | 20002391     | 4              |
| Bombastus       | Base cream DAC   | 20002392     | 2              |
| Bombastus       | Base cream DAC   | 20002393     | 6              |
| Bombastus       | Base cream DAC   | 20002394     | 5              |
| Bombastus       | Base cream DAC   | 20002395     | 1              |
| Bombastus       | Base cream DAC   | 20002396     | 10             |
| Bombastus       | Base cream DAC   | 20002397     | 10             |
| Bombastus       | Base cream DAC   | 20003529     | 3              |
| Bombastus       | Base cream DAC   | 20003533     | 1              |
| Bombastus       | Base cream DAC   | 20003534     | 1              |
| Bombastus       | Base cream DAC   | 20003535     | 3              |
| Bombastus       | Base cream DAC   | 20003536     | 2              |
| Bombastus       | Base cream DAC   | 20003537     | 3              |
| Bombastus       | Base cream DAC   | 20003538     | 2              |
| Bombastus       | Base cream DAC   | 20003539     | 1              |
| Bombastus       | Base cream DAC   | 20003540     | 1              |
| Bombastus       | Base cream DAC   | 20003541     | 4              |
| Bombastus       | Base cream DAC   | 20003542     | 1              |
| Bombastus       | Base cream DAC   | 20003543     | 3              |
| Bombastus       | Base cream DAC   | 20003544     | 6              |
| Bombastus       | Base cream DAC   | 20003545     | 5              |
| Bombastus       | Base cream DAC   | 20003546     | 2              |
| Bombastus       | Base cream DAC   | 20003548     | 8              |
| Bombastus       | Base cream DAC   | 20004587     | 2              |
| Bombastus       | Base cream DAC   | 20004589     | 1              |
| Bombastus       | Base cream DAC   | 20004590     | 3              |
| Bombastus       | Base cream DAC   | 20004591     | 7              |
| Bombastus       | Base cream DAC   | 20004592     | 8              |
| Bombastus       | Base cream DAC   | 20004593     | 4              |
| Bombastus       | Base cream DAC   | 20004594     | 2              |
| Bombastus       | Base cream DAC   | 20004595     | 4              |
| Bombastus       | Base cream DAC   | 20004596     | 5              |
| Bombastus       | Base cream DAC   | 20004598     | 3              |
| Bombastus       | Base cream DAC   | 20004599     | 4              |
| Bombastus       | Base cream DAC   | 20004600     | 2              |
| Bombastus       | Base cream DAC   | 20004601     | 4              |
| Bombastus       | Base cream DAC   | 20004603     | 3              |
| Bombastus       | Base cream DAC   | 20004604     | 1              |
| Bombastus       | Base cream DAC   | 20004606     | 1              |
| Bombastus       | Base cream DAC   | 20004607     | 4              |
| Bombastus       | Base cream DAC   | 20004608     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 20004609     | 3              |
| Bombastus       | Base cream DAC   | 2000473      | 1              |
| Bombastus       | Base cream DAC   | 2000479      | 1              |
| Bombastus       | Base cream DAC   | 2003542      | 1              |
| Bombastus       | Base cream DAC   | 2004596      | 1              |
| Bombastus       | Base cream DAC   | 21000271     | 3              |
| Bombastus       | Base cream DAC   | 21000277     | 4              |
| Bombastus       | Base cream DAC   | 21000278     | 1              |
| Bombastus       | Base cream DAC   | 21000279     | 4              |
| Bombastus       | Base cream DAC   | 21000280     | 5              |
| Bombastus       | Base cream DAC   | 21000281     | 3              |
| Bombastus       | Base cream DAC   | 21000282     | 4              |
| Bombastus       | Base cream DAC   | 21000283     | 4              |
| Bombastus       | Base cream DAC   | 21000814     | 3              |
| Bombastus       | Base cream DAC   | 21000816     | 2              |
| Bombastus       | Base cream DAC   | 21000817     | 1              |
| Bombastus       | Base cream DAC   | 21000818     | 8              |
| Bombastus       | Base cream DAC   | 21000819     | 1              |
| Bombastus       | Base cream DAC   | 21000821     | 2              |
| Bombastus       | Base cream DAC   | 21000822     | 1              |
| Bombastus       | Base cream DAC   | 21000823     | 2              |
| Bombastus       | Base cream DAC   | 21000824     | 4              |
| Bombastus       | Base cream DAC   | 21000825     | 1              |
| Bombastus       | Base cream DAC   | 21000826     | 1              |
| Bombastus       | Base cream DAC   | 21000827     | 2              |
| Bombastus       | Base cream DAC   | 21001868     | 1              |
| Bombastus       | Base cream DAC   | 21001870     | 3              |
| Bombastus       | Base cream DAC   | 21001872     | 2              |
| Bombastus       | Base cream DAC   | 21001873     | 3              |
| Bombastus       | Base cream DAC   | 21001876     | 1              |
| Bombastus       | Base cream DAC   | 21001877     | 2              |
| Bombastus       | Base cream DAC   | 21001878     | 3              |
| Bombastus       | Base cream DAC   | 21001881     | 2              |
| Bombastus       | Base cream DAC   | 21001882     | 1              |
| Bombastus       | Base cream DAC   | 21001883     | 2              |
| Bombastus       | Base cream DAC   | 21001886     | 6              |
| Bombastus       | Base cream DAC   | 21001888     | 1              |
| Bombastus       | Base cream DAC   | 21001890     | 3              |
| Bombastus       | Base cream DAC   | 21001891     | 2              |
| Bombastus       | Base cream DAC   | 21001892     | 1              |
| Bombastus       | Base cream DAC   | 21002878     | 1              |
| Bombastus       | Base cream DAC   | 21002880     | 1              |
| Bombastus       | Base cream DAC   | 21002883     | 1              |
| Bombastus       | Base cream DAC   | 21002884     | 1              |
| Bombastus       | Base cream DAC   | 21003416     | 1              |
| Bombastus       | Base cream DAC   | 21003419     | 2              |
| Bombastus       | Base cream DAC   | 21003420     | 1              |
| Bombastus       | Base cream DAC   | 21003424     | 4              |
| Bombastus       | Base cream DAC   | 21004193     | 1              |
| Bombastus       | Base cream DAC   | 21004196     | 1              |
| Bombastus       | Base cream DAC   | 21004198     | 2              |
| Bombastus       | Base cream DAC   | 21004201     | 1              |
| Bombastus       | Base cream DAC   | 21004202     | 1              |
| Bombastus       | Base cream DAC   | 21004850     | 1              |
| Bombastus       | Base cream DAC   | 21004851     | 1              |
| Bombastus       | Base cream DAC   | 21004856     | 3              |
| Bombastus       | Base cream DAC   | 21004858     | 1              |
| Bombastus       | Base cream DAC   | 21004859     | 3              |
| Bombastus       | Base cream DAC   | 22000461     | 2              |
| Bombastus       | Base cream DAC   | 22000463     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 22000475     | 1              |
| Bombastus       | Base cream DAC   | 260416v3     | 1              |
| Bombastus       | Base cream DAC   | 262001       | 1              |
| Bombastus       | Base cream DAC   | 263429       | 1              |
| Bombastus       | Base cream DAC   | 265036       | 2              |
| Bombastus       | Base cream DAC   | 266524       | 1              |
| Bombastus       | Base cream DAC   | 266749       | 1              |
| Bombastus       | Base cream DAC   | 266799       | 1              |
| Bombastus       | Base cream DAC   | 268821       | 1              |
| Bombastus       | Base cream DAC   | 268822       | 1              |
| Bombastus       | Base cream DAC   | 268925       | 2              |
| Bombastus       | Base cream DAC   | 269993       | 1              |
| Bombastus       | Base cream DAC   | 269996       | 1              |
| Bombastus       | Base cream DAC   | 270000       | 2              |
| Bombastus       | Base cream DAC   | 270157       | 1              |
| Bombastus       | Base cream DAC   | 271999       | 1              |
| Bombastus       | Base cream DAC   | 272001       | 1              |
| Bombastus       | Base cream DAC   | 272084       | 2              |
| Bombastus       | Base cream DAC   | 272086       | 3              |
| Bombastus       | Base cream DAC   | 272093       | 1              |
| Bombastus       | Base cream DAC   | 272214       | 1              |
| Bombastus       | Base cream DAC   | 272215       | 4              |
| Bombastus       | Base cream DAC   | 272216       | 1              |
| Bombastus       | Base cream DAC   | 272219       | 1              |
| Bombastus       | Base cream DAC   | 272221       | 1              |
| Bombastus       | Base cream DAC   | 272372       | 1              |
| Bombastus       | Base cream DAC   | 272373       | 1              |
| Bombastus       | Base cream DAC   | 272375       | 2              |
| Bombastus       | Base cream DAC   | 272464       | 2              |
| Bombastus       | Base cream DAC   | 275172       | 1              |
| Bombastus       | Base cream DAC   | 275173       | 1              |
| Bombastus       | Base cream DAC   | 275175       | 1              |
| Bombastus       | Base cream DAC   | 275181       | 2              |
| Bombastus       | Base cream DAC   | 275182       | 1              |
| Bombastus       | Base cream DAC   | 275184       | 2              |
| Bombastus       | Base cream DAC   | 275273       | 2              |
| Bombastus       | Base cream DAC   | 275275       | 1              |
| Bombastus       | Base cream DAC   | 275277       | 1              |
| Bombastus       | Base cream DAC   | 275278       | 1              |
| Bombastus       | Base cream DAC   | 275279       | 1              |
| Bombastus       | Base cream DAC   | 275282       | 1              |
| Bombastus       | Base cream DAC   | 275438       | 2              |
| Bombastus       | Base cream DAC   | 275443       | 1              |
| Bombastus       | Base cream DAC   | 275447       | 2              |
| Bombastus       | Base cream DAC   | 275590       | 2              |
| Bombastus       | Base cream DAC   | 275591       | 1              |
| Bombastus       | Base cream DAC   | 276944       | 2              |
| Bombastus       | Base cream DAC   | 276948       | 1              |
| Bombastus       | Base cream DAC   | 276950       | 2              |
| Bombastus       | Base cream DAC   | 277099       | 7              |
| Bombastus       | Base cream DAC   | 277110       | 1              |
| Bombastus       | Base cream DAC   | 277248       | 1              |
| Bombastus       | Base cream DAC   | 278396       | 2              |
| Bombastus       | Base cream DAC   | 278397       | 1              |
| Bombastus       | Base cream DAC   | 278398       | 3              |
| Bombastus       | Base cream DAC   | 278470       | 3              |
| Bombastus       | Base cream DAC   | 278472       | 4              |
| Bombastus       | Base cream DAC   | 278474       | 6              |
| Bombastus       | Base cream DAC   | 278475       | 2              |
| Bombastus       | Base cream DAC   | 278553       | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 278555       | 3              |
| Bombastus       | Base cream DAC   | 278556       | 6              |
| Bombastus       | Base cream DAC   | 278557       | 2              |
| Bombastus       | Base cream DAC   | 278558       | 1              |
| Bombastus       | Base cream DAC   | 278559       | 1              |
| Bombastus       | Base cream DAC   | 278560       | 2              |
| Bombastus       | Base cream DAC   | 278561       | 1              |
| Bombastus       | Base cream DAC   | 278562       | 3              |
| Bombastus       | Base cream DAC   | 278563       | 2              |
| Bombastus       | Base cream DAC   | 279829       | 1              |
| Bombastus       | Base cream DAC   | 279958       | 3              |
| Bombastus       | Base cream DAC   | 279959       | 1              |
| Bombastus       | Base cream DAC   | 279960       | 1              |
| Bombastus       | Base cream DAC   | 279961       | 1              |
| Bombastus       | Base cream DAC   | 279962       | 1              |
| Bombastus       | Base cream DAC   | 279964       | 3              |
| Bombastus       | Base cream DAC   | 279965       | 1              |
| Bombastus       | Base cream DAC   | 280077       | 1              |
| Bombastus       | Base cream DAC   | 280078       | 3              |
| Bombastus       | Base cream DAC   | 280079       | 2              |
| Bombastus       | Base cream DAC   | 280080       | 3              |
| Bombastus       | Base cream DAC   | 280082       | 2              |
| Bombastus       | Base cream DAC   | 281239       | 1              |
| Bombastus       | Base cream DAC   | 281240       | 2              |
| Bombastus       | Base cream DAC   | 281242       | 2              |
| Bombastus       | Base cream DAC   | 281243       | 2              |
| Bombastus       | Base cream DAC   | 281328       | 1              |
| Bombastus       | Base cream DAC   | 281329       | 4              |
| Bombastus       | Base cream DAC   | 281331       | 6              |
| Bombastus       | Base cream DAC   | 281332       | 1              |
| Bombastus       | Base cream DAC   | 281333       | 1              |
| Bombastus       | Base cream DAC   | 281334       | 1              |
| Bombastus       | Base cream DAC   | 281335       | 1              |
| Bombastus       | Base cream DAC   | 281486       | 1              |
| Bombastus       | Base cream DAC   | 282723       | 2              |
| Bombastus       | Base cream DAC   | 282771       | 3              |
| Bombastus       | Base cream DAC   | 282773       | 2              |
| Bombastus       | Base cream DAC   | 282774       | 1              |
| Bombastus       | Base cream DAC   | 282778       | 1              |
| Bombastus       | Base cream DAC   | 282887       | 1              |
| Bombastus       | Base cream DAC   | 283917       | 2              |
| Bombastus       | Base cream DAC   | 283918       | 1              |
| Bombastus       | Base cream DAC   | 283971       | 1              |
| Bombastus       | Base cream DAC   | 283972       | 2              |
| Bombastus       | Base cream DAC   | 283974       | 2              |
| Bombastus       | Base cream DAC   | 283975       | 1              |
| Bombastus       | Base cream DAC   | 283976       | 1              |
| Bombastus       | Base cream DAC   | 285220       | 1              |
| Bombastus       | Base cream DAC   | 285227       | 1              |
| Bombastus       | Base cream DAC   | 285228       | 4              |
| Bombastus       | Base cream DAC   | 286086       | 2              |
| Bombastus       | Base cream DAC   | 286087       | 5              |
| Bombastus       | Base cream DAC   | 286088       | 4              |
| Bombastus       | Base cream DAC   | 286089       | 1              |
| Bombastus       | Base cream DAC   | 286090       | 2              |
| Bombastus       | Base cream DAC   | 286093       | 2              |
| Bombastus       | Base cream DAC   | 286094       | 3              |
| Bombastus       | Base cream DAC   | 286155       | 1              |
| Bombastus       | Base cream DAC   | 286157       | 1              |
| Bombastus       | Base cream DAC   | 286158       | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 286159       | 1              |
| Bombastus       | Base cream DAC   | 286160       | 3              |
| Bombastus       | Base cream DAC   | 286161       | 1              |
| Bombastus       | Base cream DAC   | 286162       | 1              |
| Bombastus       | Base cream DAC   | 287110       | 1              |
| Bombastus       | Base cream DAC   | 287111       | 1              |
| Bombastus       | Base cream DAC   | 287112       | 1              |
| Bombastus       | Base cream DAC   | 287115       | 2              |
| Bombastus       | Base cream DAC   | 287116       | 1              |
| Bombastus       | Base cream DAC   | 287117       | 1              |
| Bombastus       | Base cream DAC   | 287193       | 1              |
| Bombastus       | Base cream DAC   | 287195       | 2              |
| Bombastus       | Base cream DAC   | 287197       | 5              |
| Bombastus       | Base cream DAC   | 287248       | 2              |
| Bombastus       | Base cream DAC   | 287251       | 3              |
| Bombastus       | Base cream DAC   | 287875       | 1              |
| Bombastus       | Base cream DAC   | 287876       | 1              |
| Bombastus       | Base cream DAC   | 287941       | 1              |
| Bombastus       | Base cream DAC   | 287942       | 1              |
| Bombastus       | Base cream DAC   | 287944       | 2              |
| Bombastus       | Base cream DAC   | 287945       | 3              |
| Bombastus       | Base cream DAC   | 287946       | 2              |
| Bombastus       | Base cream DAC   | 288054       | 1              |
| Bombastus       | Base cream DAC   | 288055       | 4              |
| Bombastus       | Base cream DAC   | 288057       | 1              |
| Bombastus       | Base cream DAC   | 288058       | 1              |
| Bombastus       | Base cream DAC   | 289526       | 2              |
| Bombastus       | Base cream DAC   | 289529       | 3              |
| Bombastus       | Base cream DAC   | 289530       | 4              |
| Bombastus       | Base cream DAC   | 289531       | 2              |
| Bombastus       | Base cream DAC   | 289589       | 1              |
| Bombastus       | Base cream DAC   | 289590       | 1              |
| Bombastus       | Base cream DAC   | 289591       | 1              |
| Bombastus       | Base cream DAC   | 289660       | 1              |
| Bombastus       | Base cream DAC   | 289661       | 1              |
| Bombastus       | Base cream DAC   | 289663       | 4              |
| Bombastus       | Base cream DAC   | 289665       | 1              |
| Bombastus       | Base cream DAC   | 289667       | 1              |
| Bombastus       | Base cream DAC   | 289669       | 2              |
| Bombastus       | Base cream DAC   | 289802       | 1              |
| Bombastus       | Base cream DAC   | 289803       | 1              |
| Bombastus       | Base cream DAC   | 289804       | 1              |
| Bombastus       | Base cream DAC   | 289805       | 2              |
| Bombastus       | Base cream DAC   | 290866       | 1              |
| Bombastus       | Base cream DAC   | 291024       | 1              |
| Bombastus       | Base cream DAC   | 291025       | 2              |
| Bombastus       | Base cream DAC   | 291026       | 2              |
| Bombastus       | Base cream DAC   | 291028       | 1              |
| Bombastus       | Base cream DAC   | 291029       | 1              |
| Bombastus       | Base cream DAC   | 291030       | 1              |
| Bombastus       | Base cream DAC   | 291032       | 2              |
| Bombastus       | Base cream DAC   | 291034       | 2              |
| Bombastus       | Base cream DAC   | 291069       | 1              |
| Bombastus       | Base cream DAC   | 292122       | 2              |
| Bombastus       | Base cream DAC   | 292123       | 1              |
| Bombastus       | Base cream DAC   | 292125       | 4              |
| Bombastus       | Base cream DAC   | 292127       | 2              |
| Bombastus       | Base cream DAC   | 292256       | 3              |
| Bombastus       | Base cream DAC   | 292257       | 1              |
| Bombastus       | Base cream DAC   | 292258       | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 292259       | 1              |
| Bombastus       | Base cream DAC   | 292260       | 2              |
| Bombastus       | Base cream DAC   | 292261       | 2              |
| Bombastus       | Base cream DAC   | 292263       | 3              |
| Bombastus       | Base cream DAC   | 292267       | 2              |
| Bombastus       | Base cream DAC   | 293196       | 1              |
| Bombastus       | Base cream DAC   | 293199       | 1              |
| Bombastus       | Base cream DAC   | 293200       | 2              |
| Bombastus       | Base cream DAC   | 293201       | 2              |
| Bombastus       | Base cream DAC   | 293738       | 1              |
| Bombastus       | Base cream DAC   | 293739       | 2              |
| Bombastus       | Base cream DAC   | 293795       | 6              |
| Bombastus       | Base cream DAC   | 293796       | 1              |
| Bombastus       | Base cream DAC   | 293800       | 1              |
| Bombastus       | Base cream DAC   | 293801       | 1              |
| Bombastus       | Base cream DAC   | 293939       | 4              |
| Bombastus       | Base cream DAC   | 293940       | 1              |
| Bombastus       | Base cream DAC   | 293941       | 1              |
| Bombastus       | Base cream DAC   | 293942       | 4              |
| Bombastus       | Base cream DAC   | 293943       | 2              |
| Bombastus       | Base cream DAC   | 293944       | 3              |
| Bombastus       | Base cream DAC   | 293973       | 2              |
| Bombastus       | Base cream DAC   | 294829       | 2              |
| Bombastus       | Base cream DAC   | 294831       | 1              |
| Bombastus       | Base cream DAC   | 294832       | 2              |
| Bombastus       | Base cream DAC   | 294833       | 3              |
| Bombastus       | Base cream DAC   | 294836       | 1              |
| Bombastus       | Base cream DAC   | 294837       | 1              |
| Bombastus       | Base cream DAC   | 294838       | 2              |
| Bombastus       | Base cream DAC   | 294840       | 2              |
| Bombastus       | Base cream DAC   | 294841       | 2              |
| Bombastus       | Base cream DAC   | 294842       | 4              |
| Bombastus       | Base cream DAC   | 294843       | 5              |
| Bombastus       | Base cream DAC   | 295837       | 1              |
| Bombastus       | Base cream DAC   | 295897       | 4              |
| Bombastus       | Base cream DAC   | 295899       | 2              |
| Bombastus       | Base cream DAC   | 295900       | 1              |
| Bombastus       | Base cream DAC   | 295901       | 1              |
| Bombastus       | Base cream DAC   | 296152       | 2              |
| Bombastus       | Base cream DAC   | 296155       | 5              |
| Bombastus       | Base cream DAC   | 296156       | 2              |
| Bombastus       | Base cream DAC   | 296221       | 1              |
| Bombastus       | Base cream DAC   | 296222       | 1              |
| Bombastus       | Base cream DAC   | 296224       | 4              |
| Bombastus       | Base cream DAC   | 296225       | 6              |
| Bombastus       | Base cream DAC   | 296226       | 3              |
| Bombastus       | Base cream DAC   | 296227       | 1              |
| Bombastus       | Base cream DAC   | 296228       | 1              |
| Bombastus       | Base cream DAC   | 296229       | 4              |
| Bombastus       | Base cream DAC   | 296230       | 3              |
| Bombastus       | Base cream DAC   | 296231       | 3              |
| Bombastus       | Base cream DAC   | 297480       | 1              |
| Bombastus       | Base cream DAC   | 297482       | 2              |
| Bombastus       | Base cream DAC   | 297484       | 3              |
| Bombastus       | Base cream DAC   | 297494       | 4              |
| Bombastus       | Base cream DAC   | 297495       | 1              |
| Bombastus       | Base cream DAC   | 297496       | 1              |
| Bombastus       | Base cream DAC   | 297497       | 1              |
| Bombastus       | Base cream DAC   | 297498       | 2              |
| Bombastus       | Base cream DAC   | 297500       | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 298170       | 2              |
| Bombastus       | Base cream DAC   | 298171       | 1              |
| Bombastus       | Base cream DAC   | 298172       | 1              |
| Bombastus       | Base cream DAC   | 298173       | 2              |
| Bombastus       | Base cream DAC   | 298256       | 5              |
| Bombastus       | Base cream DAC   | 298257       | 2              |
| Bombastus       | Base cream DAC   | 298259       | 5              |
| Bombastus       | Base cream DAC   | 298260       | 1              |
| Bombastus       | Base cream DAC   | 298261       | 2              |
| Bombastus       | Base cream DAC   | 298262       | 3              |
| Bombastus       | Base cream DAC   | 298263       | 2              |
| Bombastus       | Base cream DAC   | 298264       | 3              |
| Bombastus       | Base cream DAC   | 298265       | 5              |
| Bombastus       | Base cream DAC   | 298266       | 2              |
| Bombastus       | Base cream DAC   | 298267       | 4              |
| Bombastus       | Base cream DAC   | 299319       | 1              |
| Bombastus       | Base cream DAC   | 299320       | 4              |
| Bombastus       | Base cream DAC   | 299321       | 2              |
| Bombastus       | Base cream DAC   | 299322       | 3              |
| Bombastus       | Base cream DAC   | 299323       | 4              |
| Bombastus       | Base cream DAC   | 299324       | 2              |
| Bombastus       | Base cream DAC   | 299325       | 3              |
| Bombastus       | Base cream DAC   | 299326       | 1              |
| Bombastus       | Base cream DAC   | 299943       | 1              |
| Bombastus       | Base cream DAC   | 299945       | 1              |
| Bombastus       | Base cream DAC   | 299947       | 3              |
| Bombastus       | Base cream DAC   | 299948       | 4              |
| Bombastus       | Base cream DAC   | 299950       | 3              |
| Bombastus       | Base cream DAC   | 30001        | 1              |
| Bombastus       | Base cream DAC   | 300011       | 4              |
| Bombastus       | Base cream DAC   | 300012       | 1              |
| Bombastus       | Base cream DAC   | 300013       | 4              |
| Bombastus       | Base cream DAC   | 300014       | 6              |
| Bombastus       | Base cream DAC   | 300015       | 3              |
| Bombastus       | Base cream DAC   | 301147       | 1              |
| Bombastus       | Base cream DAC   | 301148       | 1              |
| Bombastus       | Base cream DAC   | 301151       | 1              |
| Bombastus       | Base cream DAC   | 301153       | 1              |
| Bombastus       | Base cream DAC   | 301154       | 1              |
| Bombastus       | Base cream DAC   | 301155       | 5              |
| Bombastus       | Base cream DAC   | 301156       | 2              |
| Bombastus       | Base cream DAC   | 301157       | 2              |
| Bombastus       | Base cream DAC   | 301158       | 3              |
| Bombastus       | Base cream DAC   | 301159       | 4              |
| Bombastus       | Base cream DAC   | 301160       | 6              |
| Bombastus       | Base cream DAC   | 301721       | 1              |
| Bombastus       | Base cream DAC   | 301722       | 2              |
| Bombastus       | Base cream DAC   | 301737       | 1              |
| Bombastus       | Base cream DAC   | 301738       | 1              |
| Bombastus       | Base cream DAC   | 301741       | 1              |
| Bombastus       | Base cream DAC   | 301743       | 3              |
| Bombastus       | Base cream DAC   | 301745       | 7              |
| Bombastus       | Base cream DAC   | 301746       | 1              |
| Bombastus       | Base cream DAC   | 301754       | 1              |
| Bombastus       | Base cream DAC   | 301755       | 1              |
| Bombastus       | Base cream DAC   | 301756       | 1              |
| Bombastus       | Base cream DAC   | 301757       | 5              |
| Bombastus       | Base cream DAC   | 301758       | 3              |
| Bombastus       | Base cream DAC   | 301759       | 4              |
| Bombastus       | Base cream DAC   | 301760       | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 303052       | 2              |
| Bombastus       | Base cream DAC   | 303055       | 6              |
| Bombastus       | Base cream DAC   | 303056       | 5              |
| Bombastus       | Base cream DAC   | 303057       | 3              |
| Bombastus       | Base cream DAC   | 303058       | 4              |
| Bombastus       | Base cream DAC   | 303059       | 3              |
| Bombastus       | Base cream DAC   | 303060       | 3              |
| Bombastus       | Base cream DAC   | 303061       | 3              |
| Bombastus       | Base cream DAC   | 303062       | 4              |
| Bombastus       | Base cream DAC   | 303063       | 2              |
| Bombastus       | Base cream DAC   | 303133       | 1              |
| Bombastus       | Base cream DAC   | 303135       | 2              |
| Bombastus       | Base cream DAC   | 303136       | 1              |
| Bombastus       | Base cream DAC   | 303413       | 2              |
| Bombastus       | Base cream DAC   | 303414       | 4              |
| Bombastus       | Base cream DAC   | 303415       | 2              |
| Bombastus       | Base cream DAC   | 303416       | 1              |
| Bombastus       | Base cream DAC   | 303417       | 2              |
| Bombastus       | Base cream DAC   | 303419       | 5              |
| Bombastus       | Base cream DAC   | 303420       | 3              |
| Bombastus       | Base cream DAC   | 303422       | 3              |
| Bombastus       | Base cream DAC   | 303423       | 4              |
| Bombastus       | Base cream DAC   | 303424       | 1              |
| Bombastus       | Base cream DAC   | 303425       | 2              |
| Bombastus       | Base cream DAC   | 303427       | 1              |
| Bombastus       | Base cream DAC   | 303428       | 2              |
| Bombastus       | Base cream DAC   | 303429       | 8              |
| Bombastus       | Base cream DAC   | 3042362      | 1              |
| Bombastus       | Base cream DAC   | 304341       | 1              |
| Bombastus       | Base cream DAC   | 304342       | 2              |
| Bombastus       | Base cream DAC   | 304343       | 1              |
| Bombastus       | Base cream DAC   | 304344       | 1              |
| Bombastus       | Base cream DAC   | 304351       | 2              |
| Bombastus       | Base cream DAC   | 304352       | 5              |
| Bombastus       | Base cream DAC   | 304353       | 2              |
| Bombastus       | Base cream DAC   | 304354       | 4              |
| Bombastus       | Base cream DAC   | 304355       | 4              |
| Bombastus       | Base cream DAC   | 304356       | 1              |
| Bombastus       | Base cream DAC   | 304358       | 1              |
| Bombastus       | Base cream DAC   | 304359       | 3              |
| Bombastus       | Base cream DAC   | 304360       | 4              |
| Bombastus       | Base cream DAC   | 304361       | 3              |
| Bombastus       | Base cream DAC   | 305692       | 1              |
| Bombastus       | Base cream DAC   | 305693       | 2              |
| Bombastus       | Base cream DAC   | 305694       | 1              |
| Bombastus       | Base cream DAC   | 305695       | 2              |
| Bombastus       | Base cream DAC   | 305710       | 3              |
| Bombastus       | Base cream DAC   | 305711       | 3              |
| Bombastus       | Base cream DAC   | 305712       | 1              |
| Bombastus       | Base cream DAC   | 305713       | 2              |
| Bombastus       | Base cream DAC   | 305714       | 3              |
| Bombastus       | Base cream DAC   | 305715       | 5              |
| Bombastus       | Base cream DAC   | 30572        | 1              |
| Bombastus       | Base cream DAC   | 305728       | 3              |
| Bombastus       | Base cream DAC   | 305729       | 3              |
| Bombastus       | Base cream DAC   | 305730       | 5              |
| Bombastus       | Base cream DAC   | 305731       | 4              |
| Bombastus       | Base cream DAC   | 305733       | 2              |
| Bombastus       | Base cream DAC   | 305734       | 4              |
| Bombastus       | Base cream DAC   | 305735       | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Base cream DAC   | 306601       | 2              |
| Bombastus       | Base cream DAC   | 306602       | 1              |
| Bombastus       | Base cream DAC   | 306604       | 3              |
| Bombastus       | Base cream DAC   | 306606       | 1              |
| Bombastus       | Base cream DAC   | 306607       | 1              |
| Bombastus       | Base cream DAC   | 306608       | 1              |
| Bombastus       | Base cream DAC   | 306609       | 5              |
| Bombastus       | Base cream DAC   | 306610       | 7              |
| Bombastus       | Base cream DAC   | 306611       | 4              |
| Bombastus       | Base cream DAC   | 306613       | 4              |
| Bombastus       | Base cream DAC   | 306614       | 3              |
| Bombastus       | Base cream DAC   | 306615       | 7              |
| Bombastus       | Base cream DAC   | 306616       | 2              |
| Bombastus       | Base cream DAC   | 306617       | 1              |
| Bombastus       | Base cream DAC   | 306618       | 5              |
| Bombastus       | Base cream DAC   | 306619       | 2              |
| Bombastus       | Base cream DAC   | 306620       | 1              |
| Bombastus       | Base cream DAC   | 306621       | 8              |
| Bombastus       | Base cream DAC   | 306623       | 3              |
| Bombastus       | Base cream DAC   | 306624       | 2              |
| Bombastus       | Base cream DAC   | 307829       | 3              |
| Bombastus       | Base cream DAC   | 307830       | 3              |
| Bombastus       | Base cream DAC   | 307832       | 1              |
| Bombastus       | Base cream DAC   | 307834       | 6              |
| Bombastus       | Base cream DAC   | 307958       | 1              |
| Bombastus       | Base cream DAC   | 307959       | 1              |
| Bombastus       | Base cream DAC   | 307961       | 4              |
| Bombastus       | Base cream DAC   | 307962       | 1              |
| Bombastus       | Base cream DAC   | 307963       | 1              |
| Bombastus       | Base cream DAC   | 307964       | 1              |
| Bombastus       | Base cream DAC   | 307965       | 5              |
| Bombastus       | Base cream DAC   | 307966       | 1              |
| Bombastus       | Base cream DAC   | 307967       | 5              |
| Bombastus       | Base cream DAC   | 307968       | 3              |
| Bombastus       | Base cream DAC   | 307969       | 1              |
| Bombastus       | Base cream DAC   | 307970       | 4              |
| Bombastus       | Base cream DAC   | 307971       | 3              |
| Bombastus       | Base cream DAC   | 307996       | 1              |
| Bombastus       | Base cream DAC   | 308791       | 1              |
| Bombastus       | Base cream DAC   | 308794       | 4              |
| Bombastus       | Base cream DAC   | 308795       | 1              |
| Bombastus       | Base cream DAC   | 308796       | 4              |
| Bombastus       | Base cream DAC   | 308797       | 1              |
| Bombastus       | Base cream DAC   | 308798       | 3              |
| Bombastus       | Base cream DAC   | 308799       | 8              |
| Bombastus       | Base cream DAC   | 308800       | 3              |
| Bombastus       | Base cream DAC   | 308801       | 7              |
| Bombastus       | Base cream DAC   | 308802       | 1              |
| Bombastus       | Base cream DAC   | 308804       | 5              |
| Bombastus       | Base cream DAC   | 308805       | 2              |
| Bombastus       | Base cream DAC   | 309923       | 2              |
| Bombastus       | Base cream DAC   | 310717       | 1              |
| Bombastus       | Base cream DAC   | 310719       | 3              |
| Bombastus       | Base cream DAC   | 310720       | 2              |
| Bombastus       | Base cream DAC   | 310722       | 1              |
| Bombastus       | Base cream DAC   | 310723       | 3              |
| Bombastus       | Base cream DAC   | 310724       | 3              |
| Bombastus       | Base cream DAC   | 310725       | 2              |
| Bombastus       | Base cream DAC   | 310726       | 4              |
| Bombastus       | Base cream DAC   | 310730       | 1              |

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| <b>Supplier</b>  | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|------------------|------------------|------------------|----------------|
| Bombastus        | Base cream DAC   | 310746           | 3              |
| Bombastus        | Base cream DAC   | 310747           | 6              |
| Bombastus        | Base cream DAC   | 310748           | 2              |
| Bombastus        | Base cream DAC   | 310749           | 7              |
| Bombastus        | Base cream DAC   | 310750           | 2              |
| Bombastus        | Base cream DAC   | 310751           | 6              |
| Bombastus        | Base cream DAC   | 310752           | 4              |
| Bombastus        | Base cream DAC   | 310753           | 12             |
| Bombastus        | Base cream DAC   | 310755           | 2              |
| Bombastus        | Base cream DAC   | 310756           | 4              |
| Bombastus        | Base cream DAC   | 538/2            | 2              |
| Bombastus        | Base cream DAC   | 6004859006       | 1              |
| Bombastus        | Base cream DAC   | 60090501         | 1              |
| Bombastus        | Base cream DAC   | 60090502         | 13             |
| Bombastus        | Base cream DAC   | 60090504         | 2              |
| Bombastus        | Base cream DAC   | 6862441          | 5              |
| Bombastus        | Base cream DAC   | 8004134007       | 1              |
| Bombastus        | Base cream DAC   | bombastus        | 1              |
| Bombastus        | Base cream DAC   | CHB289803        | 1              |
| Bombastus        | Base cream DAC   | LD251118         | 1              |
| Bombastus        | Base cream DAC   | 19002674         | 1              |
| BOMBATUS         | Base cream DAC   | 6009252          | 1              |
| Bombstus/Gehe    | Base cream DAC   | 301742           | 1              |
| Bombstus/Gehe    | Base cream DAC   | 301744           | 1              |
| Bombstus         | Base cream DAC   | 1700907          | 1              |
| Bombstus         | Base cream DAC   | 310752           | 1              |
| Caaelo/Phoenix   | Base cream DAC   | 20001856001      | 1              |
| Caaelo           | Base cream DAC   | 16101901         | 1              |
| Caaelo/Gehe      | Base cream DAC   | 19003701         | 1              |
| Caaanlo          | Base cream DAC   | 16232001         | 1              |
| Caeklo/gehe/8,27 | Base cream DAC   | 18193301         | 1              |
| Caeko            | Base cream DAC   | 16220201         | 1              |
| Cael/Phönix      | Base cream DAC   | 17243401         | 1              |
| Caela/ Noweda    | Base cream DAC   | 18037901         | 1              |
| Caeli / Kehr     | Base cream DAC   | 17029001         | 1              |
| Caelo            | Base cream DAC   |                  | 22             |
| Caelo            | Base cream DAC   | (2x) 16005101    | 1              |
| Caelo            | Base cream DAC   | 100(18166401)    | 1              |
| Caelo            | Base cream DAC   | 1004211309       | 1              |
| Caelo            | Base cream DAC   | 101(18166602)    | 1              |
| Caelo            | Base cream DAC   | 1013Q-01309      | 2              |
| Caelo            | Base cream DAC   | 102(18192701)    | 1              |
| Caelo            | Base cream DAC   | 103(18193201)    | 1              |
| Caelo            | Base cream DAC   | 104(18232501)    | 1              |
| Caelo            | Base cream DAC   | 1040417          | 1              |
| Caelo            | Base cream DAC   | 1040917/17147401 | 1              |
| Caelo            | Base cream DAC   | 105(18269301)    | 1              |
| Caelo            | Base cream DAC   | 106(18272301)    | 1              |
| Caelo            | Base cream DAC   | 1061303          | 1              |
| Caelo            | Base cream DAC   | 107(18269601)    | 1              |
| Caelo            | Base cream DAC   | 107805-815       | 1              |
| Caelo            | Base cream DAC   | 108(19052501)    | 1              |
| Caelo            | Base cream DAC   | 10801968         | 1              |
| Caelo            | Base cream DAC   | 1081117/17229201 | 1              |
| Caelo            | Base cream DAC   | 1081302          | 1              |
| Caelo            | Base cream DAC   | 109(19170501)    | 1              |
| Caelo            | Base cream DAC   | 109647           | 1              |
| Caelo            | Base cream DAC   | 1096947          | 2              |
| Caelo            | Base cream DAC   | 110(19147901)    | 1              |
| Caelo            | Base cream DAC   | 1100717/17124001 | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 11011405         | 1              |
| Caelo           | Base cream DAC   | 11081803         | 1              |
| Caelo           | Base cream DAC   | 11087101         | 1              |
| Caelo           | Base cream DAC   | 1109211309       | 1              |
| Caelo           | Base cream DAC   | 11101302         | 1              |
| Caelo           | Base cream DAC   | 1110517/16326001 | 1              |
| Caelo           | Base cream DAC   | 11206201         | 2              |
| Caelo           | Base cream DAC   | 11278701         | 1              |
| Caelo           | Base cream DAC   | 11279301         | 3              |
| Caelo           | Base cream DAC   | 11279401         | 1              |
| Caelo           | Base cream DAC   | 11295801         | 2              |
| Caelo           | Base cream DAC   | 11296301         | 1              |
| Caelo           | Base cream DAC   | 11296601         | 1              |
| Caelo           | Base cream DAC   | 11297001         | 1              |
| Caelo           | Base cream DAC   | 11297201         | 9              |
| Caelo           | Base cream DAC   | 11330101         | 2              |
| Caelo           | Base cream DAC   | 11330201         | 1              |
| Caelo           | Base cream DAC   | 11330301         | 1              |
| Caelo           | Base cream DAC   | 11330601         | 1              |
| Caelo           | Base cream DAC   | 1140116          | 1              |
| Caelo           | Base cream DAC   | 1165401          | 1              |
| Caelo           | Base cream DAC   | 12000401         | 1              |
| Caelo           | Base cream DAC   | 12000501         | 3              |
| Caelo           | Base cream DAC   | 12000601         | 1              |
| Caelo           | Base cream DAC   | 12004901         | 2              |
| Caelo           | Base cream DAC   | 12005101         | 3              |
| Caelo           | Base cream DAC   | 12005201         | 2              |
| Caelo           | Base cream DAC   | 12005401         | 1              |
| Caelo           | Base cream DAC   | 12005501         | 4              |
| Caelo           | Base cream DAC   | 12005701         | 6              |
| Caelo           | Base cream DAC   | 1202001          | 2              |
| Caelo           | Base cream DAC   | 1205007-01       | 2              |
| Caelo           | Base cream DAC   | 12061601         | 1              |
| Caelo           | Base cream DAC   | 12061701         | 1              |
| Caelo           | Base cream DAC   | 12062001         | 1              |
| Caelo           | Base cream DAC   | 12062601         | 1              |
| Caelo           | Base cream DAC   | 12062701         | 2              |
| Caelo           | Base cream DAC   | 12062801         | 2              |
| Caelo           | Base cream DAC   | 12062901         | 1              |
| Caelo           | Base cream DAC   | 12063001         | 2              |
| Caelo           | Base cream DAC   | 12071202         | 1              |
| Caelo           | Base cream DAC   | 12101203         | 1              |
| Caelo           | Base cream DAC   | 12111202         | 1              |
| Caelo           | Base cream DAC   | 12116001         | 1              |
| Caelo           | Base cream DAC   | 1213M-01309      | 1              |
| Caelo           | Base cream DAC   | 1214I01309       | 1              |
| Caelo           | Base cream DAC   | 12159201         | 1              |
| Caelo           | Base cream DAC   | 12159301         | 1              |
| Caelo           | Base cream DAC   | 12159401         | 2              |
| Caelo           | Base cream DAC   | 12159601         | 5              |
| Caelo           | Base cream DAC   | 12167901         | 12             |
| Caelo           | Base cream DAC   | 12168001         | 1              |
| Caelo           | Base cream DAC   | 12168101         | 2              |
| Caelo           | Base cream DAC   | 12168201         | 1              |
| Caelo           | Base cream DAC   | 12168301         | 1              |
| Caelo           | Base cream DAC   | 12174801         | 3              |
| Caelo           | Base cream DAC   | 12174901         | 1              |
| Caelo           | Base cream DAC   | 12175001         | 5              |
| Caelo           | Base cream DAC   | 12175101         | 1              |
| Caelo           | Base cream DAC   | 12175201         | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 12178301     | 4              |
| Caelo           | Base cream DAC   | 12178401     | 3              |
| Caelo           | Base cream DAC   | 12191701     | 3              |
| Caelo           | Base cream DAC   | 12191801     | 4              |
| Caelo           | Base cream DAC   | 12191901     | 14             |
| Caelo           | Base cream DAC   | 12191902     | 1              |
| Caelo           | Base cream DAC   | 12192001     | 1              |
| Caelo           | Base cream DAC   | 12192101     | 1              |
| Caelo           | Base cream DAC   | 12192201     | 2              |
| Caelo           | Base cream DAC   | 12240801     | 1              |
| Caelo           | Base cream DAC   | 12240901     | 3              |
| Caelo           | Base cream DAC   | 12241001     | 5              |
| Caelo           | Base cream DAC   | 12241101     | 1              |
| Caelo           | Base cream DAC   | 12241201     | 1              |
| Caelo           | Base cream DAC   | 12245001     | 2              |
| Caelo           | Base cream DAC   | 12245101     | 2              |
| Caelo           | Base cream DAC   | 12245201     | 1              |
| Caelo           | Base cream DAC   | 12249401     | 2              |
| Caelo           | Base cream DAC   | 12249501     | 2              |
| Caelo           | Base cream DAC   | 12249701     | 1              |
| Caelo           | Base cream DAC   | 12262402     | 3              |
| Caelo           | Base cream DAC   | 12262501     | 5              |
| Caelo           | Base cream DAC   | 12262601     | 3              |
| Caelo           | Base cream DAC   | 12262801     | 6              |
| Caelo           | Base cream DAC   | 1226290      | 1              |
| Caelo           | Base cream DAC   | 12262901     | 3              |
| Caelo           | Base cream DAC   | 12263001     | 1              |
| Caelo           | Base cream DAC   | 12263101     | 4              |
| Caelo           | Base cream DAC   | 12263201     | 6              |
| Caelo           | Base cream DAC   | 12263301     | 3              |
| Caelo           | Base cream DAC   | 12263401     | 4              |
| Caelo           | Base cream DAC   | 12289701     | 5              |
| Caelo           | Base cream DAC   | 12303901     | 2              |
| Caelo           | Base cream DAC   | 12304701     | 9              |
| Caelo           | Base cream DAC   | 12304801     | 12             |
| Caelo           | Base cream DAC   | 12304901     | 3              |
| Caelo           | Base cream DAC   | 12305001     | 5              |
| Caelo           | Base cream DAC   | 12305101     | 1              |
| Caelo           | Base cream DAC   | 12305301     | 4              |
| Caelo           | Base cream DAC   | 1230901      | 1              |
| Caelo           | Base cream DAC   | 1233333      | 1              |
| Caelo           | Base cream DAC   | 12339001     | 2              |
| Caelo           | Base cream DAC   | 12339101     | 1              |
| Caelo           | Base cream DAC   | 12339201     | 12             |
| Caelo           | Base cream DAC   | 12339301     | 4              |
| Caelo           | Base cream DAC   | 12339401     | 6              |
| Caelo           | Base cream DAC   | 1234         | 1              |
| Caelo           | Base cream DAC   | 12343801     | 5              |
| Caelo           | Base cream DAC   | 12344001     | 1              |
| Caelo           | Base cream DAC   | 12347101     | 2              |
| Caelo           | Base cream DAC   | 12347201     | 1              |
| Caelo           | Base cream DAC   | 12347301     | 5              |
| Caelo           | Base cream DAC   | 12347401     | 5              |
| Caelo           | Base cream DAC   | 12384002     | 2              |
| Caelo           | Base cream DAC   | 1239201      | 1              |
| Caelo           | Base cream DAC   | 125044-1     | 1              |
| Caelo           | Base cream DAC   | 126328901    | 1              |
| Caelo           | Base cream DAC   | 1291116      | 1              |
| Caelo           | Base cream DAC   | 130000601    | 1              |
| Caelo           | Base cream DAC   | 13000501     | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 13000601     | 1              |
| Caelo           | Base cream DAC   | 13000701     | 2              |
| Caelo           | Base cream DAC   | 13000801     | 2              |
| Caelo           | Base cream DAC   | 13000901     | 1              |
| Caelo           | Base cream DAC   | 13007001     | 5              |
| Caelo           | Base cream DAC   | 13007101     | 5              |
| Caelo           | Base cream DAC   | 13007201     | 3              |
| Caelo           | Base cream DAC   | 13007301     | 2              |
| Caelo           | Base cream DAC   | 1301023-01   | 1              |
| Caelo           | Base cream DAC   | 13011808     | 1              |
| Caelo           | Base cream DAC   | 13012301     | 2              |
| Caelo           | Base cream DAC   | 13012401     | 10             |
| Caelo           | Base cream DAC   | 13012501     | 3              |
| Caelo           | Base cream DAC   | 13012601     | 2              |
| Caelo           | Base cream DAC   | 13016801     | 2              |
| Caelo           | Base cream DAC   | 1301681      | 1              |
| Caelo           | Base cream DAC   | 13016901     | 3              |
| Caelo           | Base cream DAC   | 13017001     | 2              |
| Caelo           | Base cream DAC   | 13017101     | 1              |
| Caelo           | Base cream DAC   | 13017201     | 4              |
| Caelo           | Base cream DAC   | 13022401     | 3              |
| Caelo           | Base cream DAC   | 13051503     | 1              |
| Caelo           | Base cream DAC   | 1306002-01   | 1              |
| Caelo           | Base cream DAC   | 1306031-01   | 1              |
| Caelo           | Base cream DAC   | 1307003-01   | 1              |
| Caelo           | Base cream DAC   | 130704501    | 1              |
| Caelo           | Base cream DAC   | 13082101     | 10             |
| Caelo           | Base cream DAC   | 13082203     | 7              |
| Caelo           | Base cream DAC   | 13083101     | 3              |
| Caelo           | Base cream DAC   | 131100701    | 1              |
| Caelo           | Base cream DAC   | 1311009-01   | 1              |
| Caelo           | Base cream DAC   | 13111101     | 3              |
| Caelo           | Base cream DAC   | 13111201     | 4              |
| Caelo           | Base cream DAC   | 13111301     | 5              |
| Caelo           | Base cream DAC   | 13111401     | 2              |
| Caelo           | Base cream DAC   | 13115601     | 8              |
| Caelo           | Base cream DAC   | 13115701     | 2              |
| Caelo           | Base cream DAC   | 13115801     | 4              |
| Caelo           | Base cream DAC   | 13115901     | 2              |
| Caelo           | Base cream DAC   | 13116001     | 2              |
| Caelo           | Base cream DAC   | 13119901     | 1              |
| Caelo           | Base cream DAC   | 13120001     | 2              |
| Caelo           | Base cream DAC   | 1312001-01   | 1              |
| Caelo           | Base cream DAC   | 13120101     | 5              |
| Caelo           | Base cream DAC   | 13120201     | 5              |
| Caelo           | Base cream DAC   | 13120301     | 8              |
| Caelo           | Base cream DAC   | 131203801    | 1              |
| Caelo           | Base cream DAC   | 13125001     | 4              |
| Caelo           | Base cream DAC   | 13125101     | 2              |
| Caelo           | Base cream DAC   | 13139702     | 10             |
| Caelo           | Base cream DAC   | 13139801     | 5              |
| Caelo           | Base cream DAC   | 13139901     | 14             |
| Caelo           | Base cream DAC   | 13140001     | 5              |
| Caelo           | Base cream DAC   | 1315601      | 1              |
| Caelo           | Base cream DAC   | 13158401     | 1              |
| Caelo           | Base cream DAC   | 13158440     | 1              |
| Caelo           | Base cream DAC   | 13158501     | 8              |
| Caelo           | Base cream DAC   | 13158601     | 5              |
| Caelo           | Base cream DAC   | 13158701     | 1              |
| Caelo           | Base cream DAC   | 13158801     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|-----------------|------------------|---------------------|----------------|
| Caelo           | Base cream DAC   | 13173301            | 2              |
| Caelo           | Base cream DAC   | 13173501            | 4              |
| Caelo           | Base cream DAC   | 13173601            | 14             |
| Caelo           | Base cream DAC   | 13173701            | 5              |
| Caelo           | Base cream DAC   | 1318701             | 1              |
| Caelo           | Base cream DAC   | 13187701            | 2              |
| Caelo           | Base cream DAC   | 13187801            | 11             |
| Caelo           | Base cream DAC   | 13187901            | 9              |
| Caelo           | Base cream DAC   | 13188001            | 6              |
| Caelo           | Base cream DAC   | 13188101            | 3              |
| Caelo           | Base cream DAC   | 13188401            | 6              |
| Caelo           | Base cream DAC   | 13188501            | 12             |
| Caelo           | Base cream DAC   | 13188601            | 4              |
| Caelo           | Base cream DAC   | 13188701            | 11             |
| Caelo           | Base cream DAC   | 13188801            | 2              |
| Caelo           | Base cream DAC   | 1319702             | 1              |
| Caelo           | Base cream DAC   | 13198301            | 4              |
| Caelo           | Base cream DAC   | 13198401            | 1              |
| Caelo           | Base cream DAC   | 13198501            | 2              |
| Caelo           | Base cream DAC   | 13198601            | 8              |
| Caelo           | Base cream DAC   | 13198701            | 11             |
| Caelo           | Base cream DAC   | 13198801            | 20             |
| Caelo           | Base cream DAC   | 13198901            | 8              |
| Caelo           | Base cream DAC   | 13199001            | 12             |
| Caelo           | Base cream DAC   | 1319901             | 2              |
| Caelo           | Base cream DAC   | 13199101            | 19             |
| Caelo           | Base cream DAC   | 132011-01           | 1              |
| Caelo           | Base cream DAC   | 13249701            | 10             |
| Caelo           | Base cream DAC   | 13249702            | 3              |
| Caelo           | Base cream DAC   | 13249801            | 6              |
| Caelo           | Base cream DAC   | 13249901            | 2              |
| Caelo           | Base cream DAC   | 13250001            | 8              |
| Caelo           | Base cream DAC   | 13252101            | 4              |
| Caelo           | Base cream DAC   | 13310901            | 7              |
| Caelo           | Base cream DAC   | 13311101            | 3              |
| Caelo           | Base cream DAC   | 13311201            | 11             |
| Caelo           | Base cream DAC   | 13311301            | 11             |
| Caelo           | Base cream DAC   | 13311301-3462312170 | 1              |
| Caelo           | Base cream DAC   | 13311401            | 10             |
| Caelo           | Base cream DAC   | 13311502            | 3              |
| Caelo           | Base cream DAC   | 13311601            | 4              |
| Caelo           | Base cream DAC   | 13311606            | 1              |
| Caelo           | Base cream DAC   | 13311701            | 5              |
| Caelo           | Base cream DAC   | 13311801            | 7              |
| Caelo           | Base cream DAC   | 13311901            | 5              |
| Caelo           | Base cream DAC   | 13312001            | 6              |
| Caelo           | Base cream DAC   | 1331201             | 1              |
| Caelo           | Base cream DAC   | 13312101            | 2              |
| Caelo           | Base cream DAC   | 13312201            | 4              |
| Caelo           | Base cream DAC   | 13312301            | 4              |
| Caelo           | Base cream DAC   | 13312401            | 2              |
| Caelo           | Base cream DAC   | 1331502             | 1              |
| Caelo           | Base cream DAC   | 1334701             | 1              |
| Caelo           | Base cream DAC   | 13347101            | 20             |
| Caelo           | Base cream DAC   | 13347201            | 6              |
| Caelo           | Base cream DAC   | 13347301            | 7              |
| Caelo           | Base cream DAC   | 13377201            | 11             |
| Caelo           | Base cream DAC   | 13377901            | 6              |
| Caelo           | Base cream DAC   | 13378001            | 9              |
| Caelo           | Base cream DAC   | 13378101            | 6              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 13378201         | 7              |
| Caelo           | Base cream DAC   | 13380901         | 11             |
| Caelo           | Base cream DAC   | 1338091          | 1              |
| Caelo           | Base cream DAC   | 13381001         | 16             |
| Caelo           | Base cream DAC   | 13381101         | 2              |
| Caelo           | Base cream DAC   | 13381201         | 7              |
| Caelo           | Base cream DAC   | 13384901         | 10             |
| Caelo           | Base cream DAC   | 13385101         | 6              |
| Caelo           | Base cream DAC   | 13385201         | 5              |
| Caelo           | Base cream DAC   | 13385301         | 5              |
| Caelo           | Base cream DAC   | 13386001         | 7              |
| Caelo           | Base cream DAC   | 13386101         | 2              |
| Caelo           | Base cream DAC   | 13386201         | 5              |
| Caelo           | Base cream DAC   | 1346001          | 2              |
| Caelo           | Base cream DAC   | 13480119         | 1              |
| Caelo           | Base cream DAC   | 1352701          | 1              |
| Caelo           | Base cream DAC   | 13812013         | 1              |
| Caelo           | Base cream DAC   | 1387801          | 1              |
| Caelo           | Base cream DAC   | 13A09-T10-232    | 2              |
| Caelo           | Base cream DAC   | 13E21-T06-003900 | 1              |
| Caelo           | Base cream DAC   | 13E21-T08-003906 | 2              |
| Caelo           | Base cream DAC   | 13E22-T08-003987 | 1              |
| Caelo           | Base cream DAC   | 13E23-T10-004023 | 1              |
| Caelo           | Base cream DAC   | 13H14-T01-006203 | 2              |
| Caelo           | Base cream DAC   | 13H14T05-006551  | 1              |
| Caelo           | Base cream DAC   | 13K12-T06-008054 | 2              |
| Caelo           | Base cream DAC   | 13K12-t07-008057 | 1              |
| Caelo           | Base cream DAC   | 1401020-01       | 1              |
| Caelo           | Base cream DAC   | 1401024-01       | 1              |
| Caelo           | Base cream DAC   | 1401025-01       | 1              |
| Caelo           | Base cream DAC   | 14011515         | 1              |
| Caelo           | Base cream DAC   | 14035801         | 1              |
| Caelo           | Base cream DAC   | 14035901         | 3              |
| Caelo           | Base cream DAC   | 14036001         | 2              |
| Caelo           | Base cream DAC   | 14036101         | 4              |
| Caelo           | Base cream DAC   | 14036201         | 12             |
| Caelo           | Base cream DAC   | 140409           | 1              |
| Caelo           | Base cream DAC   | 14052901         | 13             |
| Caelo           | Base cream DAC   | 14053001         | 4              |
| Caelo           | Base cream DAC   | 14053002         | 2              |
| Caelo           | Base cream DAC   | 14053101         | 2              |
| Caelo           | Base cream DAC   | 14053201         | 1              |
| Caelo           | Base cream DAC   | 14053301         | 2              |
| Caelo           | Base cream DAC   | 14053401         | 3              |
| Caelo           | Base cream DAC   | 14053501         | 1              |
| Caelo           | Base cream DAC   | 14053601         | 4              |
| Caelo           | Base cream DAC   | 14053701         | 7              |
| Caelo           | Base cream DAC   | 140705401        | 1              |
| Caelo           | Base cream DAC   | 1408009-01       | 1              |
| Caelo           | Base cream DAC   | 14090401         | 10             |
| Caelo           | Base cream DAC   | 1409041          | 1              |
| Caelo           | Base cream DAC   | 14090501         | 1              |
| Caelo           | Base cream DAC   | 14090601         | 10             |
| Caelo           | Base cream DAC   | 14090701         | 7              |
| Caelo           | Base cream DAC   | 14090801         | 11             |
| Caelo           | Base cream DAC   | 1409101          | 1              |
| Caelo           | Base cream DAC   | 14091401         | 3              |
| Caelo           | Base cream DAC   | 14091501         | 9              |
| Caelo           | Base cream DAC   | 14091601         | 7              |
| Caelo           | Base cream DAC   | 14091701         | 11             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 14091801     | 7              |
| Caelo           | Base cream DAC   | 14091901     | 6              |
| Caelo           | Base cream DAC   | 14092001     | 9              |
| Caelo           | Base cream DAC   | 14121-01309  | 1              |
| Caelo           | Base cream DAC   | 14130715     | 1              |
| Caelo           | Base cream DAC   | 14140817     | 4              |
| Caelo           | Base cream DAC   | 14143801     | 7              |
| Caelo           | Base cream DAC   | 14143901     | 6              |
| Caelo           | Base cream DAC   | 14144001     | 5              |
| Caelo           | Base cream DAC   | 14144101     | 11             |
| Caelo           | Base cream DAC   | 14144201     | 3              |
| Caelo           | Base cream DAC   | 14144202     | 1              |
| Caelo           | Base cream DAC   | 1415001      | 1              |
| Caelo           | Base cream DAC   | 14151001     | 8              |
| Caelo           | Base cream DAC   | 14151101     | 3              |
| Caelo           | Base cream DAC   | 14151301     | 2              |
| Caelo           | Base cream DAC   | 14151401     | 7              |
| Caelo           | Base cream DAC   | 14151501     | 10             |
| Caelo           | Base cream DAC   | 14151601     | 9              |
| Caelo           | Base cream DAC   | 14151701     | 1              |
| Caelo           | Base cream DAC   | 14151801     | 4              |
| Caelo           | Base cream DAC   | 14151901     | 4              |
| Caelo           | Base cream DAC   | 14177501     | 9              |
| Caelo           | Base cream DAC   | 14177601     | 1              |
| Caelo           | Base cream DAC   | 14177701     | 5              |
| Caelo           | Base cream DAC   | 1417780      | 1              |
| Caelo           | Base cream DAC   | 14177801     | 2              |
| Caelo           | Base cream DAC   | 14177901     | 5              |
| Caelo           | Base cream DAC   | 14178001     | 6              |
| Caelo           | Base cream DAC   | 14178101     | 4              |
| Caelo           | Base cream DAC   | 14178201     | 16             |
| Caelo           | Base cream DAC   | 14178401     | 5              |
| Caelo           | Base cream DAC   | 1418E-01309  | 1              |
| Caelo           | Base cream DAC   | 14222801     | 2              |
| Caelo           | Base cream DAC   | 14222901     | 1              |
| Caelo           | Base cream DAC   | 14223001     | 1              |
| Caelo           | Base cream DAC   | 14223201     | 12             |
| Caelo           | Base cream DAC   | 14227601     | 3              |
| Caelo           | Base cream DAC   | 14227701     | 5              |
| Caelo           | Base cream DAC   | 14227801     | 9              |
| Caelo           | Base cream DAC   | 14227901     | 4              |
| Caelo           | Base cream DAC   | 14228001     | 1              |
| Caelo           | Base cream DAC   | 142285       | 1              |
| Caelo           | Base cream DAC   | 1423101      | 1              |
| Caelo           | Base cream DAC   | 14232001     | 6              |
| Caelo           | Base cream DAC   | 14232101     | 7              |
| Caelo           | Base cream DAC   | 14232201     | 10             |
| Caelo           | Base cream DAC   | 14232301     | 4              |
| Caelo           | Base cream DAC   | 14238101     | 3              |
| Caelo           | Base cream DAC   | 14238201     | 2              |
| Caelo           | Base cream DAC   | 14238301     | 8              |
| Caelo           | Base cream DAC   | 14238401     | 3              |
| Caelo           | Base cream DAC   | 14238501     | 2              |
| Caelo           | Base cream DAC   | 14244501     | 5              |
| Caelo           | Base cream DAC   | 14263201     | 3              |
| Caelo           | Base cream DAC   | 14263301     | 6              |
| Caelo           | Base cream DAC   | 1426331      | 1              |
| Caelo           | Base cream DAC   | 14263401     | 3              |
| Caelo           | Base cream DAC   | 14263601     | 3              |
| Caelo           | Base cream DAC   | 14274601     | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 1428201          | 1              |
| Caelo           | Base cream DAC   | 14289601         | 10             |
| Caelo           | Base cream DAC   | 14289701         | 7              |
| Caelo           | Base cream DAC   | 14289801         | 12             |
| Caelo           | Base cream DAC   | 14289901         | 11             |
| Caelo           | Base cream DAC   | 14290001         | 7              |
| Caelo           | Base cream DAC   | 14290101         | 3              |
| Caelo           | Base cream DAC   | 14303101         | 5              |
| Caelo           | Base cream DAC   | 14303301         | 3              |
| Caelo           | Base cream DAC   | 14303401         | 1              |
| Caelo           | Base cream DAC   | 14303501         | 3              |
| Caelo           | Base cream DAC   | 14303801         | 8              |
| Caelo           | Base cream DAC   | 14303901         | 16             |
| Caelo           | Base cream DAC   | 14325101         | 2              |
| Caelo           | Base cream DAC   | 14325201         | 1              |
| Caelo           | Base cream DAC   | 14325401         | 2              |
| Caelo           | Base cream DAC   | 14325501         | 1              |
| Caelo           | Base cream DAC   | 14325601         | 1              |
| Caelo           | Base cream DAC   | 14325701         | 1              |
| Caelo           | Base cream DAC   | 14325801         | 2              |
| Caelo           | Base cream DAC   | 14325901         | 1              |
| Caelo           | Base cream DAC   | 14326701         | 18             |
| Caelo           | Base cream DAC   | 14326801         | 8              |
| Caelo           | Base cream DAC   | 14326901         | 5              |
| Caelo           | Base cream DAC   | 14327001         | 9              |
| Caelo           | Base cream DAC   | 14327101         | 3              |
| Caelo           | Base cream DAC   | 14327301         | 4              |
| Caelo           | Base cream DAC   | 14327401         | 3              |
| Caelo           | Base cream DAC   | 14327501         | 8              |
| Caelo           | Base cream DAC   | 14327601         | 3              |
| Caelo           | Base cream DAC   | 14327701         | 8              |
| Caelo           | Base cream DAC   | 14327801         | 2              |
| Caelo           | Base cream DAC   | 14327901         | 9              |
| Caelo           | Base cream DAC   | 14328001         | 5              |
| Caelo           | Base cream DAC   | 14368001         | 8              |
| Caelo           | Base cream DAC   | 14368101         | 9              |
| Caelo           | Base cream DAC   | 14368201         | 4              |
| Caelo           | Base cream DAC   | 14374201         | 3              |
| Caelo           | Base cream DAC   | 14374301         | 2              |
| Caelo           | Base cream DAC   | 14374401         | 2              |
| Caelo           | Base cream DAC   | 14374501         | 3              |
| Caelo           | Base cream DAC   | 14A10-T06-009259 | 1              |
| Caelo           | Base cream DAC   | 14D08-011697     | 1              |
| Caelo           | Base cream DAC   | 14D08T04-011692  | 1              |
| Caelo           | Base cream DAC   | 14D08-T05-011698 | 1              |
| Caelo           | Base cream DAC   | 14f05-t07-012965 | 1              |
| Caelo           | Base cream DAC   | 14j07T06015957   | 1              |
| Caelo           | Base cream DAC   | 15/138/B         | 1              |
| Caelo           | Base cream DAC   | 15000701         | 5              |
| Caelo           | Base cream DAC   | 15000801         | 4              |
| Caelo           | Base cream DAC   | 150008501        | 1              |
| Caelo           | Base cream DAC   | 15000901         | 8              |
| Caelo           | Base cream DAC   | 15004001         | 5              |
| Caelo           | Base cream DAC   | 1501019-01       | 1              |
| Caelo           | Base cream DAC   | 1501039-1        | 1              |
| Caelo           | Base cream DAC   | 1501052-01       | 1              |
| Caelo           | Base cream DAC   | 1502016-01       | 1              |
| Caelo           | Base cream DAC   | 1502027-01       | 1              |
| Caelo           | Base cream DAC   | 1502028-01       | 1              |
| Caelo           | Base cream DAC   | 15031805         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 15040601     | 16             |
| Caelo           | Base cream DAC   | 15040701     | 11             |
| Caelo           | Base cream DAC   | 15040801     | 6              |
| Caelo           | Base cream DAC   | 15040901     | 7              |
| Caelo           | Base cream DAC   | 15041001     | 8              |
| Caelo           | Base cream DAC   | 15041101     | 9              |
| Caelo           | Base cream DAC   | 15054501     | 1              |
| Caelo           | Base cream DAC   | 15064301     | 7              |
| Caelo           | Base cream DAC   | 15064401     | 7              |
| Caelo           | Base cream DAC   | 15064501     | 4              |
| Caelo           | Base cream DAC   | 15064601     | 2              |
| Caelo           | Base cream DAC   | 15064701     | 14             |
| Caelo           | Base cream DAC   | 150671       | 1              |
| Caelo           | Base cream DAC   | 15070101     | 12             |
| Caelo           | Base cream DAC   | 1507018-01   | 1              |
| Caelo           | Base cream DAC   | 15070201     | 12             |
| Caelo           | Base cream DAC   | 15071405     | 1              |
| Caelo           | Base cream DAC   | 15083001     | 1              |
| Caelo           | Base cream DAC   | 15083101     | 1              |
| Caelo           | Base cream DAC   | 15083201     | 1              |
| Caelo           | Base cream DAC   | 1509021-01   | 1              |
| Caelo           | Base cream DAC   | 1510030-01   | 1              |
| Caelo           | Base cream DAC   | 1511001-01   | 1              |
| Caelo           | Base cream DAC   | 151191001    | 1              |
| Caelo           | Base cream DAC   | 1512002-01   | 1              |
| Caelo           | Base cream DAC   | 1513301      | 1              |
| Caelo           | Base cream DAC   | 151564501    | 1              |
| Caelo           | Base cream DAC   | 15164301     | 1              |
| Caelo           | Base cream DAC   | 15164401     | 4              |
| Caelo           | Base cream DAC   | 15164501     | 10             |
| Caelo           | Base cream DAC   | 15164601     | 15             |
| Caelo           | Base cream DAC   | 15164701     | 11             |
| Caelo           | Base cream DAC   | 15166601     | 5              |
| Caelo           | Base cream DAC   | 15166701     | 4              |
| Caelo           | Base cream DAC   | 15166801     | 11             |
| Caelo           | Base cream DAC   | 15166901     | 7              |
| Caelo           | Base cream DAC   | 15167001     | 18             |
| Caelo           | Base cream DAC   | 15173201     | 6              |
| Caelo           | Base cream DAC   | 15173301     | 1              |
| Caelo           | Base cream DAC   | 15173401     | 8              |
| Caelo           | Base cream DAC   | 15173501     | 7              |
| Caelo           | Base cream DAC   | 15173601     | 10             |
| Caelo           | Base cream DAC   | 15184001     | 4              |
| Caelo           | Base cream DAC   | 15184101     | 4              |
| Caelo           | Base cream DAC   | 15184201     | 1              |
| Caelo           | Base cream DAC   | 15184301     | 9              |
| Caelo           | Base cream DAC   | 15184401     | 17             |
| Caelo           | Base cream DAC   | 1518901      | 2              |
| Caelo           | Base cream DAC   | 15190501     | 1              |
| Caelo           | Base cream DAC   | 15190601     | 2              |
| Caelo           | Base cream DAC   | 15190701     | 1              |
| Caelo           | Base cream DAC   | 15190901     | 3              |
| Caelo           | Base cream DAC   | 15191001     | 9              |
| Caelo           | Base cream DAC   | 15191102     | 5              |
| Caelo           | Base cream DAC   | 15191201     | 1              |
| Caelo           | Base cream DAC   | 15191202     | 8              |
| Caelo           | Base cream DAC   | 15191301     | 2              |
| Caelo           | Base cream DAC   | 15191401     | 2              |
| Caelo           | Base cream DAC   | 1520601      | 1              |
| Caelo           | Base cream DAC   | 1524001      | 4              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|-----------------|------------------|---------------------|----------------|
| Caelo           | Base cream DAC   | 15241901            | 5              |
| Caelo           | Base cream DAC   | 15242001            | 15             |
| Caelo           | Base cream DAC   | 15250001            | 6              |
| Caelo           | Base cream DAC   | 15250101            | 10             |
| Caelo           | Base cream DAC   | 15250201            | 7              |
| Caelo           | Base cream DAC   | 15250301            | 13             |
| Caelo           | Base cream DAC   | 15250501            | 17             |
| Caelo           | Base cream DAC   | 15250601            | 3              |
| Caelo           | Base cream DAC   | 15250701            | 3              |
| Caelo           | Base cream DAC   | 15250801            | 10             |
| Caelo           | Base cream DAC   | 15250902            | 24             |
| Caelo           | Base cream DAC   | 15272201            | 20             |
| Caelo           | Base cream DAC   | 15272301            | 11             |
| Caelo           | Base cream DAC   | 15272402            | 9              |
| Caelo           | Base cream DAC   | 15272501            | 1              |
| Caelo           | Base cream DAC   | 15272601            | 2              |
| Caelo           | Base cream DAC   | 15306101            | 1              |
| Caelo           | Base cream DAC   | 15306401            | 16             |
| Caelo           | Base cream DAC   | 15306501            | 8              |
| Caelo           | Base cream DAC   | 15306601            | 4              |
| Caelo           | Base cream DAC   | 15306701            | 10             |
| Caelo           | Base cream DAC   | 15313501            | 1              |
| Caelo           | Base cream DAC   | 15313601            | 4              |
| Caelo           | Base cream DAC   | 15315301            | 10             |
| Caelo           | Base cream DAC   | 15315401            | 11             |
| Caelo           | Base cream DAC   | 15318801            | 10             |
| Caelo           | Base cream DAC   | 15318901            | 10             |
| Caelo           | Base cream DAC   | 15357601            | 17             |
| Caelo           | Base cream DAC   | 15357701            | 14             |
| Caelo           | Base cream DAC   | 15357801            | 8              |
| Caelo           | Base cream DAC   | 153868              | 1              |
| Caelo           | Base cream DAC   | 15386801            | 1              |
| Caelo           | Base cream DAC   | 15386901            | 5              |
| Caelo           | Base cream DAC   | 15387001            | 3              |
| Caelo           | Base cream DAC   | 15387101            | 7              |
| Caelo           | Base cream DAC   | 15387201            | 13             |
| Caelo           | Base cream DAC   | 15390301            | 2              |
| Caelo           | Base cream DAC   | 15390401            | 4              |
| Caelo           | Base cream DAC   | 15390501            | 3              |
| Caelo           | Base cream DAC   | 15390601            | 4              |
| Caelo           | Base cream DAC   | 15390701            | 2              |
| Caelo           | Base cream DAC   | 15390801            | 10             |
| Caelo           | Base cream DAC   | 15390901            | 4              |
| Caelo           | Base cream DAC   | 15391001            | 6              |
| Caelo           | Base cream DAC   | 1539101             | 1              |
| Caelo           | Base cream DAC   | 15391101            | 4              |
| Caelo           | Base cream DAC   | 15391201            | 6              |
| Caelo           | Base cream DAC   | 1541901             | 1              |
| Caelo           | Base cream DAC   | 15419901            | 13             |
| Caelo           | Base cream DAC   | 15420001            | 15             |
| Caelo           | Base cream DAC   | 15420001/20160309/4 | 1              |
| Caelo           | Base cream DAC   | 15420101            | 4              |
| Caelo           | Base cream DAC   | 15420201            | 10             |
| Caelo           | Base cream DAC   | 15420401            | 16             |
| Caelo           | Base cream DAC   | 1542041             | 1              |
| Caelo           | Base cream DAC   | 1566801             | 1              |
| Caelo           | Base cream DAC   | 15690518            | 1              |
| Caelo           | Base cream DAC   | 15700518            | 1              |
| Caelo           | Base cream DAC   | 15720518            | 1              |
| Caelo           | Base cream DAC   | 1587201             | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 15F30-T14-034792 | 1              |
| Caelo           | Base cream DAC   | 15H04-T08-024987 | 1              |
| Caelo           | Base cream DAC   | 15J13-T03-026895 | 1              |
| Caelo           | Base cream DAC   | 16/078/B         | 1              |
| Caelo           | Base cream DAC   | 16005101         | 14             |
| Caelo           | Base cream DAC   | 16005201         | 3              |
| Caelo           | Base cream DAC   | 16005301         | 8              |
| Caelo           | Base cream DAC   | 16005401         | 6              |
| Caelo           | Base cream DAC   | 16005501         | 7              |
| Caelo           | Base cream DAC   | 1601023-01       | 1              |
| Caelo           | Base cream DAC   | 1601027-01       | 1              |
| Caelo           | Base cream DAC   | 160102801        | 1              |
| Caelo           | Base cream DAC   | 1603015-01       | 1              |
| Caelo           | Base cream DAC   | 1603037-01       | 1              |
| Caelo           | Base cream DAC   | 1604001-01       | 1              |
| Caelo           | Base cream DAC   | 16041001         | 4              |
| Caelo           | Base cream DAC   | 16041301         | 3              |
| Caelo           | Base cream DAC   | 16041802         | 1              |
| Caelo           | Base cream DAC   | 1605101          | 1              |
| Caelo           | Base cream DAC   | 16055501         | 3              |
| Caelo           | Base cream DAC   | 16055601         | 3              |
| Caelo           | Base cream DAC   | 16055701         | 13             |
| Caelo           | Base cream DAC   | 16055801         | 10             |
| Caelo           | Base cream DAC   | 16055901         | 9              |
| Caelo           | Base cream DAC   | 1605801          | 1              |
| Caelo           | Base cream DAC   | 16058801         | 21             |
| Caelo           | Base cream DAC   | 16059101         | 3              |
| Caelo           | Base cream DAC   | 160592           | 1              |
| Caelo           | Base cream DAC   | 16059201         | 5              |
| Caelo           | Base cream DAC   | 16061402         | 1              |
| Caelo           | Base cream DAC   | 160704           | 1              |
| Caelo           | Base cream DAC   | 1607601          | 1              |
| Caelo           | Base cream DAC   | 160809B          | 1              |
| Caelo           | Base cream DAC   | 16091901         | 6              |
| Caelo           | Base cream DAC   | 16097601         | 7              |
| Caelo           | Base cream DAC   | 160976012        | 1              |
| Caelo           | Base cream DAC   | 16101201         | 11             |
| Caelo           | Base cream DAC   | 16101301         | 6              |
| Caelo           | Base cream DAC   | 16101401         | 3              |
| Caelo           | Base cream DAC   | 16101901         | 8              |
| Caelo           | Base cream DAC   | 16102001         | 1              |
| Caelo           | Base cream DAC   | 16102101         | 4              |
| Caelo           | Base cream DAC   | 16102201         | 9              |
| Caelo           | Base cream DAC   | 16103701         | 5              |
| Caelo           | Base cream DAC   | 16103801         | 14             |
| Caelo           | Base cream DAC   | 16103901         | 11             |
| Caelo           | Base cream DAC   | 16104001         | 2              |
| Caelo           | Base cream DAC   | 16107417         | 1              |
| Caelo           | Base cream DAC   | 161111B/16155601 | 1              |
| Caelo           | Base cream DAC   | 16128901         | 7              |
| Caelo           | Base cream DAC   | 16131501         | 10             |
| Caelo           | Base cream DAC   | 16131901         | 9              |
| Caelo           | Base cream DAC   | 16132001         | 13             |
| Caelo           | Base cream DAC   | 16132101         | 15             |
| Caelo           | Base cream DAC   | 16132201         | 2              |
| Caelo           | Base cream DAC   | 16134701         | 14             |
| Caelo           | Base cream DAC   | 16134901         | 6              |
| Caelo           | Base cream DAC   | 16135001         | 19             |
| Caelo           | Base cream DAC   | 16135101         | 1              |
| Caelo           | Base cream DAC   | 16135201         | 8              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 16135701     | 6              |
| Caelo           | Base cream DAC   | 16135801     | 3              |
| Caelo           | Base cream DAC   | 16135901     | 7              |
| Caelo           | Base cream DAC   | 16136001     | 6              |
| Caelo           | Base cream DAC   | 16136101     | 1              |
| Caelo           | Base cream DAC   | 16136201     | 9              |
| Caelo           | Base cream DAC   | 16136301     | 12             |
| Caelo           | Base cream DAC   | 16139701     | 1              |
| Caelo           | Base cream DAC   | 16145601     | 7              |
| Caelo           | Base cream DAC   | 16145701     | 13             |
| Caelo           | Base cream DAC   | 16145801     | 13             |
| Caelo           | Base cream DAC   | 16145901     | 1              |
| Caelo           | Base cream DAC   | 16146001     | 11             |
| Caelo           | Base cream DAC   | 16149901     | 17             |
| Caelo           | Base cream DAC   | 16150101     | 7              |
| Caelo           | Base cream DAC   | 16150201     | 2              |
| Caelo           | Base cream DAC   | 16150301     | 3              |
| Caelo           | Base cream DAC   | 16152101     | 2              |
| Caelo           | Base cream DAC   | 16152201     | 14             |
| Caelo           | Base cream DAC   | 16152401     | 6              |
| Caelo           | Base cream DAC   | 16155401     | 5              |
| Caelo           | Base cream DAC   | 16155501     | 8              |
| Caelo           | Base cream DAC   | 161555601    | 1              |
| Caelo           | Base cream DAC   | 16155601     | 9              |
| Caelo           | Base cream DAC   | 16155701     | 3              |
| Caelo           | Base cream DAC   | 16155801     | 5              |
| Caelo           | Base cream DAC   | 16158401     | 9              |
| Caelo           | Base cream DAC   | 16203301     | 5              |
| Caelo           | Base cream DAC   | 16205501     | 3              |
| Caelo           | Base cream DAC   | 16205601     | 1              |
| Caelo           | Base cream DAC   | 16205801     | 13             |
| Caelo           | Base cream DAC   | 16206801     | 10             |
| Caelo           | Base cream DAC   | 16206902     | 1              |
| Caelo           | Base cream DAC   | 162070       | 1              |
| Caelo           | Base cream DAC   | 16207001     | 1              |
| Caelo           | Base cream DAC   | 16207101     | 1              |
| Caelo           | Base cream DAC   | 1620901      | 1              |
| Caelo           | Base cream DAC   | 16214801     | 12             |
| Caelo           | Base cream DAC   | 16219401     | 4              |
| Caelo           | Base cream DAC   | 1621941      | 1              |
| Caelo           | Base cream DAC   | 16219501     | 3              |
| Caelo           | Base cream DAC   | 16220201     | 4              |
| Caelo           | Base cream DAC   | 16220301     | 20             |
| Caelo           | Base cream DAC   | 16220401     | 25             |
| Caelo           | Base cream DAC   | 16220501     | 2              |
| Caelo           | Base cream DAC   | 16220601     | 3              |
| Caelo           | Base cream DAC   | 16226901     | 2              |
| Caelo           | Base cream DAC   | 16227001     | 3              |
| Caelo           | Base cream DAC   | 16227101     | 14             |
| Caelo           | Base cream DAC   | 16227201     | 4              |
| Caelo           | Base cream DAC   | 16231901     | 8              |
| Caelo           | Base cream DAC   | 16232001     | 10             |
| Caelo           | Base cream DAC   | 16232102     | 3              |
| Caelo           | Base cream DAC   | 16232201     | 2              |
| Caelo           | Base cream DAC   | 16232301     | 11             |
| Caelo           | Base cream DAC   | 16232401     | 4              |
| Caelo           | Base cream DAC   | 16232501     | 4              |
| Caelo           | Base cream DAC   | 16232601     | 5              |
| Caelo           | Base cream DAC   | 16232701     | 1              |
| Caelo           | Base cream DAC   | 16232801     | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 1623601          | 1              |
| Caelo           | Base cream DAC   | 16237801         | 5              |
| Caelo           | Base cream DAC   | 16237901         | 8              |
| Caelo           | Base cream DAC   | 16238001         | 1              |
| Caelo           | Base cream DAC   | 1623801          | 1              |
| Caelo           | Base cream DAC   | 16238102         | 4              |
| Caelo           | Base cream DAC   | 16238201         | 1              |
| Caelo           | Base cream DAC   | 16238301         | 13             |
| Caelo           | Base cream DAC   | 16240301         | 6              |
| Caelo           | Base cream DAC   | 16240601         | 3              |
| Caelo           | Base cream DAC   | 16240701         | 11             |
| Caelo           | Base cream DAC   | 16241001         | 6              |
| Caelo           | Base cream DAC   | 16241601         | 8              |
| Caelo           | Base cream DAC   | 16241701         | 1              |
| Caelo           | Base cream DAC   | 16241707         | 1              |
| Caelo           | Base cream DAC   | 16242001         | 8              |
| Caelo           | Base cream DAC   | 16242201         | 7              |
| Caelo           | Base cream DAC   | 16249801         | 12             |
| Caelo           | Base cream DAC   | 16253101         | 7              |
| Caelo           | Base cream DAC   | 16253501         | 8              |
| Caelo           | Base cream DAC   | 16260501         | 3              |
| Caelo           | Base cream DAC   | 16260701         | 14             |
| Caelo           | Base cream DAC   | 16260801         | 12             |
| Caelo           | Base cream DAC   | 16260901         | 10             |
| Caelo           | Base cream DAC   | 16261002         | 4              |
| Caelo           | Base cream DAC   | 16261101         | 14             |
| Caelo           | Base cream DAC   | 16261101/1170117 | 1              |
| Caelo           | Base cream DAC   | 16261201         | 6              |
| Caelo           | Base cream DAC   | 16261301         | 8              |
| Caelo           | Base cream DAC   | 16261401         | 8              |
| Caelo           | Base cream DAC   | 16261501         | 5              |
| Caelo           | Base cream DAC   | 16261602         | 4              |
| Caelo           | Base cream DAC   | 16261701         | 7              |
| Caelo           | Base cream DAC   | 16261801         | 6              |
| Caelo           | Base cream DAC   | 16261901         | 5              |
| Caelo           | Base cream DAC   | 16262001         | 4              |
| Caelo           | Base cream DAC   | 16262101         | 15             |
| Caelo           | Base cream DAC   | 16262301         | 2              |
| Caelo           | Base cream DAC   | 16269901         | 1              |
| Caelo           | Base cream DAC   | 16281101         | 1              |
| Caelo           | Base cream DAC   | 16318701         | 7              |
| Caelo           | Base cream DAC   | 16318702         | 2              |
| Caelo           | Base cream DAC   | 16318801         | 1              |
| Caelo           | Base cream DAC   | 16319301         | 4              |
| Caelo           | Base cream DAC   | 16319401         | 1              |
| Caelo           | Base cream DAC   | 16319501         | 2              |
| Caelo           | Base cream DAC   | 16319601         | 2              |
| Caelo           | Base cream DAC   | 16319701         | 3              |
| Caelo           | Base cream DAC   | 16325101         | 4              |
| Caelo           | Base cream DAC   | 16325801         | 12             |
| Caelo           | Base cream DAC   | 16325901         | 2              |
| Caelo           | Base cream DAC   | 16326001         | 19             |
| Caelo           | Base cream DAC   | 16326101         | 20             |
| Caelo           | Base cream DAC   | 16328901         | 2              |
| Caelo           | Base cream DAC   | 16329101         | 3              |
| Caelo           | Base cream DAC   | 16329201         | 6              |
| Caelo           | Base cream DAC   | 16349501         | 2              |
| Caelo           | Base cream DAC   | 16349502         | 8              |
| Caelo           | Base cream DAC   | 16350101         | 9              |
| Caelo           | Base cream DAC   | 16350201         | 5              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 16350301         | 9              |
| Caelo           | Base cream DAC   | 16350401         | 1              |
| Caelo           | Base cream DAC   | 1635041          | 1              |
| Caelo           | Base cream DAC   | 163505           | 1              |
| Caelo           | Base cream DAC   | 16352701         | 15             |
| Caelo           | Base cream DAC   | 16352801         | 2              |
| Caelo           | Base cream DAC   | 16352901         | 5              |
| Caelo           | Base cream DAC   | 16359502         | 1              |
| Caelo           | Base cream DAC   | 16360201         | 1              |
| Caelo           | Base cream DAC   | 1650201          | 1              |
| Caelo           | Base cream DAC   | 1652101          | 1              |
| Caelo           | Base cream DAC   | 166349502        | 1              |
| Caelo           | Base cream DAC   | 16815-T05-030285 | 1              |
| Caelo           | Base cream DAC   | 16B15-T02-030277 | 2              |
| Caelo           | Base cream DAC   | 16B15-T04-030281 | 4              |
| Caelo           | Base cream DAC   | 16B290713        | 1              |
| Caelo           | Base cream DAC   | 16C14-T02-031202 | 1              |
| Caelo           | Base cream DAC   | 16c24-T05-031490 | 1              |
| Caelo           | Base cream DAC   | 16C24-T05-031490 | 3              |
| Caelo           | Base cream DAC   | 16C24-To5-031490 | 1              |
| Caelo           | Base cream DAC   | 16D06-T10-031951 | 1              |
| Caelo           | Base cream DAC   | 16F30-T034792    | 1              |
| Caelo           | Base cream DAC   | 16F30-T13-034789 | 1              |
| Caelo           | Base cream DAC   | 16F30-T14-034792 | 3              |
| Caelo           | Base cream DAC   | 16F-T14-034792   | 1              |
| Caelo           | Base cream DAC   | 16G20-T04-035305 | 1              |
| Caelo           | Base cream DAC   | 16G20-T05-035308 | 1              |
| Caelo           | Base cream DAC   | 17000102         | 4              |
| Caelo           | Base cream DAC   | 17000905         | 1              |
| Caelo           | Base cream DAC   | 17000909         | 2              |
| Caelo           | Base cream DAC   | 17000912         | 1              |
| Caelo           | Base cream DAC   | 17000923         | 1              |
| Caelo           | Base cream DAC   | 17000927         | 1              |
| Caelo           | Base cream DAC   | 170031501        | 1              |
| Caelo           | Base cream DAC   | 17003201         | 6              |
| Caelo           | Base cream DAC   | 17003301         | 2              |
| Caelo           | Base cream DAC   | 17003401         | 13             |
| Caelo           | Base cream DAC   | 1700340117003401 | 1              |
| Caelo           | Base cream DAC   | 17003501         | 9              |
| Caelo           | Base cream DAC   | 170060501        | 1              |
| Caelo           | Base cream DAC   | 17006501         | 18             |
| Caelo           | Base cream DAC   | 17006601         | 11             |
| Caelo           | Base cream DAC   | 17006701         | 2              |
| Caelo           | Base cream DAC   | 17009801         | 5              |
| Caelo           | Base cream DAC   | 17009902         | 11             |
| Caelo           | Base cream DAC   | 170100001        | 1              |
| Caelo           | Base cream DAC   | 17010001         | 6              |
| Caelo           | Base cream DAC   | 17010201         | 14             |
| Caelo           | Base cream DAC   | 170109301        | 1              |
| Caelo           | Base cream DAC   | 17014401         | 10             |
| Caelo           | Base cream DAC   | 17014501         | 14             |
| Caelo           | Base cream DAC   | 17014601         | 7              |
| Caelo           | Base cream DAC   | 17019301         | 4              |
| Caelo           | Base cream DAC   | 17019501         | 6              |
| Caelo           | Base cream DAC   | 170195501        | 1              |
| Caelo           | Base cream DAC   | 17019601         | 8              |
| Caelo           | Base cream DAC   | 170216Vi4        | 1              |
| Caelo           | Base cream DAC   | 17023301         | 11             |
| Caelo           | Base cream DAC   | 17023401         | 7              |
| Caelo           | Base cream DAC   | 17023501         | 14             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-----------------|------------------|----------------------|----------------|
| Caelo           | Base cream DAC   | 17023601             | 2              |
| Caelo           | Base cream DAC   | 17023701             | 2              |
| Caelo           | Base cream DAC   | 17028801             | 10             |
| Caelo           | Base cream DAC   | 17028901             | 13             |
| Caelo           | Base cream DAC   | 17029001             | 13             |
| Caelo           | Base cream DAC   | 17029101             | 7              |
| Caelo           | Base cream DAC   | 17029201             | 5              |
| Caelo           | Base cream DAC   | 17029301             | 2              |
| Caelo           | Base cream DAC   | 17031501             | 14             |
| Caelo           | Base cream DAC   | 17031601             | 13             |
| Caelo           | Base cream DAC   | 17031701             | 2              |
| Caelo           | Base cream DAC   | 17031801             | 2              |
| Caelo           | Base cream DAC   | 17031901             | 1              |
| Caelo           | Base cream DAC   | 17035701             | 2              |
| Caelo           | Base cream DAC   | 17035801             | 6              |
| Caelo           | Base cream DAC   | 17035901             | 4              |
| Caelo           | Base cream DAC   | 17041702             | 1              |
| Caelo           | Base cream DAC   | 17061305             | 1              |
| Caelo           | Base cream DAC   | 170729185            | 1              |
| Caelo           | Base cream DAC   | 17079201             | 1              |
| Caelo           | Base cream DAC   | 170824CB/17136501    | 1              |
| Caelo           | Base cream DAC   | 17089701             | 3              |
| Caelo           | Base cream DAC   | 17090501             | 9              |
| Caelo           | Base cream DAC   | 17090502             | 4              |
| Caelo           | Base cream DAC   | 17090601             | 1              |
| Caelo           | Base cream DAC   | 17090701             | 1              |
| Caelo           | Base cream DAC   | 17090901             | 2              |
| Caelo           | Base cream DAC   | 170909015284         | 1              |
| Caelo           | Base cream DAC   | 170928B/17155101     | 1              |
| Caelo           | Base cream DAC   | 17094401             | 5              |
| Caelo           | Base cream DAC   | 17094501             | 1              |
| Caelo           | Base cream DAC   | 17094601             | 1              |
| Caelo           | Base cream DAC   | 1709501              | 1              |
| Caelo           | Base cream DAC   | 17097001             | 14             |
| Caelo           | Base cream DAC   | 17097101             | 12             |
| Caelo           | Base cream DAC   | 17097202             | 3              |
| Caelo           | Base cream DAC   | 17097301             | 7              |
| Caelo           | Base cream DAC   | 17097401             | 6              |
| Caelo           | Base cream DAC   | 171000501            | 3              |
| Caelo           | Base cream DAC   | 17100201             | 14             |
| Caelo           | Base cream DAC   | 17100301             | 14             |
| Caelo           | Base cream DAC   | 171003101            | 1              |
| Caelo           | Base cream DAC   | 171003801            | 1              |
| Caelo           | Base cream DAC   | 17100401             | 14             |
| Caelo           | Base cream DAC   | 17100501             | 19             |
| Caelo           | Base cream DAC   | 17103701             | 8              |
| Caelo           | Base cream DAC   | 17103701-20170704Ma1 | 1              |
| Caelo           | Base cream DAC   | 17103801             | 15             |
| Caelo           | Base cream DAC   | 17103901             | 4              |
| Caelo           | Base cream DAC   | 17104001             | 17             |
| Caelo           | Base cream DAC   | 17105701             | 1              |
| Caelo           | Base cream DAC   | 17108101             | 5              |
| Caelo           | Base cream DAC   | 17108201             | 8              |
| Caelo           | Base cream DAC   | 171114BC/17153802    | 1              |
| Caelo           | Base cream DAC   | 171128BC/17153802    | 1              |
| Caelo           | Base cream DAC   | 17116701             | 19             |
| Caelo           | Base cream DAC   | 17116801             | 2              |
| Caelo           | Base cream DAC   | 17116901             | 8              |
| Caelo           | Base cream DAC   | 17116902             | 11             |
| Caelo           | Base cream DAC   | 17117002             | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 17121401     | 9              |
| Caelo           | Base cream DAC   | 17121501     | 14             |
| Caelo           | Base cream DAC   | 17123901     | 9              |
| Caelo           | Base cream DAC   | 17124001     | 16             |
| Caelo           | Base cream DAC   | 17124101     | 9              |
| Caelo           | Base cream DAC   | 17124301     | 2              |
| Caelo           | Base cream DAC   | 17125201     | 4              |
| Caelo           | Base cream DAC   | 17127001     | 1              |
| Caelo           | Base cream DAC   | 17129901     | 17             |
| Caelo           | Base cream DAC   | 17133602     | 10             |
| Caelo           | Base cream DAC   | 17133603     | 1              |
| Caelo           | Base cream DAC   | 17136301     | 18             |
| Caelo           | Base cream DAC   | 17136501     | 6              |
| Caelo           | Base cream DAC   | 17136601     | 4              |
| Caelo           | Base cream DAC   | 1713M-01309  | 1              |
| Caelo           | Base cream DAC   | 1714601      | 1              |
| Caelo           | Base cream DAC   | 17147301     | 11             |
| Caelo           | Base cream DAC   | 17147401     | 9              |
| Caelo           | Base cream DAC   | 17147501     | 7              |
| Caelo           | Base cream DAC   | 17147601     | 7              |
| Caelo           | Base cream DAC   | 171476015345 | 1              |
| Caelo           | Base cream DAC   | 17147701     | 3              |
| Caelo           | Base cream DAC   | 17153401     | 4              |
| Caelo           | Base cream DAC   | 17153501     | 6              |
| Caelo           | Base cream DAC   | 171535501    | 1              |
| Caelo           | Base cream DAC   | 17153601     | 5              |
| Caelo           | Base cream DAC   | 17153701     | 8              |
| Caelo           | Base cream DAC   | 17153802     | 14             |
| Caelo           | Base cream DAC   | 17153901     | 7              |
| Caelo           | Base cream DAC   | 17154001     | 2              |
| Caelo           | Base cream DAC   | 17154101     | 3              |
| Caelo           | Base cream DAC   | 17154201     | 3              |
| Caelo           | Base cream DAC   | 17154301     | 3              |
| Caelo           | Base cream DAC   | 17154401     | 13             |
| Caelo           | Base cream DAC   | 17154501     | 2              |
| Caelo           | Base cream DAC   | 17154601     | 13             |
| Caelo           | Base cream DAC   | 17154701     | 10             |
| Caelo           | Base cream DAC   | 17154801     | 9              |
| Caelo           | Base cream DAC   | 17154901     | 14             |
| Caelo           | Base cream DAC   | 171550001    | 1              |
| Caelo           | Base cream DAC   | 17155001     | 27             |
| Caelo           | Base cream DAC   | 17155101     | 14             |
| Caelo           | Base cream DAC   | 17155201     | 16             |
| Caelo           | Base cream DAC   | 171552015374 | 1              |
| Caelo           | Base cream DAC   | 17155401     | 8              |
| Caelo           | Base cream DAC   | 17155601     | 10             |
| Caelo           | Base cream DAC   | 17155701     | 31             |
| Caelo           | Base cream DAC   | 172230001    | 1              |
| Caelo           | Base cream DAC   | 17224901     | 9              |
| Caelo           | Base cream DAC   | 17225002     | 8              |
| Caelo           | Base cream DAC   | 1722501      | 1              |
| Caelo           | Base cream DAC   | 17225101     | 9              |
| Caelo           | Base cream DAC   | 17225201     | 10             |
| Caelo           | Base cream DAC   | 17225202     | 1              |
| Caelo           | Base cream DAC   | 17225501     | 3              |
| Caelo           | Base cream DAC   | 17225601     | 12             |
| Caelo           | Base cream DAC   | 17225701     | 1              |
| Caelo           | Base cream DAC   | 17225801     | 8              |
| Caelo           | Base cream DAC   | 17225901     | 7              |
| Caelo           | Base cream DAC   | 17229201     | 10             |

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| Supplier | Substance      | Batch                | Spectra |
|----------|----------------|----------------------|---------|
| Caelo    | Base cream DAC | 17229301             | 13      |
| Caelo    | Base cream DAC | 17229401             | 16      |
| Caelo    | Base cream DAC | 172294401            | 1       |
| Caelo    | Base cream DAC | 17229501             | 3       |
| Caelo    | Base cream DAC | 17229601             | 10      |
| Caelo    | Base cream DAC | 17229701             | 3       |
| Caelo    | Base cream DAC | 17229801             | 4       |
| Caelo    | Base cream DAC | 17229901             | 7       |
| Caelo    | Base cream DAC | 17230001             | 21      |
| Caelo    | Base cream DAC | 17230101             | 3       |
| Caelo    | Base cream DAC | 17232401             | 2       |
| Caelo    | Base cream DAC | 17232402             | 2       |
| Caelo    | Base cream DAC | 17239901             | 17      |
| Caelo    | Base cream DAC | 17239915453          | 1       |
| Caelo    | Base cream DAC | 17240001             | 10      |
| Caelo    | Base cream DAC | 17240101             | 4       |
| Caelo    | Base cream DAC | 17240201             | 3       |
| Caelo    | Base cream DAC | 17240301             | 7       |
| Caelo    | Base cream DAC | 17240301-20171127Ma8 | 1       |
| Caelo    | Base cream DAC | 17240401             | 5       |
| Caelo    | Base cream DAC | 17240501             | 1       |
| Caelo    | Base cream DAC | 17240601             | 5       |
| Caelo    | Base cream DAC | 17240701             | 2       |
| Caelo    | Base cream DAC | 17240801             | 8       |
| Caelo    | Base cream DAC | 17243301             | 2       |
| Caelo    | Base cream DAC | 17243401             | 12      |
| Caelo    | Base cream DAC | 17243501             | 13      |
| Caelo    | Base cream DAC | 17243601             | 13      |
| Caelo    | Base cream DAC | 17251501             | 7       |
| Caelo    | Base cream DAC | 17251601             | 18      |
| Caelo    | Base cream DAC | 17251701             | 19      |
| Caelo    | Base cream DAC | 17263801             | 8       |
| Caelo    | Base cream DAC | 17263901             | 9       |
| Caelo    | Base cream DAC | 17264001             | 3       |
| Caelo    | Base cream DAC | 17264201             | 1       |
| Caelo    | Base cream DAC | 17264301             | 17      |
| Caelo    | Base cream DAC | 17264401             | 5       |
| Caelo    | Base cream DAC | 17264501             | 9       |
| Caelo    | Base cream DAC | 17264601             | 3       |
| Caelo    | Base cream DAC | 17264701             | 6       |
| Caelo    | Base cream DAC | 17265001             | 3       |
| Caelo    | Base cream DAC | 17265101             | 2       |
| Caelo    | Base cream DAC | 17265701             | 2       |
| Caelo    | Base cream DAC | 17265801             | 6       |
| Caelo    | Base cream DAC | 17265901             | 6       |
| Caelo    | Base cream DAC | 17266001             | 16      |
| Caelo    | Base cream DAC | 1726601              | 1       |
| Caelo    | Base cream DAC | 17266301             | 7       |
| Caelo    | Base cream DAC | 17266401             | 16      |
| Caelo    | Base cream DAC | 17266501             | 17      |
| Caelo    | Base cream DAC | 17266601             | 22      |
| Caelo    | Base cream DAC | 17266601-20180206Ma1 | 1       |
| Caelo    | Base cream DAC | 17266701             | 9       |
| Caelo    | Base cream DAC | 172668001            | 1       |
| Caelo    | Base cream DAC | 17266801             | 22      |
| Caelo    | Base cream DAC | 172668015477         | 1       |
| Caelo    | Base cream DAC | 17266901             | 11      |
| Caelo    | Base cream DAC | 17267001             | 19      |
| Caelo    | Base cream DAC | 17267101             | 10      |
| Caelo    | Base cream DAC | 17267201             | 6       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 17267301         | 27             |
| Caelo           | Base cream DAC   | 17267401         | 10             |
| Caelo           | Base cream DAC   | 17267501         | 8              |
| Caelo           | Base cream DAC   | 172676001        | 1              |
| Caelo           | Base cream DAC   | 17267601         | 15             |
| Caelo           | Base cream DAC   | 17267701         | 11             |
| Caelo           | Base cream DAC   | 17267702         | 1              |
| Caelo           | Base cream DAC   | 17267801         | 14             |
| Caelo           | Base cream DAC   | 17268001         | 11             |
| Caelo           | Base cream DAC   | 17268301         | 18             |
| Caelo           | Base cream DAC   | 17268401         | 11             |
| Caelo           | Base cream DAC   | 17268501         | 17             |
| Caelo           | Base cream DAC   | 17268601         | 6              |
| Caelo           | Base cream DAC   | 172686015582     | 1              |
| Caelo           | Base cream DAC   | 17268701         | 3              |
| Caelo           | Base cream DAC   | 17268801         | 10             |
| Caelo           | Base cream DAC   | 17268901         | 5              |
| Caelo           | Base cream DAC   | 17269001         | 12             |
| Caelo           | Base cream DAC   | 17269101         | 3              |
| Caelo           | Base cream DAC   | 17269201         | 5              |
| Caelo           | Base cream DAC   | 17269301         | 4              |
| Caelo           | Base cream DAC   | 1734041          | 1              |
| Caelo           | Base cream DAC   | 173450801        | 1              |
| Caelo           | Base cream DAC   | 17345801         | 12             |
| Caelo           | Base cream DAC   | 17349501         | 4              |
| Caelo           | Base cream DAC   | 17349601         | 1              |
| Caelo           | Base cream DAC   | 17349801         | 10             |
| Caelo           | Base cream DAC   | 17349802         | 1              |
| Caelo           | Base cream DAC   | 17349901         | 17             |
| Caelo           | Base cream DAC   | 17351901         | 8              |
| Caelo           | Base cream DAC   | 17352001         | 17             |
| Caelo           | Base cream DAC   | 17352101         | 15             |
| Caelo           | Base cream DAC   | 173522001        | 1              |
| Caelo           | Base cream DAC   | 17352201         | 17             |
| Caelo           | Base cream DAC   | 1753501          | 1              |
| Caelo           | Base cream DAC   | 1754601          | 1              |
| Caelo           | Base cream DAC   | 1755001          | 2              |
| Caelo           | Base cream DAC   | 1755701          | 1              |
| Caelo           | Base cream DAC   | 1768601          | 1              |
| Caelo           | Base cream DAC   | 17A03-T07-040044 | 1              |
| Caelo           | Base cream DAC   | 17C16-T06-042610 | 2              |
| Caelo           | Base cream DAC   | 17C16-T10-042627 | 2              |
| Caelo           | Base cream DAC   | 17E11/T08-044210 | 1              |
| Caelo           | Base cream DAC   | 17E11-T07-044186 | 3              |
| Caelo           | Base cream DAC   | 17F08-T02-045262 | 1              |
| Caelo           | Base cream DAC   | 17F08-T03-045267 | 1              |
| Caelo           | Base cream DAC   | 17H25-T06-047736 | 3              |
| Caelo           | Base cream DAC   | 17H25-T07-047741 | 3              |
| Caelo           | Base cream DAC   | 17H25-T09        | 1              |
| Caelo           | Base cream DAC   | 17H25-T11-047756 | 2              |
| Caelo           | Base cream DAC   | 17K24-T02-050485 | 1              |
| Caelo           | Base cream DAC   | 17K24-T05-050498 | 1              |
| Caelo           | Base cream DAC   | 18000971         | 1              |
| Caelo           | Base cream DAC   | 18001301         | 13             |
| Caelo           | Base cream DAC   | 18001401         | 15             |
| Caelo           | Base cream DAC   | 18001971         | 1              |
| Caelo           | Base cream DAC   | 18002            | 2              |
| Caelo           | Base cream DAC   | 18003102         | 1              |
| Caelo           | Base cream DAC   | 18003107         | 1              |
| Caelo           | Base cream DAC   | 18003931         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 18003933         | 1              |
| Caelo           | Base cream DAC   | 18003934         | 1              |
| Caelo           | Base cream DAC   | 18003935         | 3              |
| Caelo           | Base cream DAC   | 18003937         | 1              |
| Caelo           | Base cream DAC   | 18003938         | 1              |
| Caelo           | Base cream DAC   | 18003940         | 2              |
| Caelo           | Base cream DAC   | 18003945         | 1              |
| Caelo           | Base cream DAC   | 18005746         | 1              |
| Caelo           | Base cream DAC   | 18005747         | 2              |
| Caelo           | Base cream DAC   | 18005748         | 1              |
| Caelo           | Base cream DAC   | 18006772         | 1              |
| Caelo           | Base cream DAC   | 18006774         | 2              |
| Caelo           | Base cream DAC   | 18015101         | 13             |
| Caelo           | Base cream DAC   | 18015301         | 11             |
| Caelo           | Base cream DAC   | 18015401         | 6              |
| Caelo           | Base cream DAC   | 18016701         | 12             |
| Caelo           | Base cream DAC   | 18033702         | 5              |
| Caelo           | Base cream DAC   | 18037101         | 11             |
| Caelo           | Base cream DAC   | 18037201         | 5              |
| Caelo           | Base cream DAC   | 18037301         | 5              |
| Caelo           | Base cream DAC   | 18037401         | 3              |
| Caelo           | Base cream DAC   | 18037402         | 1              |
| Caelo           | Base cream DAC   | 18037901         | 6              |
| Caelo           | Base cream DAC   | 180397901        | 1              |
| Caelo           | Base cream DAC   | 1805101          | 1              |
| Caelo           | Base cream DAC   | 1805201          | 1              |
| Caelo           | Base cream DAC   | 1805241          | 1              |
| Caelo           | Base cream DAC   | 18055601         | 8              |
| Caelo           | Base cream DAC   | 18055602         | 2              |
| Caelo           | Base cream DAC   | 180615010        | 1              |
| Caelo           | Base cream DAC   | 18071302         | 1              |
| Caelo           | Base cream DAC   | 18081601         | 5              |
| Caelo           | Base cream DAC   | 18081602         | 10             |
| Caelo           | Base cream DAC   | 18081701         | 3              |
| Caelo           | Base cream DAC   | 18081702         | 13             |
| Caelo           | Base cream DAC   | 18085201         | 8              |
| Caelo           | Base cream DAC   | 18085202         | 11             |
| Caelo           | Base cream DAC   | 18085202/1300518 | 1              |
| Caelo           | Base cream DAC   | 1809             | 1              |
| Caelo           | Base cream DAC   | 18091101         | 6              |
| Caelo           | Base cream DAC   | 18091102         | 10             |
| Caelo           | Base cream DAC   | 18091201         | 1              |
| Caelo           | Base cream DAC   | 18091202         | 10             |
| Caelo           | Base cream DAC   | 18097701         | 3              |
| Caelo           | Base cream DAC   | 18097702         | 20             |
| Caelo           | Base cream DAC   | 180977025637     | 1              |
| Caelo           | Base cream DAC   | 18104701         | 1              |
| Caelo           | Base cream DAC   | 18104801         | 2              |
| Caelo           | Base cream DAC   | 18104901         | 5              |
| Caelo           | Base cream DAC   | 18105001         | 10             |
| Caelo           | Base cream DAC   | 18105101         | 7              |
| Caelo           | Base cream DAC   | 18105201         | 9              |
| Caelo           | Base cream DAC   | 18105301         | 8              |
| Caelo           | Base cream DAC   | 18105402         | 26             |
| Caelo           | Base cream DAC   | 18105501         | 7              |
| Caelo           | Base cream DAC   | 18105602         | 5              |
| Caelo           | Base cream DAC   | 18105701         | 11             |
| Caelo           | Base cream DAC   | 18105801         | 20             |
| Caelo           | Base cream DAC   | 18126301         | 28             |
| Caelo           | Base cream DAC   | 18126401         | 11             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-----------------|------------------|----------------------|----------------|
| Caelo           | Base cream DAC   | 18129301             | 16             |
| Caelo           | Base cream DAC   | 18136101             | 1              |
| Caelo           | Base cream DAC   | 18137001             | 16             |
| Caelo           | Base cream DAC   | 18137101             | 6              |
| Caelo           | Base cream DAC   | 18137201             | 17             |
| Caelo           | Base cream DAC   | 18137201-20180830Ma5 | 1              |
| Caelo           | Base cream DAC   | 18137301             | 21             |
| Caelo           | Base cream DAC   | 18137401             | 4              |
| Caelo           | Base cream DAC   | 18137501             | 1              |
| Caelo           | Base cream DAC   | 18137601             | 43             |
| Caelo           | Base cream DAC   | 18137702             | 6              |
| Caelo           | Base cream DAC   | 18137801             | 29             |
| Caelo           | Base cream DAC   | 18137901             | 3              |
| Caelo           | Base cream DAC   | 18138001             | 33             |
| Caelo           | Base cream DAC   | 181380015686         | 1              |
| Caelo           | Base cream DAC   | 1813801              | 1              |
| Caelo           | Base cream DAC   | 18138101             | 27             |
| Caelo           | Base cream DAC   | 18138201             | 15             |
| Caelo           | Base cream DAC   | 18138301             | 26             |
| Caelo           | Base cream DAC   | 18138401             | 27             |
| Caelo           | Base cream DAC   | 181465601            | 1              |
| Caelo           | Base cream DAC   | 18165101             | 5              |
| Caelo           | Base cream DAC   | 18165201             | 7              |
| Caelo           | Base cream DAC   | 18165301             | 17             |
| Caelo           | Base cream DAC   | 18165401             | 27             |
| Caelo           | Base cream DAC   | 18165601             | 35             |
| Caelo           | Base cream DAC   | 181656015738         | 1              |
| Caelo           | Base cream DAC   | 18165701             | 21             |
| Caelo           | Base cream DAC   | 18165801             | 32             |
| Caelo           | Base cream DAC   | 18165901             | 8              |
| Caelo           | Base cream DAC   | 1816602              | 2              |
| Caelo           | Base cream DAC   | 18166101             | 28             |
| Caelo           | Base cream DAC   | 18166201             | 22             |
| Caelo           | Base cream DAC   | 18166301             | 17             |
| Caelo           | Base cream DAC   | 18166401             | 26             |
| Caelo           | Base cream DAC   | 18166501             | 25             |
| Caelo           | Base cream DAC   | 18166602             | 31             |
| Caelo           | Base cream DAC   | 181666501            | 1              |
| Caelo           | Base cream DAC   | 181667001            | 1              |
| Caelo           | Base cream DAC   | 18166701             | 4              |
| Caelo           | Base cream DAC   | 18166801             | 3              |
| Caelo           | Base cream DAC   | 18166901             | 10             |
| Caelo           | Base cream DAC   | 18167001             | 22             |
| Caelo           | Base cream DAC   | 18167101             | 17             |
| Caelo           | Base cream DAC   | 18192501             | 22             |
| Caelo           | Base cream DAC   | 18192601             | 23             |
| Caelo           | Base cream DAC   | 18192701             | 30             |
| Caelo           | Base cream DAC   | 18192801             | 5              |
| Caelo           | Base cream DAC   | 18192901             | 8              |
| Caelo           | Base cream DAC   | 18193001             | 2              |
| Caelo           | Base cream DAC   | 18193101             | 33             |
| Caelo           | Base cream DAC   | 18193201             | 19             |
| Caelo           | Base cream DAC   | 18193301             | 30             |
| Caelo           | Base cream DAC   | 181933301            | 1              |
| Caelo           | Base cream DAC   | 18193401             | 2              |
| Caelo           | Base cream DAC   | 18200801             | 1              |
| Caelo           | Base cream DAC   | 1820401              | 1              |
| Caelo           | Base cream DAC   | 18211701             | 25             |
| Caelo           | Base cream DAC   | 18220401             | 30             |
| Caelo           | Base cream DAC   | 182322901            | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 18232301         | 1              |
| Caelo           | Base cream DAC   | 18232401         | 20             |
| Caelo           | Base cream DAC   | 18232501         | 28             |
| Caelo           | Base cream DAC   | 182325011        | 1              |
| Caelo           | Base cream DAC   | 18232601         | 20             |
| Caelo           | Base cream DAC   | 18232701         | 20             |
| Caelo           | Base cream DAC   | 18232801         | 13             |
| Caelo           | Base cream DAC   | 18232901         | 20             |
| Caelo           | Base cream DAC   | 1823501          | 3              |
| Caelo           | Base cream DAC   | 1823901          | 1              |
| Caelo           | Base cream DAC   | 18269001         | 24             |
| Caelo           | Base cream DAC   | 1826901          | 1              |
| Caelo           | Base cream DAC   | 18269101         | 19             |
| Caelo           | Base cream DAC   | 18269201         | 33             |
| Caelo           | Base cream DAC   | 18269301         | 31             |
| Caelo           | Base cream DAC   | 18269401         | 18             |
| Caelo           | Base cream DAC   | 18269501         | 26             |
| Caelo           | Base cream DAC   | 18269601         | 31             |
| Caelo           | Base cream DAC   | 18269701         | 28             |
| Caelo           | Base cream DAC   | 18269801         | 33             |
| Caelo           | Base cream DAC   | 18269901         | 22             |
| Caelo           | Base cream DAC   | 18270001         | 8              |
| Caelo           | Base cream DAC   | 1827001          | 1              |
| Caelo           | Base cream DAC   | 18270101         | 11             |
| Caelo           | Base cream DAC   | 18270401         | 6              |
| Caelo           | Base cream DAC   | 18270501         | 15             |
| Caelo           | Base cream DAC   | 1827050101       | 1              |
| Caelo           | Base cream DAC   | 18270601         | 4              |
| Caelo           | Base cream DAC   | 18270701         | 14             |
| Caelo           | Base cream DAC   | 18270801         | 3              |
| Caelo           | Base cream DAC   | 18270901         | 20             |
| Caelo           | Base cream DAC   | 18271001         | 6              |
| Caelo           | Base cream DAC   | 18271101         | 6              |
| Caelo           | Base cream DAC   | 18271201         | 10             |
| Caelo           | Base cream DAC   | 18271301         | 6              |
| Caelo           | Base cream DAC   | 18272201         | 25             |
| Caelo           | Base cream DAC   | 18272301         | 32             |
| Caelo           | Base cream DAC   | 1865601          | 2              |
| Caelo           | Base cream DAC   | 18C19-T18-05352  | 1              |
| Caelo           | Base cream DAC   | 18C19-T18-053952 | 3              |
| Caelo           | Base cream DAC   | 18C19-T20-053962 | 1              |
| Caelo           | Base cream DAC   | 18C19-T22-053970 | 2              |
| Caelo           | Base cream DAC   | 18e23-t15-056314 | 1              |
| Caelo           | Base cream DAC   | 18E23-T15-056314 | 2              |
| Caelo           | Base cream DAC   | 18E23-T16-056321 | 2              |
| Caelo           | Base cream DAC   | 18G13-T09-058073 | 3              |
| Caelo           | Base cream DAC   | 18G13-T10-058076 | 7              |
| Caelo           | Base cream DAC   | 18G13-T11-058079 | 5              |
| Caelo           | Base cream DAC   | 18G13T13058087   | 1              |
| Caelo           | Base cream DAC   | 18G13-T14-058090 | 2              |
| Caelo           | Base cream DAC   | 18L20-T11-062930 | 1              |
| Caelo           | Base cream DAC   | 18L20-T12-062935 | 4              |
| Caelo           | Base cream DAC   | 18L20-T17-062947 | 1              |
| Caelo           | Base cream DAC   | 19000751003      | 6              |
| Caelo           | Base cream DAC   | 19000938         | 1              |
| Caelo           | Base cream DAC   | 19000942         | 2              |
| Caelo           | Base cream DAC   | 19000948         | 1              |
| Caelo           | Base cream DAC   | 19002685         | 1              |
| Caelo           | Base cream DAC   | 19002692         | 1              |
| Caelo           | Base cream DAC   | 19003101         | 9              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 19003201     | 5              |
| Caelo           | Base cream DAC   | 19003278     | 1              |
| Caelo           | Base cream DAC   | 19003401     | 14             |
| Caelo           | Base cream DAC   | 19003501     | 17             |
| Caelo           | Base cream DAC   | 19003502     | 23             |
| Caelo           | Base cream DAC   | 19003601     | 24             |
| Caelo           | Base cream DAC   | 19003701     | 31             |
| Caelo           | Base cream DAC   | 19003801     | 19             |
| Caelo           | Base cream DAC   | 19003901     | 14             |
| Caelo           | Base cream DAC   | 19005        | 2              |
| Caelo           | Base cream DAC   | 19011902     | 1              |
| Caelo           | Base cream DAC   | 19019901     | 6              |
| Caelo           | Base cream DAC   | 19020001     | 9              |
| Caelo           | Base cream DAC   | 19020201     | 21             |
| Caelo           | Base cream DAC   | 19021304     | 1              |
| Caelo           | Base cream DAC   | 19051801     | 8              |
| Caelo           | Base cream DAC   | 19051802     | 2              |
| Caelo           | Base cream DAC   | 19051901     | 6              |
| Caelo           | Base cream DAC   | 19052001     | 3              |
| Caelo           | Base cream DAC   | 19052101     | 5              |
| Caelo           | Base cream DAC   | 1905210401   | 1              |
| Caelo           | Base cream DAC   | 19052301     | 13             |
| Caelo           | Base cream DAC   | 19052401     | 12             |
| Caelo           | Base cream DAC   | 19052501     | 13             |
| Caelo           | Base cream DAC   | 19052601     | 9              |
| Caelo           | Base cream DAC   | 19052701     | 12             |
| Caelo           | Base cream DAC   | 19052801     | 11             |
| Caelo           | Base cream DAC   | 19052901     | 11             |
| Caelo           | Base cream DAC   | 19053001     | 10             |
| Caelo           | Base cream DAC   | 19053101     | 11             |
| Caelo           | Base cream DAC   | 19053201     | 14             |
| Caelo           | Base cream DAC   | 19053301     | 19             |
| Caelo           | Base cream DAC   | 19075901     | 1              |
| Caelo           | Base cream DAC   | 19076001     | 3              |
| Caelo           | Base cream DAC   | 190814A      | 1              |
| Caelo           | Base cream DAC   | 19081503     | 1              |
| Caelo           | Base cream DAC   | 19083101     | 1              |
| Caelo           | Base cream DAC   | 19101302     | 1              |
| Caelo           | Base cream DAC   | 191117501    | 1              |
| Caelo           | Base cream DAC   | 19116701     | 1              |
| Caelo           | Base cream DAC   | 19116801     | 32             |
| Caelo           | Base cream DAC   | 19116901     | 4              |
| Caelo           | Base cream DAC   | 19117001     | 6              |
| Caelo           | Base cream DAC   | 19117101     | 9              |
| Caelo           | Base cream DAC   | 191171101    | 1              |
| Caelo           | Base cream DAC   | 19117201     | 2              |
| Caelo           | Base cream DAC   | 191172301    | 1              |
| Caelo           | Base cream DAC   | 19117301     | 26             |
| Caelo           | Base cream DAC   | 19117401     | 20             |
| Caelo           | Base cream DAC   | 19117410     | 1              |
| Caelo           | Base cream DAC   | 19117501     | 21             |
| Caelo           | Base cream DAC   | 19117601     | 12             |
| Caelo           | Base cream DAC   | 19117701     | 19             |
| Caelo           | Base cream DAC   | 19117801     | 17             |
| Caelo           | Base cream DAC   | 19118001     | 3              |
| Caelo           | Base cream DAC   | 1911801      | 1              |
| Caelo           | Base cream DAC   | 19118101     | 31             |
| Caelo           | Base cream DAC   | 19118201     | 3              |
| Caelo           | Base cream DAC   | 19118301     | 8              |
| Caelo           | Base cream DAC   | 19118401     | 34             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 19119401         | 1              |
| Caelo           | Base cream DAC   | 1912001          | 1              |
| Caelo           | Base cream DAC   | 19147801         | 26             |
| Caelo           | Base cream DAC   | 19147901         | 26             |
| Caelo           | Base cream DAC   | 19148001         | 31             |
| Caelo           | Base cream DAC   | 19153601         | 15             |
| Caelo           | Base cream DAC   | 19153801         | 5              |
| Caelo           | Base cream DAC   | 1916801          | 1              |
| Caelo           | Base cream DAC   | 19170201         | 5              |
| Caelo           | Base cream DAC   | 19170301         | 18             |
| Caelo           | Base cream DAC   | 1917039          | 1              |
| Caelo           | Base cream DAC   | 19170401         | 7              |
| Caelo           | Base cream DAC   | 19170501         | 21             |
| Caelo           | Base cream DAC   | 19170601         | 30             |
| Caelo           | Base cream DAC   | 19170701         | 29             |
| Caelo           | Base cream DAC   | 191707017        | 1              |
| Caelo           | Base cream DAC   | 19170801         | 2              |
| Caelo           | Base cream DAC   | 19170901         | 17             |
| Caelo           | Base cream DAC   | 19171001         | 9              |
| Caelo           | Base cream DAC   | 19171801         | 12             |
| Caelo           | Base cream DAC   | 19172001         | 8              |
| Caelo           | Base cream DAC   | 19172101         | 2              |
| Caelo           | Base cream DAC   | 19172201         | 9              |
| Caelo           | Base cream DAC   | 19172301         | 19             |
| Caelo           | Base cream DAC   | 19172401         | 24             |
| Caelo           | Base cream DAC   | 19172501         | 29             |
| Caelo           | Base cream DAC   | 1917250119240701 | 1              |
| Caelo           | Base cream DAC   | 19172601         | 26             |
| Caelo           | Base cream DAC   | 19172701         | 17             |
| Caelo           | Base cream DAC   | 19172801         | 3              |
| Caelo           | Base cream DAC   | 19172901         | 7              |
| Caelo           | Base cream DAC   | 19173001         | 11             |
| Caelo           | Base cream DAC   | 19173101         | 5              |
| Caelo           | Base cream DAC   | 19173201         | 5              |
| Caelo           | Base cream DAC   | 19173301         | 5              |
| Caelo           | Base cream DAC   | 19173401         | 3              |
| Caelo           | Base cream DAC   | 19173701         | 21             |
| Caelo           | Base cream DAC   | 19173801         | 9              |
| Caelo           | Base cream DAC   | 19173901         | 22             |
| Caelo           | Base cream DAC   | 19173903         | 1              |
| Caelo           | Base cream DAC   | 19174001         | 16             |
| Caelo           | Base cream DAC   | 19174101         | 6              |
| Caelo           | Base cream DAC   | 19174201         | 20             |
| Caelo           | Base cream DAC   | 19174301         | 20             |
| Caelo           | Base cream DAC   | 19174401         | 29             |
| Caelo           | Base cream DAC   | 19174404         | 1              |
| Caelo           | Base cream DAC   | 19174501         | 20             |
| Caelo           | Base cream DAC   | 1917701          | 1              |
| Caelo           | Base cream DAC   | 19239001         | 15             |
| Caelo           | Base cream DAC   | 19239101         | 4              |
| Caelo           | Base cream DAC   | 19239201         | 20             |
| Caelo           | Base cream DAC   | 19239301         | 15             |
| Caelo           | Base cream DAC   | 19239401         | 6              |
| Caelo           | Base cream DAC   | 19239501         | 1              |
| Caelo           | Base cream DAC   | 19239601         | 1              |
| Caelo           | Base cream DAC   | 19240201         | 16             |
| Caelo           | Base cream DAC   | 19240301         | 20             |
| Caelo           | Base cream DAC   | 19240401         | 31             |
| Caelo           | Base cream DAC   | 19240501         | 18             |
| Caelo           | Base cream DAC   | 19240601         | 15             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|-----------------|------------------|---------------------|----------------|
| Caelo           | Base cream DAC   | 1924061             | 1              |
| Caelo           | Base cream DAC   | 19240701            | 34             |
| Caelo           | Base cream DAC   | 19240801            | 4              |
| Caelo           | Base cream DAC   | 19240901            | 3              |
| Caelo           | Base cream DAC   | 19241001            | 1              |
| Caelo           | Base cream DAC   | 19252901            | 1              |
| Caelo           | Base cream DAC   | 19267802            | 1              |
| Caelo           | Base cream DAC   | 19269501            | 4              |
| Caelo           | Base cream DAC   | 19269601            | 4              |
| Caelo           | Base cream DAC   | 19269701            | 5              |
| Caelo           | Base cream DAC   | 19269801            | 6              |
| Caelo           | Base cream DAC   | 19269901            | 10             |
| Caelo           | Base cream DAC   | 19270001            | 4              |
| Caelo           | Base cream DAC   | 19270101            | 17             |
| Caelo           | Base cream DAC   | 19270201            | 16             |
| Caelo           | Base cream DAC   | 19270301            | 20             |
| Caelo           | Base cream DAC   | 19270401            | 27             |
| Caelo           | Base cream DAC   | 19270501            | 28             |
| Caelo           | Base cream DAC   | 19270601            | 6              |
| Caelo           | Base cream DAC   | 19270701            | 17             |
| Caelo           | Base cream DAC   | 1927301             | 1              |
| Caelo           | Base cream DAC   | 19301202            | 16             |
| Caelo           | Base cream DAC   | 19301701            | 22             |
| Caelo           | Base cream DAC   | 19301801            | 13             |
| Caelo           | Base cream DAC   | 1930180120001851001 | 1              |
| Caelo           | Base cream DAC   | 19301901            | 7              |
| Caelo           | Base cream DAC   | 19420701            | 1              |
| Caelo           | Base cream DAC   | 19472501            | 1              |
| Caelo           | Base cream DAC   | 1948001             | 1              |
| Caelo           | Base cream DAC   | 1971801             | 1              |
| Caelo           | Base cream DAC   | 19C19-T18-065187    | 2              |
| Caelo           | Base cream DAC   | 19D01-T14-065578    | 1              |
| Caelo           | Base cream DAC   | 19H04T08            | 1              |
| Caelo           | Base cream DAC   | 200000036001        | 1              |
| Caelo           | Base cream DAC   | 200000055001        | 1              |
| Caelo           | Base cream DAC   | 20000021001         | 1              |
| Caelo           | Base cream DAC   | 20000036001         | 6              |
| Caelo           | Base cream DAC   | 20000042001         | 9              |
| Caelo           | Base cream DAC   | 20000047001         | 3              |
| Caelo           | Base cream DAC   | 20000048001         | 1              |
| Caelo           | Base cream DAC   | 200000486001        | 1              |
| Caelo           | Base cream DAC   | 20000049001         | 2              |
| Caelo           | Base cream DAC   | 20000051001         | 16             |
| Caelo           | Base cream DAC   | 20000052001         | 13             |
| Caelo           | Base cream DAC   | 20000053001         | 7              |
| Caelo           | Base cream DAC   | 20000054001         | 14             |
| Caelo           | Base cream DAC   | 20000055001         | 18             |
| Caelo           | Base cream DAC   | 20000056001         | 5              |
| Caelo           | Base cream DAC   | 20000057001         | 2              |
| Caelo           | Base cream DAC   | 20000058001         | 21             |
| Caelo           | Base cream DAC   | 20000099001         | 4              |
| Caelo           | Base cream DAC   | 200001007001        | 1              |
| Caelo           | Base cream DAC   | 200001009001        | 1              |
| Caelo           | Base cream DAC   | 200001105001        | 1              |
| Caelo           | Base cream DAC   | 200001108001        | 2              |
| Caelo           | Base cream DAC   | 200001679001        | 1              |
| Caelo           | Base cream DAC   | 200001686001        | 1              |
| Caelo           | Base cream DAC   | 200001852001        | 1              |
| Caelo           | Base cream DAC   | 200001862001        | 1              |
| Caelo           | Base cream DAC   | 200002580001        | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 200002873001 | 1              |
| Caelo           | Base cream DAC   | 200003471001 | 1              |
| Caelo           | Base cream DAC   | 2000036001   | 1              |
| Caelo           | Base cream DAC   | 200003690001 | 1              |
| Caelo           | Base cream DAC   | 2000042001   | 1              |
| Caelo           | Base cream DAC   | 20000473     | 1              |
| Caelo           | Base cream DAC   | 2000053001   | 1              |
| Caelo           | Base cream DAC   | 2000054001   | 1              |
| Caelo           | Base cream DAC   | 20000562001  | 1              |
| Caelo           | Base cream DAC   | 20000579001  | 2              |
| Caelo           | Base cream DAC   | 20000580001  | 7              |
| Caelo           | Base cream DAC   | 2000058001   | 1              |
| Caelo           | Base cream DAC   | 20000581001  | 10             |
| Caelo           | Base cream DAC   | 2000058101   | 2              |
| Caelo           | Base cream DAC   | 20000582001  | 16             |
| Caelo           | Base cream DAC   | 20000583001  | 7              |
| Caelo           | Base cream DAC   | 20000584001  | 6              |
| Caelo           | Base cream DAC   | 20000585001  | 5              |
| Caelo           | Base cream DAC   | 20000586001  | 4              |
| Caelo           | Base cream DAC   | 200006860001 | 1              |
| Caelo           | Base cream DAC   | 20000686001  | 14             |
| Caelo           | Base cream DAC   | 20000687001  | 12             |
| Caelo           | Base cream DAC   | 20000688001  | 13             |
| Caelo           | Base cream DAC   | 20000689001  | 17             |
| Caelo           | Base cream DAC   | 20000690001  | 17             |
| Caelo           | Base cream DAC   | 20000691001  | 3              |
| Caelo           | Base cream DAC   | 20000692001  | 2              |
| Caelo           | Base cream DAC   | 20000693001  | 6              |
| Caelo           | Base cream DAC   | 20000694001  | 2              |
| Caelo           | Base cream DAC   | 20000929001  | 1              |
| Caelo           | Base cream DAC   | 200010007001 | 1              |
| Caelo           | Base cream DAC   | 200010058001 | 1              |
| Caelo           | Base cream DAC   | 20001006001  | 19             |
| Caelo           | Base cream DAC   | 20001007001  | 12             |
| Caelo           | Base cream DAC   | 20001008001  | 13             |
| Caelo           | Base cream DAC   | 20001009001  | 16             |
| Caelo           | Base cream DAC   | 20001011001  | 1              |
| Caelo           | Base cream DAC   | 20001013001  | 3              |
| Caelo           | Base cream DAC   | 20001101001  | 7              |
| Caelo           | Base cream DAC   | 20001102001  | 3              |
| Caelo           | Base cream DAC   | 20001103001  | 12             |
| Caelo           | Base cream DAC   | 20001104001  | 11             |
| Caelo           | Base cream DAC   | 20001105001  | 14             |
| Caelo           | Base cream DAC   | 20001106001  | 18             |
| Caelo           | Base cream DAC   | 20001107001  | 7              |
| Caelo           | Base cream DAC   | 200011105001 | 2              |
| Caelo           | Base cream DAC   | 2000113001   | 1              |
| Caelo           | Base cream DAC   | 200016585001 | 1              |
| Caelo           | Base cream DAC   | 200016678001 | 1              |
| Caelo           | Base cream DAC   | 20001677001  | 19             |
| Caelo           | Base cream DAC   | 20001678001  | 20             |
| Caelo           | Base cream DAC   | 20001679001  | 15             |
| Caelo           | Base cream DAC   | 2000167901   | 1              |
| Caelo           | Base cream DAC   | 20001680001  | 12             |
| Caelo           | Base cream DAC   | 20001682001  | 3              |
| Caelo           | Base cream DAC   | 20001683001  | 6              |
| Caelo           | Base cream DAC   | 20001684001  | 1              |
| Caelo           | Base cream DAC   | 20001685001  | 14             |
| Caelo           | Base cream DAC   | 2000168600   | 1              |
| Caelo           | Base cream DAC   | 20001686001  | 7              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 20001687001  | 13             |
| Caelo           | Base cream DAC   | 20001688001  | 9              |
| Caelo           | Base cream DAC   | 20001689001  | 7              |
| Caelo           | Base cream DAC   | 20001689002  | 8              |
| Caelo           | Base cream DAC   | 20001850001  | 8              |
| Caelo           | Base cream DAC   | 2000185001   | 1              |
| Caelo           | Base cream DAC   | 20001851001  | 9              |
| Caelo           | Base cream DAC   | 20001852001  | 9              |
| Caelo           | Base cream DAC   | 20001853001  | 13             |
| Caelo           | Base cream DAC   | 20001854001  | 8              |
| Caelo           | Base cream DAC   | 20001855001  | 7              |
| Caelo           | Base cream DAC   | 20001856001  | 1              |
| Caelo           | Base cream DAC   | 20001857001  | 2              |
| Caelo           | Base cream DAC   | 20001858001  | 4              |
| Caelo           | Base cream DAC   | 20001860001  | 6              |
| Caelo           | Base cream DAC   | 20001861001  | 7              |
| Caelo           | Base cream DAC   | 20001862001  | 12             |
| Caelo           | Base cream DAC   | 20001863001  | 7              |
| Caelo           | Base cream DAC   | 20001864001  | 5              |
| Caelo           | Base cream DAC   | 20001865001  | 4              |
| Caelo           | Base cream DAC   | 20001867001  | 1              |
| Caelo           | Base cream DAC   | 20001868001  | 4              |
| Caelo           | Base cream DAC   | 2000197001   | 1              |
| Caelo           | Base cream DAC   | 20002062001  | 6              |
| Caelo           | Base cream DAC   | 20002063001  | 1              |
| Caelo           | Base cream DAC   | 20002065001  | 8              |
| Caelo           | Base cream DAC   | 20002066001  | 2              |
| Caelo           | Base cream DAC   | 20002067001  | 5              |
| Caelo           | Base cream DAC   | 20002068001  | 8              |
| Caelo           | Base cream DAC   | 20002069001  | 1              |
| Caelo           | Base cream DAC   | 20002328001  | 3              |
| Caelo           | Base cream DAC   | 20002866001  | 4              |
| Caelo           | Base cream DAC   | 20002867001  | 1              |
| Caelo           | Base cream DAC   | 20002868001  | 1              |
| Caelo           | Base cream DAC   | 20002869001  | 3              |
| Caelo           | Base cream DAC   | 20002871001  | 3              |
| Caelo           | Base cream DAC   | 20002872001  | 6              |
| Caelo           | Base cream DAC   | 20002873001  | 11             |
| Caelo           | Base cream DAC   | 20002874001  | 11             |
| Caelo           | Base cream DAC   | 20002875001  | 1              |
| Caelo           | Base cream DAC   | 20002876001  | 6              |
| Caelo           | Base cream DAC   | 20002877001  | 9              |
| Caelo           | Base cream DAC   | 20003181001  | 1              |
| Caelo           | Base cream DAC   | 20003182001  | 10             |
| Caelo           | Base cream DAC   | 200031820011 | 1              |
| Caelo           | Base cream DAC   | 20003184001  | 2              |
| Caelo           | Base cream DAC   | 20003186001  | 4              |
| Caelo           | Base cream DAC   | 20003187001  | 7              |
| Caelo           | Base cream DAC   | 20003188001  | 10             |
| Caelo           | Base cream DAC   | 20003189001  | 13             |
| Caelo           | Base cream DAC   | 20003190001  | 13             |
| Caelo           | Base cream DAC   | 20003191001  | 12             |
| Caelo           | Base cream DAC   | 20003192001  | 4              |
| Caelo           | Base cream DAC   | 20003193001  | 1              |
| Caelo           | Base cream DAC   | 20003194001  | 8              |
| Caelo           | Base cream DAC   | 20003195001  | 14             |
| Caelo           | Base cream DAC   | 20003196001  | 11             |
| Caelo           | Base cream DAC   | 20003197001  | 5              |
| Caelo           | Base cream DAC   | 20003287001  | 1              |
| Caelo           | Base cream DAC   | 20003288001  | 8              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|------------------|---------------|----------------|
| Caelo           | Base cream DAC   | 20003288003   | 4              |
| Caelo           | Base cream DAC   | 2000328801    | 2              |
| Caelo           | Base cream DAC   | 2000328803    | 1              |
| Caelo           | Base cream DAC   | 2000333288003 | 1              |
| Caelo           | Base cream DAC   | 20003469001   | 10             |
| Caelo           | Base cream DAC   | 2000347       | 1              |
| Caelo           | Base cream DAC   | 20003470001   | 10             |
| Caelo           | Base cream DAC   | 20003471001   | 6              |
| Caelo           | Base cream DAC   | 20003472001   | 15             |
| Caelo           | Base cream DAC   | 20003473001   | 5              |
| Caelo           | Base cream DAC   | 20003474001   | 18             |
| Caelo           | Base cream DAC   | 20003476001   | 1              |
| Caelo           | Base cream DAC   | 20003477002   | 3              |
| Caelo           | Base cream DAC   | 20003544      | 1              |
| Caelo           | Base cream DAC   | 20003829002   | 4              |
| Caelo           | Base cream DAC   | 20003830001   | 20             |
| Caelo           | Base cream DAC   | 2000383001    | 2              |
| Caelo           | Base cream DAC   | 20003831001   | 8              |
| Caelo           | Base cream DAC   | 20003832001   | 2              |
| Caelo           | Base cream DAC   | 20003833001   | 2              |
| Caelo           | Base cream DAC   | 200038340001  | 1              |
| Caelo           | Base cream DAC   | 20003834001   | 2              |
| Caelo           | Base cream DAC   | 20003835001   | 2              |
| Caelo           | Base cream DAC   | 20003836001   | 2              |
| Caelo           | Base cream DAC   | 2000431001    | 1              |
| Caelo           | Base cream DAC   | 20004314001   | 10             |
| Caelo           | Base cream DAC   | 20004315001   | 14             |
| Caelo           | Base cream DAC   | 20004316001   | 15             |
| Caelo           | Base cream DAC   | 20004317001   | 10             |
| Caelo           | Base cream DAC   | 20004318001   | 10             |
| Caelo           | Base cream DAC   | 20004319001   | 7              |
| Caelo           | Base cream DAC   | 2000432001    | 1              |
| Caelo           | Base cream DAC   | 20004321001   | 3              |
| Caelo           | Base cream DAC   | 20004322001   | 1              |
| Caelo           | Base cream DAC   | 20004323001   | 9              |
| Caelo           | Base cream DAC   | 20004324001   | 3              |
| Caelo           | Base cream DAC   | 20004328001   | 3              |
| Caelo           | Base cream DAC   | 20004329001   | 5              |
| Caelo           | Base cream DAC   | 20004330001   | 3              |
| Caelo           | Base cream DAC   | 2000580001    | 1              |
| Caelo           | Base cream DAC   | 2000582001    | 1              |
| Caelo           | Base cream DAC   | 200069001     | 1              |
| Caelo           | Base cream DAC   | 2000692001    | 1              |
| Caelo           | Base cream DAC   | 2001013001    | 2              |
| Caelo           | Base cream DAC   | 2001105001    | 1              |
| Caelo           | Base cream DAC   | 2001106001    | 1              |
| Caelo           | Base cream DAC   | 20011701      | 1              |
| Caelo           | Base cream DAC   | 2001677001    | 2              |
| Caelo           | Base cream DAC   | 2001678001    | 1              |
| Caelo           | Base cream DAC   | 2001861001    | 1              |
| Caelo           | Base cream DAC   | 2001863001    | 1              |
| Caelo           | Base cream DAC   | 20021503      | 1              |
| Caelo           | Base cream DAC   | 2002866001    | 1              |
| Caelo           | Base cream DAC   | 2003186001    | 1              |
| Caelo           | Base cream DAC   | 2003470001    | 2              |
| Caelo           | Base cream DAC   | 2003475001    | 1              |
| Caelo           | Base cream DAC   | 2003830001    | 1              |
| Caelo           | Base cream DAC   | 201103001     | 1              |
| Caelo           | Base cream DAC   | 2020216       | 2              |
| Caelo           | Base cream DAC   | 2025-T05      | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 2062001intern    | 1              |
| Caelo           | Base cream DAC   | 20B10_T12-075397 | 1              |
| Caelo           | Base cream DAC   | 210001253001     | 1              |
| Caelo           | Base cream DAC   | 210002526001     | 1              |
| Caelo           | Base cream DAC   | 21000601002      | 1              |
| Caelo           | Base cream DAC   | 21000617001      | 1              |
| Caelo           | Base cream DAC   | 21000812002      | 1              |
| Caelo           | Base cream DAC   | 21000813001      | 9              |
| Caelo           | Base cream DAC   | 21000814001      | 5              |
| Caelo           | Base cream DAC   | 21000815001      | 5              |
| Caelo           | Base cream DAC   | 2100081600       | 1              |
| Caelo           | Base cream DAC   | 21000816001      | 11             |
| Caelo           | Base cream DAC   | 21000817001      | 2              |
| Caelo           | Base cream DAC   | 21000818001      | 7              |
| Caelo           | Base cream DAC   | 21000820001      | 4              |
| Caelo           | Base cream DAC   | 21000821001      | 2              |
| Caelo           | Base cream DAC   | 21000822001      | 1              |
| Caelo           | Base cream DAC   | 21000824         | 1              |
| Caelo           | Base cream DAC   | 21000826         | 1              |
| Caelo           | Base cream DAC   | 21001243001      | 1              |
| Caelo           | Base cream DAC   | 21001243002      | 3              |
| Caelo           | Base cream DAC   | 21001245001      | 1              |
| Caelo           | Base cream DAC   | 21001246001      | 2              |
| Caelo           | Base cream DAC   | 21001247001      | 4              |
| Caelo           | Base cream DAC   | 21001249001      | 6              |
| Caelo           | Base cream DAC   | 21001250001      | 8              |
| Caelo           | Base cream DAC   | 21001251001      | 8              |
| Caelo           | Base cream DAC   | 21001252001      | 8              |
| Caelo           | Base cream DAC   | 21001253001      | 3              |
| Caelo           | Base cream DAC   | 21001256001      | 1              |
| Caelo           | Base cream DAC   | 21001257001      | 2              |
| Caelo           | Base cream DAC   | 21001258001      | 9              |
| Caelo           | Base cream DAC   | 21001259001      | 7              |
| Caelo           | Base cream DAC   | 21001260001      | 13             |
| Caelo           | Base cream DAC   | 21001765001      | 3              |
| Caelo           | Base cream DAC   | 21001765002      | 2              |
| Caelo           | Base cream DAC   | 21001766001      | 2              |
| Caelo           | Base cream DAC   | 21001767001      | 6              |
| Caelo           | Base cream DAC   | 21001769001      | 2              |
| Caelo           | Base cream DAC   | 21001771001      | 1              |
| Caelo           | Base cream DAC   | 21001772001      | 5              |
| Caelo           | Base cream DAC   | 21001773001      | 3              |
| Caelo           | Base cream DAC   | 21001774001      | 4              |
| Caelo           | Base cream DAC   | 21001775001      | 7              |
| Caelo           | Base cream DAC   | 21001777001      | 1              |
| Caelo           | Base cream DAC   | 21001892         | 1              |
| Caelo           | Base cream DAC   | 210023291001     | 1              |
| Caelo           | Base cream DAC   | 21002366001      | 1              |
| Caelo           | Base cream DAC   | 21002384001      | 1              |
| Caelo           | Base cream DAC   | 21002386         | 1              |
| Caelo           | Base cream DAC   | 21002386001      | 1              |
| Caelo           | Base cream DAC   | 21002387001      | 3              |
| Caelo           | Base cream DAC   | 21002388001      | 4              |
| Caelo           | Base cream DAC   | 21002389001      | 6              |
| Caelo           | Base cream DAC   | 21002390001      | 8              |
| Caelo           | Base cream DAC   | 21002391001      | 8              |
| Caelo           | Base cream DAC   | 21002522001      | 1              |
| Caelo           | Base cream DAC   | 21002523001      | 4              |
| Caelo           | Base cream DAC   | 21002525001      | 2              |
| Caelo           | Base cream DAC   | 21002604001      | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Base cream DAC   | 21002605001      | 4              |
| Caelo           | Base cream DAC   | 21002606001      | 1              |
| Caelo           | Base cream DAC   | 21002607001      | 7              |
| Caelo           | Base cream DAC   | 21002608001      | 4              |
| Caelo           | Base cream DAC   | 21002609001      | 1              |
| Caelo           | Base cream DAC   | 21002610001      | 1              |
| Caelo           | Base cream DAC   | 21002709001      | 2              |
| Caelo           | Base cream DAC   | 21002711001      | 1              |
| Caelo           | Base cream DAC   | 2100271101       | 1              |
| Caelo           | Base cream DAC   | 21002712001      | 3              |
| Caelo           | Base cream DAC   | 21002713001      | 2              |
| Caelo           | Base cream DAC   | 21002714001      | 1              |
| Caelo           | Base cream DAC   | 21002715001      | 2              |
| Caelo           | Base cream DAC   | 21002718001      | 1              |
| Caelo           | Base cream DAC   | 21003064001      | 1              |
| Caelo           | Base cream DAC   | 21003066001      | 2              |
| Caelo           | Base cream DAC   | 21003070001      | 1              |
| Caelo           | Base cream DAC   | 21003071001      | 1              |
| Caelo           | Base cream DAC   | 21003072001      | 3              |
| Caelo           | Base cream DAC   | 210030800001     | 1              |
| Caelo           | Base cream DAC   | 21004199         | 1              |
| Caelo           | Base cream DAC   | 21005253001      | 1              |
| Caelo           | Base cream DAC   | 2102719001       | 1              |
| Caelo           | Base cream DAC   | 21081407         | 1              |
| Caelo           | Base cream DAC   | 2121403          | 1              |
| Caelo           | Base cream DAC   | 213M-01309       | 1              |
| Caelo           | Base cream DAC   | 21C24-T13-087234 | 1              |
| Caelo           | Base cream DAC   | 22000276001      | 1              |
| Caelo           | Base cream DAC   | 22031303         | 1              |
| Caelo           | Base cream DAC   | 22041306         | 1              |
| Caelo           | Base cream DAC   | 22091802         | 1              |
| Caelo           | Base cream DAC   | 2213V01309       | 1              |
| Caelo           | Base cream DAC   | 223711-779       | 1              |
| Caelo           | Base cream DAC   | 23041403         | 1              |
| Caelo           | Base cream DAC   | 23061506         | 1              |
| Caelo           | Base cream DAC   | 23091703         | 1              |
| Caelo           | Base cream DAC   | 23800219         | 1              |
| Caelo           | Base cream DAC   | 24091301         | 1              |
| Caelo           | Base cream DAC   | 25011401         | 1              |
| Caelo           | Base cream DAC   | 25021402         | 1              |
| Caelo           | Base cream DAC   | 25021701         | 1              |
| Caelo           | Base cream DAC   | 2514U1309        | 1              |
| Caelo           | Base cream DAC   | 26011602         | 1              |
| Caelo           | Base cream DAC   | 26061204         | 1              |
| Caelo           | Base cream DAC   | 26091405         | 1              |
| Caelo           | Base cream DAC   | 268820           | 2              |
| Caelo           | Base cream DAC   | 27111703         | 1              |
| Caelo           | Base cream DAC   | 272084           | 2              |
| Caelo           | Base cream DAC   | 27290917         | 1              |
| Caelo           | Base cream DAC   | 27300917         | 1              |
| Caelo           | Base cream DAC   | 27310917         | 3              |
| Caelo           | Base cream DAC   | 273416352701     | 1              |
| Caelo           | Base cream DAC   | 273417229201     | 1              |
| Caelo           | Base cream DAC   | 273717268701     | 1              |
| Caelo           | Base cream DAC   | 2740             | 1              |
| Caelo           | Base cream DAC   | 2753             | 1              |
| Caelo           | Base cream DAC   | 275438           | 2              |
| Caelo           | Base cream DAC   | 275591           | 1              |
| Caelo           | Base cream DAC   | 277111           | 1              |
| Caelo           | Base cream DAC   | 2779             | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 2782         | 1              |
| Caelo           | Base cream DAC   | 2786         | 1              |
| Caelo           | Base cream DAC   | 279960       | 1              |
| Caelo           | Base cream DAC   | 279963       | 1              |
| Caelo           | Base cream DAC   | 28031401     | 1              |
| Caelo           | Base cream DAC   | 28031404     | 1              |
| Caelo           | Base cream DAC   | 280913B      | 1              |
| Caelo           | Base cream DAC   | 28111708     | 1              |
| Caelo           | Base cream DAC   | 28111811     | 1              |
| Caelo           | Base cream DAC   | 2817         | 1              |
| Caelo           | Base cream DAC   | 2831         | 1              |
| Caelo           | Base cream DAC   | 287876       | 1              |
| Caelo           | Base cream DAC   | 2892         | 1              |
| Caelo           | Base cream DAC   | 2894         | 1              |
| Caelo           | Base cream DAC   | 2901311309   | 1              |
| Caelo           | Base cream DAC   | 292122       | 1              |
| Caelo           | Base cream DAC   | 29220416     | 6              |
| Caelo           | Base cream DAC   | 294834       | 1              |
| Caelo           | Base cream DAC   | 29550618     | 1              |
| Caelo           | Base cream DAC   | 295898       | 1              |
| Caelo           | Base cream DAC   | 296229       | 1              |
| Caelo           | Base cream DAC   | 298259       | 2              |
| Caelo           | Base cream DAC   | 298260       | 1              |
| Caelo           | Base cream DAC   | 29860117     | 2              |
| Caelo           | Base cream DAC   | 29870117     | 1              |
| Caelo           | Base cream DAC   | 29880117     | 1              |
| Caelo           | Base cream DAC   | 2991016      | 1              |
| Caelo           | Base cream DAC   | 299323       | 1              |
| Caelo           | Base cream DAC   | 2x16261801   | 1              |
| Caelo           | Base cream DAC   | 2x18192701   | 1              |
| Caelo           | Base cream DAC   | 2x18269501   | 1              |
| Caelo           | Base cream DAC   | 3001016      | 2              |
| Caelo           | Base cream DAC   | 30061713     | 1              |
| Caelo           | Base cream DAC   | 3011016      | 1              |
| Caelo           | Base cream DAC   | 30111201     | 1              |
| Caelo           | Base cream DAC   | 301157       | 1              |
| Caelo           | Base cream DAC   | 3013M-01309  | 1              |
| Caelo           | Base cream DAC   | 301743       | 2              |
| Caelo           | Base cream DAC   | 301744       | 1              |
| Caelo           | Base cream DAC   | 301759       | 2              |
| Caelo           | Base cream DAC   | 303058       | 1              |
| Caelo           | Base cream DAC   | 303059       | 1              |
| Caelo           | Base cream DAC   | 303061       | 1              |
| Caelo           | Base cream DAC   | 303419       | 1              |
| Caelo           | Base cream DAC   | 303421       | 1              |
| Caelo           | Base cream DAC   | 303428       | 1              |
| Caelo           | Base cream DAC   | 304352       | 1              |
| Caelo           | Base cream DAC   | 304357       | 1              |
| Caelo           | Base cream DAC   | 305711       | 1              |
| Caelo           | Base cream DAC   | 305714       | 1              |
| Caelo           | Base cream DAC   | 305732       | 1              |
| Caelo           | Base cream DAC   | 305735       | 1              |
| Caelo           | Base cream DAC   | 3061701      | 1              |
| Caelo           | Base cream DAC   | 306615       | 1              |
| Caelo           | Base cream DAC   | 306618       | 2              |
| Caelo           | Base cream DAC   | 306619       | 1              |
| Caelo           | Base cream DAC   | 306620       | 1              |
| Caelo           | Base cream DAC   | 306624       | 2              |
| Caelo           | Base cream DAC   | 307833       | 1              |
| Caelo           | Base cream DAC   | 307964       | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Base cream DAC   | 3081702      | 1              |
| Caelo           | Base cream DAC   | 308795       | 3              |
| Caelo           | Base cream DAC   | 308796       | 1              |
| Caelo           | Base cream DAC   | 31031405     | 1              |
| Caelo           | Base cream DAC   | 31031506     | 1              |
| Caelo           | Base cream DAC   | 310754       | 1              |
| Caelo           | Base cream DAC   | 310756       | 1              |
| Caelo           | Base cream DAC   | 31081205     | 1              |
| Caelo           | Base cream DAC   | 3121302      | 1              |
| Caelo           | Base cream DAC   | 3254         | 1              |
| Caelo           | Base cream DAC   | 3262         | 1              |
| Caelo           | Base cream DAC   | 3268         | 1              |
| Caelo           | Base cream DAC   | 3271218      | 1              |
| Caelo           | Base cream DAC   | 3283         | 1              |
| Caelo           | Base cream DAC   | 3315         | 1              |
| Caelo           | Base cream DAC   | 3329         | 1              |
| Caelo           | Base cream DAC   | 3346         | 1              |
| Caelo           | Base cream DAC   | 3347         | 1              |
| Caelo           | Base cream DAC   | 3413E-01309  | 1              |
| Caelo           | Base cream DAC   | 3425         | 1              |
| Caelo           | Base cream DAC   | 3513I-01309  | 1              |
| Caelo           | Base cream DAC   | 36530319     | 1              |
| Caelo           | Base cream DAC   | 3811016      | 1              |
| Caelo           | Base cream DAC   | 39210516     | 5              |
| Caelo           | Base cream DAC   | 39590217     | 2              |
| Caelo           | Base cream DAC   | 39600117     | 1              |
| Caelo           | Base cream DAC   | 39630217     | 2              |
| Caelo           | Base cream DAC   | 4113E-01309  | 1              |
| Caelo           | Base cream DAC   | 412/2        | 1              |
| Caelo           | Base cream DAC   | 412/3        | 1              |
| Caelo           | Base cream DAC   | 4121         | 1              |
| Caelo           | Base cream DAC   | 4240919      | 1              |
| Caelo           | Base cream DAC   | 44950616     | 2              |
| Caelo           | Base cream DAC   | 4512Q-01309  | 1              |
| Caelo           | Base cream DAC   | 45340616     | 1              |
| Caelo           | Base cream DAC   | 45348616     | 1              |
| Caelo           | Base cream DAC   | 45380616     | 5              |
| Caelo           | Base cream DAC   | 45960718     | 1              |
| Caelo           | Base cream DAC   | 4717A-01309  | 1              |
| Caelo           | Base cream DAC   | 47890419     | 3              |
| Caelo           | Base cream DAC   | 4913E01309   | 1              |
| Caelo           | Base cream DAC   | 4918A-01309  | 1              |
| Caelo           | Base cream DAC   | 5012Q-01309  | 1              |
| Caelo           | Base cream DAC   | 50205/1Gra   | 1              |
| Caelo           | Base cream DAC   | 5091308      | 1              |
| Caelo           | Base cream DAC   | 513Q-01309   | 1              |
| Caelo           | Base cream DAC   | 515/2        | 1              |
| Caelo           | Base cream DAC   | 5289100      | 1              |
| Caelo           | Base cream DAC   | 5321200      | 2              |
| Caelo           | Base cream DAC   | 5408000      | 1              |
| Caelo           | Base cream DAC   | 5489900      | 5              |
| Caelo           | Base cream DAC   | 5490000      | 3              |
| Caelo           | Base cream DAC   | 5490100      | 1              |
| Caelo           | Base cream DAC   | 5537000      | 2              |
| Caelo           | Base cream DAC   | 5537400      | 1              |
| Caelo           | Base cream DAC   | 5537500      | 2              |
| Caelo           | Base cream DAC   | 55740320     | 1              |
| Caelo           | Base cream DAC   | 55850317     | 1              |
| Caelo           | Base cream DAC   | 5788000      | 1              |
| Caelo           | Base cream DAC   | 5788100      | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>   | <b>Spectra</b> |
|-----------------|------------------|----------------|----------------|
| Caelo           | Base cream DAC   | 5909200        | 2              |
| Caelo           | Base cream DAC   | 5909300        | 1              |
| Caelo           | Base cream DAC   | 5909500        | 1              |
| Caelo           | Base cream DAC   | 5909600        | 1              |
| Caelo           | Base cream DAC   | 5x17031501     | 1              |
| Caelo           | Base cream DAC   | 6002237002     | 1              |
| Caelo           | Base cream DAC   | 6002237003     | 1              |
| Caelo           | Base cream DAC   | 6002237005     | 1              |
| Caelo           | Base cream DAC   | 6003682004     | 1              |
| Caelo           | Base cream DAC   | 6003682012     | 1              |
| Caelo           | Base cream DAC   | 6003682014     | 1              |
| Caelo           | Base cream DAC   | 6003682015     | 1              |
| Caelo           | Base cream DAC   | 6004859005     | 4              |
| Caelo           | Base cream DAC   | 6004859006     | 1              |
| Caelo           | Base cream DAC   | 6004860001     | 1              |
| Caelo           | Base cream DAC   | 60610519       | 1              |
| Caelo           | Base cream DAC   | 618E-01309     | 1              |
| Caelo           | Base cream DAC   | 625570918      | 1              |
| Caelo           | Base cream DAC   | 640/3          | 1              |
| Caelo           | Base cream DAC   | 6500119        | 1              |
| Caelo           | Base cream DAC   | 650118         | 1              |
| Caelo           | Base cream DAC   | 666666666666   | 1              |
| Caelo           | Base cream DAC   | 66666666666666 | 1              |
| Caelo           | Base cream DAC   | 6671116        | 1              |
| Caelo           | Base cream DAC   | 69500118       | 1              |
| Caelo           | Base cream DAC   | 69510118       | 1              |
| Caelo           | Base cream DAC   | 69520118       | 1              |
| Caelo           | Base cream DAC   | 7071803        | 1              |
| Caelo           | Base cream DAC   | 7082009        | 1              |
| Caelo           | Base cream DAC   | 713I-01309     | 1              |
| Caelo           | Base cream DAC   | 72/AKD1        | 1              |
| Caelo           | Base cream DAC   | 72240417       | 1              |
| Caelo           | Base cream DAC   | 72260417       | 2              |
| Caelo           | Base cream DAC   | 72270417       | 1              |
| Caelo           | Base cream DAC   | 731/1          | 3              |
| Caelo           | Base cream DAC   | 731/4          | 6              |
| Caelo           | Base cream DAC   | 74/AKD2        | 1              |
| Caelo           | Base cream DAC   | 75/AKD7        | 1              |
| Caelo           | Base cream DAC   | 7560418        | 2              |
| Caelo           | Base cream DAC   | 7580418        | 1              |
| Caelo           | Base cream DAC   | 76571018       | 2              |
| Caelo           | Base cream DAC   | 76591018       | 1              |
| Caelo           | Base cream DAC   | 79/AKD16       | 1              |
| Caelo           | Base cream DAC   | 8002875008     | 2              |
| Caelo           | Base cream DAC   | 8003325003     | 5              |
| Caelo           | Base cream DAC   | 8003325004     | 1              |
| Caelo           | Base cream DAC   | 8003325005     | 2              |
| Caelo           | Base cream DAC   | 8003325011     | 1              |
| Caelo           | Base cream DAC   | 8004134004     | 1              |
| Caelo           | Base cream DAC   | 8004134005     | 2              |
| Caelo           | Base cream DAC   | 8004134006     | 1              |
| Caelo           | Base cream DAC   | 8004134008     | 1              |
| Caelo           | Base cream DAC   | 8004996001     | 1              |
| Caelo           | Base cream DAC   | 8005713009     | 1              |
| Caelo           | Base cream DAC   | 8011302        | 1              |
| Caelo           | Base cream DAC   | 80300218       | 1              |
| Caelo           | Base cream DAC   | 80316-250-376  | 1              |
| Caelo           | Base cream DAC   | 8061802        | 1              |
| Caelo           | Base cream DAC   | 8091808        | 1              |
| Caelo           | Base cream DAC   | 8111302        | 1              |

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| Supplier                   | Substance      | Batch                 | Spectra |
|----------------------------|----------------|-----------------------|---------|
| Caelo                      | Base cream DAC | 8620717               | 1       |
| Caelo                      | Base cream DAC | 86450517              | 1       |
| Caelo                      | Base cream DAC | 86460517              | 2       |
| Caelo                      | Base cream DAC | 86470517              | 1       |
| Caelo                      | Base cream DAC | 86480517              | 1       |
| Caelo                      | Base cream DAC | 86490517              | 4       |
| Caelo                      | Base cream DAC | 86580517              | 1       |
| Caelo                      | Base cream DAC | 8707                  | 1       |
| Caelo                      | Base cream DAC | 8723                  | 1       |
| Caelo                      | Base cream DAC | 88660717              | 1       |
| Caelo                      | Base cream DAC | 89(17229901)          | 1       |
| Caelo                      | Base cream DAC | 90(17229601)          | 1       |
| Caelo                      | Base cream DAC | 91(17251601)          | 1       |
| Caelo                      | Base cream DAC | 913I-01309            | 1       |
| Caelo                      | Base cream DAC | 91744011              | 1       |
| Caelo                      | Base cream DAC | 92(17266601)          | 1       |
| Caelo                      | Base cream DAC | 92703011              | 1       |
| Caelo                      | Base cream DAC | 93(17266901)          | 1       |
| Caelo                      | Base cream DAC | 93780318              | 1       |
| Caelo                      | Base cream DAC | 94(17269001)          | 1       |
| Caelo                      | Base cream DAC | 95(18085202)          | 1       |
| Caelo                      | Base cream DAC | 96(18037901)          | 1       |
| Caelo                      | Base cream DAC | 97(18138301)          | 1       |
| Caelo                      | Base cream DAC | 9876543               | 1       |
| Caelo                      | Base cream DAC | 99(18126301)          | 1       |
| Caelo                      | Base cream DAC | AKD6                  | 1       |
| Caelo                      | Base cream DAC | AP210720-01           | 1       |
| Caelo                      | Base cream DAC | Caelo14227701         | 1       |
| Caelo                      | Base cream DAC | CH_B19117601          | 1       |
| Caelo                      | Base cream DAC | Ch31                  | 1       |
| Caelo                      | Base cream DAC | CH5490000             | 1       |
| Caelo                      | Base cream DAC | Chargennummer18193301 | 1       |
| Caelo                      | Base cream DAC | CH-B17268601          | 1       |
| Caelo                      | Base cream DAC | CH-B18269001          | 1       |
| Caelo                      | Base cream DAC | CHB19170901           | 1       |
| Caelo                      | Base cream DAC | T01-0769405           | 1       |
| Caelo                      | Base cream DAC | testmessung           | 1       |
| Caeol/ Noweda              | Base cream DAC | 17014401              | 1       |
| Caeol/Noweda               | Base cream DAC | 18001401              | 1       |
| Caeol/Noweda               | Base cream DAC | 19147801              | 1       |
| Caeol/Noweda               | Base cream DAC | 21000817001           | 1       |
| Caeol/Phönix               | Base cream DAC | 17029201              | 1       |
| Caeol/Phönix               | Base cream DAC | 17240301              | 1       |
| Caeol/Phönix               | Base cream DAC | 17251701              | 1       |
| Caeol/Phönix               | Base cream DAC | 18015101              | 1       |
| Caeolo ,                   | Base cream DAC | 17264401              | 1       |
| Caeolo/Krieger             | Base cream DAC | 17240301              | 2       |
| Caeolo/Noweda              | Base cream DAC | 16152101              | 1       |
| Caeolo/Noweda              | Base cream DAC | 17268801              | 1       |
| Caeolo/Noweda              | Base cream DAC | 18001301              | 1       |
| Caeolo/Sanacorp            | Base cream DAC | 18166801              | 1       |
| Caeolo                     | Base cream DAC | 16005301              | 2       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 20001689001           | 1       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 21001257001           | 1       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 21001258001           | 1       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 21002389001           | 1       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 21001249001           | 1       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 21001259001           | 1       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 20001682001           | 1       |
| Caesar & Loretz GmbH / ... | Base cream DAC | 21001250001           | 2       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH / K   | Base cream DAC   | 19003502     | 1              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19117701     | 1              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19052801     | 1              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19147801     | 3              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 305728       | 1              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19117801     | 1              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19005676     | 1              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19147901     | 1              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19172501     | 2              |
| Caesar & Loretz GmbH / ... | Base cream DAC   | 19002691     | 1              |
| Caesar & Loretz GmbH Hi... | Base cream DAC   | 1308013-01   | 1              |
| Caesar & Loretz GmbH Je... | Base cream DAC   | 20000686001  | 4              |
| Caesar & Loretz GmbH Je... | Base cream DAC   | 20003190001  | 1              |
| Caesar & Loretz GmbH No... | Base cream DAC   | 21000813001  | 1              |
| Caesar & Loretz GmbH Sa... | Base cream DAC   | 20004315001  | 2              |
| Caesar & Loretz GmbH, 4... | Base cream DAC   | 11278901     | 1              |
| Caesar & Loretz GmbH, 4... | Base cream DAC   | 12062601     | 1              |
| Caesar & Loretz GmbH, 4... | Base cream DAC   | 12339101     | 1              |
| Caesar & Loretz GmbH, 4... | Base cream DAC   | 13139702     | 1              |
| Caesar & Loretz GmbH, P... | Base cream DAC   | 20001680001  | 1              |
| Caesar & Loretz GmbH, P... | Base cream DAC   | 20001851001  | 1              |
| Caesar & Loretz GmbH, P... | Base cream DAC   | 20002872001  | 1              |
| Caesar & Loretz GmbH, P... | Base cream DAC   | 20003187001  | 1              |
| Caesar & Loretz GmbH, P... | Base cream DAC   | 20003469001  | 1              |
| Caesar & Loretz GmbH/ A... | Base cream DAC   | 19269901     | 1              |
| Caesar & Loretz GmbH/ A... | Base cream DAC   | 20001683001  | 1              |
| Caesar & Loretz GmbH/ A... | Base cream DAC   | 20000581001  | 1              |
| Caesar & Loretz GmbH/ F... | Base cream DAC   | 19052701     | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 19171001     | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 19270501     | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20000582001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20000586001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20001006001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20001104001  | 2              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20001678001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20001687001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20003196001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20003472001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 20003473001  | 1              |
| Caesar & Loretz GmbH/ G... | Base cream DAC   | 21000818001  | 1              |
| Caesar & Loretz GmbH/ J... | Base cream DAC   | 21002522002  | 1              |
| Caesar & Loretz GmbH/ K... | Base cream DAC   | 19239201     | 1              |
| Caesar & Loretz GmbH/ N... | Base cream DAC   | 18269001     | 1              |
| Caesar & Loretz GmbH/ N... | Base cream DAC   | 20000687001  | 2              |
| Caesar & Loretz GmbH/ P... | Base cream DAC   | 20000054001  | 2              |
| Caesar & Loretz GmbH/ P... | Base cream DAC   | 20001678001  | 1              |
| Caesar & Loretz GmbH/ P... | Base cream DAC   | 20001867001  | 1              |
| Caesar & Loretz GmbH/ P... | Base cream DAC   | 20002875001  | 1              |
| Caesar & Loretz GmbH/ P... | Base cream DAC   | 21004031001  | 1              |
| Caesar & Loretz GmbH/ S... | Base cream DAC   | 19171801     | 1              |
| Caesar & Loretz GmbH/ S... | Base cream DAC   | 20001680001  | 1              |
| Caesar & Loretz GmbH/ S... | Base cream DAC   | 20001860001  | 1              |
| Caesar & Loretz GmbH/AEP   | Base cream DAC   | 19118101     | 2              |
| Caesar & Loretz GmbH/AEP   | Base cream DAC   | 19269901     | 1              |
| Caesar & Loretz GmbH/AEP   | Base cream DAC   | 19270401     | 2              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 19117701     | 1              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 19172701     | 1              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 19240201     | 1              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 20001103001  | 1              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 20001689001  | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 20001853001  | 1              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 20003829002  | 1              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 21001772001  | 1              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 21001776001  | 2              |
| Caesar & Loretz GmbH/AHD   | Base cream DAC   | 21002608001  | 2              |
| Caesar & Loretz GmbH/Al... | Base cream DAC   | 19240901     | 1              |
| Caesar & Loretz GmbH/Al... | Base cream DAC   | 19170201     | 1              |
| Caesar & Loretz GmbH/Al... | Base cream DAC   | 19240801     | 1              |
| Caesar & Loretz GmbH/Al... | Base cream DAC   | 20003195001  | 1              |
| Caesar & Loretz GmbH/Al... | Base cream DAC   | 21002388001  | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream DAC   | 19240601     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream DAC   | 19117601     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream DAC   | 18232601     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream DAC   | 19270101     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream DAC   | 21001773001  | 1              |
| Caesar & Loretz GmbH/G     | Base cream DAC   | 18269501     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 18232501     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 18232601     | 3              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 19020201     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 19052601     | 2              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 19117601     | 2              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 19118101     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 19239301     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 19270301     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20000051001  | 2              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20000586001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20000687001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20001006001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 20001006001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20001008001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 20001008001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 20001104001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 20001854001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 20003189001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20003193001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 20003193001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20003473001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 20003473001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 20004317001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 21000813001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream DAC   | 21001247001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 21001247001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 21001253001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 21002388001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Base cream DAC   | 21002711001  | 1              |
| Caesar & Loretz GmbH/Ge... | Base cream DAC   | 20000694001  | 2              |
| Caesar & Loretz GmbH/Ge... | Base cream DAC   | 20001107001  | 1              |
| Caesar & Loretz GmbH/Ge... | Base cream DAC   | 20001866001  | 1              |
| Caesar & Loretz GmbH/Ge... | Base cream DAC   | 20002069001  | 1              |
| Caesar & Loretz GmbH/Ge... | Base cream DAC   | 19240301     | 1              |
| Caesar & Loretz GmbH/Ge... | Base cream DAC   | 19270201     | 1              |
| Caesar & Loretz GmbH/GE... | Base cream DAC   | 19174001     | 1              |
| Caesar & Loretz GmbH/Go... | Base cream DAC   | 19147901     | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 19117601     | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 19172501     | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 19174501     | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 19239301     | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 19270201     | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 20000053001  | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 20001103001  | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 20003192001  | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 20003469001  | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 20003477002  | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 20004322001  | 1              |
| Caesar & Loretz GmbH/Je... | Base cream DAC   | 21002710001  | 2              |
| Caesar & Loretz GmbH/JE... | Base cream DAC   | 21002712001  | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 21001766001  | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 19053001     | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 19174001     | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 19301701     | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 20000686001  | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 20000687001  | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 20003189001  | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 20004315001  | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 21001252001  | 1              |
| Caesar & Loretz GmbH/Kr... | Base cream DAC   | 21001253001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19020201     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 17129901     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 18269001     | 2              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19003401     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19003701     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19003901     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19005674     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19117501     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19118401     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19147801     | 2              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19170601     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19170701     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19171001     | 2              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19172201     | 6              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19172301     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19172901     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19173901     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 19270401     | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 20000581001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 20000584001  | 2              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 20001009001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 20001105001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 20001686001  | 1              |
| Caesar & Loretz GmbH/no... | Base cream DAC   | 20001687001  | 2              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 20001687001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 20003197001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 21000821001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 21001770001  | 1              |
| Caesar & Loretz GmbH/No... | Base cream DAC   | 21001772001  | 1              |
| Caesar & Loretz GmbH/P     | Base cream DAC   | 19173001     | 1              |
| Caesar & Loretz GmbH/phö   | Base cream DAC   | 20000586001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 19051801     | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 19240501     | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 19270301     | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20001680001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20002068001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 21001251001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 21001773001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 21002524001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 19003701     | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 19172901     | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 19301202     | 1              |
| Caesar & Loretz GmbH/ph... | Base cream DAC   | 20000058001  | 5              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20000686001  | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20000689001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20001103001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20001678001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20001867001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20002065001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20003187001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20003189001  | 1              |
| Caesar & Loretz GmbH/ph... | Base cream DAC   | 20003196001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20003474001  | 5              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20003832001  | 4              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20004315001  | 1              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20004317001  | 2              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 20004328001  | 6              |
| Caesar & Loretz GmbH/Ph... | Base cream DAC   | 21002523001  | 1              |
| Caesar & Loretz GmbH/Sana  | Base cream DAC   | 21002525001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 18269401     | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 19118101     | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 19147901     | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 19153601     | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 19170701     | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 19239001     | 1              |
| Caesar & Loretz GmbH/sa... | Base cream DAC   | 19239201     | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 200004317001 | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20000582001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20001105001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20001850001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20002872001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20003189001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20003288001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20003472001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20003473001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20003830001  | 2              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 2000383001   | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20004318001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 20004323001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 2003189001   | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 21001252001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 21001258001  | 2              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 21001260001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 21001767001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 21002391001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 21002606001  | 2              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | 21003064001  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | AP210212-01  | 1              |
| Caesar & Loretz GmbH/Sa... | Base cream DAC   | AP210622-06  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18138101     | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18167001     | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18193001     | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18232701     | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18232801     | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269001     | 3              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269101     | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269301     | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269401     | 5              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269501     | 9              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269601     | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269701     | 8              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269801     | 5              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18269901     | 9              |
| Caesar & Loretz GmbH       | Base cream DAC   | 18270001     | 4              |

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| <b>Supplier</b>      | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH | Base cream DAC   | 18270401     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 18270501     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 18270701     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 18270801     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 18270901     | 9              |
| Caesar & Loretz GmbH | Base cream DAC   | 18271001     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 18271101     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 18271301     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 18272201     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 18272301     | 10             |
| Caesar & Loretz GmbH | Base cream DAC   | 19000946     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19003101     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19003502     | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 19003505     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19003601     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19003701     | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 19003801     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19003901     | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 19019901     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19020201     | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 19040801     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19052001     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19052401     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19052501     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19052601     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19052701     | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 19052801     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19052901     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19053001     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19053101     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19053201     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19053301     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19075901     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19076001     | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 19116801     | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 19116901     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117001     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117201     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117301     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117401     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117501     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117601     | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117701     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19117801     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19118001     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19118101     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19118301     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19118401     | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 191272501    | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19147801     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19147901     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19148001     | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 19153601     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19153801     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19170201     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19170301     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19170401     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19170501     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19170601     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19170701     | 10             |

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| <b>Supplier</b>      | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH | Base cream DAC   | 19171001     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19171801     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172001     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172101     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172201     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172301     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172401     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172501     | 13             |
| Caesar & Loretz GmbH | Base cream DAC   | 19172601     | 9              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172701     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19172801     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19173001     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19173101     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19173201     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19173301     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19173401     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19173701     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19173901     | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 19174001     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19174101     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19174201     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19174301     | 9              |
| Caesar & Loretz GmbH | Base cream DAC   | 19174401     | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 19174501     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19239001     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19239201     | 9              |
| Caesar & Loretz GmbH | Base cream DAC   | 19239301     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19239401     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19240201     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19240301     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19240401     | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 19240501     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19240601     | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 19240701     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19240801     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19269501     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19269601     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19269701     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19269801     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19269901     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 19270001     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19270101     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19270201     | 10             |
| Caesar & Loretz GmbH | Base cream DAC   | 19270301     | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 19270501     | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 19270601     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19270701     | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 19301202     | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 19301701     | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 19301801     | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 19301901     | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000036001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000042001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000047001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 2000004701   | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000051001  | 8              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000052001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000053001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000054001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000055001  | 1              |

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| <b>Supplier</b>      | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH | Base cream DAC   | 20000056001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000057001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000099001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000311001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000579001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000580001  | 9              |
| Caesar & Loretz GmbH | Base cream DAC   | 2000058001   | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000581001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000582001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000583001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000584001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000586001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000686001  | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000687001  | 8              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000688001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000689001  | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000690001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000691001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000692001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20000694001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001006001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001007001  | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001008001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001009001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001101001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001102001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001103001  | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001105001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001106001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001108001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001677001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001678001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001679001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001680001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001682001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001683001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001684001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001685001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001686001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001688001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001689002  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001852001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001854001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001855001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001860001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001861001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001862001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001865001  | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001866001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20001868001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002065001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002066001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002067001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002068001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002069001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002870001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002873001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002874001  | 7              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002876001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20002877001  | 3              |

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| <b>Supplier</b>      | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH | Base cream DAC   | 2000287701   | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003182001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003186001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003187001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003188001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003189001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003190001  | 9              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003191001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003192001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003194001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003195001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003197001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003287001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003288001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003469001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003470001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 2000347001   | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003471001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003472001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003473001  | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003474001  | 10             |
| Caesar & Loretz GmbH | Base cream DAC   | 20003476001  | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003477002  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003731001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003829002  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003830001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003831001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003832001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003833001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003834001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20003835001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004313001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004314001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004315001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004318001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004322001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004323001  | 5              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004328001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004329001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 20004331001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 210001259001 | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21000814001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 21000816001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 21000817001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 21000819001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21000820001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001243001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001243002  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001245001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001246001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001247001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001249001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001250001  | 6              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001251001  | 4              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001252001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001253001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001254001  | 3              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001256001  | 1              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001258001  | 2              |
| Caesar & Loretz GmbH | Base cream DAC   | 21001259001  | 6              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH       | Base cream DAC   | 21001766001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001769001  | 5              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001770001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001772001  | 5              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001774001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001775001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001776001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001778001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21001779001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002384001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002385001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002387001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002388001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002390001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002391001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002522002  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002523001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002524001  | 3              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002604001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002605001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002608001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002609001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002710001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002714001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21002718001  | 3              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21003064001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21003066001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21003068001  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21003071001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21003072001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21003072002  | 2              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21003073001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 21004029001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | 22000276001  | 1              |
| Caesar & Loretz GmbH       | Base cream DAC   | AP20101901   | 1              |
| Caesar & Loretz GmbHFie... | Base cream DAC   | 19053301     | 1              |
| Caesar & Loretz Hilden/... | Base cream DAC   | 20001854001  | 1              |
| Caesar & Loretz Hilden/... | Base cream DAC   | 20002067001  | 1              |
| Caesar & Loretz Hilden/... | Base cream DAC   | 20003469001  | 1              |
| Caesar & Loretz/ Caesar... | Base cream DAC   | 18037201     | 1              |
| Caesar & Loretz/ Noweda    | Base cream DAC   | 18105101     | 1              |
| Caesar & Loretz/AHC        | Base cream DAC   | 38540516     | 3              |
| Caesar & Loretz/AHD        | Base cream DAC   | 21002388001  | 1              |
| Caesar & Loretz/Noweda     | Base cream DAC   | 15184401     | 1              |
| Caesar & Loretz/Noweda     | Base cream DAC   | 17154001     | 1              |
| Caesar & Loretz            | Base cream DAC   | 19003201     | 1              |
| Caesar /phönix             | Base cream DAC   | 13139901     | 2              |
| Caesar und Loretz GmbH     | Base cream DAC   | 17155001     | 1              |
| Caesar&Lorenz              | Base cream DAC   | 20003288003  | 1              |
| Caesar&Lorenz              | Base cream DAC   | 21000814001  | 1              |
| Caesar&Lorenz              | Base cream DAC   | 21002522002  | 1              |
| Caesar&Loretz GmbH 7Anzag  | Base cream DAC   | 39630217     | 1              |
| Caesar&Loretz GmbH/Gehe    | Base cream DAC   | 19116901     | 1              |
| Caesar&Loretz GmbH         | Base cream DAC   | 16241601     | 1              |
| Caesar&Loretz GmbH         | Base cream DAC   | 16329201     | 3              |
| Caesar&Loretz GmbH         | Base cream DAC   | 18192501     | 1              |
| Caesar&lorenz,Anzag        | Base cream DAC   | 15250101     | 1              |
| Caesar&Loretz/Caesar&Lo... | Base cream DAC   | 15272601     | 1              |
| Caesar&Loretz/Noweda       | Base cream DAC   | 20000690001  | 1              |
| Caesar&Loretz/Noweda       | Base cream DAC   | 20001687001  | 1              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Caesar&Loretz/Noweda   | Base cream DAC   | 21000815001  | 1              |
| Caesar&Loretz          | Base cream DAC   | 16005201     | 1              |
| Caesar&Loretz          | Base cream DAC   | 16219401     | 1              |
| Caesar&Loretz          | Base cream DAC   | 16350501     | 1              |
| Caesar&Loretz          | Base cream DAC   | 17031901     | 1              |
| Caeser und Loretz GmbH | Base cream DAC   | 19117701     | 2              |
| Caeser und Loretz GmbH | Base cream DAC   | 19153601     | 1              |
| Calea KEHR             | Base cream DAC   | 19174001     | 1              |
| Caleo/ Ebert           | Base cream DAC   | 18126301     | 1              |
| Caleo/ Gehe            | Base cream DAC   | 18036501     | 1              |
| Caleo/ Noweda          | Base cream DAC   | 16261201     | 2              |
| Caleo/ Noweda          | Base cream DAC   | 18192501     | 1              |
| Caleo/ Noweda          | Base cream DAC   | 1866401      | 1              |
| Caleo/Fiebig           | Base cream DAC   | 16242201     | 1              |
| Caleo/noweda           | Base cream DAC   | 17349801     | 1              |
| calo                   | Base cream DAC   | 13012401     | 1              |
| Calo                   | Base cream DAC   | 15306701     | 1              |
| Carelo/Noweda          | Base cream DAC   | 18165801     | 1              |
| Carlo                  | Base cream DAC   | 20001677001  | 1              |
| Cealo / Noweda         | Base cream DAC   | 14092001     | 1              |
| Cealo/ Noweda          | Base cream DAC   | 17000921     | 1              |
| Cealo/AHD              | Base cream DAC   | 6003682014   | 1              |
| Cealo/AHD              | Base cream DAC   | 6004859003   | 2              |
| Cealo/Anzag            | Base cream DAC   | 19240701     | 1              |
| Cealo/Gehe             | Base cream DAC   | 12175101     | 1              |
| Cealo/Gehe             | Base cream DAC   | 18138401     | 1              |
| Cealo/Gehe             | Base cream DAC   | 18165301     | 2              |
| Cealo/GEHE             | Base cream DAC   | 20000058001  | 1              |
| Cealo/Noweda           | Base cream DAC   | 18166101     | 1              |
| Cealo/Phönix           | Base cream DAC   | 16329201     | 1              |
| Cealo/Phönix           | Base cream DAC   | 18165301     | 1              |
| Cealo/Phönix           | Base cream DAC   | 20003187001  | 1              |
| Cealo/Sanacorp         | Base cream DAC   | 16261501     | 1              |
| Cealo/Sanacorp         | Base cream DAC   | 171338001    | 1              |
| Cealo/Sanacorp         | Base cream DAC   | 19053001     | 4              |
| Cealo                  | Base cream DAC   | 12249401     | 1              |
| Cealo                  | Base cream DAC   | 142990001    | 1              |
| Cealo                  | Base cream DAC   | 15184301     | 1              |
| Cealo                  | Base cream DAC   | 16055801     | 1              |
| Cealo                  | Base cream DAC   | 17264601     | 1              |
| Cealo                  | Base cream DAC   | 18005240     | 2              |
| cealo                  | Base cream DAC   | 19051801     | 1              |
| celo/phönix            | Base cream DAC   | 13377901     | 3              |
| Celo                   | Base cream DAC   | 16005101     | 1              |
| celo                   | Base cream DAC   | 16329201     | 1              |
| Celo                   | Base cream DAC   | 1923901      | 1              |
| chaelo/gehe            | Base cream DAC   | 17251701     | 1              |
| cordes/noweda          | Base cream DAC   | 18270901     | 1              |
| D'Oroderm              | Base cream DAC   | 1346001      | 1              |
| DORODERM GmbH & Co.KG  | Base cream DAC   | 1346001      | 2              |
| DAC 2011               | Base cream DAC   | 12061901     | 1              |
| DAC 2011               | Base cream DAC   | 13188401     | 1              |
| Defektur               | Base cream DAC   | 16325901     | 2              |
| Delta                  | Base cream DAC   | 17154401     | 2              |
| Delta                  | Base cream DAC   | 18037101     | 2              |
| Delta                  | Base cream DAC   | 18105402     | 7              |
| Dermasence             | Base cream DAC   | 260820       | 1              |
| Direkt/Phönix          | Base cream DAC   | 50211015     | 4              |
| Doroderm GmbH/ Noweda  | Base cream DAC   | 1202001      | 4              |
| doroderm GmbH          | Base cream DAC   | 1202001      | 2              |

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| <b>Supplier</b>               | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-------------------------------|------------------|----------------------|----------------|
| D'oroderm GmbH                | Base cream DAC   | 1346001              | 4              |
| D'Oroderm GmbH                | Base cream DAC   | 1346001              | 1              |
| D'ORODERM/Noweda              | Base cream DAC   | 1346001              | 2              |
| D'oroderm                     | Base cream DAC   | 1346001              | 4              |
| D'ORODERM                     | Base cream DAC   | 1346001              | 1              |
| Dr. August Wolff/Phönix       | Base cream DAC   | 18272301             | 1              |
| Dr. Wolff                     | Base cream DAC   | 14325601             | 1              |
| E Plus                        | Base cream DAC   | 18000961             | 3              |
| E Plus                        | Base cream DAC   | 18005744             | 1              |
| Easy Höchst                   | Base cream DAC   | 18E23-T16-056321     | 1              |
| Ebert & Jacobi                | Base cream DAC   | 19000951             | 1              |
| Ebert & Jacobi                | Base cream DAC   | 6862441              | 1              |
| Ebert und Jacobi              | Base cream DAC   | 18105402             | 1              |
| Ebert                         | Base cream DAC   | 14053601             | 1              |
| Ebert                         | Base cream DAC   | 14090401             | 1              |
| eigene Herstellung            | Base cream DAC   | 16261801             | 1              |
| Eimer/ Noweda                 | Base cream DAC   | 72240417             | 1              |
| Eimerbacher GmbH, Gesche. . . | Base cream DAC   | 61361217-20180830Ma6 | 1              |
| Eimermacher / Anzag           | Base cream DAC   | 48560921             | 1              |
| Eimermacher / Sanacorp        | Base cream DAC   | 86440517             | 1              |
| Eimermacher / Sonnenapo. . .  | Base cream DAC   | 40150120             | 1              |
| Eimermacher / Sonnenapo. . .  | Base cream DAC   | 62550918             | 1              |
| Eimermacher Direktbezug       | Base cream DAC   | 57080315             | 1              |
| Eimermacher Ensbona           | Base cream DAC   | 14150817             | 1              |
| Eimermacher Ensbona           | Base cream DAC   | 61361217             | 2              |
| Eimermacher/ 4                | Base cream DAC   | 570903158            | 1              |
| Eimermacher/ Eimermacher      | Base cream DAC   | 80340218             | 1              |
| Eimermacher/ Noweda           | Base cream DAC   | 71950619             | 1              |
| Eimermacher/ Phoenix          | Base cream DAC   | 80400719             | 3              |
| Eimermacher/AHD               | Base cream DAC   | 48560921             | 7              |
| Eimermacher/Alliance          | Base cream DAC   | 63340317             | 2              |
| Eimermacher/BC                | Base cream DAC   | 14120715             | 1              |
| Eimermacher/BC                | Base cream DAC   | 39590217             | 1              |
| Eimermacher/BC                | Base cream DAC   | 57090315             | 1              |
| Eimermacher/BC                | Base cream DAC   | 8630717              | 2              |
| Eimermacher/Brunnencenter     | Base cream DAC   | 1200216              | 1              |
| Eimermacher/Brunnencenter     | Base cream DAC   | 39590217             | 1              |
| Eimermacher/Brunnencenter     | Base cream DAC   | 6671116              | 2              |
| Eimermacher/Direkt            | Base cream DAC   | 10067198             | 1              |
| Eimermacher/Direkt            | Base cream DAC   | 15730518             | 8              |
| Eimermacher/Direkt            | Base cream DAC   | 40150120             | 5              |
| Eimermacher/Direkt            | Base cream DAC   | 61361217             | 5              |
| Eimermacher/Direkt            | Base cream DAC   | 80600520             | 5              |
| Eimermacher/Direkt            | Base cream DAC   | 98770122             | 3              |
| Eimermacher/Eimermacher       | Base cream DAC   | 14130715             | 5              |
| Eimermacher/Eimermacher       | Base cream DAC   | 60630519             | 1              |
| Eimermacher/Ensbona           | Base cream DAC   | 14130715             | 1              |
| Eimermacher/Ensbona           | Base cream DAC   | 29230416             | 2              |
| Eimermacher/Ensbona           | Base cream DAC   | 63340317             | 1              |
| Eimermacher/Fiebig            | Base cream DAC   | 13181119             | 1              |
| Eimermacher/Fiebig            | Base cream DAC   | 55770320             | 1              |
| Eimermacher/Gehe              | Base cream DAC   | 40140120             | 2              |
| Eimermacher/Gehe              | Base cream DAC   | 71950619             | 2              |
| Eimermacher/Gehe              | Base cream DAC   | 87231118             | 1              |
| Eimermacher/Noweda            | Base cream DAC   | 14120715             | 2              |
| Eimermacher/Noweda            | Base cream DAC   | 36510319             | 2              |
| Eimermacher/Noweda            | Base cream DAC   | 39590217             | 1              |
| Eimermacher/Noweda            | Base cream DAC   | 70570420             | 1              |
| Eimermacher/Noweda            | Base cream DAC   | 8630717              | 2              |
| Eimermacher/Phoenix           | Base cream DAC   | 60630519             | 1              |

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| <b>Supplier</b>              | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|------------------------------|------------------|----------------------|----------------|
| Eimermacher/Phoenix          | Base cream DAC   | 71940619             | 1              |
| Eimermacher/Phoenix          | Base cream DAC   | 80340218             | 1              |
| Eimermacher/Phoenix          | Base cream DAC   | 80400719             | 2              |
| Eimermacher/Phoenix          | Base cream DAC   | 95980718             | 1              |
| Eimermacher/Phönix           | Base cream DAC   | 15730518             | 1              |
| Eimermacher/Sanacorp         | Base cream DAC   | 14120715             | 1              |
| Eimermacher/Sanacorp         | Base cream DAC   | 74420221             | 2              |
| Eimermacher                  | Base cream DAC   | 12170214             | 5              |
| Eimermacher                  | Base cream DAC   | 13510119             | 6              |
| Eimermacher                  | Base cream DAC   | 14130817             | 1              |
| Eimermacher                  | Base cream DAC   | 14150817             | 5              |
| Eimermacher                  | Base cream DAC   | 15660621             | 3              |
| Eimermacher                  | Base cream DAC   | 15670621             | 1              |
| Eimermacher                  | Base cream DAC   | 19440920             | 4              |
| Eimermacher                  | Base cream DAC   | 23090414             | 1              |
| Eimermacher                  | Base cream DAC   | 23780219             | 1              |
| Eimermacher                  | Base cream DAC   | 2770713              | 1              |
| Eimermacher                  | Base cream DAC   | 28310913             | 2              |
| Eimermacher                  | Base cream DAC   | 3301218              | 1              |
| Eimermacher                  | Base cream DAC   | 3370720              | 4              |
| Eimermacher                  | Base cream DAC   | 36140913             | 1              |
| Eimermacher                  | Base cream DAC   | 36500319             | 2              |
| Eimermacher                  | Base cream DAC   | 39590217             | 5              |
| Eimermacher                  | Base cream DAC   | 40140120             | 2              |
| Eimermacher                  | Base cream DAC   | 40160120             | 4              |
| Eimermacher                  | Base cream DAC   | 47870419             | 1              |
| Eimermacher                  | Base cream DAC   | 47880419             | 3              |
| Eimermacher                  | Base cream DAC   | 502110015            | 1              |
| Eimermacher                  | Base cream DAC   | 50211015             | 1              |
| Eimermacher                  | Base cream DAC   | 50221015             | 1              |
| Eimermacher                  | Base cream DAC   | 52830317             | 1              |
| Eimermacher                  | Base cream DAC   | 55770320             | 1              |
| Eimermacher                  | Base cream DAC   | 57080315             | 1              |
| Eimermacher                  | Base cream DAC   | 57090315             | 2              |
| Eimermacher                  | Base cream DAC   | 60640519             | 1              |
| Eimermacher                  | Base cream DAC   | 61371217             | 4              |
| Eimermacher                  | Base cream DAC   | 61381217             | 1              |
| Eimermacher                  | Base cream DAC   | 62550918             | 1              |
| Eimermacher                  | Base cream DAC   | 70570420             | 7              |
| EIMERMACHER                  | Base cream DAC   | 71940619             | 1              |
| Eimermacher                  | Base cream DAC   | 71940819             | 1              |
| Eimermacher                  | Base cream DAC   | 72240417             | 11             |
| Eimermacher                  | Base cream DAC   | 74420221             | 2              |
| Eimermacher                  | Base cream DAC   | 76561018             | 1              |
| Eimermacher                  | Base cream DAC   | 79000916             | 4              |
| Eimermacher                  | Base cream DAC   | 80410719             | 3              |
| Eimermacher                  | Base cream DAC   | 80600520             | 1              |
| Eimermacher                  | Base cream DAC   | 86440517             | 1              |
| Eimermacher                  | Base cream DAC   | 87231118             | 1              |
| Eimermacher                  | Base cream DAC   | 8811114              | 1              |
| Eimermacher                  | Base cream DAC   | 97870214             | 2              |
| EimermacherGmbH-Geschen. ... | Base cream DAC   | 14150817-20180404Ma9 | 1              |
| Eimmermacher                 | Base cream DAC   | 6681116              | 1              |
| Engel apotheke               | Base cream DAC   | 2119Q-07011          | 1              |
| Engel-Apotheke               | Base cream DAC   | 2119I-07011          | 1              |
| Engel-Apotheke               | Base cream DAC   | 2219Q-07011          | 1              |
| Ensboa                       | Base cream DAC   | 2020216              | 1              |
| Ensboa                       | Base cream DAC   | 63340317             | 4              |
| Ensboa                       | Base cream DAC   | 64570816             | 2              |
| Ensboa                       | Base cream DAC   | 6681116              | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Ensbona / Eimermacher, ... | Base cream DAC   | 13161119     | 1              |
| Ensbona / Eimermacher, ... | Base cream DAC   | 15670621     | 1              |
| Ensbona / Eimermacher, ... | Base cream DAC   | 40160120     | 6              |
| Ensbona / Eimermacher, ... | Base cream DAC   | 60630519     | 3              |
| Ensbona / Eimermacher      | Base cream DAC   | 80340218     | 2              |
| Ensbona / Ferd. Eimerma... | Base cream DAC   | 55350716     | 5              |
| Ensbona / Ferdinand Eim... | Base cream DAC   | 15670621     | 4              |
| Ensbona / Ferdinand Eim... | Base cream DAC   | 3311218      | 3              |
| Ensbona / Ferdinand Eim... | Base cream DAC   | 4271019      | 3              |
| Ensbona / Ferdinand Eim... | Base cream DAC   | 48560921     | 1              |
| Ensbona / Ferdinand Eim... | Base cream DAC   | 61361217     | 1              |
| Ensbona / Ferdinand Eim... | Base cream DAC   | 80600520     | 3              |
| Ensbona / Jenne            | Base cream DAC   | 13161119     | 1              |
| Ensbona / Phönix           | Base cream DAC   | 47880419     | 3              |
| Ensbona / Phönix           | Base cream DAC   | 804000719    | 1              |
| Ensbona / Phönix           | Base cream DAC   | 80400719     | 2              |
| Ensbona /                  | Base cream DAC   | 15730518     | 1              |
| Ensbona /                  | Base cream DAC   | 23790219     | 1              |
| Ensbona /                  | Base cream DAC   | 47880419     | 1              |
| Ensbona /                  | Base cream DAC   | 80400719     | 1              |
| Ensbona Phoenix            | Base cream DAC   | 74420221     | 4              |
| Ensbona/ Eimermacher       | Base cream DAC   | 70570420     | 1              |
| Ensbona/ Gehe              | Base cream DAC   | 13161119     | 2              |
| Ensbona/ Gehe              | Base cream DAC   | 15660621     | 2              |
| Ensbona/ Gehe              | Base cream DAC   | 40150120     | 1              |
| Ensbona/ Gehe              | Base cream DAC   | 70570420     | 1              |
| Ensbona/ Gehe              | Base cream DAC   | 74420221     | 2              |
| Ensbona/ Gehe              | Base cream DAC   | 80400719     | 1              |
| Ensbona/ Gehe              | Base cream DAC   | 80600520     | 1              |
| Ensbona/ Noweda            | Base cream DAC   | 39590217     | 1              |
| Ensbona/ Sanacorp          | Base cream DAC   |              | 2              |
| Ensbona/ Sanacorp          | Base cream DAC   | 1200216      | 3              |
| Ensbona/ Sanacorp          | Base cream DAC   | 50211015     | 1              |
| Ensbona/4                  | Base cream DAC   | 72240417     | 1              |
| Ensbona/Alliance           | Base cream DAC   | 8630717      | 1              |
| Ensbona/Anzag              | Base cream DAC   | 13161119     | 2              |
| Ensbona/Anzag              | Base cream DAC   | 44960616     | 1              |
| Ensbona/Anzag              | Base cream DAC   | 50211015     | 4              |
| Ensbona/Anzag              | Base cream DAC   | 80400719     | 3              |
| Ensbona/E&J                | Base cream DAC   | 14150817     | 2              |
| Ensbona/E&J                | Base cream DAC   | 15730518     | 1              |
| Ensbona/E&J                | Base cream DAC   | 39590217     | 1              |
| Ensbona/E&J                | Base cream DAC   | 72240417     | 3              |
| Ensbona/E&J                | Base cream DAC   | 95980718     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 14110817     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 14120715     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 14130715     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 29220416     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 29230416     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 40150120     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 45150616     | 1              |
| Ensbona/Eimermacher        | Base cream DAC   | 61361217     | 1              |
| ensbona/Eimermacher        | Base cream DAC   | 68931121     | 1              |
| ensbona/Eimermacher        | Base cream DAC   | 70570420     | 4              |
| Ensbona/Eimermacher        | Base cream DAC   | 71940619     | 1              |
| ENSBONA/Eimermacher        | Base cream DAC   | 79000916     | 2              |
| Ensbona/Gehe               | Base cream DAC   | 14150817     | 2              |
| Ensbona/gehe               | Base cream DAC   | 33012178     | 1              |
| Ensbona/gehe               | Base cream DAC   | 35600319     | 1              |
| Ensbona/Gehe               | Base cream DAC   | 39590217     | 3              |

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| <b>Supplier</b>   | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-------------------|------------------|--------------|----------------|
| Ensbona/Gehe      | Base cream DAC   | 4271019      | 1              |
| Ensbona/Gehe      | Base cream DAC   | 44960616     | 1              |
| Ensbona/Gehe      | Base cream DAC   | 633350317    | 1              |
| Ensbona/Gehe      | Base cream DAC   | 63350317     | 1              |
| Ensbona/Gehe      | Base cream DAC   | 7580418      | 1              |
| Ensbona/Gehe      | Base cream DAC   | 80400719     | 1              |
| Ensbona/Gehe      | Base cream DAC   | 80600520     | 1              |
| Ensbona/Gehe      | Base cream DAC   | 87231118     | 1              |
| Ensbona/Gehe      | Base cream DAC   | 95980718     | 1              |
| Ensbona/Krieger   | Base cream DAC   | 36510319     | 2              |
| Ensbona/Krieger   | Base cream DAC   | 60630519     | 1              |
| Ensbona/Nordwalde | Base cream DAC   | 47870419     | 3              |
| Ensbona/Nordwalde | Base cream DAC   | 63350317     | 1              |
| Ensbona/Noweda    | Base cream DAC   | 13161119     | 1              |
| ensbona/Noweda    | Base cream DAC   | 14120715     | 1              |
| Ensbona/Noweda    | Base cream DAC   | 14150817     | 1              |
| Ensbona/Noweda    | Base cream DAC   | 19440920     | 2              |
| Ensbona/Noweda    | Base cream DAC   | 36510319     | 1              |
| Ensbona/Noweda    | Base cream DAC   | 40150120     | 1              |
| Ensbona/Noweda    | Base cream DAC   | 44960616     | 1              |
| Ensbona/Noweda    | Base cream DAC   | 70570420     | 12             |
| Ensbona/Noweda    | Base cream DAC   | 71940619     | 2              |
| Ensbona/Noweda    | Base cream DAC   | 71950619     | 3              |
| Ensbona/Noweda    | Base cream DAC   | 74420221     | 4              |
| Ensbona/Noweda    | Base cream DAC   | 80400719     | 5              |
| Ensbona/Noweda    | Base cream DAC   | 80600520     | 7              |
| Ensbona/Phönix    | Base cream DAC   | 36510319     | 2              |
| Ensbona/Phönix    | Base cream DAC   | 4271019      | 3              |
| Ensbona/phönix    | Base cream DAC   | 50211015     | 1              |
| Ensbona/Phönix    | Base cream DAC   | 60630519     | 1              |
| Ensbona/Phönix    | Base cream DAC   | 70570420     | 1              |
| Ensbona/phönix    | Base cream DAC   | 72240417     | 1              |
| Ensbona/Röntgen   | Base cream DAC   | 60630519     | 1              |
| Ensbona/Sanacorp  | Base cream DAC   | 22251214     | 2              |
| Ensbona/Sanacorp  | Base cream DAC   | 29220416     | 1              |
| Ensbona/Sanacorp  | Base cream DAC   | 39590217     | 1              |
| Ensbona/Sanacorp  | Base cream DAC   | 57090315     | 3              |
| Ensbona/Sanacorp  | Base cream DAC   | 63350317     | 1              |
| Ensbona/Sanacorp  | Base cream DAC   | 71940619     | 3              |
| Ensbona/Sanacorp  | Base cream DAC   | 72240417     | 2              |
| Ensbona/Sanacorp  | Base cream DAC   | 87231118     | 1              |
| Ensbona           | Base cream DAC   | 1111         | 1              |
| Ensbona           | Base cream DAC   | 1200216      | 3              |
| Ensbona           | Base cream DAC   | 13510119     | 1              |
| Ensbona           | Base cream DAC   | 13520119     | 3              |
| Ensbona           | Base cream DAC   | 14110817     | 6              |
| Ensbona           | Base cream DAC   | 14120715     | 2              |
| Ensbona           | Base cream DAC   | 14130715     | 1              |
| Ensbona           | Base cream DAC   | 14130817     | 1              |
| Ensbona           | Base cream DAC   | 15660621     | 2              |
| Ensbona           | Base cream DAC   | 15670621     | 5              |
| Ensbona           | Base cream DAC   | 15730518     | 3              |
| Ensbona           | Base cream DAC   | 2020216      | 2              |
| ENSBONA           | Base cream DAC   | 2020216      | 1              |
| ENSBONA           | Base cream DAC   | 22251214     | 1              |
| Ensbona           | Base cream DAC   | 23780219     | 1              |
| Ensbona           | Base cream DAC   | 29220416     | 1              |
| ENSBONA           | Base cream DAC   | 29580618     | 1              |
| Ensbona           | Base cream DAC   | 3301218      | 1              |
| ensbona           | Base cream DAC   | 3370720      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Ensbona                    | Base cream DAC   | 3370720      | 1              |
| Ensbona                    | Base cream DAC   | 3371116      | 1              |
| Ensbona                    | Base cream DAC   | 36510319     | 5              |
| Ensbona                    | Base cream DAC   | 39590217     | 2              |
| Ensbona                    | Base cream DAC   | 4271019      | 1              |
| Ensbona                    | Base cream DAC   | 47870419     | 1              |
| Ensbona                    | Base cream DAC   | 47880419     | 3              |
| Ensbona                    | Base cream DAC   | 48520921     | 3              |
| Ensbona                    | Base cream DAC   | 48560921     | 3              |
| Ensbona                    | Base cream DAC   | 52830317     | 9              |
| Ensbona                    | Base cream DAC   | 55350716     | 15             |
| Ensbona                    | Base cream DAC   | 57090315     | 4              |
| Ensbona                    | Base cream DAC   | 58641021     | 2              |
| Ensbona                    | Base cream DAC   | 58691021     | 2              |
| Ensbona                    | Base cream DAC   | 61381217     | 2              |
| Ensbona                    | Base cream DAC   | 62550918     | 1              |
| Ensbona                    | Base cream DAC   | 63350317     | 4              |
| ENSBONA                    | Base cream DAC   | 63350317     | 1              |
| Ensbona                    | Base cream DAC   | 6671116      | 3              |
| Ensbona                    | Base cream DAC   | 70570420     | 1              |
| Ensbona                    | Base cream DAC   | 71940619     | 2              |
| Ensbona                    | Base cream DAC   | 71950619     | 1              |
| Ensbona                    | Base cream DAC   | 72250417     | 2              |
| ensbona                    | Base cream DAC   | 74000513     | 1              |
| Ensbona                    | Base cream DAC   | 74420221     | 3              |
| Ensbona                    | Base cream DAC   | 7580418      | 2              |
| Ensbona                    | Base cream DAC   | 76561018     | 2              |
| ensbona                    | Base cream DAC   | 79000916     | 1              |
| Ensbona                    | Base cream DAC   | 79000916     | 8              |
| Ensbona                    | Base cream DAC   | 80340218     | 4              |
| Ensbona                    | Base cream DAC   | 86440517     | 2              |
| Ensbona                    | Base cream DAC   | 87231118     | 6              |
| Ensbona                    | Base cream DAC   | 8811114      | 1              |
| Ensbona                    | Base cream DAC   | 93780318     | 1              |
| Ensbona                    | Base cream DAC   | 95980718     | 3              |
| Ensbona                    | Base cream DAC   | 98480713     | 1              |
| EnsbonaIPhoenix            | Base cream DAC   | 48560921     | 1              |
| EnsbonaIPhoenix            | Base cream DAC   | 68931121     | 1              |
| EnsbonaIPhoenix            | Base cream DAC   | 70570420     | 2              |
| EnsbonaIPhoenix            | Base cream DAC   | 71950619     | 1              |
| EnsbonaNoweda              | Base cream DAC   | 72240417     | 1              |
| Enzbona/Eimermacher        | Base cream DAC   | 14120715     | 2              |
| Enzbona/Eimermacher        | Base cream DAC   | 29220416     | 1              |
| E-plus                     | Base cream DAC   | 308799       | 1              |
| Esbona/Alliance            | Base cream DAC   | 10067198     | 1              |
| Eur                        | Base cream DAC   | 1407022-01   | 1              |
| EuRh                       | Base cream DAC   | 19001        | 2              |
| EuRho / 2                  | Base cream DAC   | 40170120     | 3              |
| EuRho / 2                  | Base cream DAC   | 80390719     | 1              |
| EuRho / GEHE               | Base cream DAC   | 80390719     | 1              |
| EuRho / Phoenix            | Base cream DAC   | 14140817     | 1              |
| EuRho / Phoenix            | Base cream DAC   | 1506046-01   | 1              |
| EuRho / Phoenix            | Base cream DAC   | 15720518     | 1              |
| EuRho / Phoenix            | Base cream DAC   | 27350917     | 1              |
| EuRho / Phoenix            | Base cream DAC   | 29550618     | 1              |
| EuRho / Phoenix            | Base cream DAC   | 55360616     | 1              |
| EuRho / Phoenix            | Base cream DAC   | 76571018     | 1              |
| EuRho / Phoenix            | Base cream DAC   | 86470517     | 1              |
| EuRho Anzag ek:33,16 03... | Base cream DAC   | 1111027-01   | 1              |
| EuRho/ AHD                 | Base cream DAC   | 18081702     | 1              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|------------------------|------------------|------------------|----------------|
| EuRho/ Ebert           | Base cream DAC   | 1401026-01       | 1              |
| EuRho/ Noweda 29.10.18 | Base cream DAC   | 45940718         | 2              |
| EuRho/ Anzag           | Base cream DAC   | 98(18081602)     | 1              |
| EuRho/Gehe             | Base cream DAC   | 13151119         | 2              |
| EuRho/Gehe             | Base cream DAC   | 3380720          | 1              |
| EuRho/Gehe             | Base cream DAC   | 35401020         | 3              |
| EuRho/Gehe             | Base cream DAC   | 40170120         | 2              |
| EuRho/Gehe             | Base cream DAC   | 48550921         | 2              |
| EuRho/Gehe             | Base cream DAC   | 71980619         | 1              |
| EuRho/Gehe             | Base cream DAC   | 92080819         | 1              |
| Eurho/Noweda           | Base cream DAC   | 1508001-01       | 1              |
| EuRho/Noweda           | Base cream DAC   | 15620621         | 1              |
| EuRho/Noweda           | Base cream DAC   | 19400920         | 1              |
| EuRho/Noweda           | Base cream DAC   | 19420920         | 3              |
| EuRho/Noweda           | Base cream DAC   | 29550618         | 1              |
| EuRho/Noweda           | Base cream DAC   | 35401020         | 1              |
| EuRho/Noweda           | Base cream DAC   | 51580217         | 2              |
| EuRho/Phoenix          | Base cream DAC   | 1311031-01       | 1              |
| EuRho/Phoenix          | Base cream DAC   | 1346019          | 1              |
| Eurho/Phoenix          | Base cream DAC   | 13C05-T03-001756 | 1              |
| EuRho/Phoenix          | Base cream DAC   | 74410221         | 1              |
| EuRho/Phönix           | Base cream DAC   | 1312002-01       | 1              |
| EuRho/Phönix           | Base cream DAC   | 1312037-01       | 1              |
| EuRho/Phönix           | Base cream DAC   | 1502017-01       | 1              |
| EuRho                  | Base cream DAC   | 1108002-01       | 1              |
| EuRho                  | Base cream DAC   | 1111048-01       | 1              |
| EuRho                  | Base cream DAC   | 1111050-01       | 1              |
| EuRho                  | Base cream DAC   | 1204022-01       | 1              |
| EuRho                  | Base cream DAC   | 1209037-01       | 1              |
| EuRho                  | Base cream DAC   | 1210011-01       | 2              |
| EuRho                  | Base cream DAC   | 1301023-01       | 1              |
| EuRho                  | Base cream DAC   | 1302009-01       | 1              |
| EuRho                  | Base cream DAC   | 1302036-01       | 1              |
| EuRho                  | Base cream DAC   | 130400501        | 1              |
| EuRho                  | Base cream DAC   | 13K29-B32-288245 | 1              |
| EuRho                  | Base cream DAC   | 1401026-01       | 2              |
| EuRho                  | Base cream DAC   | 14140817         | 1              |
| EuRho                  | Base cream DAC   | 1501050-01       | 1              |
| EuRho                  | Base cream DAC   | 1502008-01       | 1              |
| EuRho                  | Base cream DAC   | 1502029-01       | 2              |
| EuRho                  | Base cream DAC   | 1508001-01       | 1              |
| EuRho                  | Base cream DAC   | 1511002-01       | 3              |
| EuRho                  | Base cream DAC   | 1603028-01       | 1              |
| EuRho                  | Base cream DAC   | 1606028-01       | 1              |
| EuRho                  | Base cream DAC   | 27320917         | 1              |
| EuRho                  | Base cream DAC   | 27350917         | 1              |
| EuRho                  | Base cream DAC   | 2981016          | 2              |
| EuRho                  | Base cream DAC   | 3001016          | 1              |
| EuRho                  | Base cream DAC   | 3570117          | 1              |
| Eurho                  | Base cream DAC   | 38540516         | 1              |
| EuRho                  | Base cream DAC   | 39570117         | 1              |
| EuRho                  | Base cream DAC   | 44950616         | 1              |
| EuRho                  | Base cream DAC   | 45340616         | 1              |
| EuRho                  | Base cream DAC   | 51580217         | 1              |
| EuRho                  | Base cream DAC   | 55360616         | 1              |
| EuRho                  | Base cream DAC   | 60620519         | 1              |
| EuRho                  | Base cream DAC   | 68941121         | 1              |
| EuRho                  | Base cream DAC   | 69530118         | 1              |
| EuRho                  | Base cream DAC   | 70540420         | 1              |
| EuRho                  | Base cream DAC   | 72440816         | 1              |

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| <b>Supplier</b>       | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------------|------------------|--------------|----------------|
| EuRho                 | Base cream DAC   | 80300218     | 1              |
| EuRho                 | Base cream DAC   | 80580520     | 1              |
| EuRho                 | Base cream DAC   | 86450517     | 1              |
| Eurho                 | Base cream DAC   | 93750318     | 3              |
| EuRhoNoweda 11.3..17  | Base cream DAC   | 91350916     | 2              |
| EuRhoNoweda28.06.2017 | Base cream DAC   | 39620117     | 2              |
| Eurho-Pharma          | Base cream DAC   | 45940718     | 1              |
| Euro OCT              | Base cream DAC   | 1210055-01   | 1              |
| Euro OCT              | Base cream DAC   | 1307047-01   | 1              |
| Euro OTC              | Base cream DAC   |              | 1              |
| Euro OTC              | Base cream DAC   | 11033-01     | 1              |
| Euro OTC              | Base cream DAC   | 1107040-01   | 1              |
| Euro OTC              | Base cream DAC   | 1110037-01   | 2              |
| Euro OTC              | Base cream DAC   | 11110023-01  | 1              |
| Euro OTC              | Base cream DAC   | 1111009-01   | 1              |
| Euro OTC              | Base cream DAC   | 1111028-01   | 1              |
| Euro OTC              | Base cream DAC   | 1111041-01   | 1              |
| Euro OTC              | Base cream DAC   | 1111042-01   | 1              |
| Euro OTC              | Base cream DAC   | 1111051-01   | 2              |
| Euro OTC              | Base cream DAC   | 11811116     | 6              |
| Euro OTC              | Base cream DAC   | 11821116     | 8              |
| Euro OTC              | Base cream DAC   | 11831116     | 3              |
| Euro OTC              | Base cream DAC   | 11841116     | 7              |
| Euro OTC              | Base cream DAC   | 118471116    | 1              |
| Euro OTC              | Base cream DAC   | 1204004-01   | 3              |
| Euro OTC              | Base cream DAC   | 1204023-01   | 1              |
| Euro OTC              | Base cream DAC   | 1204024-01   | 1              |
| Euro OTC              | Base cream DAC   | 1204025-01   | 2              |
| Euro OTC              | Base cream DAC   | 1205004-01   | 1              |
| Euro OTC              | Base cream DAC   | 1205018-01   | 3              |
| Euro OTC              | Base cream DAC   | 1205019-01   | 1              |
| Euro OTC              | Base cream DAC   | 1205040-01   | 1              |
| Euro OTC              | Base cream DAC   | 1205041-01   | 1              |
| Euro OTC              | Base cream DAC   | 1205044-01   | 2              |
| Euro OTC              | Base cream DAC   | 120903701    | 1              |
| Euro OTC              | Base cream DAC   | 1209037-01   | 4              |
| Euro OTC              | Base cream DAC   | 1209038-01   | 2              |
| Euro OTC              | Base cream DAC   | 1209039-01   | 1              |
| Euro OTC              | Base cream DAC   | 1210011-01   | 3              |
| Euro OTC              | Base cream DAC   | 1210044-01   | 4              |
| Euro OTC              | Base cream DAC   | 1210053-01   | 1              |
| Euro OTC              | Base cream DAC   | 121005401    | 1              |
| Euro OTC              | Base cream DAC   | 1210054-01   | 1              |
| Euro OTC              | Base cream DAC   | 1210055-01   | 3              |
| Euro OTC              | Base cream DAC   | 1212025-01   | 1              |
| Euro OTC              | Base cream DAC   | 1212027-01   | 1              |
| Euro OTC              | Base cream DAC   | 121202801    | 1              |
| Euro OTC              | Base cream DAC   | 1212028-01   | 2              |
| Euro OTC              | Base cream DAC   | 121209-01    | 1              |
| Euro OTC              | Base cream DAC   | 12339301     | 1              |
| Euro OTC              | Base cream DAC   | 129037-01    | 1              |
| Euro OTC              | Base cream DAC   | 1301022-01   | 6              |
| Euro OTC              | Base cream DAC   | 130102301    | 1              |
| Euro OTC              | Base cream DAC   | 1301023-01   | 8              |
| Euro OTC              | Base cream DAC   | 1301040-01   | 1              |
| Euro OTC              | Base cream DAC   | 1301042-01   | 1              |
| Euro OTC              | Base cream DAC   | 1301043-01   | 1              |
| Euro OTC              | Base cream DAC   | 1301044-01   | 1              |
| Euro OTC              | Base cream DAC   | 130201001    | 1              |
| Euro OTC              | Base cream DAC   | 1302036-01   | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Euro OTC        | Base cream DAC   | 1302037-01   | 1              |
| Euro OTC        | Base cream DAC   | 1304004-01   | 1              |
| Euro OTC        | Base cream DAC   | 1304005-01   | 2              |
| Euro OTC        | Base cream DAC   | 1304006-01   | 5              |
| Euro OTC        | Base cream DAC   | 1305012-01   | 1              |
| Euro OTC        | Base cream DAC   | 1305013-01   | 1              |
| Euro OTC        | Base cream DAC   | 1306001-01   | 6              |
| Euro OTC        | Base cream DAC   | 1306002-01   | 1              |
| Euro OTC        | Base cream DAC   | 1306007-01   | 1              |
| Euro OTC        | Base cream DAC   | 1306009-01   | 2              |
| Euro OTC        | Base cream DAC   | 1306019-01   | 1              |
| Euro OTC        | Base cream DAC   | 1306020-01   | 6              |
| Euro OTC        | Base cream DAC   | 130603001    | 1              |
| Euro OTC        | Base cream DAC   | 1306030-01   | 1              |
| Euro OTC        | Base cream DAC   | 1306031-01   | 1              |
| Euro OTC        | Base cream DAC   | 1306042-01   | 1              |
| Euro OTC        | Base cream DAC   | 1306044-01   | 2              |
| Euro OTC        | Base cream DAC   | 1307003-01   | 2              |
| Euro OTC        | Base cream DAC   | 130703101    | 1              |
| Euro OTC        | Base cream DAC   | 1307031-01   | 3              |
| Euro OTC        | Base cream DAC   | 1307034-01   | 2              |
| Euro OTC        | Base cream DAC   | 1307035-01   | 1              |
| Euro OTC        | Base cream DAC   | 130703601    | 2              |
| Euro OTC        | Base cream DAC   | 1307044-01   | 3              |
| Euro OTC        | Base cream DAC   | 1307045-01   | 1              |
| Euro OTC        | Base cream DAC   | 1307046-01   | 1              |
| Euro OTC        | Base cream DAC   | 130704701    | 2              |
| Euro OTC        | Base cream DAC   | 1307047-01   | 1              |
| Euro OTC        | Base cream DAC   | 130704801    | 1              |
| Euro OTC        | Base cream DAC   | 1308010-01   | 1              |
| Euro OTC        | Base cream DAC   | 1308011-01   | 1              |
| Euro OTC        | Base cream DAC   | 1308013-01   | 4              |
| Euro OTC        | Base cream DAC   | 1308021-01   | 3              |
| Euro OTC        | Base cream DAC   | 1308022-01   | 6              |
| Euro OTC        | Base cream DAC   | 13080224-01  | 1              |
| Euro OTC        | Base cream DAC   | 1308023-01   | 3              |
| Euro OTC        | Base cream DAC   | 1308024-01   | 8              |
| Euro OTC        | Base cream DAC   | 1309005-01   | 3              |
| Euro OTC        | Base cream DAC   | 1309006-01   | 1              |
| Euro OTC        | Base cream DAC   | 1309007-01   | 8              |
| Euro OTC        | Base cream DAC   | 1309008-01   | 1              |
| Euro OTC        | Base cream DAC   | 1309013-01   | 7              |
| Euro OTC        | Base cream DAC   | 1309015-01   | 3              |
| Euro OTC        | Base cream DAC   | 131007-01    | 1              |
| Euro OTC        | Base cream DAC   | 1311004-01   | 2              |
| Euro OTC        | Base cream DAC   | 1311005-01   | 5              |
| Euro OTC        | Base cream DAC   | 1311007-01   | 3              |
| Euro OTC        | Base cream DAC   | 131100801    | 1              |
| Euro OTC        | Base cream DAC   | 1311008-01   | 2              |
| Euro OTC        | Base cream DAC   | 131100901    | 1              |
| Euro OTC        | Base cream DAC   | 1311009-01   | 1              |
| Euro OTC        | Base cream DAC   | 131101601    | 1              |
| Euro OTC        | Base cream DAC   | 1311018-01   | 1              |
| Euro OTC        | Base cream DAC   | 131103101    | 1              |
| Euro OTC        | Base cream DAC   | 1311031-01   | 1              |
| Euro OTC        | Base cream DAC   | 13111004-01  | 1              |
| Euro OTC        | Base cream DAC   | 13113101     | 1              |
| Euro OTC        | Base cream DAC   | 131200101    | 1              |
| Euro OTC        | Base cream DAC   | 1312001-01   | 2              |
| Euro OTC        | Base cream DAC   | 1312003-01   | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Euro OTC        | Base cream DAC   | 1312004-01   | 1              |
| Euro OTC        | Base cream DAC   | 1312020-01   | 1              |
| Euro OTC        | Base cream DAC   | 1312021-01   | 1              |
| Euro OTC        | Base cream DAC   | 1312035-01   | 6              |
| Euro OTC        | Base cream DAC   | 1312036-01   | 1              |
| Euro OTC        | Base cream DAC   | 131203701    | 1              |
| Euro OTC        | Base cream DAC   | 1312037-01   | 1              |
| Euro OTC        | Base cream DAC   | 1312038-01   | 6              |
| Euro OTC        | Base cream DAC   | 1312039-01   | 6              |
| Euro OTC        | Base cream DAC   | 13131119     | 3              |
| Euro OTC        | Base cream DAC   | 13141119     | 4              |
| Euro OTC        | Base cream DAC   | 13151119     | 8              |
| Euro OTC        | Base cream DAC   | 13171119     | 9              |
| Euro OTC        | Base cream DAC   | 13190119     | 1              |
| Euro OTC        | Base cream DAC   | 13201101     | 1              |
| Euro OTC        | Base cream DAC   | 13312201     | 1              |
| Euro OTC        | Base cream DAC   | 13460119     | 3              |
| Euro OTC        | Base cream DAC   | 13470119     | 6              |
| Euro OTC        | Base cream DAC   | 13480119     | 8              |
| Euro OTC        | Base cream DAC   | 13490119     | 32             |
| Euro OTC        | Base cream DAC   | 13500119     | 6              |
| Euro OTC        | Base cream DAC   | 135151119    | 1              |
| Euro OTC        | Base cream DAC   | 140102001    | 1              |
| Euro OTC        | Base cream DAC   | 1401020-01   | 4              |
| Euro OTC        | Base cream DAC   | 1401021-01   | 1              |
| Euro OTC        | Base cream DAC   | 1401022-01   | 5              |
| Euro OTC        | Base cream DAC   | 1401023-01   | 6              |
| Euro OTC        | Base cream DAC   | 1401024-01   | 6              |
| Euro OTC        | Base cream DAC   | 1401025-01   | 8              |
| Euro OTC        | Base cream DAC   | 140102601    | 1              |
| Euro OTC        | Base cream DAC   | 1401026-01   | 3              |
| Euro OTC        | Base cream DAC   | 1407018-01   | 7              |
| Euro OTC        | Base cream DAC   | 1407019-01   | 2              |
| Euro OTC        | Base cream DAC   | 1407020-01   | 1              |
| Euro OTC        | Base cream DAC   | 1407021-01   | 1              |
| Euro OTC        | Base cream DAC   | 140702201    | 1              |
| Euro OTC        | Base cream DAC   | 1407022-01   | 2              |
| Euro OTC        | Base cream DAC   | 1407023-01   | 1              |
| Euro OTC        | Base cream DAC   | 1407054-01   | 3              |
| Euro OTC        | Base cream DAC   | 140705501    | 1              |
| Euro OTC        | Base cream DAC   | 1407055-01   | 2              |
| Euro OTC        | Base cream DAC   | 1409056-01   | 1              |
| Euro OTC        | Base cream DAC   | 14090801     | 1              |
| Euro OTC        | Base cream DAC   | 1410817      | 1              |
| Euro OTC        | Base cream DAC   | 1411031-01   | 1              |
| Euro OTC        | Base cream DAC   | 1412002-01   | 4              |
| Euro OTC        | Base cream DAC   | 14140817     | 19             |
| Euro OTC        | Base cream DAC   | 14140871     | 1              |
| Euro OTC        | Base cream DAC   | 14223101     | 1              |
| Euro OTC        | Base cream DAC   | 14232001     | 1              |
| Euro OTC        | Base cream DAC   | 1501007-01   | 1              |
| Euro OTC        | Base cream DAC   | 150100801    | 1              |
| Euro OTC        | Base cream DAC   | 1501008-01   | 1              |
| Euro OTC        | Base cream DAC   | 1501009-01   | 1              |
| Euro OTC        | Base cream DAC   | 1501019-01   | 1              |
| Euro OTC        | Base cream DAC   | 1501020-01   | 1              |
| Euro OTC        | Base cream DAC   | 1501040-01   | 1              |
| Euro OTC        | Base cream DAC   | 1501050-01   | 3              |
| Euro OTC        | Base cream DAC   | 1501051-01   | 4              |
| Euro OTC        | Base cream DAC   | 1501052-01   | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Euro OTC        | Base cream DAC   | 1501053-01   | 2              |
| Euro OTC        | Base cream DAC   | 1501054-01   | 1              |
| Euro OTC        | Base cream DAC   | 1501055-01   | 1              |
| Euro OTC        | Base cream DAC   | 150150-01    | 1              |
| Euro OTC        | Base cream DAC   | 150200701    | 1              |
| Euro OTC        | Base cream DAC   | 1502007-01   | 5              |
| Euro OTC        | Base cream DAC   | 150200801    | 1              |
| Euro OTC        | Base cream DAC   | 1502008-01   | 7              |
| Euro OTC        | Base cream DAC   | 1502015-01   | 5              |
| Euro OTC        | Base cream DAC   | 1502016      | 1              |
| Euro OTC        | Base cream DAC   | 1502016-01   | 4              |
| Euro OTC        | Base cream DAC   | 1502017-01   | 7              |
| Euro OTC        | Base cream DAC   | 1502025-01   | 1              |
| Euro OTC        | Base cream DAC   | 150202601    | 1              |
| Euro OTC        | Base cream DAC   | 1502026-01   | 6              |
| Euro OTC        | Base cream DAC   | 1502027-01   | 8              |
| Euro OTC        | Base cream DAC   | 1502028      | 1              |
| Euro OTC        | Base cream DAC   | 1502028-01   | 4              |
| Euro OTC        | Base cream DAC   | 1502029-01   | 2              |
| Euro OTC        | Base cream DAC   | 150215-01    | 1              |
| Euro OTC        | Base cream DAC   | 1506026-01   | 1              |
| Euro OTC        | Base cream DAC   | 1506026-011  | 1              |
| Euro OTC        | Base cream DAC   | 1506028-01   | 3              |
| Euro OTC        | Base cream DAC   | 1506045-01   | 9              |
| Euro OTC        | Base cream DAC   | 150604601    | 1              |
| Euro OTC        | Base cream DAC   | 1506046-01   | 4              |
| Euro OTC        | Base cream DAC   | 15060-46-01  | 1              |
| Euro OTC        | Base cream DAC   | 1506047-01   | 4              |
| Euro OTC        | Base cream DAC   | 1506053      | 1              |
| Euro OTC        | Base cream DAC   | 1506053-01   | 14             |
| Euro OTC        | Base cream DAC   | 1507017_01   | 1              |
| Euro OTC        | Base cream DAC   | 1507017-01   | 9              |
| Euro OTC        | Base cream DAC   | 1507018-01   | 2              |
| Euro OTC        | Base cream DAC   | 1508001-01   | 12             |
| Euro OTC        | Base cream DAC   | 1509021-01   | 16             |
| Euro OTC        | Base cream DAC   | 1509021-21   | 1              |
| Euro OTC        | Base cream DAC   | 1509025-01   | 1              |
| Euro OTC        | Base cream DAC   | 1509026-01   | 2              |
| Euro OTC        | Base cream DAC   | 1509028-01   | 1              |
| Euro OTC        | Base cream DAC   | 1510027-01   | 1              |
| Euro OTC        | Base cream DAC   | 151003001    | 1              |
| Euro OTC        | Base cream DAC   | 1510030-01   | 15             |
| Euro OTC        | Base cream DAC   | 1511001-01   | 7              |
| Euro OTC        | Base cream DAC   | 15110011-01  | 1              |
| Euro OTC        | Base cream DAC   | 151100201    | 1              |
| Euro OTC        | Base cream DAC   | 1511002-01   | 16             |
| Euro OTC        | Base cream DAC   | 1511002-02   | 2              |
| Euro OTC        | Base cream DAC   | 151200201    | 1              |
| Euro OTC        | Base cream DAC   | 1512002-01   | 10             |
| Euro OTC        | Base cream DAC   | 1512013-01   | 1              |
| Euro OTC        | Base cream DAC   | 1520202801   | 1              |
| Euro OTC        | Base cream DAC   | 15420101     | 1              |
| Euro OTC        | Base cream DAC   | 15502028-01  | 1              |
| Euro OTC        | Base cream DAC   | 1560621      | 1              |
| Euro OTC        | Base cream DAC   | 15620621     | 4              |
| Euro OTC        | Base cream DAC   | 15630621     | 9              |
| Euro OTC        | Base cream DAC   | 15640621     | 2              |
| Euro OTC        | Base cream DAC   | 15650621     | 1              |
| Euro OTC        | Base cream DAC   | 15690518     | 11             |
| Euro OTC        | Base cream DAC   | 15700518     | 6              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Euro OTC        | Base cream DAC   | 15710518          | 1              |
| Euro OTC        | Base cream DAC   | 15720518          | 28             |
| Euro OTC        | Base cream DAC   | 15728518          | 1              |
| Euro OTC        | Base cream DAC   | 1601025-01        | 1              |
| Euro OTC        | Base cream DAC   | 1601027-01        | 2              |
| Euro OTC        | Base cream DAC   | 1601028-01        | 3              |
| Euro OTC        | Base cream DAC   | 1601030-01        | 1              |
| Euro OTC        | Base cream DAC   | 1601055-01        | 2              |
| Euro OTC        | Base cream DAC   | 160123-01         | 1              |
| Euro OTC        | Base cream DAC   | 1603015-01        | 4              |
| Euro OTC        | Base cream DAC   | 160301601         | 1              |
| Euro OTC        | Base cream DAC   | 1603016-01        | 6              |
| Euro OTC        | Base cream DAC   | 160302801         | 1              |
| Euro OTC        | Base cream DAC   | 1603028-01        | 10             |
| Euro OTC        | Base cream DAC   | 1603029-01        | 8              |
| Euro OTC        | Base cream DAC   | 1603030-01        | 1              |
| Euro OTC        | Base cream DAC   | 1603037-01        | 2              |
| Euro OTC        | Base cream DAC   | 1603038-01        | 2              |
| Euro OTC        | Base cream DAC   | 1603039-01        | 1              |
| Euro OTC        | Base cream DAC   | 1604023-01        | 1              |
| Euro OTC        | Base cream DAC   | 1604040-01        | 2              |
| Euro OTC        | Base cream DAC   | 160404101         | 1              |
| Euro OTC        | Base cream DAC   | 1604042-01        | 3              |
| Euro OTC        | Base cream DAC   | 1605014-01        | 2              |
| Euro OTC        | Base cream DAC   | 16249801          | 2              |
| Euro OTC        | Base cream DAC   | 16721117          | 1              |
| Euro OTC        | Base cream DAC   | 16B15-T04-030281  | 1              |
| Euro OTC        | Base cream DAC   | 16Do6-T10-031949  | 1              |
| Euro OTC        | Base cream DAC   | 16G20-T06-035312  | 1              |
| Euro OTC        | Base cream DAC   | 17006701          | 1              |
| Euro OTC        | Base cream DAC   | 17023401          | 1              |
| Euro OTC        | Base cream DAC   | 17031701          | 2              |
| Euro OTC        | Base cream DAC   | 170318181         | 2              |
| Euro OTC        | Base cream DAC   | 17267401          | 1              |
| Euro OTC        | Base cream DAC   | 17A03-T08-040047  | 1              |
| Euro OTC        | Base cream DAC   | 180208BC/86498517 | 1              |
| Euro OTC        | Base cream DAC   | 181113081         | 1              |
| Euro OTC        | Base cream DAC   | 18137201          | 1              |
| Euro OTC        | Base cream DAC   | 18138001          | 1              |
| Euro OTC        | Base cream DAC   | 18138101          | 2              |
| Euro OTC        | Base cream DAC   | 18166602          | 1              |
| Euro OTC        | Base cream DAC   | 18232601          | 1              |
| Euro OTC        | Base cream DAC   | 18270001          | 1              |
| Euro OTC        | Base cream DAC   | 18720518          | 1              |
| Euro OTC        | Base cream DAC   | 19000942          | 1              |
| Euro OTC        | Base cream DAC   | 19005671          | 1              |
| Euro OTC        | Base cream DAC   | 19020201          | 2              |
| Euro OTC        | Base cream DAC   | 19400920          | 5              |
| Euro OTC        | Base cream DAC   | 19410920          | 2              |
| Euro OTC        | Base cream DAC   | 19420920          | 4              |
| Euro OTC        | Base cream DAC   | 20002397          | 1              |
| Euro OTC        | Base cream DAC   | 20291016          | 1              |
| Euro OTC        | Base cream DAC   | 2308178           | 1              |
| Euro OTC        | Base cream DAC   | 238002019         | 1              |
| Euro OTC        | Base cream DAC   | 23800219          | 16             |
| Euro OTC        | Base cream DAC   | 23810219          | 4              |
| Euro OTC        | Base cream DAC   | 23820219          | 3              |
| Euro OTC        | Base cream DAC   | 23830219          | 1              |
| Euro OTC        | Base cream DAC   | 23840219          | 6              |
| Euro OTC        | Base cream DAC   | 255700618         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Euro OTC        | Base cream DAC   | 27290917     | 3              |
| Euro OTC        | Base cream DAC   | 27300917     | 10             |
| Euro OTC        | Base cream DAC   | 27310917     | 1              |
| Euro OTC        | Base cream DAC   | 27320917     | 8              |
| Euro OTC        | Base cream DAC   | 27320919     | 1              |
| Euro OTC        | Base cream DAC   | 27340917     | 14             |
| Euro OTC        | Base cream DAC   | 27346917     | 1              |
| Euro OTC        | Base cream DAC   | 27350917     | 23             |
| Euro OTC        | Base cream DAC   | 29550618     | 25             |
| Euro OTC        | Base cream DAC   | 29550619     | 1              |
| Euro OTC        | Base cream DAC   | 29560618     | 3              |
| Euro OTC        | Base cream DAC   | 29570618     | 5              |
| Euro OTC        | Base cream DAC   | 2957068      | 1              |
| Euro OTC        | Base cream DAC   | 2981016      | 19             |
| Euro OTC        | Base cream DAC   | 298116       | 1              |
| Euro OTC        | Base cream DAC   | 29860117     | 5              |
| Euro OTC        | Base cream DAC   | 29870117     | 4              |
| Euro OTC        | Base cream DAC   | 29880117     | 2              |
| Euro OTC        | Base cream DAC   | 2991016      | 26             |
| Euro OTC        | Base cream DAC   | 29910169     | 1              |
| Euro OTC        | Base cream DAC   | 3001016      | 16             |
| Euro OTC        | Base cream DAC   | 300116       | 1              |
| Euro OTC        | Base cream DAC   | 3011016      | 17             |
| Euro OTC        | Base cream DAC   | 305711       | 1              |
| Euro OTC        | Base cream DAC   | 3271218      | 5              |
| Euro OTC        | Base cream DAC   | 32811218     | 1              |
| Euro OTC        | Base cream DAC   | 3281218      | 14             |
| Euro OTC        | Base cream DAC   | 3291218      | 6              |
| Euro OTC        | Base cream DAC   | 3360720      | 4              |
| Euro OTC        | Base cream DAC   | 3380720      | 9              |
| Euro OTC        | Base cream DAC   | 33807720     | 1              |
| Euro OTC        | Base cream DAC   | 3390720      | 1              |
| Euro OTC        | Base cream DAC   | 35391020     | 8              |
| Euro OTC        | Base cream DAC   | 35401020     | 21             |
| Euro OTC        | Base cream DAC   | 35411020     | 6              |
| Euro OTC        | Base cream DAC   | 35421020     | 2              |
| Euro OTC        | Base cream DAC   | 35840516     | 1              |
| Euro OTC        | Base cream DAC   | 35980217     | 1              |
| Euro OTC        | Base cream DAC   | 3601016      | 1              |
| Euro OTC        | Base cream DAC   | 36520319     | 6              |
| Euro OTC        | Base cream DAC   | 36530319     | 8              |
| Euro OTC        | Base cream DAC   | 36540319     | 6              |
| Euro OTC        | Base cream DAC   | 3661016      | 1              |
| Euro OTC        | Base cream DAC   | 36920117     | 1              |
| Euro OTC        | Base cream DAC   | 3695474      | 1              |
| Euro OTC        | Base cream DAC   | 38540516     | 13             |
| Euro OTC        | Base cream DAC   | 3854056      | 1              |
| Euro OTC        | Base cream DAC   | 39210516     | 1              |
| Euro OTC        | Base cream DAC   | 39218516     | 1              |
| Euro OTC        | Base cream DAC   | 3931218      | 1              |
| Euro OTC        | Base cream DAC   | 39570117     | 13             |
| Euro OTC        | Base cream DAC   | 39570177     | 1              |
| Euro OTC        | Base cream DAC   | 395802017    | 1              |
| Euro OTC        | Base cream DAC   | 39580217     | 6              |
| Euro OTC        | Base cream DAC   | 39600117     | 1              |
| Euro OTC        | Base cream DAC   | 39620117     | 4              |
| Euro OTC        | Base cream DAC   | 39630217     | 19             |
| Euro OTC        | Base cream DAC   | 40130120     | 10             |
| Euro OTC        | Base cream DAC   | 40170120     | 8              |
| Euro OTC        | Base cream DAC   | 40180120     | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Euro OTC        | Base cream DAC   | 4210919            | 3              |
| Euro OTC        | Base cream DAC   | 421919             | 1              |
| Euro OTC        | Base cream DAC   | 4230919            | 6              |
| Euro OTC        | Base cream DAC   | 4240919            | 39             |
| Euro OTC        | Base cream DAC   | 4251019            | 9              |
| Euro OTC        | Base cream DAC   | 44731117           | 1              |
| Euro OTC        | Base cream DAC   | 44950616           | 19             |
| Euro OTC        | Base cream DAC   | 44960616           | 2              |
| Euro OTC        | Base cream DAC   | 450380616          | 1              |
| Euro OTC        | Base cream DAC   | 45330616           | 18             |
| Euro OTC        | Base cream DAC   | 45340616           | 11             |
| Euro OTC        | Base cream DAC   | 45380616           | 21             |
| Euro OTC        | Base cream DAC   | 4570718            | 1              |
| Euro OTC        | Base cream DAC   | 45940718           | 2              |
| Euro OTC        | Base cream DAC   | 45950718           | 10             |
| Euro OTC        | Base cream DAC   | 45960718           | 4              |
| Euro OTC        | Base cream DAC   | 45970718           | 35             |
| Euro OTC        | Base cream DAC   | 46701117           | 4              |
| Euro OTC        | Base cream DAC   | 46711117           | 3              |
| Euro OTC        | Base cream DAC   | 4671117            | 1              |
| Euro OTC        | Base cream DAC   | 46721117           | 2              |
| Euro OTC        | Base cream DAC   | 467311117          | 1              |
| Euro OTC        | Base cream DAC   | 46731117           | 9              |
| Euro OTC        | Base cream DAC   | 47890419           | 21             |
| Euro OTC        | Base cream DAC   | 478904719          | 1              |
| Euro OTC        | Base cream DAC   | 47898419           | 2              |
| Euro OTC        | Base cream DAC   | 47900419           | 1              |
| Euro OTC        | Base cream DAC   | 47908419           | 1              |
| Euro OTC        | Base cream DAC   | 47910419           | 3              |
| Euro OTC        | Base cream DAC   | 47920419           | 6              |
| Euro OTC        | Base cream DAC   | 47930419           | 5              |
| Euro OTC        | Base cream DAC   | 48530921           | 1              |
| Euro OTC        | Base cream DAC   | 48550921           | 4              |
| Euro OTC        | Base cream DAC   | 485510921          | 1              |
| Euro OTC        | Base cream DAC   | 49650616           | 2              |
| Euro OTC        | Base cream DAC   | 49660616           | 2              |
| Euro OTC        | Base cream DAC   | 51560217           | 4              |
| Euro OTC        | Base cream DAC   | 51570217           | 9              |
| Euro OTC        | Base cream DAC   | 51580217           | 30             |
| Euro OTC        | Base cream DAC   | 515880217          | 1              |
| Euro OTC        | Base cream DAC   | 51850217           | 1              |
| Euro OTC        | Base cream DAC   | 524490616          | 1              |
| Euro OTC        | Base cream DAC   | 52490616           | 6              |
| Euro OTC        | Base cream DAC   | 52500616           | 1              |
| Euro OTC        | Base cream DAC   | 553600616          | 2              |
| Euro OTC        | Base cream DAC   | 55360616           | 12             |
| Euro OTC        | Base cream DAC   | 55740320           | 11             |
| Euro OTC        | Base cream DAC   | 55740320P-200720-3 | 1              |
| Euro OTC        | Base cream DAC   | 55750320           | 3              |
| Euro OTC        | Base cream DAC   | 55760320           | 3              |
| Euro OTC        | Base cream DAC   | 55790320           | 8              |
| Euro OTC        | Base cream DAC   | 55840317           | 3              |
| Euro OTC        | Base cream DAC   | 55850317           | 2              |
| Euro OTC        | Base cream DAC   | 5650900            | 1              |
| Euro OTC        | Base cream DAC   | 58651021           | 5              |
| Euro OTC        | Base cream DAC   | 58661021           | 4              |
| Euro OTC        | Base cream DAC   | 58671021           | 2              |
| Euro OTC        | Base cream DAC   | 58681021           | 3              |
| Euro OTC        | Base cream DAC   | 6004859004         | 1              |
| Euro OTC        | Base cream DAC   | 6004860001         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Euro OTC        | Base cream DAC   | 60590519     | 1              |
| Euro OTC        | Base cream DAC   | 60600519     | 3              |
| Euro OTC        | Base cream DAC   | 60610519     | 26             |
| Euro OTC        | Base cream DAC   | 60620519     | 26             |
| Euro OTC        | Base cream DAC   | 606220519    | 1              |
| Euro OTC        | Base cream DAC   | 61391217     | 7              |
| Euro OTC        | Base cream DAC   | 62530918     | 18             |
| Euro OTC        | Base cream DAC   | 62540918     | 3              |
| Euro OTC        | Base cream DAC   | 62560918     | 29             |
| Euro OTC        | Base cream DAC   | 62568918     | 1              |
| Euro OTC        | Base cream DAC   | 62570918     | 2              |
| Euro OTC        | Base cream DAC   | 62991016     | 1              |
| Euro OTC        | Base cream DAC   | 6610519      | 1              |
| Euro OTC        | Base cream DAC   | 68921121     | 2              |
| Euro OTC        | Base cream DAC   | 68941121     | 3              |
| Euro OTC        | Base cream DAC   | 69500118     | 16             |
| Euro OTC        | Base cream DAC   | 69510118     | 9              |
| Euro OTC        | Base cream DAC   | 6951018      | 1              |
| Euro OTC        | Base cream DAC   | 69520118     | 12             |
| Euro OTC        | Base cream DAC   | 69530118     | 7              |
| Euro OTC        | Base cream DAC   | 701228       | 1              |
| Euro OTC        | Base cream DAC   | 70540420     | 10             |
| Euro OTC        | Base cream DAC   | 70560420     | 8              |
| Euro OTC        | Base cream DAC   | 70560426     | 1              |
| Euro OTC        | Base cream DAC   | 70580420     | 3              |
| Euro OTC        | Base cream DAC   | 71960619     | 2              |
| Euro OTC        | Base cream DAC   | 71970619     | 13             |
| Euro OTC        | Base cream DAC   | 71980619     | 17             |
| Euro OTC        | Base cream DAC   | 71990619     | 17             |
| Euro OTC        | Base cream DAC   | 72260417     | 2              |
| Euro OTC        | Base cream DAC   | 72270417     | 3              |
| Euro OTC        | Base cream DAC   | 72430816     | 2              |
| Euro OTC        | Base cream DAC   | 72440816     | 4              |
| Euro OTC        | Base cream DAC   | 74400221     | 2              |
| Euro OTC        | Base cream DAC   | 74410221     | 10             |
| Euro OTC        | Base cream DAC   | 7550418      | 19             |
| Euro OTC        | Base cream DAC   | 7560418      | 9              |
| Euro OTC        | Base cream DAC   | 7570418      | 7              |
| Euro OTC        | Base cream DAC   | 7578418      | 1              |
| Euro OTC        | Base cream DAC   | 76571018     | 27             |
| Euro OTC        | Base cream DAC   | 76581018     | 8              |
| Euro OTC        | Base cream DAC   | 76591018     | 10             |
| Euro OTC        | Base cream DAC   | 79000916     | 1              |
| Euro OTC        | Base cream DAC   | 8003325004   | 1              |
| Euro OTC        | Base cream DAC   | 8004134007   | 1              |
| Euro OTC        | Base cream DAC   | 80300218     | 28             |
| Euro OTC        | Base cream DAC   | 80320218     | 4              |
| Euro OTC        | Base cream DAC   | 80330218     | 2              |
| Euro OTC        | Base cream DAC   | 80370719     | 2              |
| Euro OTC        | Base cream DAC   | 80380719     | 8              |
| Euro OTC        | Base cream DAC   | 80390719     | 24             |
| Euro OTC        | Base cream DAC   | 803907190    | 1              |
| Euro OTC        | Base cream DAC   | 80580520     | 6              |
| Euro OTC        | Base cream DAC   | 80610520     | 3              |
| Euro OTC        | Base cream DAC   | 80616-8      | 1              |
| Euro OTC        | Base cream DAC   | 80630520     | 3              |
| Euro OTC        | Base cream DAC   | 80640520     | 3              |
| Euro OTC        | Base cream DAC   | 80719        | 1              |
| Euro OTC        | Base cream DAC   | 8620717      | 26             |
| Euro OTC        | Base cream DAC   | 86450517     | 10             |

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continued from previous page

| Supplier                  | Substance      | Batch            | Spectra |
|---------------------------|----------------|------------------|---------|
| Euro OTC                  | Base cream DAC | 86460517         | 2       |
| Euro OTC                  | Base cream DAC | 86470517         | 8       |
| Euro OTC                  | Base cream DAC | 86479517         | 1       |
| Euro OTC                  | Base cream DAC | 86480517         | 4       |
| Euro OTC                  | Base cream DAC | 86490517         | 12      |
| Euro OTC                  | Base cream DAC | 8660717          | 6       |
| Euro OTC                  | Base cream DAC | 87211118         | 6       |
| Euro OTC                  | Base cream DAC | 87221118         | 12      |
| Euro OTC                  | Base cream DAC | 8722118          | 1       |
| Euro OTC                  | Base cream DAC | 87241118         | 23      |
| Euro OTC                  | Base cream DAC | 87251118         | 10      |
| Euro OTC                  | Base cream DAC | 88600321         | 2       |
| Euro OTC                  | Base cream DAC | 8860231          | 1       |
| Euro OTC                  | Base cream DAC | 88610321         | 6       |
| Euro OTC                  | Base cream DAC | 88620321         | 9       |
| Euro OTC                  | Base cream DAC | 91310616         | 1       |
| Euro OTC                  | Base cream DAC | 91310916         | 4       |
| Euro OTC                  | Base cream DAC | 91320916         | 1       |
| Euro OTC                  | Base cream DAC | 91330916         | 2       |
| Euro OTC                  | Base cream DAC | 91340916         | 20      |
| Euro OTC                  | Base cream DAC | 91350916         | 4       |
| Euro OTC                  | Base cream DAC | 92070819         | 7       |
| Euro OTC                  | Base cream DAC | 92080819         | 25      |
| Euro OTC                  | Base cream DAC | 92090819         | 11      |
| Euro OTC                  | Base cream DAC | 93730318         | 4       |
| Euro OTC                  | Base cream DAC | 93740318         | 9       |
| Euro OTC                  | Base cream DAC | 93740319         | 1       |
| Euro OTC                  | Base cream DAC | 93750318         | 1       |
| Euro OTC                  | Base cream DAC | 93760318         | 7       |
| Euro OTC                  | Base cream DAC | 93770318         | 7       |
| Euro OTC                  | Base cream DAC | 937770318        | 1       |
| Euro OTC                  | Base cream DAC | 97570413         | 1       |
| Euro OTC                  | Base cream DAC | B55850317        | 1       |
| Euro OTC                  | Base cream DAC | B72430816        | 1       |
| Euro OTC                  | Base cream DAC | T09-0753806      | 1       |
| Euro OTG/ Euro OTG Pharma | Base cream DAC | 1501041-01       | 1       |
| Euro OTG                  | Base cream DAC | 1309008-01       | 2       |
| Euro/ Phönix              | Base cream DAC | 1117Q-01309      | 1       |
| Euro/ Phönix              | Base cream DAC | 15700518         | 1       |
| Euro/ Phönix              | Base cream DAC | 27290917         | 1       |
| Euro/ Phönix              | Base cream DAC | 4317E-01309      | 1       |
| Euro/ Phönix              | Base cream DAC | 91310916         | 1       |
| euro/Fiebig24.05.2019     | Base cream DAC | 13470119         | 2       |
| Euro/Gehe                 | Base cream DAC | 1312002-01       | 1       |
| Euro/Phönix               | Base cream DAC | 29550618         | 1       |
| Euro/Phönix               | Base cream DAC | 76571018         | 1       |
| Euro                      | Base cream DAC | 13470119         | 1       |
| Euro                      | Base cream DAC | 1501040-01       | 2       |
| Europ Ots Pharma          | Base cream DAC | 1501040-01       | 1       |
| Europharm/Otto            | Base cream DAC | 1111028-01       | 2       |
| Europharm/Otto            | Base cream DAC | 1411030-01       | 1       |
| EuroPharm                 | Base cream DAC | 1501008-01       | 2       |
| F.Eimermacher GmbH&Co.KG  | Base cream DAC | 79000916         | 3       |
| F.Eimermacher GmbH        | Base cream DAC | 79000916         | 2       |
| F.Eimermacher/Ph          | Base cream DAC | 47880419         | 1       |
| Fag                       | Base cream DAC | 18G13-T11-058079 | 1       |
| Fagorn/Alliance           | Base cream DAC | 16G20-T05-035308 | 2       |
| Fagron                    | Base cream DAC |                  | 6       |
| Fagron                    | Base cream DAC | 11297301         | 1       |
| Fagron                    | Base cream DAC | 1130-T01         | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Fagron          | Base cream DAC   | 117U-01309       | 1              |
| Fagron          | Base cream DAC   | 11831116         | 1              |
| Fagron          | Base cream DAC   | 11B11-T05        | 4              |
| Fagron          | Base cream DAC   | 123456789        | 1              |
| Fagron          | Base cream DAC   | 12C02-T08        | 5              |
| Fagron          | Base cream DAC   | 12C02-T09        | 1              |
| Fagron          | Base cream DAC   | 12C26-T04        | 1              |
| Fagron          | Base cream DAC   | 12C26-T08        | 2              |
| Fagron          | Base cream DAC   | 12C26-T14        | 1              |
| Fagron          | Base cream DAC   | 12G25-T03        | 1              |
| Fagron          | Base cream DAC   | 12G25-T04        | 2              |
| Fagron          | Base cream DAC   | 12G25-T06        | 2              |
| Fagron          | Base cream DAC   | 12G25-T10        | 1              |
| Fagron          | Base cream DAC   | 12G25-T12        | 2              |
| Fagron          | Base cream DAC   | 13111101         | 1              |
| Fagron          | Base cream DAC   | 13249901         | 1              |
| Fagron          | Base cream DAC   | 13311701         | 1              |
| Fagron          | Base cream DAC   | 13378001         | 1              |
| Fagron          | Base cream DAC   | 13380901         | 1              |
| Fagron          | Base cream DAC   | 13A08-T06-000034 | 1              |
| Fagron          | Base cream DAC   | 13A09T10000232   | 1              |
| Fagron          | Base cream DAC   | 13A09-T10-000232 | 3              |
| Fagron          | Base cream DAC   | 13A09-T12-000238 | 1              |
| Fagron          | Base cream DAC   | 13A09-T12-236    | 1              |
| Fagron          | Base cream DAC   | 13A09-T14-000244 | 1              |
| Fagron          | Base cream DAC   | 13A09-T14-ooo244 | 1              |
| Fagron          | Base cream DAC   | 13A09-T18-000259 | 2              |
| Fagron          | Base cream DAC   | 13A09-T19-00194  | 1              |
| Fagron          | Base cream DAC   | 13A09-T19-001949 | 1              |
| Fagron          | Base cream DAC   | 13A09-T19-001952 | 1              |
| Fagron          | Base cream DAC   | 13C05-T-003297   | 1              |
| Fagron          | Base cream DAC   | 13C05-T03-00175  | 1              |
| Fagron          | Base cream DAC   | 13C05-T03-001755 | 1              |
| Fagron          | Base cream DAC   | 13C05T03001756   | 1              |
| Fagron          | Base cream DAC   | 13C05-T03-001756 | 7              |
| Fagron          | Base cream DAC   | 13C05-T04-001760 | 1              |
| Fagron          | Base cream DAC   | 13C05-T06-001767 | 1              |
| Fagron          | Base cream DAC   | 13C05-T09-001778 | 3              |
| Fagron          | Base cream DAC   | 13C05-T10-003297 | 1              |
| Fagron          | Base cream DAC   | 13C05T10003301   | 1              |
| Fagron          | Base cream DAC   | 13C05-T10-003301 | 2              |
| Fagron          | Base cream DAC   | 13E20-T01-003865 | 1              |
| Fagron          | Base cream DAC   | 13E21-T04-003893 | 1              |
| Fagron          | Base cream DAC   | 13E21-T04-003894 | 4              |
| Fagron          | Base cream DAC   | 13E21-T05-003897 | 6              |
| Fagron          | Base cream DAC   | 13E21-T06-003900 | 1              |
| Fagron          | Base cream DAC   | 13E21-T07-003903 | 3              |
| Fagron          | Base cream DAC   | 13E21-T08-003906 | 11             |
| Fagron          | Base cream DAC   | 13E21-T09-003910 | 1              |
| Fagron          | Base cream DAC   | 13E22-T04-003975 | 1              |
| Fagron          | Base cream DAC   | 13E22-T05-003978 | 1              |
| Fagron          | Base cream DAC   | 13E22t06003981   | 1              |
| Fagron          | Base cream DAC   | 13E22-T07-003984 | 1              |
| Fagron          | Base cream DAC   | 13E22-T08-003987 | 2              |
| Fagron          | Base cream DAC   | 13E22T09003991   | 1              |
| Fagron          | Base cream DAC   | 13E23-004023     | 1              |
| Fagron          | Base cream DAC   | 13E23-T06-004008 | 3              |
| Fagron          | Base cream DAC   | 13E23-T07-004011 | 3              |
| Fagron          | Base cream DAC   | 13E23-T08-004015 | 1              |
| Fagron          | Base cream DAC   | 13E23-T09        | 3              |

*continued on the next page*



*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Base cream DAC   | 13E23T10004023    | 1              |
| Fagron          | Base cream DAC   | 13E23-T10-004023  | 1              |
| Fagron          | Base cream DAC   | 13E23-T12         | 1              |
| Fagron          | Base cream DAC   | 13E23-T16-004035  | 2              |
| Fagron          | Base cream DAC   | 13h14_t02_006207  | 1              |
| Fagron          | Base cream DAC   | 13H14-T01-006202  | 1              |
| Fagron          | Base cream DAC   | 13H14T01006203    | 1              |
| Fagron          | Base cream DAC   | 13H14-T01-006203  | 2              |
| Fagron          | Base cream DAC   | 13H14T02006207    | 1              |
| Fagron          | Base cream DAC   | 13H14-T02-006207  | 1              |
| Fagron          | Base cream DAC   | 13H14-T03-006212  | 1              |
| Fagron          | Base cream DAC   | 13H14-T04-006218  | 3              |
| Fagron          | Base cream DAC   | 13H14-T06-006224  | 1              |
| Fagron          | Base cream DAC   | 13H14T080         | 1              |
| Fagron          | Base cream DAC   | 13H14-T09         | 1              |
| Fagron          | Base cream DAC   | 13H14-T10-007314  | 1              |
| Fagron          | Base cream DAC   | 13K12-T02-008039  | 5              |
| Fagron          | Base cream DAC   | 13K12-T04008048   | 1              |
| Fagron          | Base cream DAC   | 13K12-T06-0004    | 1              |
| Fagron          | Base cream DAC   | 13K12-T07-008057  | 1              |
| Fagron          | Base cream DAC   | 13K12-T08-008063  | 1              |
| Fagron          | Base cream DAC   | 1408-T08-011710   | 1              |
| Fagron          | Base cream DAC   | 14151501          | 1              |
| Fagron          | Base cream DAC   | 14223201          | 1              |
| Fagron          | Base cream DAC   | 14322301          | 1              |
| Fagron          | Base cream DAC   | 14A10-T05-009253  | 1              |
| Fagron          | Base cream DAC   | 14A10-T05-009254  | 1              |
| Fagron          | Base cream DAC   | 14A10-T06         | 1              |
| Fagron          | Base cream DAC   | 14A10-T06-009259  | 6              |
| Fagron          | Base cream DAC   | 14A13-T02-009280  | 1              |
| Fagron          | Base cream DAC   | 14A13-T04009286   | 1              |
| Fagron          | Base cream DAC   | 14A13-T04-009286  | 1              |
| Fagron          | Base cream DAC   | 14A13T05009289    | 1              |
| Fagron          | Base cream DAC   | 14A13-T06         | 1              |
| Fagron          | Base cream DAC   | 14A13-T07-009298  | 1              |
| Fagron          | Base cream DAC   | 14B28T04010673    | 1              |
| Fagron          | Base cream DAC   | 14D085T045011692  | 1              |
| Fagron          | Base cream DAC   | 14D08-T01-011683  | 4              |
| Fagron          | Base cream DAC   | 14D-08-T01-011683 | 1              |
| Fagron          | Base cream DAC   | 14d08t02011686    | 1              |
| Fagron          | Base cream DAC   | 14D08-T02-011686  | 4              |
| Fagron          | Base cream DAC   | 14D08-T03-01168   | 1              |
| Fagron          | Base cream DAC   | 14D08-T03-011689  | 7              |
| Fagron          | Base cream DAC   | 14D08-T-03-011689 | 1              |
| Fagron          | Base cream DAC   | 14d08-t04-011632  | 1              |
| Fagron          | Base cream DAC   | 14D08-T04-011692  | 8              |
| Fagron          | Base cream DAC   | 14D08-T05-011697  | 6              |
| Fagron          | Base cream DAC   | 14D08-T05-011698  | 1              |
| Fagron          | Base cream DAC   | 14D08-T06-011702  | 1              |
| Fagron          | Base cream DAC   | 14D08-T08-011710  | 4              |
| Fagron          | Base cream DAC   | 14D08-T10-011716  | 2              |
| Fagron          | Base cream DAC   | 14Do8-T04-011692  | 1              |
| Fagron          | Base cream DAC   | 14F05T06012961    | 1              |
| Fagron          | Base cream DAC   | 14F05-T06-012961  | 7              |
| Fagron          | Base cream DAC   | 14F05-T07         | 1              |
| Fagron          | Base cream DAC   | 14F05-T07-012965  | 4              |
| Fagron          | Base cream DAC   | 14F05-T07-012966  | 1              |
| Fagron          | Base cream DAC   | 14F05T08          | 2              |
| Fagron          | Base cream DAC   | 14F05-T08-012969  | 1              |
| Fagron          | Base cream DAC   | 14F05-T24         | 1              |

*continued on the next page*



*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Fagron          | Base cream DAC   | 14F05-T24-012983 | 7              |
| Fagron          | Base cream DAC   | 14F06-T04        | 1              |
| Fagron          | Base cream DAC   | 14F06-T04-013010 | 2              |
| Fagron          | Base cream DAC   | 14F06-T05-013014 | 1              |
| Fagron          | Base cream DAC   | 14F06-T04-013010 | 1              |
| Fagron          | Base cream DAC   | 14J06-T08-015886 | 10             |
| Fagron          | Base cream DAC   | 14J07-T06-015957 | 5              |
| Fagron          | Base cream DAC   | 14J07-T07        | 1              |
| Fagron          | Base cream DAC   | 14j07-T07-015961 | 1              |
| Fagron          | Base cream DAC   | 14J07-T07-015961 | 2              |
| Fagron          | Base cream DAC   | 14J07-T08-015964 | 4              |
| Fagron          | Base cream DAC   | 14J07-T09        | 1              |
| Fagron          | Base cream DAC   | 14J07-T09-015967 | 3              |
| Fagron          | Base cream DAC   | 14J07-T10-015971 | 2              |
| Fagron          | Base cream DAC   | 14J07-T10-015972 | 2              |
| Fagron          | Base cream DAC   | 14J07-T11-015975 | 2              |
| Fagron          | Base cream DAC   | 14J07-T12        | 1              |
| Fagron          | Base cream DAC   | 14J07-T12-015978 | 1              |
| Fagron          | Base cream DAC   | 14J07-T13-015981 | 3              |
| Fagron          | Base cream DAC   | 14J07-T14-015986 | 1              |
| Fagron          | Base cream DAC   | 14J23-T04-016463 | 2              |
| Fagron          | Base cream DAC   | 14K05_T07        | 1              |
| Fagron          | Base cream DAC   | 14K05-016793     | 1              |
| Fagron          | Base cream DAC   | 14k05-t05-016793 | 1              |
| Fagron          | Base cream DAC   | 14K05-T05-016793 | 2              |
| Fagron          | Base cream DAC   | 14K05-T05-061793 | 1              |
| Fagron          | Base cream DAC   | 14k05-t06-016796 | 1              |
| Fagron          | Base cream DAC   | 14K05-T06-016796 | 4              |
| Fagron          | Base cream DAC   | 14k05t07016800   | 1              |
| Fagron          | Base cream DAC   | 14k05-t07016800  | 1              |
| Fagron          | Base cream DAC   | 14K05-T07-016800 | 8              |
| Fagron          | Base cream DAC   | 14K05-T08-016808 | 1              |
| Fagron          | Base cream DAC   | 15/3-T03-026895  | 1              |
| Fagron          | Base cream DAC   | 15011-T04-020384 | 1              |
| Fagron          | Base cream DAC   | 15173601         | 1              |
| Fagron          | Base cream DAC   | 15241801         | 1              |
| Fagron          | Base cream DAC   | 15690518         | 1              |
| Fagron          | Base cream DAC   | 1586             | 1              |
| Fagron          | Base cream DAC   | 15B19-T13-019450 | 1              |
| Fagron          | Base cream DAC   | 15C11-T04-020383 | 1              |
| Fagron          | Base cream DAC   | 15C11-T04-020384 | 4              |
| Fagron          | Base cream DAC   | 15C11T05020388   | 1              |
| Fagron          | Base cream DAC   | 15C11-T05020388  | 1              |
| Fagron          | Base cream DAC   | 15C11-T05-020388 | 8              |
| Fagron          | Base cream DAC   | 15C11-T06-020392 | 2              |
| Fagron          | Base cream DAC   | 15C11-T07        | 2              |
| Fagron          | Base cream DAC   | 15c11t07020396   | 1              |
| Fagron          | Base cream DAC   | 15C11-T07-020396 | 5              |
| Fagron          | Base cream DAC   | 15C11-T09        | 1              |
| Fagron          | Base cream DAC   | 15C11-T09-020405 | 1              |
| Fagron          | Base cream DAC   | 15C11-T10-020408 | 2              |
| Fagron          | Base cream DAC   | 15C11-T11-020411 | 4              |
| Fagron          | Base cream DAC   | 15C11T13020416   | 1              |
| Fagron          | Base cream DAC   | 15C11-T13-020416 | 1              |
| Fagron          | Base cream DAC   | 15C11-T14-020420 | 2              |
| Fagron          | Base cream DAC   | 15C11-To4-020384 | 1              |
| Fagron          | Base cream DAC   | 15E27-T02-022881 | 6              |
| Fagron          | Base cream DAC   | 15E27-T02-22881  | 1              |
| Fagron          | Base cream DAC   | 15G09-19-024414  | 1              |
| Fagron          | Base cream DAC   | 15G09-T19-024414 | 1              |

*continued on the next page*

continued from previous page

| Supplier | Substance      | Batch             | Spectra |
|----------|----------------|-------------------|---------|
| Fagron   | Base cream DAC | 15G09-T19-024415  | 2       |
| Fagron   | Base cream DAC | 15G09-T19-024416  | 2       |
| Fagron   | Base cream DAC | 15H01-T13-025003  | 1       |
| Fagron   | Base cream DAC | 15H04-T05-024975  | 15      |
| Fagron   | Base cream DAC | 15H04-T06         | 1       |
| Fagron   | Base cream DAC | 15h04-t06-024978  | 2       |
| Fagron   | Base cream DAC | 15H04T06024978    | 2       |
| Fagron   | Base cream DAC | 15H04-T06-024978  | 9       |
| Fagron   | Base cream DAC | 15H04-T07         | 1       |
| Fagron   | Base cream DAC | 15H04-T07-024983  | 2       |
| Fagron   | Base cream DAC | 15H04-T08         | 1       |
| Fagron   | Base cream DAC | 15H04-T08-024987  | 2       |
| Fagron   | Base cream DAC | 15H04-T09-024991  | 2       |
| Fagron   | Base cream DAC | 15H04-T10-024994  | 3       |
| Fagron   | Base cream DAC | 15H04T11024997    | 1       |
| Fagron   | Base cream DAC | 15H04-T11-024997  | 5       |
| Fagron   | Base cream DAC | 15H04-T12-025000  | 2       |
| Fagron   | Base cream DAC | 15H04-T13-025003  | 3       |
| Fagron   | Base cream DAC | 15H04-T14-025007  | 5       |
| Fagron   | Base cream DAC | 15h3-T03-026895   | 1       |
| Fagron   | Base cream DAC | 15I13-T03-026895  | 1       |
| Fagron   | Base cream DAC | 15J13-T03-026895  | 7       |
| Fagron   | Base cream DAC | 15J13-T03-26895   | 1       |
| Fagron   | Base cream DAC | 15J13-T04-026901  | 1       |
| Fagron   | Base cream DAC | 15J15-T01-027034  | 1       |
| Fagron   | Base cream DAC | 15I17-T01_028772  | 1       |
| Fagron   | Base cream DAC | 15L17-T01-028772  | 3       |
| Fagron   | Base cream DAC | 15I17-T03-028775  | 4       |
| Fagron   | Base cream DAC | 15L17-T03-028775  | 8       |
| Fagron   | Base cream DAC | 15L17-T04         | 1       |
| Fagron   | Base cream DAC | 15L17-T04-028778  | 2       |
| Fagron   | Base cream DAC | 15L17-T05-028785  | 2       |
| Fagron   | Base cream DAC | 15L17-T06-028791  | 1       |
| Fagron   | Base cream DAC | 16091901          | 1       |
| Fagron   | Base cream DAC | 16145601          | 1       |
| Fagron   | Base cream DAC | 1614-T02-031202   | 1       |
| Fagron   | Base cream DAC | 16220401          | 1       |
| Fagron   | Base cream DAC | 16261501          | 1       |
| Fagron   | Base cream DAC | 16815-T04-030282  | 1       |
| Fagron   | Base cream DAC | 16920-t05-035308  | 1       |
| Fagron   | Base cream DAC | 16A25-T02-029645  | 1       |
| Fagron   | Base cream DAC | 16B15_T01_030274  | 1       |
| Fagron   | Base cream DAC | 16b15-f04-030281  | 1       |
| Fagron   | Base cream DAC | 16B15-T01-0300274 | 1       |
| Fagron   | Base cream DAC | 16b15-t01-030274  | 1       |
| Fagron   | Base cream DAC | 16b15-T01-030274  | 1       |
| Fagron   | Base cream DAC | 16B15-T01-030274  | 10      |
| Fagron   | Base cream DAC | 16b15t02-030277   | 1       |
| Fagron   | Base cream DAC | 16B15-T02-030277  | 10      |
| Fagron   | Base cream DAC | 16B15-T04-03028   | 1       |
| Fagron   | Base cream DAC | 16B15-T04-030281  | 8       |
| Fagron   | Base cream DAC | 16B15-T04-030282  | 1       |
| Fagron   | Base cream DAC | 16B15-T05_030285  | 1       |
| Fagron   | Base cream DAC | 16B15-T05-030285  | 2       |
| Fagron   | Base cream DAC | 16B28-T06-064721  | 1       |
| Fagron   | Base cream DAC | 16C14-T01-031199  | 3       |
| Fagron   | Base cream DAC | 16C14-T02         | 1       |
| Fagron   | Base cream DAC | 16c14t02-031202   | 1       |
| Fagron   | Base cream DAC | 16C14-T02-031202  | 3       |
| Fagron   | Base cream DAC | 16C14-T03         | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Base cream DAC   | 16C14T03-031205   | 1              |
| Fagron          | Base cream DAC   | 16C14-T03-031205  | 2              |
| Fagron          | Base cream DAC   | 16c24-t05031490   | 1              |
| Fagron          | Base cream DAC   | 16c24-t05-031490  | 1              |
| Fagron          | Base cream DAC   | 16C24-T05031490   | 1              |
| Fagron          | Base cream DAC   | 16C24-T05-031490  | 10             |
| Fagron          | Base cream DAC   | 16c24-t06-031494  | 2              |
| Fagron          | Base cream DAC   | 16C24-T06-031494  | 10             |
| Fagron          | Base cream DAC   | 16C-T06-031494    | 1              |
| Fagron          | Base cream DAC   | 16D06H07-031930   | 1              |
| Fagron          | Base cream DAC   | 16D06-T04-0311914 | 1              |
| Fagron          | Base cream DAC   | 16D06-T04-031914  | 8              |
| Fagron          | Base cream DAC   | 16D06-T05-031922  | 1              |
| Fagron          | Base cream DAC   | 16D06-T05-031923  | 5              |
| Fagron          | Base cream DAC   | 16D06-T06-031926  | 2              |
| Fagron          | Base cream DAC   | 16D06-T07-031930  | 1              |
| Fagron          | Base cream DAC   | 16D06-T07-031931  | 2              |
| Fagron          | Base cream DAC   | 16D06-T07-0319930 | 1              |
| Fagron          | Base cream DAC   | 16D06-T08-031938  | 5              |
| Fagron          | Base cream DAC   | 16D06-T09-031941  | 6              |
| Fagron          | Base cream DAC   | 16D06-T10-031950  | 1              |
| Fagron          | Base cream DAC   | 16F01-T10-033893  | 2              |
| Fagron          | Base cream DAC   | 16f30-t13-034789  | 2              |
| Fagron          | Base cream DAC   | 16F30-T13-034789  | 17             |
| Fagron          | Base cream DAC   | 16f30-T14-034792  | 1              |
| Fagron          | Base cream DAC   | 16F30-T14-034792  | 16             |
| Fagron          | Base cream DAC   | 16F30-T15-034796  | 3              |
| Fagron          | Base cream DAC   | 16F30-T15-034797  | 6              |
| Fagron          | Base cream DAC   | 16F30-T16-034800  | 3              |
| Fagron          | Base cream DAC   | 16G20/T10/035327  | 1              |
| Fagron          | Base cream DAC   | 16G20-T04-035304  | 3              |
| Fagron          | Base cream DAC   | 16G20-T04-035305  | 13             |
| Fagron          | Base cream DAC   | 16G20-T05-035308  | 18             |
| Fagron          | Base cream DAC   | 16g20-t06-035312  | 1              |
| Fagron          | Base cream DAC   | 16G20t06035312    | 1              |
| Fagron          | Base cream DAC   | 16G20-T06-035312  | 10             |
| Fagron          | Base cream DAC   | 16G20-T07-035317  | 2              |
| Fagron          | Base cream DAC   | 16g20-t08-035321  | 1              |
| Fagron          | Base cream DAC   | 16G20-T08-035321  | 6              |
| Fagron          | Base cream DAC   | 16G20-T09-035324  | 2              |
| Fagron          | Base cream DAC   | 16G20-T10-035327  | 3              |
| Fagron          | Base cream DAC   | 16J11-T01-037607  | 4              |
| Fagron          | Base cream DAC   | 16J11-T02-037610  | 1              |
| Fagron          | Base cream DAC   | 16J11-T03-037614  | 2              |
| Fagron          | Base cream DAC   | 16J11-T03-037615  | 1              |
| Fagron          | Base cream DAC   | 16J11-T04-037619  | 4              |
| Fagron          | Base cream DAC   | 16J11-T05-037623  | 1              |
| Fagron          | Base cream DAC   | 16J11-T05-037624  | 1              |
| Fagron          | Base cream DAC   | 17023401          | 1              |
| Fagron          | Base cream DAC   | 17103801          | 1              |
| Fagron          | Base cream DAC   | 1719Q-01309       | 1              |
| Fagron          | Base cream DAC   | 17229901          | 1              |
| Fagron          | Base cream DAC   | 17240001          | 1              |
| Fagron          | Base cream DAC   | 17243301          | 1              |
| Fagron          | Base cream DAC   | 17269301          | 1              |
| Fagron          | Base cream DAC   | 17a03_t08_040047  | 1              |
| Fagron          | Base cream DAC   | 17A03_T13_040067  | 1              |
| Fagron          | Base cream DAC   | 17A03-T07-040044  | 11             |
| Fagron          | Base cream DAC   | 17A03-T08-040047  | 24             |
| Fagron          | Base cream DAC   | 17A03-T-08-040047 | 1              |

*continued on the next page*

continued from previous page

| Supplier | Substance      | Batch                | Spectra |
|----------|----------------|----------------------|---------|
| Fagron   | Base cream DAC | 17A03-T09-040052     | 1       |
| Fagron   | Base cream DAC | 17A03t10040056       | 1       |
| Fagron   | Base cream DAC | 17A03-T10-040056     | 5       |
| Fagron   | Base cream DAC | 17A03T11040060       | 1       |
| Fagron   | Base cream DAC | 17A03-T11-040060     | 1       |
| Fagron   | Base cream DAC | 17A03-T12-040064     | 2       |
| Fagron   | Base cream DAC | 17A03-T13-040067     | 6       |
| Fagron   | Base cream DAC | 17A03-T13-040070     | 1       |
| Fagron   | Base cream DAC | 17A03-T15-040074     | 8       |
| Fagron   | Base cream DAC | 17A03-To8-040047     | 1       |
| Fagron   | Base cream DAC | 17A13-T09-040052     | 1       |
| Fagron   | Base cream DAC | 17A3-T07-040044      | 1       |
| Fagron   | Base cream DAC | 17A3-T08-040047      | 1       |
| Fagron   | Base cream DAC | 17C16-T06-042610     | 3       |
| Fagron   | Base cream DAC | 17C16-T06-042611     | 1       |
| Fagron   | Base cream DAC | 17C16-T08-042619     | 2       |
| Fagron   | Base cream DAC | 17C16-T09-042624     | 1       |
| Fagron   | Base cream DAC | 17C16-T10-042627     | 1       |
| Fagron   | Base cream DAC | 17C17-T06-042610     | 1       |
| Fagron   | Base cream DAC | 17E11-T07-044186     | 9       |
| Fagron   | Base cream DAC | 17E11-T0744186       | 1       |
| Fagron   | Base cream DAC | 17E11-T08            | 1       |
| Fagron   | Base cream DAC | 17E11t08044210       | 1       |
| Fagron   | Base cream DAC | 17E11-T10            | 1       |
| Fagron   | Base cream DAC | 17E11-T10-044214     | 4       |
| Fagron   | Base cream DAC | 17ET10-044241        | 1       |
| Fagron   | Base cream DAC | 17F08-T02_045262     | 1       |
| Fagron   | Base cream DAC | 17f08-t02-045262     | 1       |
| Fagron   | Base cream DAC | 17F08T02045262       | 1       |
| Fagron   | Base cream DAC | 17F08-T02-045262     | 27      |
| Fagron   | Base cream DAC | 17F08-T02-045262     | 1       |
| Fagron   | Base cream DAC | 17F08-T03-045267     | 11      |
| Fagron   | Base cream DAC | 17F08-T03-05267      | 1       |
| Fagron   | Base cream DAC | 17F08T04045271       | 1       |
| Fagron   | Base cream DAC | 17F08T04-045271      | 1       |
| Fagron   | Base cream DAC | 17F08-T04-045271     | 5       |
| Fagron   | Base cream DAC | 17F08-T05-045274     | 4       |
| Fagron   | Base cream DAC | 17F08-T06-045278     | 1       |
| Fagron   | Base cream DAC | 17F08-T06-045279     | 7       |
| Fagron   | Base cream DAC | 17F08-T07-045282     | 4       |
| Fagron   | Base cream DAC | 17Fo8-T03-045267     | 1       |
| Fagron   | Base cream DAC | 17H25_T06_047736     | 1       |
| Fagron   | Base cream DAC | 17h25-t06-047736     | 1       |
| Fagron   | Base cream DAC | 17H25-T06-047736     | 31      |
| Fagron   | Base cream DAC | 17H25-T06-0477360687 | 1       |
| Fagron   | Base cream DAC | 17H25-T07-04774      | 1       |
| Fagron   | Base cream DAC | 17H25-T07-047741     | 11      |
| Fagron   | Base cream DAC | 17H25-T08            | 2       |
| Fagron   | Base cream DAC | 17H25-T08-047745     | 6       |
| Fagron   | Base cream DAC | 17H25-T09-047748     | 4       |
| Fagron   | Base cream DAC | 17H25-T10-047753     | 8       |
| Fagron   | Base cream DAC | 17H25-T12-047760     | 4       |
| Fagron   | Base cream DAC | 17H25-T9-047748      | 1       |
| Fagron   | Base cream DAC | 17K24-T02-050485     | 6       |
| Fagron   | Base cream DAC | 17k24-t03-050489     | 2       |
| Fagron   | Base cream DAC | 17k24-T03-050489     | 2       |
| Fagron   | Base cream DAC | 17K24-T03-050489     | 11      |
| Fagron   | Base cream DAC | 17K24-T04-050494     | 5       |
| Fagron   | Base cream DAC | 17k24-t04-050495     | 1       |
| Fagron   | Base cream DAC | 17K24-T04-050495     | 3       |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Base cream DAC   | 17K24-T05         | 1              |
| Fagron          | Base cream DAC   | 17K24T05050498    | 1              |
| Fagron          | Base cream DAC   | 17K24-T05-050498  | 4              |
| Fagron          | Base cream DAC   | 17K24-T06-050503  | 3              |
| Fagron          | Base cream DAC   | 17K24-T07-050507  | 11             |
| Fagron          | Base cream DAC   | 17K24-T07-050508  | 4              |
| Fagron          | Base cream DAC   | 18126301          | 2              |
| Fagron          | Base cream DAC   | 18137201          | 1              |
| Fagron          | Base cream DAC   | 18165701          | 2              |
| Fagron          | Base cream DAC   | 18166401          | 2              |
| Fagron          | Base cream DAC   | 18166701          | 1              |
| Fagron          | Base cream DAC   | 18166901          | 1              |
| Fagron          | Base cream DAC   | 18270101          | 1              |
| Fagron          | Base cream DAC   | 185473-1          | 1              |
| Fagron          | Base cream DAC   | 18C13-T10-058076  | 1              |
| Fagron          | Base cream DAC   | 18C19-T16-053945  | 6              |
| Fagron          | Base cream DAC   | 18C19-T17-053948  | 23             |
| Fagron          | Base cream DAC   | 18C19-T17-0553948 | 2              |
| Fagron          | Base cream DAC   | 18c19-t18-053952  | 3              |
| Fagron          | Base cream DAC   | 18c19-T18-053952  | 1              |
| Fagron          | Base cream DAC   | 18C19-T18-053952  | 18             |
| Fagron          | Base cream DAC   | 18C19-T19-053948  | 1              |
| Fagron          | Base cream DAC   | 18C19-T19-053957  | 1              |
| Fagron          | Base cream DAC   | 18C19-T20         | 1              |
| Fagron          | Base cream DAC   | 18C19-T20-05362   | 1              |
| Fagron          | Base cream DAC   | 18C19T20053962    | 1              |
| Fagron          | Base cream DAC   | 18C19T20-053962   | 1              |
| Fagron          | Base cream DAC   | 18C19-T20-053962  | 6              |
| Fagron          | Base cream DAC   | 18C19T21-053965   | 1              |
| Fagron          | Base cream DAC   | 18C19-T21-053965  | 4              |
| Fagron          | Base cream DAC   | 18C19-T22-0536970 | 1              |
| Fagron          | Base cream DAC   | 18c19-t22-053971  | 1              |
| Fagron          | Base cream DAC   | 18C19-T22-053971  | 7              |
| Fagron          | Base cream DAC   | 18C19-T23         | 2              |
| Fagron          | Base cream DAC   | 18C19-T23-053974  | 5              |
| Fagron          | Base cream DAC   | 18C19-T24         | 2              |
| Fagron          | Base cream DAC   | 18C19-T24-053978  | 1              |
| Fagron          | Base cream DAC   | 18C-T17-053948    | 1              |
| Fagron          | Base cream DAC   | 18E23-T15         | 1              |
| Fagron          | Base cream DAC   | 18e23-t15-056314  | 1              |
| Fagron          | Base cream DAC   | 18E23T15056314    | 1              |
| Fagron          | Base cream DAC   | 18E23-T15-056314  | 17             |
| Fagron          | Base cream DAC   | 18-E23-T15-056414 | 1              |
| Fagron          | Base cream DAC   | 18E23-T15-156314  | 1              |
| Fagron          | Base cream DAC   | 18E23-T16-056321  | 10             |
| Fagron          | Base cream DAC   | 18E23-T16-056322  | 1              |
| Fagron          | Base cream DAC   | 18E23-T17-056325  | 5              |
| Fagron          | Base cream DAC   | 18E23-T18-056338  | 3              |
| Fagron          | Base cream DAC   | 18E23-T19-056343  | 1              |
| Fagron          | Base cream DAC   | 18E-23T19-056343  | 1              |
| Fagron          | Base cream DAC   | 18E23-T20         | 3              |
| Fagron          | Base cream DAC   | 18E23-T20-056346  | 2              |
| Fagron          | Base cream DAC   | 18E23-T21-056349  | 1              |
| Fagron          | Base cream DAC   | 18E23-T22-056352  | 7              |
| Fagron          | Base cream DAC   | 18E23-T22-o56352  | 1              |
| Fagron          | Base cream DAC   | 18E23-T23-056356  | 1              |
| Fagron          | Base cream DAC   | 18E23-T23-056357  | 3              |
| Fagron          | Base cream DAC   | 18G13-T09_058073  | 1              |
| Fagron          | Base cream DAC   | 18G13-T09-058073  | 18             |
| Fagron          | Base cream DAC   | 18G13-T09-05B073  | 1              |

*continued on the next page*

continued from previous page

| Supplier | Substance      | Batch             | Spectra |
|----------|----------------|-------------------|---------|
| Fagron   | Base cream DAC | 18G13-T10-058076  | 27      |
| Fagron   | Base cream DAC | 18G13-T11_058079  | 1       |
| Fagron   | Base cream DAC | 18G13-T11-058079  | 24      |
| Fagron   | Base cream DAC | 18G13-T12-058084  | 7       |
| Fagron   | Base cream DAC | 18G13-T13-058087  | 5       |
| Fagron   | Base cream DAC | 18G13-T14-058090  | 4       |
| Fagron   | Base cream DAC | 18G13-T15-058093  | 4       |
| Fagron   | Base cream DAC | 18G13-T16-058086  | 1       |
| Fagron   | Base cream DAC | 18G13-T16-058096  | 3       |
| Fagron   | Base cream DAC | 18G13-T6-058096   | 1       |
| Fagron   | Base cream DAC | 18G13-To9-058073  | 1       |
| Fagron   | Base cream DAC | 18G-T14-058090    | 1       |
| Fagron   | Base cream DAC | 18H20-T16-059356  | 3       |
| Fagron   | Base cream DAC | 18KL20-T12-062935 | 1       |
| Fagron   | Base cream DAC | 18L19-t15-062894  | 1       |
| Fagron   | Base cream DAC | 18L19-T15-062894  | 22      |
| Fagron   | Base cream DAC | 18L20-T11-062930  | 14      |
| Fagron   | Base cream DAC | 18L20-T12-062935  | 12      |
| Fagron   | Base cream DAC | 18L20-T12-062936  | 5       |
| Fagron   | Base cream DAC | 18L20T13-062940   | 1       |
| Fagron   | Base cream DAC | 18L20-T13-062940  | 2       |
| Fagron   | Base cream DAC | 18L20-T14-062943  | 1       |
| Fagron   | Base cream DAC | 18L20-T17         | 1       |
| Fagron   | Base cream DAC | 18L20T17062947    | 1       |
| Fagron   | Base cream DAC | 18L20-T17-062947  | 2       |
| Fagron   | Base cream DAC | 18L20-T17-062948  | 4       |
| Fagron   | Base cream DAC | 18L20-T19-062951  | 7       |
| Fagron   | Base cream DAC | 18L20-T21         | 1       |
| Fagron   | Base cream DAC | 18L20-T21-062957  | 1       |
| Fagron   | Base cream DAC | 18W23-T15-056314  | 1       |
| Fagron   | Base cream DAC | 19269701          | 1       |
| Fagron   | Base cream DAC | 19B28-08-064729   | 1       |
| Fagron   | Base cream DAC | 19B28T06064721    | 1       |
| Fagron   | Base cream DAC | 19B28-T06-064721  | 4       |
| Fagron   | Base cream DAC | 19B28-T06-064722  | 1       |
| Fagron   | Base cream DAC | 19B28-T06-065722  | 2       |
| Fagron   | Base cream DAC | 19B28-T07         | 1       |
| Fagron   | Base cream DAC | 19B28T07064725    | 1       |
| Fagron   | Base cream DAC | 19B28-T07-064725  | 4       |
| Fagron   | Base cream DAC | 19B28-T08-064729  | 4       |
| Fagron   | Base cream DAC | 19B28-T09-064734  | 2       |
| Fagron   | Base cream DAC | 19B28-T09-064735  | 1       |
| Fagron   | Base cream DAC | 19C12-T05-065270  | 1       |
| Fagron   | Base cream DAC | 19C19-T22-065192  | 1       |
| Fagron   | Base cream DAC | 19C21-T04-065267  | 2       |
| Fagron   | Base cream DAC | 19C21-T05         | 2       |
| Fagron   | Base cream DAC | 19C21-T05-065270  | 7       |
| Fagron   | Base cream DAC | 19D01-T13-065575  | 14      |
| Fagron   | Base cream DAC | 19D01-T13-067064  | 1       |
| Fagron   | Base cream DAC | 19d01t14065578    | 1       |
| Fagron   | Base cream DAC | 19D01-T14065578   | 1       |
| Fagron   | Base cream DAC | 19D01-T14-065578  | 17      |
| Fagron   | Base cream DAC | 19D01-T15-065582  | 2       |
| Fagron   | Base cream DAC | 19Do1-T13-065575  | 2       |
| Fagron   | Base cream DAC | 19D01-T13-065575  | 1       |
| Fagron   | Base cream DAC | 19Do1-T14-065578  | 1       |
| Fagron   | Base cream DAC | 19D01-T14-065578  | 1       |
| Fagron   | Base cream DAC | 19G08_T03_069142  | 1       |
| Fagron   | Base cream DAC | 19G08_T04-069148  | 1       |
| Fagron   | Base cream DAC | 19G08T03069142    | 2       |

continued on the next page



*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Base cream DAC   | 19G08-T03-069142  | 20             |
| Fagron          | Base cream DAC   | 19G08-T04-069148  | 12             |
| Fagron          | Base cream DAC   | 19G08-T05-069152  | 1              |
| Fagron          | Base cream DAC   | 19G08-T05-0691502 | 1              |
| Fagron          | Base cream DAC   | 19G08-T05-069152  | 16             |
| Fagron          | Base cream DAC   | 19G08-T05-0699152 | 1              |
| Fagron          | Base cream DAC   | 19G08-T06-069156  | 10             |
| Fagron          | Base cream DAC   | 19G08-T06-069157  | 2              |
| Fagron          | Base cream DAC   | 19G08-T07         | 1              |
| Fagron          | Base cream DAC   | 19G08-T07-069160  | 1              |
| Fagron          | Base cream DAC   | 19G08-T08-069163  | 2              |
| Fagron          | Base cream DAC   | 19G08-T09-069166  | 4              |
| Fagron          | Base cream DAC   | 19G08-T10-069169  | 7              |
| Fagron          | Base cream DAC   | 19G08-T11-069172  | 6              |
| Fagron          | Base cream DAC   | 19G08-T12-069175  | 1              |
| Fagron          | Base cream DAC   | 19G08-T13-069179  | 5              |
| Fagron          | Base cream DAC   | 19G08-T13-069180  | 1              |
| Fagron          | Base cream DAC   | 19G08-T14-069183  | 1              |
| Fagron          | Base cream DAC   | 19G18-T05-0691502 | 1              |
| Fagron          | Base cream DAC   | 19G8-T04-069148   | 1              |
| Fagron          | Base cream DAC   | 19Go8-T04-069148  | 1              |
| Fagron          | Base cream DAC   | 19Go8-T12-069175  | 1              |
| Fagron          | Base cream DAC   | 19Go8To4069148    | 1              |
| Fagron          | Base cream DAC   | 19G08To5069152    | 1              |
| Fagron          | Base cream DAC   | 19Go8-T06-069156  | 1              |
| Fagron          | Base cream DAC   | 19H19-T09-070981  | 2              |
| Fagron          | Base cream DAC   | 19H19-T10-070985  | 1              |
| Fagron          | Base cream DAC   | 19H19-T10-070985  | 2              |
| Fagron          | Base cream DAC   | 19H19-T10-070986  | 1              |
| Fagron          | Base cream DAC   | 19H19-T11-070989  | 3              |
| Fagron          | Base cream DAC   | 19H19-T12-0709902 | 1              |
| Fagron          | Base cream DAC   | 19H19-T12-070992  | 1              |
| Fagron          | Base cream DAC   | 19H19-T14         | 2              |
| Fagron          | Base cream DAC   | 19H19-T14-07098   | 1              |
| Fagron          | Base cream DAC   | 19H19-T14-070998  | 6              |
| Fagron          | Base cream DAC   | 19H19-T15         | 1              |
| Fagron          | Base cream DAC   | 19H19-T15-071001  | 5              |
| Fagron          | Base cream DAC   | 19H9-T09-070981   | 1              |
| Fagron          | Base cream DAC   | 19J15T14072756    | 1              |
| Fagron          | Base cream DAC   | 19L13-t03-074060  | 1              |
| Fagron          | Base cream DAC   | 19L13-T04-074063  | 2              |
| Fagron          | Base cream DAC   | 19L20-T19-06295   | 1              |
| Fagron          | Base cream DAC   | 19L23-T04-074063  | 1              |
| Fagron          | Base cream DAC   | 1BG13-T16-058096  | 1              |
| Fagron          | Base cream DAC   | 20/04-T07-082563  | 1              |
| Fagron          | Base cream DAC   | 20/14-T06-083251  | 1              |
| Fagron          | Base cream DAC   | 2003183001        | 1              |
| Fagron          | Base cream DAC   | 2004-T04-082552   | 1              |
| Fagron          | Base cream DAC   | 20B10-T09-075386  | 3              |
| Fagron          | Base cream DAC   | 20B10T10075389    | 1              |
| Fagron          | Base cream DAC   | 20B10-T10-075389  | 2              |
| Fagron          | Base cream DAC   | 20B10-T11-075393  | 1              |
| Fagron          | Base cream DAC   | 20B10T12075397    | 4              |
| Fagron          | Base cream DAC   | 20B10-T12-075397  | 6              |
| Fagron          | Base cream DAC   | 20B10T13075420    | 1              |
| Fagron          | Base cream DAC   | 20B10-T13-075420  | 4              |
| Fagron          | Base cream DAC   | 20B10-T14-075424  | 4              |
| Fagron          | Base cream DAC   | 20B10-T14-075454  | 1              |
| Fagron          | Base cream DAC   | 20B10-T14-075424  | 1              |
| Fagron          | Base cream DAC   | 20B10-T15-075437  | 4              |

*continued on the next page*



continued from previous page

| Supplier | Substance      | Batch             | Spectra |
|----------|----------------|-------------------|---------|
| Fagron   | Base cream DAC | 20B10-T16-075441  | 3       |
| Fagron   | Base cream DAC | 20C02-T03-076757  | 1       |
| Fagron   | Base cream DAC | 20C02-T04-076763  | 1       |
| Fagron   | Base cream DAC | 20C06-T01-076945  | 2       |
| Fagron   | Base cream DAC | 20c17-t21-077637  | 1       |
| Fagron   | Base cream DAC | 20c17-T21-077637  | 1       |
| Fagron   | Base cream DAC | 20C17T21-077637   | 1       |
| Fagron   | Base cream DAC | 20C17-T21-077637  | 9       |
| Fagron   | Base cream DAC | 20c17-T21-077640  | 1       |
| Fagron   | Base cream DAC | 20C17-T21-77637   | 1       |
| Fagron   | Base cream DAC | 20C17-T22-077640  | 11      |
| Fagron   | Base cream DAC | 20C17-T22-0776400 | 1       |
| Fagron   | Base cream DAC | 20C17-T24-077648  | 1       |
| Fagron   | Base cream DAC | 20C17-T25-077653  | 4       |
| Fagron   | Base cream DAC | 20C17-T26-077656  | 4       |
| Fagron   | Base cream DAC | 20C17-T27-077659  | 1       |
| Fagron   | Base cream DAC | 20C17-T28-077662  | 4       |
| Fagron   | Base cream DAC | 20C17-T30-0776608 | 3       |
| Fagron   | Base cream DAC | 20Co2-T04-076763  | 1       |
| Fagron   | Base cream DAC | 20D23-T01-079518  | 8       |
| Fagron   | Base cream DAC | 20F18-T03-081206  | 7       |
| Fagron   | Base cream DAC | 20F18-T04-0812009 | 1       |
| Fagron   | Base cream DAC | 20F18-T04-081209  | 9       |
| Fagron   | Base cream DAC | 20F18-T05-081213  | 3       |
| Fagron   | Base cream DAC | 20F18-T05-081214  | 1       |
| Fagron   | Base cream DAC | 20F18-T06-081217  | 1       |
| Fagron   | Base cream DAC | 20F18-T07-081220  | 1       |
| Fagron   | Base cream DAC | 20F18-T11-081234  | 3       |
| Fagron   | Base cream DAC | 20F18-To6-081217  | 1       |
| Fagron   | Base cream DAC | 20Fi8-T06-081217  | 1       |
| Fagron   | Base cream DAC | 20I04-T04-082552  | 2       |
| Fagron   | Base cream DAC | 20I04-T05-082555  | 2       |
| Fagron   | Base cream DAC | 20J14-T06-083251  | 1       |
| Fagron   | Base cream DAC | 20J14-T0803251    | 1       |
| Fagron   | Base cream DAC | 20J20-T01-083380  | 2       |
| Fagron   | Base cream DAC | 211G21-T09-090107 | 1       |
| Fagron   | Base cream DAC | 21B15-T26-086442  | 2       |
| Fagron   | Base cream DAC | 21B15-T26-086443  | 1       |
| Fagron   | Base cream DAC | 21B15-T29-086454  | 1       |
| Fagron   | Base cream DAC | 21C23-T04-087179  | 2       |
| Fagron   | Base cream DAC | 21D20-T11-087768  | 3       |
| Fagron   | Base cream DAC | 21D20-T12-087773  | 1       |
| Fagron   | Base cream DAC | 21D20-T13-087777  | 2       |
| Fagron   | Base cream DAC | 21D20-T13-087778  | 1       |
| Fagron   | Base cream DAC | 21G21-T06-090096  | 1       |
| Fagron   | Base cream DAC | 21k19-t03-092809  | 1       |
| Fagron   | Base cream DAC | 26F30T14034792    | 1       |
| Fagron   | Base cream DAC | 283915            | 1       |
| Fagron   | Base cream DAC | 286157            | 1       |
| Fagron   | Base cream DAC | 287197            | 1       |
| Fagron   | Base cream DAC | 289803            | 1       |
| Fagron   | Base cream DAC | 295898            | 1       |
| Fagron   | Base cream DAC | 299324            | 1       |
| Fagron   | Base cream DAC | 3613E-01309       | 1       |
| Fagron   | Base cream DAC | 39210516          | 2       |
| Fagron   | Base cream DAC | 3987              | 2       |
| Fagron   | Base cream DAC | 412/2             | 2       |
| Fagron   | Base cream DAC | 45340616          | 1       |
| Fagron   | Base cream DAC | 5069152           | 3       |
| Fagron   | Base cream DAC | 51570217          | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Fagron                     | Base cream DAC   | 5321100          | 1              |
| Fagron                     | Base cream DAC   | 53945            | 1              |
| Fagron                     | Base cream DAC   | 56314            | 1              |
| Fagron                     | Base cream DAC   | 58079            | 1              |
| Fagron                     | Base cream DAC   | 6879559          | 1              |
| Fagron                     | Base cream DAC   | 701228-0002      | 1              |
| Fagron                     | Base cream DAC   | 701228-0017      | 1              |
| Fagron                     | Base cream DAC   | 76571018         | 2              |
| Fagron                     | Base cream DAC   | 8003325007       | 1              |
| Fagron                     | Base cream DAC   | 8004134006       | 1              |
| Fagron                     | Base cream DAC   | 8004996004       | 1              |
| Fagron                     | Base cream DAC   | 93/20            | 1              |
| Fagron                     | Base cream DAC   | T04-0691408      | 2              |
| Fagron                     | Base cream DAC   | T04-0825502      | 2              |
| Fagron                     | Base cream DAC   | T04-0871708      | 1              |
| Fagron                     | Base cream DAC   | T04-0900808      | 1              |
| Fagron                     | Base cream DAC   | T05-0691502      | 1              |
| Fagron                     | Base cream DAC   | T05-0812103      | 3              |
| Fagron                     | Base cream DAC   | T06-0832501      | 1              |
| Fagron                     | Base cream DAC   | T08-015887       | 1              |
| Fagron                     | Base cream DAC   | T10-0709805      | 1              |
| Fagron                     | Base cream DAC   | T13-0754200      | 2              |
| Fagron                     | Base cream DAC   | T14-072756       | 1              |
| Fagron                     | Base cream DAC   | T14-0754204      | 2              |
| Fagron                     | Base cream DAC   | T21-0776307      | 3              |
| Fagron                     | Base cream DAC   | T24-0776408      | 1              |
| Fagron                     | Base cream DAC   | T26-0776506      | 1              |
| Fagron                     | Base cream DAC   | T26-0864402      | 1              |
| Fagron                     | Base cream DAC   | To1-0833800      | 1              |
| Fargo                      | Base cream DAC   | 20C17-T25-077652 | 1              |
| Fargo                      | Base cream DAC   | T03-0812006      | 1              |
| Fargon GmbH & Co.KG        | Base cream DAC   | 16C24-T05-031490 | 1              |
| Fargon/ Phönix             | Base cream DAC   | 14K05T06016796   | 1              |
| Fargon/AHD                 | Base cream DAC   | T04-0812009      | 1              |
| Fargon/Anzag               | Base cream DAC   | 13H14-T01-006203 | 1              |
| Fargon/Gehe                | Base cream DAC   | 17F08-T04-045271 | 1              |
| Fargon/Gehe                | Base cream DAC   | 27348917         | 1              |
| Fargon                     | Base cream DAC   | 13E20-T01-003865 | 1              |
| Fargon                     | Base cream DAC   | 16F30-T-034789   | 1              |
| Fargon                     | Base cream DAC   | 17A03-T07-040044 | 4              |
| Fargon                     | Base cream DAC   | 17H25-T07-047741 | 2              |
| Fargon                     | Base cream DAC   | 19g08-T03-06942  | 1              |
| Fargon                     | Base cream DAC   | 19g08-T04-069148 | 1              |
| Fargon                     | Base cream DAC   | 20C02-T05-076760 | 1              |
| Fargon/Anzag               | Base cream DAC   | T03-0812006      | 1              |
| Fer. Eimermacher GmbH &... | Base cream DAC   | 47880419         | 3              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 14110817         | 2              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 14130817         | 1              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 51590217         | 1              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 63340317         | 1              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 61371217         | 1              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 72250417         | 1              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 29220416         | 3              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 14120715         | 4              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 47870419         | 3              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 60640519         | 1              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 6671116          | 4              |
| Ferd. Eimermacher GmbH ... | Base cream DAC   | 71950619         | 1              |
| Ferd. Eimermacher GmbH     | Base cream DAC   | 44960616         | 1              |
| Ferd. Eimermacher GmbH     | Base cream DAC   | 72240417         | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Ferd. Eimermacher/Noweda   | Base cream DAC   | 70570420         | 1              |
| Ferd. Eimermacher/Sanac... | Base cream DAC   | 47880419         | 2              |
| Ferd. Eimermacher          | Base cream DAC   | 3311218          | 1              |
| Ferd. Eimermacher          | Base cream DAC   | 36510319         | 3              |
| Ferd.Eimermacher GmbH/ ... | Base cream DAC   | 14120715         | 3              |
| Ferd.Eimermacher           | Base cream DAC   | 74420221         | 3              |
| Ferdi                      | Base cream DAC   | 21220113         | 1              |
| Ferdinad Eimermacher/Rö... | Base cream DAC   | 47880419         | 1              |
| Ferdinand Eimermacher G... | Base cream DAC   | 19440920         | 1              |
| Ferdinand Eimermacher G... | Base cream DAC   | 58691021         | 3              |
| Ferdinand Eimermacher/ ... | Base cream DAC   | 36510319         | 2              |
| Ferdinand Eimermacher      | Base cream DAC   | 3311218          | 2              |
| Ferdinand Eimermacher      | Base cream DAC   | 47880419         | 3              |
| Ferdinand Eimermacher      | Base cream DAC   | 56590714         | 1              |
| Ferdinand Eimermacher      | Base cream DAC   | 57090315         | 3              |
| Ferdinand Eimermacher      | Base cream DAC   | 61361217         | 4              |
| Ferdinand Eimermacher      | Base cream DAC   | 80340218         | 6              |
| Ferdinand Eimermacher      | Base cream DAC   | 80400719         | 1              |
| Ferdinand Eimermacher      | Base cream DAC   | 95980718         | 3              |
| Fiebig/Lamotte             | Base cream DAC   | 8005713012       | 2              |
| Fiebig/Lamotte             | Base cream DAC   | 8005713014       | 2              |
| Fiebig                     | Base cream DAC   | 14140817         | 2              |
| Fiebig                     | Base cream DAC   | 16135001         | 1              |
| Fiebig                     | Base cream DAC   | 17003201         | 1              |
| Fiebig                     | Base cream DAC   | 17010001         | 1              |
| Fiebig                     | Base cream DAC   | 17014401         | 1              |
| Fiebig                     | Base cream DAC   | 17019501         | 1              |
| Fiebig                     | Base cream DAC   | 17029101         | 1              |
| Fiebig                     | Base cream DAC   | 17121501         | 1              |
| Fiebig                     | Base cream DAC   | 17240301         | 1              |
| Fiebig                     | Base cream DAC   | 17267701         | 1              |
| Fiebig                     | Base cream DAC   | 18091102         | 1              |
| Fiebig                     | Base cream DAC   | 18166401         | 1              |
| Fiebig                     | Base cream DAC   | 18269501         | 1              |
| Fiebig                     | Base cream DAC   | 18270101         | 1              |
| Fiebig                     | Base cream DAC   | 18270901         | 1              |
| Fiebig                     | Base cream DAC   | 18G13-T10-058076 | 1              |
| Fiebig                     | Base cream DAC   | 19240401         | 1              |
| Fiebig                     | Base cream DAC   | 19270201         | 1              |
| Fiebig                     | Base cream DAC   | 20001851001      | 1              |
| Fiebig                     | Base cream DAC   | 20003191001      | 2              |
| Fiebig                     | Base cream DAC   | 21000816001      | 1              |
| Fiebig                     | Base cream DAC   | 55360616         | 1              |
| Fiebig                     | Base cream DAC   | 6002237010       | 1              |
| Fiebig                     | Base cream DAC   | 92080819         | 1              |
| Finteler Apotheke          | Base cream DAC   | 16325801         | 1              |
| Finze                      | Base cream DAC   | 12174901         | 1              |
| Fischar                    | Base cream DAC   | 17K24-To3-050489 | 1              |
| Frago/Gehe                 | Base cream DAC   | 16J11-T01-037607 | 1              |
| Frago/Gehe                 | Base cream DAC   | 17A03-T11-040060 | 1              |
| Frago/Gehe                 | Base cream DAC   | 17K24-T04-050495 | 2              |
| Fragon/Phoenix             | Base cream DAC   | 18G13-T14-058090 | 1              |
| Fragon/Phoenix             | Base cream DAC   | 18G13-T15-058093 | 1              |
| Fragon/Sanacorp            | Base cream DAC   | 18G13-T12-058084 | 1              |
| Fragon/Sanacorp            | Base cream DAC   | 18L20-T12-062936 | 1              |
| Fragon/Sanacorp            | Base cream DAC   | 19D01-T15-065582 | 3              |
| Fragon                     | Base cream DAC   | 13E23-T15-005569 | 1              |
| Fragon                     | Base cream DAC   | 16B15-T01-030274 | 2              |
| Frau Brinn-Holtz           | Base cream DAC   | 16005401         | 1              |
| Gatt-Koller                | Base cream DAC   | 1802206          | 1              |

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| <b>Supplier</b>           | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|---------------------------|------------------|------------------|----------------|
| Gehe / Spinnrad           | Base cream DAC   | 16325801         | 1              |
| Gehe 07.12.18             | Base cream DAC   | 18167001         | 1              |
| Gehe 13.10.2017 und 19... | Base cream DAC   | 72240417         | 1              |
| GEHE 15.05.2014           | Base cream DAC   | 14053701         | 1              |
| Gehe 21-01-2019           | Base cream DAC   | 18192601         | 1              |
| GEHE 24.06.2014           | Base cream DAC   | 14091601         | 1              |
| Gehe 25.02.15             | Base cream DAC   | 14325401         | 1              |
| Gehe 28.05.2014           | Base cream DAC   | 14090601         | 1              |
| gehe 28.11.13             | Base cream DAC   | 340/2            | 1              |
| Gehe 28.5.18              | Base cream DAC   | 80330218         | 1              |
| Gehe am 08.04.2014        | Base cream DAC   | 412/1            | 2              |
| Gehe amax                 | Base cream DAC   | 8003325006       | 1              |
| Gehe amax                 | Base cream DAC   | 8004134007       | 1              |
| Gehe amax                 | Base cream DAC   | 8004996002       | 1              |
| Gehe amax                 | Base cream DAC   | 8004996005       | 1              |
| Gehe,27.0415              | Base cream DAC   | 14F27-T03-013614 | 1              |
| Gehe/Beyvers              | Base cream DAC   | 440/2            | 1              |
| Gehe/Ensbona              | Base cream DAC   | 40140120         | 2              |
| Gehe/Ensbona              | Base cream DAC   | 47870419         | 1              |
| Gehe/EuRho                | Base cream DAC   | 1512002-01       | 1              |
| Gehe/EuRho                | Base cream DAC   | 4240919          | 2              |
| Gehe/EuRho                | Base cream DAC   | 76571018         | 1              |
| Gehe/EuRho                | Base cream DAC   | 80390719         | 1              |
| Gehe/EuRho                | Base cream DAC   | 91340916         | 1              |
| Gehe/EuRho                | Base cream DAC   | 93740318         | 1              |
| Gehe/GMP                  | Base cream DAC   | 18G13-T15-058093 | 1              |
| Gehe/GMP                  | Base cream DAC   | 18L20-T13-062940 | 1              |
| Gehe/GMP                  | Base cream DAC   | 19G08-T09-069166 | 1              |
| Gehe/P.W.Beyvers          | Base cream DAC   | 731/1            | 1              |
| Gehe/P.W.Beyvers          | Base cream DAC   | 731/2            | 1              |
| Gehe/P.W.Beyvers          | Base cream DAC   | 731/3            | 3              |
| Gehe/Pharmachem           | Base cream DAC   | 17267301         | 1              |
| Gehe                      | Base cream DAC   |                  | 8              |
| Gehe                      | Base cream DAC   | 111105101        | 1              |
| Gehe                      | Base cream DAC   | 12005301         | 1              |
| GEHE                      | Base cream DAC   | 12174801         | 1              |
| Gehe                      | Base cream DAC   | 12262901         | 1              |
| Gehe                      | Base cream DAC   | 1230113          | 1              |
| Gehe                      | Base cream DAC   | 12347301         | 1              |
| Gehe                      | Base cream DAC   | 13012501         | 2              |
| Gehe                      | Base cream DAC   | 1302036-01       | 1              |
| Gehe                      | Base cream DAC   | 1306044-01       | 1              |
| Gehe                      | Base cream DAC   | 13198501         | 1              |
| Gehe                      | Base cream DAC   | 13199101         | 1              |
| Gehe                      | Base cream DAC   | 13310901         | 1              |
| Gehe                      | Base cream DAC   | 13E22T05003978   | 1              |
| Gehe                      | Base cream DAC   | 14325501         | 1              |
| Gehe                      | Base cream DAC   | 14374201         | 1              |
| Gehe                      | Base cream DAC   | 1502008-01       | 1              |
| Gehe                      | Base cream DAC   | 1502026-01       | 1              |
| Gehe                      | Base cream DAC   | 15040801         | 1              |
| Gehe                      | Base cream DAC   | 15040901         | 1              |
| Gehe                      | Base cream DAC   | 15064401         | 1              |
| Gehe                      | Base cream DAC   | 1508001-01       | 1              |
| Gehe                      | Base cream DAC   | 15164601         | 1              |
| Gehe                      | Base cream DAC   | 15167001         | 1              |
| Gehe                      | Base cream DAC   | 15173301         | 1              |
| Gehe                      | Base cream DAC   | 15190601         | 1              |
| Gehe                      | Base cream DAC   | 15190801         | 1              |
| Gehe                      | Base cream DAC   | 15191001         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Gehe            | Base cream DAC   | 15250101         | 1              |
| Gehe            | Base cream DAC   | 15250501         | 1              |
| Gehe            | Base cream DAC   | 15250701         | 1              |
| Gehe            | Base cream DAC   | 15272301         | 1              |
| Gehe            | Base cream DAC   | 15315401         | 1              |
| Gehe            | Base cream DAC   | 15357601         | 1              |
| Gehe            | Base cream DAC   | 15357701         | 2              |
| Gehe            | Base cream DAC   | 15390401         | 1              |
| Gehe            | Base cream DAC   | 15391001         | 1              |
| Gehe            | Base cream DAC   | 15391201         | 1              |
| Gehe            | Base cream DAC   | 15420001         | 1              |
| gehe            | Base cream DAC   | 16005501         | 1              |
| Gehe            | Base cream DAC   | 1603029-01       | 1              |
| Gehe            | Base cream DAC   | 16055601         | 1              |
| Gehe            | Base cream DAC   | 16055901         | 2              |
| Gehe            | Base cream DAC   | 16059101         | 1              |
| Gehe            | Base cream DAC   | 16103901         | 2              |
| Gehe            | Base cream DAC   | 16132001         | 1              |
| Gehe            | Base cream DAC   | 16136101         | 1              |
| Gehe            | Base cream DAC   | 16205501         | 1              |
| Gehe            | Base cream DAC   | 16231901         | 1              |
| Gehe            | Base cream DAC   | 16232201         | 1              |
| Gehe            | Base cream DAC   | 16232301         | 1              |
| Gehe            | Base cream DAC   | 16238201         | 1              |
| Gehe            | Base cream DAC   | 16240301         | 2              |
| Gehe            | Base cream DAC   | 16260801         | 2              |
| Gehe            | Base cream DAC   | 16261101         | 2              |
| Gehe            | Base cream DAC   | 16326001         | 1              |
| Gehe            | Base cream DAC   | 16326101         | 7              |
| Gehe            | Base cream DAC   | 16G20-T05-035308 | 1              |
| GEHE            | Base cream DAC   | 17000071         | 1              |
| Gehe            | Base cream DAC   | 17000917         | 1              |
| Gehe            | Base cream DAC   | 17000922         | 1              |
| Gehe            | Base cream DAC   | 17003501         | 1              |
| Gehe            | Base cream DAC   | 17010201         | 1              |
| Gehe            | Base cream DAC   | 17023301         | 2              |
| Gehe            | Base cream DAC   | 17090601         | 1              |
| Gehe            | Base cream DAC   | 17097401         | 1              |
| Gehe            | Base cream DAC   | 17124001         | 2              |
| Gehe            | Base cream DAC   | 17224901         | 1              |
| Gehe            | Base cream DAC   | 17225501         | 1              |
| Gehe            | Base cream DAC   | 17229901         | 1              |
| gehe            | Base cream DAC   | 17230001         | 1              |
| Gehe            | Base cream DAC   | 17243401         | 1              |
| Gehe            | Base cream DAC   | 17243501         | 1              |
| Gehe            | Base cream DAC   | 17251601         | 1              |
| Gehe            | Base cream DAC   | 17266601         | 1              |
| Gehe            | Base cream DAC   | 17266901         | 1              |
| Gehe            | Base cream DAC   | 17267301         | 2              |
| Gehe            | Base cream DAC   | 17267501         | 4              |
| Gehe            | Base cream DAC   | 17349601         | 1              |
| Gehe            | Base cream DAC   | 17A03-T08-040047 | 1              |
| Gehe            | Base cream DAC   | 17K24-T07-050507 | 1              |
| Gehe            | Base cream DAC   | 18000497         | 1              |
| Gehe            | Base cream DAC   | 18000955         | 1              |
| Gehe            | Base cream DAC   | 18000964         | 1              |
| GEHE            | Base cream DAC   | 18000964         | 1              |
| Gehe            | Base cream DAC   | 18005751         | 1              |
| Gehe            | Base cream DAC   | 18015301         | 1              |
| Gehe            | Base cream DAC   | 18016701         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| GEHE            | Base cream DAC   | 18081701          | 1              |
| Gehe            | Base cream DAC   | 18085202          | 1              |
| Gehe            | Base cream DAC   | 18091101          | 1              |
| GEHE            | Base cream DAC   | 18105101          | 1              |
| GEHE            | Base cream DAC   | 18137901          | 1              |
| Gehe            | Base cream DAC   | 18138001          | 1              |
| Gehe            | Base cream DAC   | 18138201          | 1              |
| Gehe            | Base cream DAC   | 18138301          | 2              |
| Gehe            | Base cream DAC   | 18138401          | 1              |
| Gehe            | Base cream DAC   | 18166401          | 1              |
| GEHE            | Base cream DAC   | 18166801          | 1              |
| GEHE            | Base cream DAC   | 18193001          | 1              |
| Gehe            | Base cream DAC   | 18193101          | 4              |
| Gehe            | Base cream DAC   | 18193301          | 1              |
| Gehe            | Base cream DAC   | 18232401          | 1              |
| Gehe            | Base cream DAC   | 18232501          | 1              |
| Gehe            | Base cream DAC   | 18232601          | 1              |
| Gehe            | Base cream DAC   | 18269001          | 1              |
| Gehe            | Base cream DAC   | 18269401          | 1              |
| Gehe            | Base cream DAC   | 18269501          | 1              |
| GEHE            | Base cream DAC   | 18270401          | 1              |
| Gehe            | Base cream DAC   | 18270501          | 2              |
| Gehe            | Base cream DAC   | 19000946          | 2              |
| Gehe            | Base cream DAC   | 19002691          | 1              |
| Gehe            | Base cream DAC   | 19003             | 3              |
| GEHE            | Base cream DAC   | 19003201          | 1              |
| Gehe            | Base cream DAC   | 19003601          | 1              |
| Gehe            | Base cream DAC   | 19052701          | 1              |
| Gehe            | Base cream DAC   | 19052801          | 1              |
| GEHE            | Base cream DAC   | 19116901          | 1              |
| Gehe            | Base cream DAC   | 19117401          | 3              |
| Gehe            | Base cream DAC   | 19170501          | 1              |
| gehe            | Base cream DAC   | 19174001          | 1              |
| Gehe            | Base cream DAC   | 19174001          | 1              |
| Gehe            | Base cream DAC   | 19174301          | 4              |
| Gehe            | Base cream DAC   | 19270101          | 1              |
| Gehe            | Base cream DAC   | 19270301          | 1              |
| Gehe            | Base cream DAC   | 19270401          | 2              |
| Gehe            | Base cream DAC   | 19Go08-To9-o69166 | 1              |
| Gehe            | Base cream DAC   | 20000580001       | 1              |
| Gehe            | Base cream DAC   | 20001107001       | 1              |
| Gehe            | Base cream DAC   | 20003185001       | 1              |
| Gehe            | Base cream DAC   | 20003188001       | 1              |
| Gehe            | Base cream DAC   | 207/1             | 4              |
| Gehe            | Base cream DAC   | 207/2             | 1              |
| Gehe            | Base cream DAC   | 219/1             | 3              |
| Gehe            | Base cream DAC   | 219/2             | 3              |
| Gehe            | Base cream DAC   | 229/2             | 4              |
| Gehe            | Base cream DAC   | 234/1             | 1              |
| Gehe            | Base cream DAC   | 234/2             | 4              |
| Gehe            | Base cream DAC   | 27340917          | 1              |
| Gehe            | Base cream DAC   | 275277            | 1              |
| Gehe            | Base cream DAC   | 275590            | 1              |
| Gehe            | Base cream DAC   | 279961            | 1              |
| Gehe            | Base cream DAC   | 280082            | 1              |
| Gehe            | Base cream DAC   | 282769            | 1              |
| Gehe            | Base cream DAC   | 283974            | 1              |
| Gehe            | Base cream DAC   | 283975            | 1              |
| Gehe            | Base cream DAC   | 286088            | 1              |
| Gehe            | Base cream DAC   | 287941            | 1              |

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| <b>Supplier</b>         | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-------------------------|------------------|------------------|----------------|
| Gehe                    | Base cream DAC   | 287947           | 1              |
| Gehe                    | Base cream DAC   | 291025           | 1              |
| Gehe                    | Base cream DAC   | 294834           | 1              |
| Gehe                    | Base cream DAC   | 29870117         | 1              |
| GEHE                    | Base cream DAC   | 304359           | 1              |
| GEHE                    | Base cream DAC   | 305712           | 1              |
| GEHE                    | Base cream DAC   | 305713           | 1              |
| Gehe                    | Base cream DAC   | 305731           | 1              |
| Gehe                    | Base cream DAC   | 306620           | 1              |
| GEHE                    | Base cream DAC   | 306621           | 1              |
| GEHE                    | Base cream DAC   | 307964           | 1              |
| GEHE                    | Base cream DAC   | 307965           | 1              |
| GEHE                    | Base cream DAC   | 310722           | 1              |
| GEHE                    | Base cream DAC   | 310723           | 1              |
| Gehe                    | Base cream DAC   | 319/1            | 2              |
| Gehe                    | Base cream DAC   | 329/1            | 3              |
| Gehe                    | Base cream DAC   | 329/2            | 1              |
| Gehe                    | Base cream DAC   | 340/1            | 2              |
| Gehe                    | Base cream DAC   | 45330616         | 1              |
| GEHE                    | Base cream DAC   | 45940718         | 1              |
| Gehe                    | Base cream DAC   | 6004859005       | 2              |
| Gehe                    | Base cream DAC   | 6018791001       | 1              |
| Gehe                    | Base cream DAC   | 6018791004       | 1              |
| Gehe                    | Base cream DAC   | 79171121         | 1              |
| Gehe                    | Base cream DAC   | 8003325003       | 1              |
| Gehe                    | Base cream DAC   | 8003325004       | 3              |
| Gehe                    | Base cream DAC   | 8003325007       | 1              |
| Gehe                    | Base cream DAC   | 8004134004       | 1              |
| GEHE                    | Base cream DAC   | 8004134005       | 2              |
| Gehe                    | Base cream DAC   | 8004134006       | 1              |
| Gehe                    | Base cream DAC   | 8004134007       | 1              |
| Gehe                    | Base cream DAC   | 8004134008       | 1              |
| Gehe                    | Base cream DAC   | 8004996001       | 3              |
| Gehe                    | Base cream DAC   | 8004996002       | 1              |
| gehe                    | Base cream DAC   | 8004996004       | 1              |
| Gehe                    | Base cream DAC   | 8004996004       | 2              |
| Gehe                    | Base cream DAC   | 8004996005       | 2              |
| Gehe                    | Base cream DAC   | 8005713012       | 2              |
| Gehe                    | Base cream DAC   | 8005713013       | 4              |
| Gehe                    | Base cream DAC   | 8005713014       | 2              |
| Gehe                    | Base cream DAC   | 8007236001       | 1              |
| Gehe                    | Base cream DAC   | 8007236002       | 4              |
| Gehe                    | Base cream DAC   | 8007236003       | 1              |
| Gehe                    | Base cream DAC   | 8008385002       | 2              |
| Gehe                    | Base cream DAC   | 8008386001       | 1              |
| Gehe                    | Base cream DAC   | 8008386002       | 1              |
| Gehe                    | Base cream DAC   | cdbgsdgb         | 1              |
| Geibo 24.08.            | Base cream DAC   | 18138401         | 1              |
| Geibo/Noweda            | Base cream DAC   | 17349801         | 2              |
| Geibo/Noweda            | Base cream DAC   | 176267801        | 1              |
| GMP/Noweda              | Base cream DAC   | 18G13-T16-058096 | 1              |
| Gumo /Ensbona           | Base cream DAC   | 13161119         | 1              |
| GUMO                    | Base cream DAC   | 4271019          | 1              |
| Gutenberg-Apotheke      | Base cream DAC   | 13378201         | 1              |
| Gutenberg-Apotheke      | Base cream DAC   | 14035801         | 1              |
| H. Lamotte              | Base cream DAC   | 8004134007       | 1              |
| H.Lamotte Oils/AHD      | Base cream DAC   | 6003682012       | 2              |
| Hageda                  | Base cream DAC   | 6018791005       | 2              |
| Henry Lamotte oils GmbH | Base cream DAC   | 6018791002       | 1              |
| Henry Lamotte oils GmbH | Base cream DAC   | 6018791003       | 1              |

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| Supplier                   | Substance      | Batch               | Spectra |
|----------------------------|----------------|---------------------|---------|
| Hanry Lamotte oils GmbH    | Base cream DAC | 6018791004          | 1       |
| Hanry Lamotte oils GmbH    | Base cream DAC | 8005713009          | 1       |
| Hanry Lamotte oils GmbH    | Base cream DAC | 8005713012          | 1       |
| Hanry Lamotte oils GmbH    | Base cream DAC | 8007236001          | 2       |
| Hanry Lamotte oils GmbH    | Base cream DAC | 8007236003          | 1       |
| Hanry Lamotte oils GmbH    | Base cream DAC | 8008385001          | 2       |
| Hedinger / Noweda          | Base cream DAC | 17079201            | 2       |
| Hedinger/AHD               | Base cream DAC | 800414005           | 1       |
| Hedinger/Phoenix           | Base cream DAC | 7580418             | 2       |
| Hedinger                   | Base cream DAC | 1309006-01          | 3       |
| HEDINGER                   | Base cream DAC | 18269501            | 1       |
| Hedinger                   | Base cream DAC | 281718              | 1       |
| Henry La Motte/AHD         | Base cream DAC | 80005713014         | 1       |
| Henry La Motte/AHD         | Base cream DAC | 8007236001          | 1       |
| Henry La Motte/Sana        | Base cream DAC | 8004996005          | 1       |
| Henry Lamotte / Fiebig     | Base cream DAC | 6018791002          | 3       |
| Henry Lamotte / Kehr / ... | Base cream DAC | 8004996005          | 1       |
| henry Lamotte / Noweda     | Base cream DAC | 5408000             | 1       |
| Henry Lamotte / Noweda     | Base cream DAC | 5909200             | 1       |
| Henry Lamotte / Noweda     | Base cream DAC | 8005713004          | 2       |
| Henry Lamotte / Noweda     | Base cream DAC | 8005713013          | 1       |
| Henry Lamotte / Phoenix    | Base cream DAC | 8005713009          | 1       |
| Henry Lamotte /AHD         | Base cream DAC | 5910000             | 1       |
| Henry Lamotte /AHD         | Base cream DAC | 6003682017          | 1       |
| Henry Lamotte /Noveda      | Base cream DAC | 5909600             | 1       |
| Henry Lamotte GmbH/ Now... | Base cream DAC | 8004996005          | 1       |
| Henry Lamotte GMBH/AHD     | Base cream DAC | 8005713012          | 1       |
| Henry Lamotte GmbH         | Base cream DAC | 6018791001          | 3       |
| Henry Lamotte GmbH         | Base cream DAC | 6018791003          | 2       |
| Henry Lamotte GmbH         | Base cream DAC | 8005713012          | 1       |
| henry lamotte oils / Al... | Base cream DAC | 8004996004          | 1       |
| henry lamotte oils / Al... | Base cream DAC | 8005713004          | 1       |
| Henry Lamotte Oils / Gehe  | Base cream DAC | 5407700             | 1       |
| Henry Lamotte Oils / No... | Base cream DAC | 5788200             | 1       |
| Henry Lamotte Oils / No... | Base cream DAC | 5909500             | 1       |
| Henry Lamotte Oils / No... | Base cream DAC | 6002237005          | 1       |
| Henry Lamotte Oils / Ph... | Base cream DAC | 5537000             | 1       |
| henry lamotte Oils GmbH... | Base cream DAC | 8003325005          | 5       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8003325006          | 1       |
| Henry Lamotte Oils GMBH... | Base cream DAC | 170612BC/6004859002 | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 6018791004          | 2       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8005713012          | 2       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8007236001          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8007236004          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 6003682015          | 2       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 6004859003          | 2       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 6004859004          | 2       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 6004859006          | 2       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8004134005          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8004134006          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8004134008          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8004996003          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8004996004          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8005713009          | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 5489900             | 1       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 8004134007          | 2       |
| Henry Lamotte Oils GmbH... | Base cream DAC | 6004859002          | 1       |
| Henry Lamotte Oils GmbH    | Base cream DAC |                     | 1       |
| Henry Lamotte Oils GMBH    | Base cream DAC | 170124BC/6003682013 | 1       |
| Henry Lamotte Oils GmbH    | Base cream DAC | 5151700             | 1       |

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| <b>Supplier</b>              | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------------|------------------|--------------|----------------|
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5215300      | 2              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5215500      | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5321000      | 4              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5407700      | 5              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 5490100      | 1              |
| henry lamotte oils gmbh      | Base cream DAC   | 5537000      | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5537000      | 12             |
| Henry Lamotte oils GmbH      | Base cream DAC   | 5650600      | 1              |
| henry lamotte oils gmbh      | Base cream DAC   | 5650900      | 1              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 5650900      | 1              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 5651100      | 1              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 5787800      | 2              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5909400      | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5909600      | 2              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 5909700      | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 6002237002   | 5              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 6002237003   | 2              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 6002237004   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 6003682004   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 6003682015   | 3              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 600382004    | 1              |
| henry lamotte oils gmbh      | Base cream DAC   | 6004859002   | 1              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 6004859004   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 6004859004   | 1              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 6004859005   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 6018791001   | 2              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 6018791003   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 80003325007  | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8003325003   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8003325006   | 2              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8003325007   | 3              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 8004134004   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004134004   | 2              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8004134004   | 3              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004134005   | 5              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004134006   | 3              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004134007   | 4              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004134008   | 2              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8004134008   | 3              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004996001   | 3              |
| Henry Lamotte oils GmbH      | Base cream DAC   | 8004996003   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004996003   | 2              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004996004   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8004996004   | 2              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8004996005   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8004996005   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8005713009   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8005713012   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8005713013   | 3              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8005713014   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8007236001   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8007236001   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8007236002   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8007236002   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8007236004   | 1              |
| HENRY LAMOTTE OILS GmbH      | Base cream DAC   | 8008385001   | 1              |
| Henry Lamotte Oils GmbH      | Base cream DAC   | 8008385002   | 1              |
| Henry Lamotte Oils/ Gehe     | Base cream DAC   | 5321000      | 2              |
| Henry Lamotte Oils/ San. . . | Base cream DAC   | 5909700      | 1              |
| Henry Lamotte Oils/Noweda    | Base cream DAC   | 6018791005   | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Henry Lamotte Oils/Noweda  | Base cream DAC   | 6018791006   | 1              |
| Henry Lamotte Oils/Noweda  | Base cream DAC   | 8005713003   | 3              |
| Henry Lamotte Oils/Noweda  | Base cream DAC   | 8005713008   | 5              |
| Henry Lamotte Oils/Noweda  | Base cream DAC   | 8005713011   | 1              |
| Henry Lamotte Oils/Phönix  | Base cream DAC   | 5788700      | 2              |
| Henry Lamotte Oils/Sana... | Base cream DAC   | 5650600      | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 5215600      | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 5321200      | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 5322400      | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 5407900      | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 6002237005   | 2              |
| Henry Lamotte Oils         | Base cream DAC   | 6002237006   | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 6018791001   | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 60260        | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 8003325010   | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 8004996002   | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 8004996004   | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 8004996005   | 1              |
| Henry Lamotte Oils         | Base cream DAC   | 8005713011   | 1              |
| Henry Lamotte Olis GmbH    | Base cream DAC   | 5651100      | 1              |
| Henry Lamotte Sanacorp     | Base cream DAC   | 6004859001   | 1              |
| Henry Lamotte Sanacorp     | Base cream DAC   | 8003325004   | 2              |
| Henry Lamotte Sanacorp     | Base cream DAC   | 8004996003   | 1              |
| Henry Lamotte/ Phönix      | Base cream DAC   | 8004134005   | 2              |
| Henry Lamotte/ AHDE 02...  | Base cream DAC   | 5537000      | 1              |
| Henry Lamotte/ Alliance    | Base cream DAC   | 6004859002   | 1              |
| Henry Lamotte/ Alliance    | Base cream DAC   | 8004996002   | 1              |
| Henry Lamotte/ Alliance    | Base cream DAC   | 8005713009   | 1              |
| Henry Lamotte/ Gehe        | Base cream DAC   | 8003325004   | 1              |
| Henry Lamotte/ Gehe        | Base cream DAC   | 8004134005   | 1              |
| Henry Lamotte/ Gehe        | Base cream DAC   | 8004996002   | 1              |
| Henry Lamotte/ Gehe        | Base cream DAC   | 8004996005   | 1              |
| Henry Lamotte/ Gehe        | Base cream DAC   | 8005713013   | 2              |
| Henry Lamotte/ Kehr        | Base cream DAC   | 8004134005   | 2              |
| Henry Lamotte/ Kehr        | Base cream DAC   | 8004134008   | 1              |
| Henry Lamotte/ Kehr        | Base cream DAC   | 8005713014   | 2              |
| Henry Lamotte/ Krieger     | Base cream DAC   | 6003682004   | 1              |
| Henry Lamotte/ Krieger     | Base cream DAC   | 6003682013   | 2              |
| Henry Lamotte/ Noweda      | Base cream DAC   | 532220       | 1              |
| Henry Lamotte/ Noweda      | Base cream DAC   | 5537000      | 2              |
| Henry Lamotte/ Noweda      | Base cream DAC   | 5537300      | 4              |
| Henry Lamotte/ Noweda      | Base cream DAC   | 5909300      | 1              |
| Henry lamotte/ Noweda      | Base cream DAC   | 8007236006   | 2              |
| Henry Lamotte/ Phönix      | Base cream DAC   | 8003325003   | 1              |
| Henry Lamotte/ VDL         | Base cream DAC   | 9003682014   | 1              |
| Henry Lamotte/AHD          | Base cream DAC   | 5909700      | 2              |
| Henry Lamotte/AHD          | Base cream DAC   | 5909900      | 1              |
| Henry Lamotte/AHD          | Base cream DAC   | 6004859003   | 2              |
| Henry Lamotte/AHD          | Base cream DAC   | 6018791005   | 2              |
| Henry Lamotte/AHD          | Base cream DAC   | 8003325006   | 1              |
| Henry Lamotte/AHD          | Base cream DAC   | 8003325007   | 2              |
| Henry lamotte/AHD          | Base cream DAC   | 8003325011   | 1              |
| Henry lamotte/AHD          | Base cream DAC   | 8004134011   | 1              |
| Henry Lamotte/AHD          | Base cream DAC   | 8004996004   | 2              |
| Henry Lamotte/AHD          | Base cream DAC   | 8005713008   | 3              |
| Henry Lamotte/AHD          | Base cream DAC   | 8005713011   | 1              |
| Henry Lamotte/AHD          | Base cream DAC   | 8005713014   | 3              |
| Henry Lamotte/Alliance     | Base cream DAC   | 8007236002   | 1              |
| Henry Lamotte/Alliance     | Base cream DAC   | 8007236003   | 1              |
| Henry Lamotte/Alliance     | Base cream DAC   | 8007236004   | 1              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Henry Lamotte/Alliance | Base cream DAC   | 8008385001   | 3              |
| Henry Lamotte/Alliance | Base cream DAC   | 8008386001   | 1              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5289200      | 1              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5408300      | 2              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5537600      | 2              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5651100      | 1              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5651200      | 1              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5788600      | 1              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5788700      | 3              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5909500      | 1              |
| Henry Lamotte/Anzag    | Base cream DAC   | 5909800      | 1              |
| Henry Lamotte/Anzag    | Base cream DAC   | 6002237009   | 2              |
| Henry Lamotte/Anzag    | Base cream DAC   | 8004996002   | 1              |
| Henry Lamotte/Gehe     | Base cream DAC   | 6018791002   | 1              |
| Henry Lamotte/Gehe     | Base cream DAC   | 8004996005   | 1              |
| Henry Lamotte/Gehe     | Base cream DAC   | 8005713009   | 1              |
| Henry Lamotte/Gehe     | Base cream DAC   | 8005713013   | 1              |
| Henry Lamotte/Noewda   | Base cream DAC   | 6004859001   | 1              |
| Henry Lamotte/OG       | Base cream DAC   | 6002237002   | 1              |
| Henry Lamotte/OG       | Base cream DAC   | 6003682013   | 1              |
| Henry Lamotte/Phoenix  | Base cream DAC   | 8007236006   | 1              |
| Henry Lamotte/Phönix   | Base cream DAC   | 6004860002   | 1              |
| Henry Lamotte/Sanacorp | Base cream DAC   | 13140001     | 1              |
| Henry Lamotte          | Base cream DAC   | 5100000      | 1              |
| Henry Lamotte          | Base cream DAC   | 5163400      | 1              |
| Henry Lamotte          | Base cream DAC   | 5215400      | 1              |
| Henry Lamotte          | Base cream DAC   | 5289000      | 1              |
| Henry Lamotte          | Base cream DAC   | 5321000      | 1              |
| Henry Lamotte          | Base cream DAC   | 5321100      | 1              |
| Henry Lamotte          | Base cream DAC   | 5322300      | 3              |
| Henry Lamotte          | Base cream DAC   | 5407700      | 1              |
| Henry Lamotte          | Base cream DAC   | 5408000      | 1              |
| Henry Lamotte          | Base cream DAC   | 5408100      | 1              |
| Henry Lamotte          | Base cream DAC   | 5408300      | 1              |
| Henry Lamotte          | Base cream DAC   | 5489800      | 1              |
| Henry Lamotte          | Base cream DAC   | 5489900      | 2              |
| Henry Lamotte          | Base cream DAC   | 5490100      | 1              |
| Henry Lamotte          | Base cream DAC   | 5537100      | 2              |
| Henry Lamotte          | Base cream DAC   | 5788200      | 1              |
| Henry Lamotte          | Base cream DAC   | 5909300      | 1              |
| Henry Lamotte          | Base cream DAC   | 5909500      | 1              |
| Henry Lamotte          | Base cream DAC   | 5909600      | 2              |
| Henry Lamotte          | Base cream DAC   | 6002237001   | 2              |
| Henry Lamotte          | Base cream DAC   | 6002237002   | 3              |
| henry lamotte          | Base cream DAC   | 6002237003   | 1              |
| Henry Lamotte          | Base cream DAC   | 6002237003   | 3              |
| Henry Lamotte          | Base cream DAC   | 6003682004   | 2              |
| Henry Lamotte          | Base cream DAC   | 6003682012   | 1              |
| henry lamotte          | Base cream DAC   | 6003682013   | 2              |
| Henry Lamotte          | Base cream DAC   | 6003682013   | 2              |
| Henry Lamotte          | Base cream DAC   | 6003682016   | 2              |
| henry lamotte          | Base cream DAC   | 6004859001   | 2              |
| Henry Lamotte          | Base cream DAC   | 6004859001   | 1              |
| Henry Lamotte          | Base cream DAC   | 6004859003   | 2              |
| henry lamotte          | Base cream DAC   | 6004859005   | 1              |
| Henry Lamotte          | Base cream DAC   | 6004859005   | 2              |
| Henry Lamotte          | Base cream DAC   | 6004859006   | 3              |
| Henry Lamotte          | Base cream DAC   | 6018791001   | 2              |
| henry lamotte          | Base cream DAC   | 8003325003   | 2              |
| Henry Lamotte          | Base cream DAC   | 8003325003   | 1              |

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| Supplier                   | Substance      | Batch            | Spectra |
|----------------------------|----------------|------------------|---------|
| Henry Lamotte              | Base cream DAC | 8003325005       | 6       |
| henry lamotte              | Base cream DAC | 8003325006       | 1       |
| Henry Lamotte              | Base cream DAC | 8003325007       | 1       |
| Henry Lamotte              | Base cream DAC | 8003325010       | 1       |
| Henry Lamotte              | Base cream DAC | 8004134005       | 5       |
| Henry Lamotte              | Base cream DAC | 8004134006       | 2       |
| Henry Lamotte              | Base cream DAC | 8004134007       | 4       |
| Henry Lamotte              | Base cream DAC | 8004996001       | 3       |
| Henry Lamotte              | Base cream DAC | 8004996002       | 4       |
| Henry Lamotte              | Base cream DAC | 8004996004       | 1       |
| Henry Lamotte              | Base cream DAC | 8004996005       | 5       |
| HENRY LAMOTTE              | Base cream DAC | 8005713004       | 2       |
| Henry Lamotte              | Base cream DAC | 8005713005       | 1       |
| henry lamotte              | Base cream DAC | 8005713009       | 1       |
| Henry Lamotte              | Base cream DAC | 8005713009       | 3       |
| Henry Lamotte              | Base cream DAC | 8005713013       | 1       |
| Henry Lamotte              | Base cream DAC | 8007236003       | 1       |
| Henry Lamotte              | Base cream DAC | 8007236005       | 1       |
| Henry Lamotte              | Base cream DAC | 8007236007       | 1       |
| Henry Lamotte              | Base cream DAC | 8008385001       | 1       |
| Henry/Noweda               | Base cream DAC | 6002237004       | 1       |
| Henry/Noweda               | Base cream DAC | 6002237006       | 1       |
| Henry/Sanacorp             | Base cream DAC | 600223705        | 1       |
| Henry/Sanacorp             | Base cream DAC | 81/AKD16         | 1       |
| HENRYLAMOTTE/Gehe          | Base cream DAC | 5408000          | 1       |
| HenryLamotteGmbH/Noweda    | Base cream DAC | 5650800          | 1       |
| Hepart                     | Base cream DAC | 18165801         | 2       |
| Herstellung                | Base cream DAC | 13173601         | 1       |
| Hirsch                     | Base cream DAC | 1210054-01       | 1       |
| Holdermann                 | Base cream DAC | 280078           | 1       |
| Ichthyol / Gehe            | Base cream DAC | 14A10-T06        | 1       |
| Ichthyol                   | Base cream DAC | 18165401         | 1       |
| Ichthyol                   | Base cream DAC | 6004860002       | 1       |
| Ichthyol-Gesellschaft C... | Base cream DAC | 15040701         | 1       |
| Ichthyol-Gesellschaft      | Base cream DAC | 16232001         | 1       |
| Ichthyol-Gesellschaft      | Base cream DAC | 16238001         | 1       |
| ichthyol                   | Base cream DAC | 17266801         | 1       |
| Ichthyol                   | Base cream DAC | 5407700          | 1       |
| Infecto/Phönix             | Base cream DAC | 12191901         | 1       |
| Infectopharm/Phönix        | Base cream DAC | 18192901         | 1       |
| Jenne 20.11.21, 8,06EUR    | Base cream DAC | 211125           | 1       |
| Jenne                      | Base cream DAC | 17267701         | 1       |
| Jenne                      | Base cream DAC | 18085202         | 1       |
| Jenne                      | Base cream DAC | 18126301         | 1       |
| Jenne                      | Base cream DAC | 18138101         | 1       |
| Jenne                      | Base cream DAC | 18166301         | 1       |
| Jenne                      | Base cream DAC | 18232501         | 2       |
| Jenne                      | Base cream DAC | 18G13-Tro-058076 | 1       |
| KEHR / Beyvers GmbH        | Base cream DAC | 71112PML01       | 1       |
| Kehr 04.09.2020            | Base cream DAC | 800571314        | 1       |
| Kehr                       | Base cream DAC | 17000200         | 1       |
| Kehr                       | Base cream DAC | 17000897         | 1       |
| Kehr                       | Base cream DAC | 307958           | 1       |
| Kehr                       | Base cream DAC | 45950718         | 1       |
| Kehr                       | Base cream DAC | 6500218          | 1       |
| Klenk                      | Base cream DAC | 1205004-01       | 1       |
| Klosterring                | Base cream DAC | 17225901         | 1       |
| Klosterring                | Base cream DAC | 17229201         | 1       |
| Klosterring                | Base cream DAC | 18269001         | 1       |
| Kögl                       | Base cream DAC | 1800403          | 2       |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Kögl                   | Base cream DAC   | 1801872      | 2              |
| kögl                   | Base cream DAC   | 1900812      | 1              |
| Kögl                   | Base cream DAC   | 329110160517 | 1              |
| Kögl                   | Base cream DAC   | 329110164116 | 1              |
| Kögl                   | Base cream DAC   | 35402171017  | 1              |
| Kögl                   | Base cream DAC   | 35402171317  | 1              |
| KOKO Gmbh              | Base cream DAC   | 18269401     | 1              |
| Krieger/ Henry Lamotte | Base cream DAC   | 6003682016   | 1              |
| Krieger/ Henry Lamotte | Base cream DAC   | 6004859003   | 1              |
| Krieger/ Henry Lamotte | Base cream DAC   | 6004859006   | 1              |
| Krieger/ Henry Lamotte | Base cream DAC   | 8003325005   | 2              |
| Krieger/ Henry Lamotte | Base cream DAC   | 8003325006   | 2              |
| Krieger/ Henry Lamotte | Base cream DAC   | 8004134006   | 1              |
| Krieger/Hedinger       | Base cream DAC   | 18272301     | 1              |
| Krieger                | Base cream DAC   | 12339301     | 1              |
| Krieger                | Base cream DAC   | 86470517     | 3              |
| L10                    | Base cream DAC   | 18269201     | 3              |
| L12                    | Base cream DAC   | 16350301     | 1              |
| L12                    | Base cream DAC   | 17006701     | 1              |
| L12                    | Base cream DAC   | 17100501     | 1              |
| L12                    | Base cream DAC   | 17155601     | 1              |
| L12                    | Base cream DAC   | 18126301     | 2              |
| Lamotte / AHC          | Base cream DAC   | 6004859004   | 1              |
| Lamotte / AHC          | Base cream DAC   | 8003325007   | 1              |
| Lamotte / AHC          | Base cream DAC   | 8004134008   | 1              |
| Lamotte / AHC          | Base cream DAC   | 8007236006   | 1              |
| Lamotte / AHD          | Base cream DAC   | 6002237001   | 1              |
| Lamotte / Anzag        | Base cream DAC   | 5408000      | 1              |
| Lamotte / Anzag        | Base cream DAC   | 5408100      | 1              |
| Lamotte / Anzag        | Base cream DAC   | 5408200      | 1              |
| Lamotte / Noweda       | Base cream DAC   | 6004859002   | 1              |
| Lamotte / Noweda       | Base cream DAC   | 6004859003   | 1              |
| Lamotte / Noweda       | Base cream DAC   | 6004859004   | 1              |
| Lamotte / Noweda       | Base cream DAC   | 6004859006   | 1              |
| Lamotte / Noweda       | Base cream DAC   | 8003325003   | 1              |
| Lamotte / Noweda       | Base cream DAC   | 8003325004   | 2              |
| Lamotte / Noweda       | Base cream DAC   | 8003325007   | 1              |
| Lamotte / Phoenix      | Base cream DAC   | 6018791001   | 2              |
| Lamotte / Phoenix      | Base cream DAC   | 6018791002   | 4              |
| Lamotte / Phoenix      | Base cream DAC   | 8004134005   | 1              |
| Lamotte / Phoenix      | Base cream DAC   | 8004134007   | 1              |
| Lamotte / Phoenix      | Base cream DAC   | 8004996001   | 1              |
| Lamotte / Phoenix      | Base cream DAC   | 8004996003   | 1              |
| Lamotte / Phoenix      | Base cream DAC   | 8004996004   | 3              |
| Lamotte / Phoenix      | Base cream DAC   | 8005713013   | 5              |
| Lamotte / Phoenix      | Base cream DAC   | 8007236001   | 3              |
| Lamotte / Noweda       | Base cream DAC   | 6002237002   | 1              |
| Lamotte / Sanacorp     | Base cream DAC   | 18193101     | 1              |
| Lamotte 001            | Base cream DAC   | 5321000      | 1              |
| Lamotte 001            | Base cream DAC   | 5322400      | 1              |
| Lamotte/ AHDE          | Base cream DAC   | 5407700      | 1              |
| Lamotte/ Anzag         | Base cream DAC   | 6003682005   | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 5407900      | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 5537300      | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 8003325004   | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 80041340060  | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 8004996001   | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 8004996002   | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 8005713009   | 1              |
| Lamotte/ Noweda        | Base cream DAC   | 8005713013   | 1              |

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| <b>Supplier</b>           | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|------------------|--------------|----------------|
| Lamotte/ Phönix           | Base cream DAC   | 8005713009   | 2              |
| Lamotte//AHD              | Base cream DAC   | 5787900      | 1              |
| Lamotte//AHD              | Base cream DAC   | 6002237004   | 1              |
| Lamotte/ADG               | Base cream DAC   | 8004996006   | 3              |
| Lamotte/AHC               | Base cream DAC   | 6018791006   | 2              |
| Lamotte/AHD               | Base cream DAC   | 5407900      | 1              |
| Lamotte/AHD               | Base cream DAC   | 5651300      | 1              |
| Lamotte/AHD               | Base cream DAC   | 589900       | 1              |
| Lamotte/AHD               | Base cream DAC   | 5909600      | 1              |
| Lamotte/AHD               | Base cream DAC   | 5909900      | 1              |
| Lamotte/AHD               | Base cream DAC   | 6002237006   | 1              |
| Lamotte/AHD               | Base cream DAC   | 6002237009   | 1              |
| Lamotte/AHD               | Base cream DAC   | 600237004    | 1              |
| Lamotte/AHD               | Base cream DAC   | 6003682005   | 1              |
| Lamotte/AHD               | Base cream DAC   | 6003682012   | 1              |
| Lamotte/AHD               | Base cream DAC   | 6003682013   | 1              |
| Lamotte/AHD               | Base cream DAC   | 6003682016   | 2              |
| Lamotte/AHD               | Base cream DAC   | 6004859003   | 1              |
| Lamotte/AHD               | Base cream DAC   | 6004859004   | 1              |
| Lamotte/AHD               | Base cream DAC   | 6004860003   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8003325008   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8004134005   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8004134008   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8004996002   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8004996004   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8004996006   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8004996007   | 1              |
| Lamotte/AHD               | Base cream DAC   | 8004996008   | 2              |
| Lamotte/AHD               | Base cream DAC   | 80057        | 1              |
| Lamotte/Alliance 08.02... | Base cream DAC   | 8008386001   | 1              |
| Lamotte/Alliance 14.12... | Base cream DAC   | 8008385002   | 1              |
| Lamotte/Alliance 25.03... | Base cream DAC   | 8008386002   | 1              |
| Lamotte/Alliance          | Base cream DAC   | 5537600      | 1              |
| Lamotte/Alliance          | Base cream DAC   | 5651200      | 1              |
| Lamotte/Alliance          | Base cream DAC   | 5651300      | 1              |
| Lamotte/Alliance          | Base cream DAC   | 8004134008   | 1              |
| Lamotte/Alliance          | Base cream DAC   | 8004996001   | 1              |
| Lamotte/Anzag             | Base cream DAC   | 5408100      | 1              |
| Lamotte/Anzag             | Base cream DAC   | 5651100      | 1              |
| Lamotte/ANZAG             | Base cream DAC   | 6002237008   | 1              |
| Lamotte/Anzag             | Base cream DAC   | 6003682004   | 1              |
| Lamotte/Anzag             | Base cream DAC   | 8003325003   | 1              |
| Lamotte/Anzag             | Base cream DAC   | 8003325007   | 1              |
| Lamotte/Anzag             | Base cream DAC   | 8004996005   | 1              |
| Lamotte/Anzag             | Base cream DAC   | 8005713011   | 1              |
| Lamotte/Gehe              | Base cream DAC   | 6002237002   | 1              |
| Lamotte/Gehe              | Base cream DAC   | 6018791004   | 1              |
| Lamotte/Gehe              | Base cream DAC   | 8004996005   | 1              |
| Lamotte/Gehe              | Base cream DAC   | 8005713014   | 1              |
| Lamotte/Gehe              | Base cream DAC   | 8007236002   | 2              |
| lamotte/Kehr              | Base cream DAC   | 8004134008   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 5909600      | 1              |
| Lamotte/Noweda            | Base cream DAC   | 6002237001   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 6003682016   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 8003325007   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 8003325010   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 8004134004   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 8004134006   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 8004134007   | 1              |
| Lamotte/Noweda            | Base cream DAC   | 8004134008   | 1              |

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| <b>Supplier</b>  | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|------------------|------------------|-------------------|----------------|
| Lamotte/Noweda   | Base cream DAC   | 8004996001        | 1              |
| Lamotte/Noweda   | Base cream DAC   | 8004996005        | 2              |
| Lamotte/Noweda   | Base cream DAC   | 8005713004        | 1              |
| Lamotte/Noweda   | Base cream DAC   | 8005713009        | 2              |
| Lamotte/Otto     | Base cream DAC   | 5215800           | 2              |
| Lamotte/Otto     | Base cream DAC   | 5321000           | 1              |
| Lamotte/P        | Base cream DAC   | 8003325003        | 1              |
| Lamotte/Phoenix  | Base cream DAC   | 5322200           | 1              |
| Lamotte/Phoenix  | Base cream DAC   | 8003325005        | 1              |
| Lamotte/Phönix   | Base cream DAC   | 5909600           | 1              |
| Lamotte/Phönix   | Base cream DAC   | 6003682016        | 1              |
| Lamotte/Phönix   | Base cream DAC   | 6018791006        | 2              |
| Lamotte/Phönix   | Base cream DAC   | 8004134009        | 3              |
| Lamotte/Phönix   | Base cream DAC   | 8004134011        | 1              |
| Lamotte/Phönix   | Base cream DAC   | 8004996007        | 1              |
| Lamotte/Phönix   | Base cream DAC   | 8005713008        | 1              |
| Lamotte/Phönix   | Base cream DAC   | 8005713011        | 1              |
| lamotte/sanacorb | Base cream DAC   | 5651000           | 2              |
| lamotte/sanacorb | Base cream DAC   | 5787800           | 1              |
| Lamotte/Sanacorp | Base cream DAC   | 5788700           | 2              |
| Lamotte/Sanacorp | Base cream DAC   | 6002237009        | 1              |
| Lamotte/Sanacorp | Base cream DAC   | 6002237010        | 1              |
| Lamotte/Sanacorp | Base cream DAC   | 6003682005        | 1              |
| Lamotte          | Base cream DAC   | 16132001          | 1              |
| Lamotte          | Base cream DAC   | 2x8004996004      | 1              |
| Lamotte          | Base cream DAC   | 5099700           | 1              |
| Lamotte          | Base cream DAC   | 5099800           | 1              |
| Lamotte          | Base cream DAC   | 5163400           | 1              |
| Lamotte          | Base cream DAC   | 5321200           | 1              |
| Lamotte          | Base cream DAC   | 5322200           | 1              |
| Lamotte          | Base cream DAC   | 5322300           | 1              |
| Lamotte          | Base cream DAC   | 5408000           | 1              |
| Lamotte          | Base cream DAC   | 5489900           | 1              |
| Lamotte          | Base cream DAC   | 5537000           | 1              |
| lamotte          | Base cream DAC   | 5537300           | 3              |
| Lamotte          | Base cream DAC   | 5537300           | 1              |
| Lamotte          | Base cream DAC   | 5650700           | 3              |
| Lamotte          | Base cream DAC   | 5651000           | 1              |
| Lamotte          | Base cream DAC   | 5651100           | 1              |
| Lamotte          | Base cream DAC   | 5785800           | 1              |
| Lamotte          | Base cream DAC   | 5787800           | 1              |
| Lamotte          | Base cream DAC   | 5787900           | 2              |
| Lamotte          | Base cream DAC   | 5788000           | 1              |
| Lamotte          | Base cream DAC   | 5788200           | 2              |
| Lamotte          | Base cream DAC   | 5909300           | 3              |
| Lamotte          | Base cream DAC   | 5909600           | 2              |
| Lamotte          | Base cream DAC   | 59096006002237002 | 1              |
| Lamotte          | Base cream DAC   | 590990            | 1              |
| Lamotte          | Base cream DAC   | 60004860001       | 1              |
| Lamotte          | Base cream DAC   | 6002237002        | 1              |
| Lamotte          | Base cream DAC   | 6002237005        | 1              |
| Lamotte          | Base cream DAC   | 6003682018        | 1              |
| Lamotte          | Base cream DAC   | 6004859002        | 2              |
| Lamotte          | Base cream DAC   | 6004859003        | 1              |
| Lamotte          | Base cream DAC   | 6004859006        | 1              |
| Lamotte          | Base cream DAC   | 6004860001        | 1              |
| lamotte          | Base cream DAC   | 6018791002        | 1              |
| Lamotte          | Base cream DAC   | 60260             | 1              |
| Lamotte          | Base cream DAC   | 8002875008        | 1              |
| Lamotte          | Base cream DAC   | 8003325005        | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Lamotte                    | Base cream DAC   | 8003325006   | 2              |
| Lamotte                    | Base cream DAC   | 8004134006   | 1              |
| Lamotte                    | Base cream DAC   | 8004134008   | 2              |
| Lamotte                    | Base cream DAC   | 8004996006   | 1              |
| Lamotte                    | Base cream DAC   | 8004996008   | 1              |
| Lamotte                    | Base cream DAC   | 8005713003   | 2              |
| Lamotte                    | Base cream DAC   | 8005713004   | 1              |
| Lamotte                    | Base cream DAC   | 8005713014   | 1              |
| Lamotte                    | Base cream DAC   | 8007236007   | 2              |
| Lamotte-oils/Noweda        | Base cream DAC   | 8003325004   | 1              |
| Leyh Pharma Gmbh           | Base cream DAC   | 27290917     | 3              |
| Medphano Arzneimittel G... | Base cream DAC   | 6500119      | 1              |
| Medphano Phönix            | Base cream DAC   | 6500117      | 1              |
| Medphano/phoenix           | Base cream DAC   | 6500117      | 3              |
| Medphano/Phoenix           | Base cream DAC   | 6500118      | 2              |
| Medphano/Phoenix           | Base cream DAC   | 6500218      | 1              |
| medphano/Sanacorp          | Base cream DAC   | 6500118      | 2              |
| medphano/Sanacorp          | Base cream DAC   | 6500119      | 3              |
| medphano/Sanacorp          | Base cream DAC   | 6500218      | 4              |
| medphano                   | Base cream DAC   | 6500115      | 5              |
| mephano                    | Base cream DAC   | 6500115      | 1              |
| Midas Phönix               | Base cream DAC   | 308803       | 1              |
| Midas                      | Base cream DAC   | 16261501     | 1              |
| Midas                      | Base cream DAC   | 17000905     | 1              |
| Midas                      | Base cream DAC   | 17029201     | 1              |
| Midas                      | Base cream DAC   | 17090901     | 1              |
| Midas                      | Base cream DAC   | 17129901     | 1              |
| Midas                      | Base cream DAC   | 17147301     | 1              |
| Midas                      | Base cream DAC   | 17225002     | 1              |
| Midas                      | Base cream DAC   | 17225201     | 1              |
| Midas                      | Base cream DAC   | 17240401     | 1              |
| Midas                      | Base cream DAC   | 17266401     | 1              |
| Midas                      | Base cream DAC   | 17267001     | 1              |
| Midas                      | Base cream DAC   | 17351901     | 2              |
| Midas                      | Base cream DAC   | 18000966     | 1              |
| Midas                      | Base cream DAC   | 18001972     | 1              |
| Midas                      | Base cream DAC   | 18003935     | 3              |
| Midas                      | Base cream DAC   | 18005746     | 1              |
| Midas                      | Base cream DAC   | 18006777     | 1              |
| Midas                      | Base cream DAC   | 18091102     | 1              |
| Midas                      | Base cream DAC   | 18129301     | 1              |
| Midas                      | Base cream DAC   | 18137801     | 1              |
| Midas                      | Base cream DAC   | 18166401     | 1              |
| Midas                      | Base cream DAC   | 18269401     | 1              |
| Midas                      | Base cream DAC   | 19000939     | 3              |
| Midas                      | Base cream DAC   | 306623       | 2              |
| Midas                      | Base cream DAC   | 310722       | 1              |
| Midas                      | Base cream DAC   | 310755       | 2              |
| Nachprüfung                | Base cream DAC   | 1118H-01309  | 1              |
| Nachprüfung                | Base cream DAC   | 123456       | 1              |
| Nibelungen apotheke        | Base cream DAC   | 200201302    | 1              |
| Nokun                      | Base cream DAC   | 18105402     | 1              |
| Noweda / Beyvers           | Base cream DAC   | 412/2        | 1              |
| Noweda 17.10.2014          | Base cream DAC   | 1346001      | 1              |
| Noweda/ Caesar & Loretz... | Base cream DAC   | Caelo        | 1              |
| Noweda/ Eimermacher        | Base cream DAC   | 50211015     | 1              |
| Noweda/ Eimermacher        | Base cream DAC   | 55350716     | 2              |
| Noweda/ Lamotte            | Base cream DAC   | 60036820015  | 1              |
| Noweda/ Lamotte            | Base cream DAC   | 6004859001   | 2              |
| Noweda/Beyvers             | Base cream DAC   | 412/3        | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Noweda/Eimermacher         | Base cream DAC   | 47870419         | 1              |
| Noweda/Eimermacher         | Base cream DAC   | 80340218         | 1              |
| Noweda/Ensbona             | Base cream DAC   | 222512           | 1              |
| Noweda/Ensbona             | Base cream DAC   | 24180414         | 4              |
| Noweda/Ensbona             | Base cream DAC   | 36510319         | 4              |
| Noweda/Ensbona             | Base cream DAC   | 56590714         | 5              |
| Noweda/Ensbona             | Base cream DAC   | 57090315         | 1              |
| Noweda/Ensbona             | Base cream DAC   | 60630519         | 5              |
| Noweda/Ensbona             | Base cream DAC   | 71940619         | 6              |
| Noweda/Ensbona             | Base cream DAC   | 8821114          | 5              |
| Noweda/EuRho 21.12.2020... | Base cream DAC   | 80610520         | 2              |
| Noweda/Lamotte             | Base cream DAC   | 6004859006       | 1              |
| Noweda/Lamotte             | Base cream DAC   | 8003325007       | 1              |
| Noweda                     | Base cream DAC   | 12005601         | 1              |
| Noweda                     | Base cream DAC   | 12263501         | 1              |
| Noweda                     | Base cream DAC   | 12305001         | 1              |
| Noweda                     | Base cream DAC   | 12339201         | 1              |
| Noweda                     | Base cream DAC   | 1311004-01       | 1              |
| Noweda                     | Base cream DAC   | 1312037-01       | 1              |
| Noweda                     | Base cream DAC   | 131250001        | 1              |
| Noweda                     | Base cream DAC   | 13139702         | 1              |
| Noweda                     | Base cream DAC   | 13139901         | 1              |
| Noweda                     | Base cream DAC   | 13161119         | 2              |
| Noweda                     | Base cream DAC   | 13198601         | 2              |
| noweda                     | Base cream DAC   | 13347101         | 1              |
| Noweda                     | Base cream DAC   | 13347201         | 1              |
| Noweda                     | Base cream DAC   | 13490119         | 1              |
| Noweda                     | Base cream DAC   | 13510119         | 1              |
| Noweda                     | Base cream DAC   | 14144101         | 1              |
| Noweda                     | Base cream DAC   | 14D08-T08-011709 | 2              |
| Noweda                     | Base cream DAC   | 14F05-T06-012961 | 2              |
| Noweda                     | Base cream DAC   | 1502028-01       | 2              |
| Noweda                     | Base cream DAC   | 1511001-01       | 1              |
| Noweda                     | Base cream DAC   | 15720518         | 3              |
| Noweda                     | Base cream DAC   | 16058801         | 1              |
| Noweda                     | Base cream DAC   | 16350201         | 1              |
| Noweda                     | Base cream DAC   | 16D06-T07-031930 | 1              |
| Noweda                     | Base cream DAC   | 17028801         | 1              |
| Noweda                     | Base cream DAC   | 17097401         | 4              |
| Noweda                     | Base cream DAC   | 17136601         | 2              |
| Noweda                     | Base cream DAC   | 17240201         | 1              |
| Noweda                     | Base cream DAC   | 17267801         | 1              |
| Noweda                     | Base cream DAC   | 17349901         | 1              |
| Noweda                     | Base cream DAC   | 18001            | 2              |
| Noweda                     | Base cream DAC   | 18002            | 3              |
| Noweda                     | Base cream DAC   | 18081702         | 2              |
| Noweda                     | Base cream DAC   | 18126301         | 1              |
| Noweda                     | Base cream DAC   | 18137601         | 1              |
| Noweda                     | Base cream DAC   | 18137801         | 1              |
| Noweda                     | Base cream DAC   | 18166301         | 1              |
| Noweda                     | Base cream DAC   | 18232701         | 3              |
| Noweda                     | Base cream DAC   | 18269001         | 1              |
| Noweda                     | Base cream DAC   | 19001            | 2              |
| Noweda                     | Base cream DAC   | 19002            | 1              |
| Noweda                     | Base cream DAC   | 19003601         | 3              |
| Noweda                     | Base cream DAC   | 19003901         | 1              |
| Noweda                     | Base cream DAC   | 19004715         | 1              |
| Noweda                     | Base cream DAC   | 19005675         | 1              |
| Noweda                     | Base cream DAC   | 19116801         | 4              |
| Noweda                     | Base cream DAC   | 19116901         | 1              |

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*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Noweda                     | Base cream DAC   | 19117501         | 1              |
| Noweda                     | Base cream DAC   | 19147801         | 6              |
| Noweda                     | Base cream DAC   | 19148001         | 1              |
| Noweda                     | Base cream DAC   | 19170901         | 2              |
| Noweda                     | Base cream DAC   | 19174301         | 1              |
| Noweda                     | Base cream DAC   | 19239201         | 1              |
| Noweda                     | Base cream DAC   | 19239401         | 1              |
| Noweda                     | Base cream DAC   | 19301701         | 1              |
| Noweda                     | Base cream DAC   | 19D01-T14-065578 | 1              |
| Noweda                     | Base cream DAC   | 20000042001      | 1              |
| Noweda                     | Base cream DAC   | 20000055001      | 1              |
| Noweda                     | Base cream DAC   | 2000068601       | 1              |
| Noweda                     | Base cream DAC   | 20000690001      | 1              |
| Noweda                     | Base cream DAC   | 20002395         | 1              |
| Noweda                     | Base cream DAC   | 20002866001      | 2              |
| Noweda                     | Base cream DAC   | 20002874001      | 1              |
| Noweda                     | Base cream DAC   | 20003188001      | 1              |
| Noweda                     | Base cream DAC   | 20003831001      | 1              |
| Noweda                     | Base cream DAC   | 21001770001      | 1              |
| Noweda                     | Base cream DAC   | 2981016          | 1              |
| Noweda                     | Base cream DAC   | 3011016          | 2              |
| Noweda                     | Base cream DAC   | 305715           | 1              |
| Noweda                     | Base cream DAC   | 36510319         | 1              |
| Noweda                     | Base cream DAC   | 47880419         | 4              |
| Noweda                     | Base cream DAC   | 4788419          | 1              |
| Noweda                     | Base cream DAC   | 47890419         | 1              |
| Noweda                     | Base cream DAC   | 5100000          | 1              |
| Noweda                     | Base cream DAC   | 51580217         | 2              |
| Noweda                     | Base cream DAC   | 5163300          | 1              |
| Noweda                     | Base cream DAC   | 6004859002       | 1              |
| Noweda                     | Base cream DAC   | 6004859003       | 1              |
| Noweda                     | Base cream DAC   | 6004859004       | 1              |
| Noweda                     | Base cream DAC   | 60620519         | 2              |
| Noweda                     | Base cream DAC   | 70570420         | 2              |
| Noweda                     | Base cream DAC   | 7058042C         | 1              |
| Noweda                     | Base cream DAC   | 71940619         | 1              |
| Noweda                     | Base cream DAC   | 731/3            | 2              |
| Noweda                     | Base cream DAC   | 731/4            | 2              |
| Noweda                     | Base cream DAC   | 76571018         | 1              |
| Noweda                     | Base cream DAC   | 80390719         | 2              |
| Noweda                     | Base cream DAC   | 80400719         | 3              |
| Noweda                     | Base cream DAC   | 87231118         | 3              |
| Noweda                     | Base cream DAC   | 91340916         | 1              |
| Noweda                     | Base cream DAC   | 92080819         | 1              |
| Noweda                     | Base cream DAC   | 93760318         | 1              |
| Noweda                     | Base cream DAC   | KeineAngabe      | 1              |
| p w Beyvers                | Base cream DAC   | 640/3            | 1              |
| P&M Cosmetics GmbH & Co... | Base cream DAC   | 150317           | 1              |
| P. W. Beyvers GmbH / No... | Base cream DAC   | 18002            | 1              |
| P. W. Beyvers GmbH/Noweda  | Base cream DAC   | 18002            | 1              |
| P. W. Beyvers GmbH         | Base cream DAC   | 18001            | 1              |
| P. W. Beyvers GmbH         | Base cream DAC   | 329/2            | 3              |
| P. W. Beyvers GmbH         | Base cream DAC   | 515/2            | 1              |
| P. W. Beyvers GmbH         | Base cream DAC   | 640/1            | 2              |
| P. W. Beyvers GmbH         | Base cream DAC   | 640/3            | 1              |
| P. W. Beyvers GmbH         | Base cream DAC   | 731/1            | 2              |
| P. W. Beyvers GmbH         | Base cream DAC   | 731/2            | 1              |
| P. W. Beyvers GmbH         | Base cream DAC   | 731/3            | 1              |
| P. W. Beyvers GmbH         | Base cream DAC   | 731/4            | 2              |
| P. W. Beyvers              | Base cream DAC   | 319/1            | 1              |

*continued on the next page*

*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| p.w beyers gmbh,phönix     | Base cream DAC   |              | 4              |
| P.W Beyver/Noweda          | Base cream DAC   | 731/1        | 1              |
| P.W Beyvers / Gehe         | Base cream DAC   | 19002        | 1              |
| P.W Beyvers GmbH/Anzag     | Base cream DAC   | 19004        | 1              |
| P.W. Beyvers / Anzag       | Base cream DAC   | 340/2        | 1              |
| P.W. Beyvers / Noweda      | Base cream DAC   | 19001        | 1              |
| P.W. Beyvers / Noweda      | Base cream DAC   | 19003        | 1              |
| P.W. Beyvers / Noweda      | Base cream DAC   | 731/3        | 8              |
| P.W. Beyvers / Noweda      | Base cream DAC   | 731/4        | 2              |
| P.W. Beyvers GmbH / AHD    | Base cream DAC   | 19002        | 1              |
| P.W. Beyvers GmbH / Now... | Base cream DAC   | 18002        | 1              |
| P.W. Beyvers GmbH / Phö... | Base cream DAC   | 538/1        | 2              |
| P.W. Beyvers GmbH/Gehe     | Base cream DAC   | 640/2        | 1              |
| P.W. Beyvers GmbH          | Base cream DAC   | 19001        | 1              |
| P.W. Beyvers GmbH          | Base cream DAC   | 19005        | 2              |
| P.W. Beyvers GmbH          | Base cream DAC   | 515/3        | 2              |
| P.W. Beyvers GmbH          | Base cream DAC   | 538/1        | 1              |
| P.W. Beyvers GmbH          | Base cream DAC   | 640/1        | 1              |
| P.W. Beyvers GmbH          | Base cream DAC   | 731/1        | 1              |
| P.W. Beyvers GmbH          | Base cream DAC   | 731/3        | 2              |
| P.W. Beyvers GmbH          | Base cream DAC   | 731/4        | 1              |
| P.W. Beyvers/ Noweda       | Base cream DAC   | 19001        | 1              |
| P.W. Beyvers/Gehe          | Base cream DAC   | 731/2        | 1              |
| P.W. Beyvers/Gehe          | Base cream DAC   | 731/3        | 1              |
| P.W. Beyvers/Krieger       | Base cream DAC   | 731/4        | 3              |
| P.W. Beyvers/Noweda        | Base cream DAC   | 18001        | 3              |
| P.W. Beyvers/Noweda        | Base cream DAC   | 538/1        | 1              |
| P.W. Beyvers/Phönix        | Base cream DAC   | 19005        | 2              |
| P.W. Beyvers               | Base cream DAC   | 19002        | 3              |
| P.W. Beyvers               | Base cream DAC   | 319/2        | 1              |
| P.W. Beyvers               | Base cream DAC   | 329/1        | 1              |
| P.W. Beyvers               | Base cream DAC   | 329/2        | 4              |
| P.W. Beyvers               | Base cream DAC   | 440/3        | 1              |
| P.W. Beyvers               | Base cream DAC   | 640/2        | 1              |
| P.W. Beyvers               | Base cream DAC   | 640-1        | 2              |
| P.W. Beyvers               | Base cream DAC   | 731/2        | 1              |
| P.W. Beyvers               | Base cream DAC   | 731-2        | 1              |
| P.W.Bayvers GmbH           | Base cream DAC   | 234-2        | 1              |
| P.W.Beyvers / Gehe         | Base cream DAC   |              | 1              |
| P.W.Beyvers                | Base cream DAC   | 229/1        | 1              |
| P.W.Beyvers GmbH / Noweda  | Base cream DAC   | 515/3        | 1              |
| P.W.Beyvers GmbH,Phönix    | Base cream DAC   | 207/2        | 1              |
| P.W.Beyvers GmbH,Phönix    | Base cream DAC   | 234/3        | 2              |
| P.W.Beyvers GmbH,Phönix    | Base cream DAC   | 329/1        | 1              |
| P.W.Beyvers GmbH,Phönix    | Base cream DAC   | 440/1        | 2              |
| P.W.Beyvers GmbH,Phönix    | Base cream DAC   | 440/2        | 1              |
| P.W.Beyvers GmbH/ Sanac... | Base cream DAC   | 515/2        | 1              |
| P.W.Beyvers GmbH/Anzag     | Base cream DAC   | 340/2        | 1              |
| P.W.Beyvers GmbH/Anzag     | Base cream DAC   | 412/2        | 1              |
| P.W.Beyvers GmbH/GEHE      | Base cream DAC   | 19001        | 3              |
| P.W.Beyvers GmbH/Noweda    | Base cream DAC   | 19001        | 2              |
| P.W.Beyvers GmbH/Noweda    | Base cream DAC   | 19002        | 1              |
| P.W.Beyvers GmbH/Phönix    | Base cream DAC   | 340/2        | 1              |
| P.W.Beyvers GmbH           | Base cream DAC   | 18001        | 1              |
| P.W.Beyvers GmbH           | Base cream DAC   | 18002        | 2              |
| P.W.Beyvers GmbH           | Base cream DAC   | 19003        | 2              |
| P.W.Beyvers GmbH           | Base cream DAC   | 20000036001  | 1              |
| P.W.Beyvers GmbH           | Base cream DAC   | 234/3        | 4              |
| P.W.Beyvers GmbH           | Base cream DAC   | 440/2        | 1              |
| P.W.Beyvers GmbH           | Base cream DAC   | 440/3        | 1              |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------------------|------------------|------------------|----------------|
| P.W.Beyvers GmbH            | Base cream DAC   | 640/2            | 4              |
| P.W.Beyvers GmbH            | Base cream DAC   | 640/3            | 3              |
| P.W.Beyvers GmbH            | Base cream DAC   | 731/1            | 3              |
| P.W.Beyvers/ Noweda         | Base cream DAC   | 19005            | 2              |
| P.W.Beyvers/Jenne 18.12.... | Base cream DAC   | 340/2            | 1              |
| P.W.Beyvers                 | Base cream DAC   |                  | 1              |
| P.W.Beyvers                 | Base cream DAC   | 18001            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 18002            | 2              |
| P.W.Beyvers                 | Base cream DAC   | 19002            | 2              |
| P.W.Beyvers                 | Base cream DAC   | 229/1            | 2              |
| P.W.Beyvers                 | Base cream DAC   | 229/2            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 234/1            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 340/1            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 340/2            | 3              |
| P.W.Beyvers                 | Base cream DAC   | 412/1            | 2              |
| P.W.Beyvers                 | Base cream DAC   | 412/3            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 440/1            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 440/2            | 1              |
| p.w.beyvers                 | Base cream DAC   | 515/2            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 515/3            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 538/1            | 2              |
| P.W.Beyvers                 | Base cream DAC   | 640/1            | 2              |
| P.W.Beyvers                 | Base cream DAC   | 640/2            | 3              |
| P.W.Beyvers                 | Base cream DAC   | 640/3            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 731/1            | 3              |
| P.W.Beyvers                 | Base cream DAC   | 731/2            | 1              |
| P.W.Beyvers                 | Base cream DAC   | 731/3            | 3              |
| P.W.Beyvers                 | Base cream DAC   | 731/4            | 3              |
| P.W.Beyvers                 | Base cream DAC   | 731-1            | 1              |
| P.W.Peyvers/ Sanacorp       | Base cream DAC   | 18001            | 2              |
| P.W.Weyers GmbH             | Base cream DAC   | 340/1            | 1              |
| P.W: Beyvers GmbH           | Base cream DAC   | 18001            | 1              |
| Pharmachem GmbH / Phönix    | Base cream DAC   | 62560918         | 1              |
| pharmachem                  | Base cream DAC   | 640/2            | 2              |
| Phoenix 01.04.2019 12,77EUR | Base cream DAC   | 18005236         | 1              |
| phoenix 01.10.14            | Base cream DAC   | 14178001         | 1              |
| PHOENIX 03.03.2014          | Base cream DAC   | 5537200          | 2              |
| Phoenix 11.02.2019          | Base cream DAC   | 18C19-T17-053948 | 1              |
| Phoenix 13.11.14            | Base cream DAC   | 14143801         | 1              |
| Phoenix 13.12.2017          | Base cream DAC   | 310753           | 1              |
| Phoenix 20.02.15            | Base cream DAC   | 291032           | 1              |
| Phoenix 20.06.2014          | Base cream DAC   | 14090601         | 1              |
| Phoenix Cottbus 27.06.17    | Base cream DAC   | 17123901         | 1              |
| Phoenix Goettin             | Base cream DAC   | 14289601         | 1              |
| Phoenix/Ensbona             | Base cream DAC   | 40150120         | 1              |
| Phoenix                     | Base cream DAC   | 1306002-01       | 1              |
| Phoenix                     | Base cream DAC   | 13151119         | 1              |
| Phoenix                     | Base cream DAC   | 14036001         | 1              |
| Phoenix                     | Base cream DAC   | 15630621         | 1              |
| Phoenix                     | Base cream DAC   | 15710518         | 1              |
| Phoenix                     | Base cream DAC   | 16041301         | 1              |
| Phoenix                     | Base cream DAC   | 16059101         | 1              |
| Phoenix                     | Base cream DAC   | 16102017-BH-A    | 1              |
| Phoenix                     | Base cream DAC   | 16205601         | 1              |
| Phoenix                     | Base cream DAC   | 16349502         | 1              |
| Phoenix                     | Base cream DAC   | 17000923         | 1              |
| Phoenix                     | Base cream DAC   | 17031501         | 2              |
| Phoenix                     | Base cream DAC   | 17121501         | 1              |
| Phoenix                     | Base cream DAC   | 17136301         | 1              |
| Phoenix                     | Base cream DAC   | 17229201         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Phoenix         | Base cream DAC   | 17243501         | 1              |
| Phoenix         | Base cream DAC   | 17268301         | 1              |
| Phoenix         | Base cream DAC   | 1736301          | 1              |
| Phoenix         | Base cream DAC   | 18005744         | 1              |
| Phoenix         | Base cream DAC   | 18006776         | 1              |
| Phoenix         | Base cream DAC   | 18105402         | 1              |
| phoenix         | Base cream DAC   | 18137201         | 1              |
| Phoenix         | Base cream DAC   | 18167001         | 1              |
| Phoenix         | Base cream DAC   | 18192601         | 1              |
| Phoenix         | Base cream DAC   | 18211701         | 2              |
| Phoenix         | Base cream DAC   | 18232601         | 1              |
| Phoenix         | Base cream DAC   | 18269401         | 2              |
| Phoenix         | Base cream DAC   | 18269801         | 1              |
| Phoenix         | Base cream DAC   | 18272301         | 1              |
| Phoenix         | Base cream DAC   | 18E23-T16-056321 | 1              |
| Phoenix         | Base cream DAC   | 18E23-T17-056325 | 2              |
| Phoenix         | Base cream DAC   | 19000952         | 1              |
| Phoenix         | Base cream DAC   | 19002690         | 1              |
| Phoenix         | Base cream DAC   | 19003502         | 6              |
| Phoenix         | Base cream DAC   | 19052601         | 1              |
| Phoenix         | Base cream DAC   | 19117801         | 4              |
| Phoenix         | Base cream DAC   | 191352811        | 1              |
| Phoenix         | Base cream DAC   | 19148001         | 2              |
| phoenix         | Base cream DAC   | 19171801         | 1              |
| Phoenix         | Base cream DAC   | 19172601         | 1              |
| Phoenix         | Base cream DAC   | 19173801         | 1              |
| Phoenix         | Base cream DAC   | 19240301         | 1              |
| Phoenix         | Base cream DAC   | 20001106001      | 1              |
| Phoenix         | Base cream DAC   | 20001860001      | 1              |
| Phoenix         | Base cream DAC   | 20003190001      | 1              |
| Phoenix         | Base cream DAC   | 20003288001      | 2              |
| Phoenix         | Base cream DAC   | 20003469001      | 1              |
| Phoenix         | Base cream DAC   | 20003470001      | 1              |
| Phoenix         | Base cream DAC   | 200521206        | 1              |
| Phoenix         | Base cream DAC   | 200783107        | 1              |
| Phoenix         | Base cream DAC   | 201083010        | 1              |
| Phoenix         | Base cream DAC   | 21000813001      | 2              |
| Phoenix         | Base cream DAC   | 21001250001      | 2              |
| Phoenix         | Base cream DAC   | 21001257001      | 1              |
| Phoenix         | Base cream DAC   | 21001891         | 1              |
| Phoenix         | Base cream DAC   | 21002388001      | 1              |
| Phoenix         | Base cream DAC   | 23800219         | 8              |
| Phoenix         | Base cream DAC   | 272091           | 1              |
| Phoenix         | Base cream DAC   | 272219           | 2              |
| Phoenix         | Base cream DAC   | 27350917         | 1              |
| Phoenix         | Base cream DAC   | 275591           | 1              |
| Phoenix         | Base cream DAC   | 3026             | 1              |
| Phoenix         | Base cream DAC   | 3037             | 1              |
| Phoenix         | Base cream DAC   | 3049             | 1              |
| Phoenix         | Base cream DAC   | 3060             | 1              |
| Phoenix         | Base cream DAC   | 3082             | 1              |
| Phoenix         | Base cream DAC   | 3083             | 1              |
| Phoenix         | Base cream DAC   | 3098             | 1              |
| Phoenix         | Base cream DAC   | 3123             | 1              |
| Phoenix         | Base cream DAC   | 3197             | 1              |
| Phoenix         | Base cream DAC   | 3200             | 1              |
| Phoenix         | Base cream DAC   | 3232             | 1              |
| Phoenix         | Base cream DAC   | 3372             | 1              |
| Phoenix         | Base cream DAC   | 3376             | 1              |
| Phoenix         | Base cream DAC   | 3380720          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Phoenix                    | Base cream DAC   | 3389             | 1              |
| Phoenix                    | Base cream DAC   | 39600117         | 1              |
| Phoenix                    | Base cream DAC   | 40170120         | 1              |
| Phoenix                    | Base cream DAC   | 45970718         | 1              |
| Phoenix                    | Base cream DAC   | 46711117         | 2              |
| Phoenix                    | Base cream DAC   | 51580217         | 2              |
| Phoenix                    | Base cream DAC   | 5289100          | 1              |
| Phoenix                    | Base cream DAC   | 55360616         | 2              |
| Phoenix                    | Base cream DAC   | 5651300          | 2              |
| Phoenix                    | Base cream DAC   | 6018791001       | 1              |
| Phoenix                    | Base cream DAC   | 60610519         | 9              |
| Phoenix                    | Base cream DAC   | 62560918         | 4              |
| Phoenix                    | Base cream DAC   | 72440816         | 1              |
| Phoenix                    | Base cream DAC   | 74410221         | 1              |
| Phoenix                    | Base cream DAC   | 8007236003       | 1              |
| Phoenix                    | Base cream DAC   | 8007236005       | 1              |
| Phoenix                    | Base cream DAC   | 80610520         | 1              |
| Phoenix                    | Base cream DAC   | 87241118         | 9              |
| Phoenix                    | Base cream DAC   | 886220321        | 1              |
| Phönix 22.11.12            | Base cream DAC   | 272218           | 1              |
| Phönix 23.01.15            | Base cream DAC   | 14290001         | 1              |
| Phönix Gotha               | Base cream DAC   | 1502025-01       | 1              |
| Phönix Gotha               | Base cream DAC   | 18002            | 2              |
| Phönix Gotha               | Base cream DAC   | 515/1            | 1              |
| Phönix Gotha               | Base cream DAC   | 515/3            | 1              |
| Phönix Gotha               | Base cream DAC   | 5215600          | 2              |
| Phönix Gotha               | Base cream DAC   | 5215800          | 1              |
| Phönix Gotha               | Base cream DAC   | 5321000          | 1              |
| Phönix Gotha               | Base cream DAC   | 5322100          | 1              |
| Phönix Gotha               | Base cream DAC   | 538/1            | 1              |
| Phönix Gotha               | Base cream DAC   | 5489800          | 1              |
| Phönix Gotha               | Base cream DAC   | 5537100          | 1              |
| Phönix Gotha               | Base cream DAC   | 5537300          | 1              |
| Phönix Gotha               | Base cream DAC   | 5650600          | 1              |
| Phönix Gotha               | Base cream DAC   | 5650900          | 1              |
| Phönix Gotha               | Base cream DAC   | 5787900          | 1              |
| Phönix Gotha               | Base cream DAC   | 5788000          | 1              |
| Phönix Mvda 3.7.2019       | Base cream DAC   | 19052801         | 1              |
| Phönix, 28.10.2013         | Base cream DAC   | 279961           | 1              |
| Phönix, Caesar&Loretz G... | Base cream DAC   | 19172901         | 1              |
| Phönix, Caesar&Loretz G... | Base cream DAC   | 20000585001      | 1              |
| Phönix/ Fargon             | Base cream DAC   | 17F08-T02-045262 | 1              |
| Phönix/Eimermacher         | Base cream DAC   | 13510119         | 1              |
| Phönix/Fagon               | Base cream DAC   | 16231901         | 1              |
| Phönix                     | Base cream DAC   | 1111029-01       | 1              |
| Phönix                     | Base cream DAC   | 125580           | 1              |
| Phönix                     | Base cream DAC   | 13000601         | 1              |
| Phönix                     | Base cream DAC   | 13000701         | 1              |
| phönix                     | Base cream DAC   | 13007101         | 1              |
| Phönix                     | Base cream DAC   | 13007101         | 1              |
| Phönix                     | Base cream DAC   | 13111401         | 1              |
| Phönix                     | Base cream DAC   | 13311801         | 1              |
| Phönix                     | Base cream DAC   | 13E21-T05-003897 | 1              |
| Phönix                     | Base cream DAC   | 14035801         | 1              |
| Phönix                     | Base cream DAC   | 14052901         | 4              |
| Phönix                     | Base cream DAC   | 14053501         | 1              |
| Phönix                     | Base cream DAC   | 14303901         | 1              |
| Phönix                     | Base cream DAC   | 14D08-T02-0002   | 1              |
| phönix                     | Base cream DAC   | 15j13-t03-026895 | 1              |
| Phönix                     | Base cream DAC   | 16260801         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| PHÖNIX          | Base cream DAC   | 16261002          | 1              |
| phönix          | Base cream DAC   | 16b15-t01-030274  | 1              |
| phönix          | Base cream DAC   | 16c14-t01-031199  | 1              |
| phönix          | Base cream DAC   | 16c24t06031494    | 1              |
| phönix          | Base cream DAC   | 16C24-T06-031494  | 1              |
| phönix          | Base cream DAC   | 16D06-T06-0311926 | 1              |
| phönix          | Base cream DAC   | 16F30-T15-034797  | 1              |
| phönix          | Base cream DAC   | 16j11t02037610    | 1              |
| phönix          | Base cream DAC   | 16J11-T03-037614  | 1              |
| Phönix          | Base cream DAC   | 17000200          | 3              |
| Phönix          | Base cream DAC   | 17014501          | 1              |
| Phönix          | Base cream DAC   | 17121501          | 1              |
| Phönix          | Base cream DAC   | 17225201          | 1              |
| PHÖNIX          | Base cream DAC   | 17230101          | 1              |
| Phönix          | Base cream DAC   | 17240801          | 1              |
| Phönix          | Base cream DAC   | 17266401          | 1              |
| Phönix          | Base cream DAC   | 17267601          | 1              |
| PHÖNIX          | Base cream DAC   | 17269201          | 1              |
| Phönix          | Base cream DAC   | 17E11-To7-044186  | 1              |
| Phönix          | Base cream DAC   | 17f08-t04-045271  | 1              |
| Phönix          | Base cream DAC   | 18000490          | 1              |
| Phönix          | Base cream DAC   | 18000966          | 1              |
| Phönix          | Base cream DAC   | 18001965          | 1              |
| Phönix          | Base cream DAC   | 18001973          | 1              |
| Phönix          | Base cream DAC   | 18003102          | 1              |
| Phönix          | Base cream DAC   | 18005740          | 2              |
| Phönix          | Base cream DAC   | 18015101          | 1              |
| PHÖNIX          | Base cream DAC   | 18105402          | 1              |
| Phönix          | Base cream DAC   | 18129301          | 1              |
| PHÖNIX          | Base cream DAC   | 18137001          | 1              |
| Phönix          | Base cream DAC   | 18166602          | 1              |
| Phönix          | Base cream DAC   | 18166801          | 1              |
| Phönix          | Base cream DAC   | 18192601          | 1              |
| Phönix          | Base cream DAC   | 18232401          | 1              |
| Phönix          | Base cream DAC   | 18232901          | 1              |
| Phönix          | Base cream DAC   | 18269401          | 1              |
| Phönix          | Base cream DAC   | 18269501          | 1              |
| Phönix          | Base cream DAC   | 18272201          | 1              |
| Phönix          | Base cream DAC   | 18G13-T09-058073  | 1              |
| PHÖNIX          | Base cream DAC   | 18L20-T12-062936  | 1              |
| Phönix          | Base cream DAC   | 19000952          | 1              |
| Phönix          | Base cream DAC   | 19003801          | 1              |
| Phönix          | Base cream DAC   | 19170901          | 2              |
| phönix          | Base cream DAC   | 19172501          | 2              |
| Phönix          | Base cream DAC   | 19173701          | 5              |
| Phönix          | Base cream DAC   | 19174201          | 1              |
| Phönix          | Base cream DAC   | 19240501          | 1              |
| Phönix          | Base cream DAC   | 19270501          | 1              |
| Phönix          | Base cream DAC   | 19d01-t14-065578  | 1              |
| Phönix          | Base cream DAC   | 20000687001       | 2              |
| PHÖNIX          | Base cream DAC   | 20000689001       | 1              |
| Phönix          | Base cream DAC   | 20001006001       | 1              |
| Phönix          | Base cream DAC   | 20001104001       | 1              |
| Phönix          | Base cream DAC   | 20001680001       | 1              |
| PHÖNIX          | Base cream DAC   | 20001862001       | 1              |
| Phönix          | Base cream DAC   | 20002872001       | 2              |
| PHÖNIX          | Base cream DAC   | 20003469001       | 1              |
| PHÖNIX          | Base cream DAC   | 20003473001       | 1              |
| Phönix          | Base cream DAC   | 20003536          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|----------------------------|------------------|-------------------|----------------|
| Phönix                     | Base cream DAC   | 20004318001       | 2              |
| Phönix                     | Base cream DAC   | 20004328001       | 2              |
| Phönix                     | Base cream DAC   | 20004604          | 1              |
| Phönix                     | Base cream DAC   | 2001851001        | 1              |
| Phönix                     | Base cream DAC   | 21001251001       | 1              |
| Phönix                     | Base cream DAC   | 21001776001       | 1              |
| PHÖNIX                     | Base cream DAC   | 21002709001       | 1              |
| Phönix                     | Base cream DAC   | 27340917          | 1              |
| Phönix                     | Base cream DAC   | 27350917          | 1              |
| Phönix                     | Base cream DAC   | 278475            | 1              |
| Phönix                     | Base cream DAC   | 29550618          | 1              |
| Phonix                     | Base cream DAC   | 29570618          | 1              |
| Phönix                     | Base cream DAC   | 304357            | 1              |
| Phönix                     | Base cream DAC   | 307963            | 1              |
| Phönix                     | Base cream DAC   | 3142              | 1              |
| Phönix                     | Base cream DAC   | 3151              | 1              |
| Phönix                     | Base cream DAC   | 3155              | 1              |
| Phönix                     | Base cream DAC   | 3170              | 1              |
| Phönix                     | Base cream DAC   | 47890419          | 1              |
| phönix                     | Base cream DAC   | 5408200           | 1              |
| Phönix                     | Base cream DAC   | 55360616          | 2              |
| Phönix                     | Base cream DAC   | 6207              | 1              |
| Phönix                     | Base cream DAC   | 62560918          | 1              |
| Phönix                     | Base cream DAC   | 7550418           | 1              |
| Phönix                     | Base cream DAC   | 79000916          | 1              |
| Phönix                     | Base cream DAC   | 8003325003        | 1              |
| Phönix                     | Base cream DAC   | 8005713014        | 1              |
| Phönix                     | Base cream DAC   | 86470517          | 1              |
| Phönix_02.04.2019          | Base cream DAC   | 18269701          | 1              |
| Phytocomm                  | Base cream DAC   | 16058801          | 1              |
| PKH GmbH                   | Base cream DAC   | 34567890          | 1              |
| Pölsneck Pharma / Gehe     | Base cream DAC   | 16261101          | 1              |
| PW Beyves Alliance         | Base cream DAC   | 412/3             | 1              |
| Raben-Apotheke Mildenau    | Base cream DAC   | 14090601          | 1              |
| Raben-Apotheke Mildenau    | Base cream DAC   | 14143901          | 1              |
| Römer apo                  | Base cream DAC   | 19170601          | 1              |
| Römerapo.                  | Base cream DAC   | 14/07-T09-015967  | 1              |
| Röntgen/Ensbona Ferd. E... | Base cream DAC   | 80340218          | 1              |
| Röntgen                    | Base cream DAC   | 17F08-T02-0455626 | 1              |
| Röntgen                    | Base cream DAC   | 3011016           | 2              |
| Röntgen                    | Base cream DAC   | 40150120          | 1              |
| Röntgen                    | Base cream DAC   | 58641021          | 1              |
| Röntgen                    | Base cream DAC   | 70570420          | 2              |
| Röntgen                    | Base cream DAC   | 731/3             | 2              |
| Röntgen                    | Base cream DAC   | 74420221          | 1              |
| Röntgen                    | Base cream DAC   | 80400719          | 1              |
| Röntgen                    | Base cream DAC   | 87231118          | 1              |
| Röntgen                    | Base cream DAC   | 98770122          | 1              |
| Ruro/ Röntgen              | Base cream DAC   | 55360616          | 1              |
| Salderman GmbH+Co.KG       | Base cream DAC   | 161207            | 1              |
| Sana 03.12.16 EK 8,04EUR   | Base cream DAC   | 16253101          | 1              |
| Sana 11.02.15 EK 8,05      | Base cream DAC   | 14303801          | 1              |
| Sana 17.11.14 EK 7,89      | Base cream DAC   | 14232301          | 1              |
| Sana 19.09.14 EK 7,89      | Base cream DAC   | 14227801          | 1              |
| Sana 23.03.16 Ek 8,09      | Base cream DAC   | 16055801          | 1              |
| Sana/Henry Lamotte         | Base cream DAC   | 6002237003        | 1              |
| Sana                       | Base cream DAC   | 18270901          | 1              |
| Sanacop WE:10.11.17 1kg... | Base cream DAC   | 17225801          | 1              |
| Sanacoro W.E:01.03.18 ...  | Base cream DAC   | 17266901          | 1              |
| sanacoro                   | Base cream DAC   | 15357601          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Sanacorp 16.07.2016        | Base cream DAC   | 1604023-01       | 1              |
| Sanacorp 03.07.2018 8,...  | Base cream DAC   | 1800970          | 1              |
| Sanacorp 05.01.15 EK 7,89  | Base cream DAC   | 14290001         | 1              |
| Sanacorp 07.11 Ek.8,04     | Base cream DAC   | 16241001         | 1              |
| Sanacorp 17.01.20 8,77EUR  | Base cream DAC   | 19004713         | 1              |
| Sanacorp 22.02.17 EK:8,04  | Base cream DAC   | 16352701         | 1              |
| Sanacorp 26.01.15 EK 7,89  | Base cream DAC   | 1403801          | 1              |
| Sanacorp 27.08.2018 8,...  | Base cream DAC   | 18003107         | 1              |
| Sanacorp 30.03.2017 ek:... | Base cream DAC   | 17028901         | 1              |
| Sanacorp 31.07.2014 EK:... | Base cream DAC   | 14143901         | 1              |
| Sanacorp W.E:17.03.18 ...  | Base cream DAC   | 17266401         | 1              |
| Sanacorp WE 12.04.17 -8... | Base cream DAC   | 17029001         | 1              |
| Sanacorp WE 20.02.17 E...  | Base cream DAC   | 16350301         | 1              |
| Sanacorp WE: 24.08.17 ...  | Base cream DAC   | 17155201         | 1              |
| Sanacorp WE:5.01.18        | Base cream DAC   | 17230001         | 1              |
| Sanacorp, 8,04EUR, 24.1.17 | Base cream DAC   | 16350101         | 1              |
| Sanacorp/ Ferd. Eimerma... | Base cream DAC   | 8821114          | 2              |
| Sanacorp/Beyvers           | Base cream DAC   | 19002            | 4              |
| Sanacorp/Beyvers           | Base cream DAC   | 19005            | 4              |
| Sanacorp/Beyvers           | Base cream DAC   | 640/1            | 3              |
| Sanacorp/Beyvers           | Base cream DAC   | 731/2            | 3              |
| Sanacorp/Beyvers           | Base cream DAC   | 731/3            | 2              |
| Sanacorp/Fargon            | Base cream DAC   | 17K24-T07-050507 | 1              |
| Sanacorp/Henry Lamotte     | Base cream DAC   | 5909300          | 1              |
| Sanacorp/Henry Lamotte     | Base cream DAC   | 6002237005       | 2              |
| Sanacorp                   | Base cream DAC   |                  | 2              |
| Sanacorp                   | Base cream DAC   | 1202001          | 3              |
| Sanacorp                   | Base cream DAC   | 12191801         | 1              |
| Sanacorp                   | Base cream DAC   | 12262402         | 1              |
| Sanacorp                   | Base cream DAC   | 12262801         | 1              |
| Sanacorp                   | Base cream DAC   | 12262901         | 1              |
| Sanacorp                   | Base cream DAC   | 12263001         | 1              |
| Sanacorp                   | Base cream DAC   | 12289701         | 1              |
| Sanacorp                   | Base cream DAC   | 12304701         | 1              |
| Sanacorp                   | Base cream DAC   | 12304801         | 1              |
| Sanacorp                   | Base cream DAC   | 12304901         | 2              |
| Sanacorp                   | Base cream DAC   | 12339001         | 1              |
| Sanacorp                   | Base cream DAC   | 13000901         | 1              |
| Sanacorp                   | Base cream DAC   | 13007201         | 1              |
| Sanacorp                   | Base cream DAC   | 13007301         | 1              |
| Sanacorp                   | Base cream DAC   | 13082101         | 1              |
| Sanacorp                   | Base cream DAC   | 13082203         | 1              |
| Sanacorp                   | Base cream DAC   | 13139801         | 1              |
| Sanacorp                   | Base cream DAC   | 13158401         | 2              |
| Sanacorp                   | Base cream DAC   | 1317301          | 1              |
| Sanacorp                   | Base cream DAC   | 13173601         | 1              |
| Sanacorp                   | Base cream DAC   | 13173701         | 1              |
| Sanacorp                   | Base cream DAC   | 13187901         | 1              |
| Sanacorp                   | Base cream DAC   | 13188701         | 1              |
| Sanacorp                   | Base cream DAC   | 13188801         | 1              |
| Sanacorp                   | Base cream DAC   | 13199101         | 3              |
| Sanacorp                   | Base cream DAC   | 13250001         | 1              |
| Sanacorp                   | Base cream DAC   | 13310901         | 1              |
| Sanacorp                   | Base cream DAC   | 13311301         | 2              |
| Sanacorp                   | Base cream DAC   | 13311801         | 1              |
| Sanacorp                   | Base cream DAC   | 13312001         | 1              |
| Sanacorp                   | Base cream DAC   | 13312301         | 1              |
| Sanacorp                   | Base cream DAC   | 13347201         | 1              |
| Sanacorp                   | Base cream DAC   | 13377201         | 1              |
| Sanacorp                   | Base cream DAC   | 13380901         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Sanacorp        | Base cream DAC   | 13381001     | 1              |
| Sanacorp        | Base cream DAC   | 13381101     | 1              |
| Sanacorp        | Base cream DAC   | 13490119     | 4              |
| Sanacorp        | Base cream DAC   | 14090401     | 1              |
| Sanacorp        | Base cream DAC   | 14091501     | 2              |
| Sanacorp        | Base cream DAC   | 14091701     | 1              |
| Sanacorp        | Base cream DAC   | 14144001     | 1              |
| Sanacorp        | Base cream DAC   | 14144101     | 1              |
| Sanacorp        | Base cream DAC   | 14227901     | 1              |
| Sanacorp        | Base cream DAC   | 14244501     | 1              |
| Sanacorp        | Base cream DAC   | 14289801     | 1              |
| Sanacorp        | Base cream DAC   | 14327501     | 1              |
| Sanacorp        | Base cream DAC   | 15000701     | 1              |
| Sanacorp        | Base cream DAC   | 15070101     | 1              |
| Sanacorp        | Base cream DAC   | 1513401      | 1              |
| Sanacorp        | Base cream DAC   | 15164601     | 2              |
| Sanacorp        | Base cream DAC   | 15250001     | 1              |
| Sanacorp        | Base cream DAC   | 15315301     | 1              |
| Sanacorp        | Base cream DAC   | 15387101     | 1              |
| Sanacorp        | Base cream DAC   | 15390801     | 2              |
| Sanacorp        | Base cream DAC   | 16055601     | 1              |
| Sanacorp        | Base cream DAC   | 16055801     | 1              |
| Sanacorp        | Base cream DAC   | 16145701     | 1              |
| Sanacorp        | Base cream DAC   | 16146001     | 1              |
| Sanacorp        | Base cream DAC   | 16261301     | 1              |
| Sanacorp        | Base cream DAC   | 16261401     | 1              |
| Sanacorp        | Base cream DAC   | 170000926    | 1              |
| Sanacorp        | Base cream DAC   | 17014401     | 1              |
| Sanacorp        | Base cream DAC   | 17100201     | 1              |
| Sanacorp        | Base cream DAC   | 17133602     | 1              |
| Sanacorp        | Base cream DAC   | 17154801     | 1              |
| Sanacorp        | Base cream DAC   | 17225002     | 1              |
| Sanacorp        | Base cream DAC   | 17225901     | 1              |
| Sanacorp        | Base cream DAC   | 17229301     | 1              |
| Sanacorp        | Base cream DAC   | 17229601     | 2              |
| Sanacorp        | Base cream DAC   | 17240001     | 1              |
| Sanacorp        | Base cream DAC   | 17264301     | 1              |
| Sanacorp        | Base cream DAC   | 17264501     | 1              |
| Sanacorp        | Base cream DAC   | 17268601     | 1              |
| Sanacorp        | Base cream DAC   | 17349501     | 1              |
| Sanacorp        | Base cream DAC   | 18000497     | 1              |
| Sanacorp        | Base cream DAC   | 18000955     | 4              |
| Sanacorp        | Base cream DAC   | 18001        | 1              |
| Sanacorp        | Base cream DAC   | 18003933     | 1              |
| Sanacorp        | Base cream DAC   | 18003938     | 2              |
| Sanacorp        | Base cream DAC   | 18005242     | 1              |
| Sanacorp        | Base cream DAC   | 18037901     | 1              |
| Sanacorp        | Base cream DAC   | 18055602     | 1              |
| Sanacorp        | Base cream DAC   | 18105602     | 1              |
| Sanacorp        | Base cream DAC   | 18137301     | 2              |
| Sanacorp        | Base cream DAC   | 18138001     | 1              |
| Sanacorp        | Base cream DAC   | 18138201     | 1              |
| Sanacorp        | Base cream DAC   | 18138401     | 1              |
| Sanacorp        | Base cream DAC   | 18165301     | 1              |
| Sanacorp        | Base cream DAC   | 18165601     | 1              |
| Sanacorp        | Base cream DAC   | 18165801     | 1              |
| Sanacorp        | Base cream DAC   | 18166801     | 1              |
| Sanacorp        | Base cream DAC   | 18167101     | 2              |
| Sanacorp        | Base cream DAC   | 18192801     | 1              |
| Sanacorp        | Base cream DAC   | 18193201     | 1              |

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| <b>Supplier</b>     | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|---------------------|------------------|------------------|----------------|
| Sanacorp            | Base cream DAC   | 18232601         | 2              |
| Sanacorp            | Base cream DAC   | 18269301         | 1              |
| Sanacorp            | Base cream DAC   | 18269901         | 1              |
| Sanacorp            | Base cream DAC   | 18271301         | 1              |
| Sanacorp            | Base cream DAC   | 18E23-T21-056349 | 1              |
| Sanacorp            | Base cream DAC   | 19003            | 1              |
| Sanacorp            | Base cream DAC   | 19003401         | 1              |
| Sanacorp            | Base cream DAC   | 19003601         | 1              |
| SANACORP            | Base cream DAC   | 19040101         | 2              |
| Sanacorp            | Base cream DAC   | 19052601         | 2              |
| Sanacorp            | Base cream DAC   | 19053001         | 2              |
| Sanacorp            | Base cream DAC   | 19075901         | 1              |
| Sanacorp            | Base cream DAC   | 19118101         | 1              |
| Sanacorp            | Base cream DAC   | 19153801         | 1              |
| Sanacorp            | Base cream DAC   | 19170301         | 1              |
| Sanacorp            | Base cream DAC   | 19170401         | 1              |
| Sanacorp            | Base cream DAC   | 19173301         | 1              |
| sanacorp            | Base cream DAC   | 19240701         | 1              |
| Sanacorp            | Base cream DAC   | 19269601         | 1              |
| Sanacorp            | Base cream DAC   | 19270401         | 1              |
| Sanacorp            | Base cream DAC   | 19270601         | 2              |
| Sanacorp            | Base cream DAC   | 20000580001      | 3              |
| Sanacorp            | Base cream DAC   | 20001103001      | 1              |
| Sanacorp            | Base cream DAC   | 20001678001      | 1              |
| Sanacorp            | Base cream DAC   | 20001679001      | 1              |
| Sanacorp            | Base cream DAC   | 20001852001      | 1              |
| Sanacorp            | Base cream DAC   | 20001860001      | 1              |
| Sanacorp            | Base cream DAC   | 20001861001      | 1              |
| Sanacorp            | Base cream DAC   | 20001865001      | 1              |
| Sanacorp            | Base cream DAC   | 20003182001      | 1              |
| Sanacorp            | Base cream DAC   | 20003190001      | 1              |
| Sanacorp            | Base cream DAC   | 20003195001      | 1              |
| Sanacorp            | Base cream DAC   | 282772           | 1              |
| Sanacorp            | Base cream DAC   | 283972           | 2              |
| Sanacorp            | Base cream DAC   | 287942           | 1              |
| Sanacorp            | Base cream DAC   | 29550618         | 1              |
| Sanacorp            | Base cream DAC   | 2x310752         | 1              |
| Sanacorp            | Base cream DAC   | 310752           | 3              |
| Sanacorp            | Base cream DAC   | 310756           | 1              |
| Sanacorp            | Base cream DAC   | 47890419         | 1              |
| sanacorp            | Base cream DAC   | 548900           | 1              |
| Sanacorp            | Base cream DAC   | 5537000          | 2              |
| Sanacorp            | Base cream DAC   | 60610519         | 2              |
| Sanacorp            | Base cream DAC   | 72/AKD2          | 1              |
| Sanacorp            | Base cream DAC   | 731/4            | 1              |
| Sanacorp            | Base cream DAC   | 75/AKD4          | 1              |
| Sanacorp            | Base cream DAC   | 75/AKD6          | 1              |
| Sanacorp            | Base cream DAC   | 78/AKD12         | 1              |
| Sanacorp            | Base cream DAC   | 800499605        | 1              |
| Sanacorp            | Base cream DAC   | 8005713012       | 1              |
| Sanacorp            | Base cream DAC   | 8005713014       | 2              |
| Sanacorp            | Base cream DAC   | 19240301         | 2              |
| Schmittmann GmbH    | Base cream DAC   | 14151901         | 1              |
| Sonnenberg-Apotheke | Base cream DAC   | 289663           | 1              |
| Spangro 2.5.14      | Base cream DAC   | 14091501         | 1              |
| Spangro 22.01.2019  | Base cream DAC   | 18192701         | 1              |
| Spangro _07.11.2018 | Base cream DAC   | 18166101         | 1              |
| Spangropharm        | Base cream DAC   | 14092001         | 1              |
| Stumpf/Beyvers      | Base cream DAC   | 412/2            | 1              |
| Stumpf/Beyvers      | Base cream DAC   | 412/3            | 1              |

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| Supplier                   | Substance      | Batch    | Spectra |
|----------------------------|----------------|----------|---------|
| unbekannt                  | Base cream DAC | 53812    | 1       |
| Unisan                     | Base cream DAC | 5537000  | 5       |
| VDL                        | Base cream DAC | 13380901 | 1       |
| WE:06.04.2016 Sanacorp     | Base cream DAC | 16058801 | 1       |
| WE:16.02.2016              | Base cream DAC | 15420201 | 1       |
| WE:Sanacorp 10.08.2016...  | Base cream DAC | 16152201 | 1       |
| WE:Sanacorp 31.10.2016 ... | Base cream DAC | 16232301 | 1       |
| WE:Sanacorp26.09.2016 ...  | Base cream DAC | 16155401 | 1       |
| WESanacorp 17.12.2016 ...  | Base cream DAC | 16260801 | 2       |

- 267 130 spectra from 1294 *Apo-Ident* customers from a total of 47 773 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Base cream DAC* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Base cream DAC* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 1430          | 0              | 65 729        |
| <b>Type B</b> | 0              | 12 417        | 3              | 94 863        |
| <b>Type C</b> | 0              | 19 975        | 1604           | 267 123       |

The substance/substance group *Base cream DAC* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.5804 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 99.9758 % (> 99.9517 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6898 %) | 92.5668 % (> 92.5529 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Base cream DAC* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.



| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Wool alcohol cream SR                     | 10.67                     | 18.87                             |
| Eucerin <sup>®</sup> cum Aqua             | 11.18                     | 20.35                             |
| Non-ionic hydrophil ointment              | 12.24                     | 12.76                             |
| Wool alcohol cream DAB                    | 16.79                     | 25.47                             |
| Psorisol base cream Audor <sup>®</sup>    | 17.52                     | —                                 |
| Lipo Lotio Cordes <sup>®</sup>            | 31.81                     | —                                 |
| Lanette <sup>®</sup> ointment (conserved) | 37.71                     | 32.07                             |
| Potash soap Ph.Helv.                      | 49.83                     | —                                 |
| ⋮                                         | ⋮                         | ⋮                                 |
| 2-ethylhexyl laurate                      | >50                       | 109.72                            |
| Squalane                                  | >50                       | 153.25                            |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Base cream DAC* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30923     | 35200                  | 6.57                            | 15.01                              |
| 31043     | 34030                  | 5.57                            | 20.36                              |
| 31252     | 31252                  | 0.00                            | 17.20                              |
| 31474     | 31474                  | 0.00                            | 17.30                              |
| 31964     | 31964                  | 0.00                            | 18.21                              |
| 32345     | 35488                  | 6.26                            | 16.30                              |
| 34030     | 34030                  | 0.00                            | 19.84                              |
| 34318     | 31252                  | 4.16                            | 19.07                              |
| 34482     | 34482                  | 0.00                            | 22.92                              |
| 34485     | 31252                  | 6.76                            | 12.24                              |
| 34503     | 31964                  | 4.42                            | 20.93                              |
| 34504     | 34030                  | 7.85                            | 14.17                              |
| 35174     | 35174                  | 0.00                            | 17.45                              |
| 35175     | 35175                  | 0.00                            | 18.38                              |
| 35176     | 35176                  | 0.00                            | 17.93                              |
| 35178     | 35178                  | 0.00                            | 16.91                              |
| 35182     | 35182                  | 0.00                            | 15.97                              |
| 35200     | 35200                  | 0.00                            | 16.51                              |
| 35424     | 35424                  | 0.00                            | 18.90                              |
| 35488     | 35488                  | 0.00                            | 18.48                              |
| 35489     | 35488                  | 2.44                            | 18.18                              |
| 35490     | 34030                  | 8.87                            | 17.87                              |
| 35491     | 35491                  | 0.00                            | 18.40                              |
| 35557     | 35557                  | 0.00                            | 15.28                              |
| 35559     | 35559                  | 0.00                            | 21.58                              |
| 35560     | 35560                  | 0.00                            | 13.88                              |
| 35561     | 35561                  | 0.00                            | 19.36                              |

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| <b>Sample ID</b> | <b>Reference<br/>sample ID</b> | <b>Distance to<br/>reference sample</b> | <b>Distance to<br/>next foreign sample</b> |
|------------------|--------------------------------|-----------------------------------------|--------------------------------------------|
| 35562            | 35562                          | 0.00                                    | 13.07                                      |
| 35563            | 35563                          | 0.00                                    | 15.39                                      |
| 35906            | 35906                          | 0.00                                    | 21.93                                      |
| 35907            | 35907                          | 0.00                                    | 22.78                                      |
| 35908            | 35908                          | 0.00                                    | 22.02                                      |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Basis Cordes® RK**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30892-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Basis Cordes® RK

### Special notes

When selecting the *Basis Cordes® RK* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Basis Cordes® RK          | 6      | 3      | 86     |

## Second-stage model

For differentiation of the substance/substance group *Basis Cordes*<sup>®</sup> *RK* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Basis Cordes*<sup>®</sup> *RK*:

| Supplier | Substance                    | Batch   | Sample ID | Spectra | Certificate |
|----------|------------------------------|---------|-----------|---------|-------------|
| Ichthyol | Basis Cordes <sup>®</sup> RK | 13A038  | 31078     | 40      | 20130301    |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 14A087  | 31660     | 60      | 1511145     |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 19A097  | 34688     | 40      | 20190411    |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 20A0069 | 34839     | 40      | 20200430    |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 21A0126 | 35751     | 50      | 20210706    |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 20A0189 | 35760     | 50      | 20210630    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 280 spectra of 6 reference samples from the substance/substance group *Basis Cordes*<sup>®</sup> *RK*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 879 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Basis Cordes*<sup>®</sup> *RK*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                 | Batch      | Sample ID | Spectra |
|----------|---------------------------|------------|-----------|---------|
| Ichthyol | Basis Cordes <sup>®</sup> | RK 16A035  | 32951     | 40      |
| Ichthyol | Basis Cordes <sup>®</sup> | RK 16A034  | 33617     | 40      |
| Ichthyol | Basis Cordes <sup>®</sup> | RK 20A0001 | 34840     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1572 spectra from 587 *Apo-Ident* customers from 103 batches from the substance/substance group *Basis Cordes<sup>®</sup> RK*.
- Among them are spectra of independent samples from 86 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                      | Substance                 | Batch      | Spectra |
|-------------------------------|---------------------------|------------|---------|
|                               | Basis Cordes <sup>®</sup> | RK 15A057  | 1       |
| 09.01.19 Spangro              | Basis Cordes <sup>®</sup> | RK 18A108  | 1       |
| 200                           | Basis Cordes <sup>®</sup> | RK 13A206  | 1       |
| AHD 04.02.15                  | Basis Cordes <sup>®</sup> | RK 14A087  | 1       |
| AHD 13.12.16 EK 16,54         | Basis Cordes <sup>®</sup> | RK 16A035  | 1       |
| AHD/ichthyol                  | Basis Cordes <sup>®</sup> | RK 16A035  | 1       |
| AHD                           | Basis Cordes <sup>®</sup> | RK 18A108  | 1       |
| AHD                           | Basis Cordes <sup>®</sup> | RK 19A0217 | 1       |
| AHD17.11.14 EK 16,06          | Basis Cordes <sup>®</sup> | RK 13A206  | 1       |
| Alliance healthcare           | Basis Cordes <sup>®</sup> | RK 13A038  | 1       |
| Alliance Healthcare           | Basis Cordes <sup>®</sup> | RK 20A0069 | 1       |
| Alliance/ICHTHYOL             | Basis Cordes <sup>®</sup> | RK 20A0001 | 1       |
| Anzag/ Ichtyol                | Basis Cordes <sup>®</sup> | RK 12A046  | 2       |
| Anzag/ Ichtyol                | Basis Cordes <sup>®</sup> | RK 12A046  | 1       |
| Anzag/ Ichtyol-Gesellsch. ... | Basis Cordes <sup>®</sup> | RK 13A104  | 1       |
| Anzag/ Ichtyol-Gesellsch. ... | Basis Cordes <sup>®</sup> | RK 14A051  | 1       |
| Anzag                         | Basis Cordes <sup>®</sup> | RK 19A097  | 1       |
| AnzagIchthyol                 | Basis Cordes <sup>®</sup> | RK 16A035  | 1       |
| apomix                        | Basis Cordes <sup>®</sup> | RK 16A034  | 1       |
| Bombastus                     | Basis Cordes <sup>®</sup> | RK 13A038  | 1       |
| Bombastus                     | Basis Cordes <sup>®</sup> | RK 13A103  | 1       |
| Bombastus                     | Basis Cordes <sup>®</sup> | RK 16A035  | 4       |
| Bombastus                     | Basis Cordes <sup>®</sup> | RK 16A197  | 1       |
| Bombastus                     | Basis Cordes <sup>®</sup> | RK 17A149  | 2       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 12345   | 1       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 13A038  | 2       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 13A103  | 1       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 13A104  | 1       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 13A206  | 2       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 14A205  | 3       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 14D87   | 1       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 15A051  | 1       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 15A057  | 4       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 15A115  | 2       |
| Caelo                         | Basis Cordes <sup>®</sup> | RK 15A172  | 1       |

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| Supplier                    | Substance                    | Batch          | Spectra |
|-----------------------------|------------------------------|----------------|---------|
| Caelo                       | Basis Cordes <sup>®</sup> RK | 15A194         | 3       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 16A034         | 11      |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 16A035         | 2       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 16A125         | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 17A046         | 7       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 17A0462mal250g | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 17A083         | 4       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 17A149         | 8       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 17A198         | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 17ao46         | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 18A103         | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 18A108         | 8       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 18A182         | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 19A097         | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | 4312A-03300    | 1       |
| Caelo                       | Basis Cordes <sup>®</sup> RK | P160/14        | 1       |
| Cordes / Gehe               | Basis Cordes <sup>®</sup> RK | 18A108         | 1       |
| Cordes, Hermani / Gehe      | Basis Cordes <sup>®</sup> RK | 13A206         | 1       |
| Cordes, Hermani / Gehe      | Basis Cordes <sup>®</sup> RK | 15A115         | 1       |
| Cordes, Hermann & Co        | Basis Cordes <sup>®</sup> RK | 13A206         | 2       |
| Cordes/AHD                  | Basis Cordes <sup>®</sup> RK | 13A038         | 1       |
| Cordes/AHD                  | Basis Cordes <sup>®</sup> RK | 18A182         | 2       |
| Cordes/Anzag                | Basis Cordes <sup>®</sup> RK | 13A038         | 2       |
| Cordes/Gehe                 | Basis Cordes <sup>®</sup> RK | 13A206         | 1       |
| Cordes/Gehe                 | Basis Cordes <sup>®</sup> RK | 16A034         | 1       |
| cordes/noweda               | Basis Cordes <sup>®</sup> RK | 10A108         | 1       |
| Cordes/Noweda               | Basis Cordes <sup>®</sup> RK | 16A125         | 1       |
| CORDES/NOWEDA               | Basis Cordes <sup>®</sup> RK | 18A108         | 1       |
| Cordes/Noweda               | Basis Cordes <sup>®</sup> RK | 20A0189        | 1       |
| Cordes/Phoenix              | Basis Cordes <sup>®</sup> RK | 12A114         | 1       |
| Cordes/Phönix               | Basis Cordes <sup>®</sup> RK | 16A035         | 1       |
| Cordes                      | Basis Cordes <sup>®</sup> RK | 17A046         | 1       |
| Cordes                      | Basis Cordes <sup>®</sup> RK | 18A182         | 2       |
| Delta Apotheke              | Basis Cordes <sup>®</sup> RK | 17A149         | 1       |
| Dr. Wolff                   | Basis Cordes <sup>®</sup> RK | 16A035         | 1       |
| Ebert                       | Basis Cordes <sup>®</sup> RK | 11A079         | 1       |
| Euro OTC                    | Basis Cordes <sup>®</sup> RK | 15A194         | 2       |
| Fagron                      | Basis Cordes <sup>®</sup> RK | 13A103         | 2       |
| Fagron                      | Basis Cordes <sup>®</sup> RK | 17A046         | 1       |
| Fagron                      | Basis Cordes <sup>®</sup> RK | 17A083         | 1       |
| Fagron                      | Basis Cordes <sup>®</sup> RK | 18A106         | 1       |
| Fiebig Ludw./ Ichthyol-...  | Basis Cordes <sup>®</sup> RK | 17A149         | 1       |
| Fiebig                      | Basis Cordes <sup>®</sup> RK | 17A149         | 1       |
| Fiebig                      | Basis Cordes <sup>®</sup> RK | 19A097         | 1       |
| Gehe - Ichthyol             | Basis Cordes <sup>®</sup> RK | 13A039         | 1       |
| GEHE / ICHTYOL Gesellsch... | Basis Cordes <sup>®</sup> RK | 17A046         | 1       |
| Gehe amax                   | Basis Cordes <sup>®</sup> RK | 17A046         | 1       |
| Gehe/ Ichthyol              | Basis Cordes <sup>®</sup> RK | 18A182         | 1       |
| Gehe/Ichthyol 23.11.16      | Basis Cordes <sup>®</sup> RK | 16A035         | 1       |
| Gehe/Ichthyol Gesellsch...  | Basis Cordes <sup>®</sup> RK | 19A0217        | 3       |
| Gehe/Ichthyol               | Basis Cordes <sup>®</sup> RK | 14A087         | 1       |
| Gehe/Ichthyol               | Basis Cordes <sup>®</sup> RK | 16A035         | 1       |
| Gehe/Ichthyol               | Basis Cordes <sup>®</sup> RK | 19A0217        | 1       |
| Gehe/Ichthyol               | Basis Cordes <sup>®</sup> RK | 20A0069        | 2       |
| Gehe/Ichthyol               | Basis Cordes <sup>®</sup> RK | 18A103         | 1       |
| Gehe                        | Basis Cordes <sup>®</sup> RK | 12A030         | 2       |
| Gehe                        | Basis Cordes <sup>®</sup> RK | 12A045         | 4       |
| Gehe                        | Basis Cordes <sup>®</sup> RK | 13A039         | 1       |
| Gehe                        | Basis Cordes <sup>®</sup> RK | 13A104         | 2       |
| Gehe                        | Basis Cordes <sup>®</sup> RK | 14A087         | 1       |

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| Supplier                      | Substance                    | Batch   | Spectra |
|-------------------------------|------------------------------|---------|---------|
| Gehe                          | Basis Cordes <sup>®</sup> RK | 14A205  | 1       |
| Gehe                          | Basis Cordes <sup>®</sup> RK | 15A057  | 2       |
| Gehe                          | Basis Cordes <sup>®</sup> RK | 15A115  | 1       |
| Gehe                          | Basis Cordes <sup>®</sup> RK | 15A194  | 1       |
| Gehe                          | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Gehe                          | Basis Cordes <sup>®</sup> RK | 16A197  | 1       |
| GEHE                          | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| GEHE                          | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Gehe                          | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Geibo/Ichthyol 18.12.2020     | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Geibo/Ichthyol 9.12.2020      | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Geibo/Ichthyol-Gesellsch. ... | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Gumo                          | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Hageda                        | Basis Cordes <sup>®</sup> RK | 10A108  | 1       |
| Hageda                        | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Hepart AG                     | Basis Cordes <sup>®</sup> RK | 17A083  | 2       |
| Ichthyol Gesellschaft         | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol Gesellschaft         | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthyol-Gesellschaft         | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol                      | Basis Cordes <sup>®</sup> RK | 15A057  | 1       |
| Ichthol/ gehe 28.01.19        | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthol/ Gehe                 | Basis Cordes <sup>®</sup> RK | 20A0001 | 2       |
| Ichthol/ Noweda               | Basis Cordes <sup>®</sup> RK | 16A035  | 1       |
| ichthol                       | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthol-gesellsch.Corde. ...  | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthol-gesellsch.Corde. ...  | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Ichthol-Gesellschaft/Ph. ...  | Basis Cordes <sup>®</sup> RK | 1SA108  | 1       |
| Ichthy/Ebert                  | Basis Cordes <sup>®</sup> RK | 19A0217 | 2       |
| Ichthy/Sanacorp               | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthy/Sanacorp               | Basis Cordes <sup>®</sup> RK | 18A182  | 2       |
| Ichthy/Sanacorp               | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthyl Gesellschaft / ...    | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthyl Gesellschaft / ...    | Basis Cordes <sup>®</sup> RK | 21A0126 | 1       |
| Ichthyl Gesellschaft /P. ...  | Basis Cordes <sup>®</sup> RK | 20A0189 | 1       |
| ICHTHYL-GESELLSCHAFT Co. ...  | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| ICHTHYL-GESELLSCHAFT Co. ...  | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Ichthyo/Phönix                | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Ichthyo/Phönix                | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| ICHTHYOL / Sanacorp           | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| ICHTHYOL - GESELLSCHAFT. ...  | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| ICHTHYOL - GESELLSCHAFT. ...  | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthyol - Gesellschaft       | Basis Cordes <sup>®</sup> RK | 11A079  | 1       |
| Ichthyol - Gesellschaft       | Basis Cordes <sup>®</sup> RK | 12A046  | 1       |
| Ichthyol , Noweda             | Basis Cordes <sup>®</sup> RK | 13A038  | 1       |
| Ichthyol / 1                  | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| ICHTHYOL / 20                 | Basis Cordes <sup>®</sup> RK | 15A194  | 1       |
| ICHTHYOL / 20                 | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| ICHTHYOL / 20                 | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| ICHTHYOL / 30                 | Basis Cordes <sup>®</sup> RK | 15A057  | 1       |
| Ichthyol / Alliance           | Basis Cordes <sup>®</sup> RK | 18A134  | 1       |
| Ichthyol / Anzag              | Basis Cordes <sup>®</sup> RK | 11A156  | 1       |
| Ichthyol / Anzag              | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol / Anzag              | Basis Cordes <sup>®</sup> RK | 19A217  | 1       |
| Ichthyol / Anzag              | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Ichthyol / G                  | Basis Cordes <sup>®</sup> RK | 15A194  | 1       |
| Ichthyol / Gehe               | Basis Cordes <sup>®</sup> RK | 17A046  | 1       |
| Ichthyol / Gehe               | Basis Cordes <sup>®</sup> RK | 18A108  | 2       |
| Ichthyol / Gehe               | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthyol / Gehe               | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Ichthyol / Krieger            | Basis Cordes <sup>®</sup> RK | 20A0114 | 2       |

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| Supplier                   | Substance                    | Batch       | Spectra |
|----------------------------|------------------------------|-------------|---------|
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 13A039      | 1       |
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 15A057      | 1       |
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 16A035      | 2       |
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 17A198      | 1       |
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 20A0001     | 1       |
| Ichthyol / Noweda          | Basis Cordes <sup>®</sup> RK | 20A0114     | 1       |
| Ichthyol / Phoenix         | Basis Cordes <sup>®</sup> RK | 17A149      | 1       |
| Ichthyol / Phoenix         | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| Ichthyol / Phoenix         | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol / Phoenix         | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol / Phoenix         | Basis Cordes <sup>®</sup> RK | 20A0069     | 1       |
| Ichthyol / Phoenix         | Basis Cordes <sup>®</sup> RK | 21A0126     | 1       |
| Ichthyol / Phönix          | Basis Cordes <sup>®</sup> RK | 16A034      | 1       |
| Ichthyol / Phönix          | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol / Phönix          | Basis Cordes <sup>®</sup> RK | 17A083      | 1       |
| Ichthyol / Phönix          | Basis Cordes <sup>®</sup> RK | 19A114      | 1       |
| Ichthyol / Phönix          | Basis Cordes <sup>®</sup> RK | 20A0001     | 2       |
| Ichthyol / Sanacorp 04...  | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| Ichthyol / Sanacorp        | Basis Cordes <sup>®</sup> RK | 15A115      | 1       |
| ichthyol /2                | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| ichthyol /2                | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol /Gehe             | Basis Cordes <sup>®</sup> RK | 14A087      | 1       |
| Ichthyol /Gehe             | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| Ichthyol /Noweda           | Basis Cordes <sup>®</sup> RK | 13A039      | 2       |
| Ichthyol /Noweda           | Basis Cordes <sup>®</sup> RK | 13A103      | 3       |
| Ichthyol /Noweda           | Basis Cordes <sup>®</sup> RK | 16A034      | 2       |
| Ichthyol /Noweda           | Basis Cordes <sup>®</sup> RK | 16A197      | 1       |
| Ichthyol /Noweda           | Basis Cordes <sup>®</sup> RK | 17A083      | 1       |
| Ichthyol /Noweda           | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| Ichthyol /Noweda           | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol /Sanacorp         | Basis Cordes <sup>®</sup> RK | 20A0069     | 1       |
| Ichthyol AG /Alliance H... | Basis Cordes <sup>®</sup> RK | 17A149      | 1       |
| Ichthyol Cordes/Gehe 16... | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol Cordes/Gehe       | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol Cordes            | Basis Cordes <sup>®</sup> RK | 13A104      | 1       |
| Ichthyol G./Gehe           | Basis Cordes <sup>®</sup> RK | 10A108      | 1       |
| Ichthyol Ges. / Gehe       | Basis Cordes <sup>®</sup> RK | 15A057      | 1       |
| Ichthyol Ges. / Gehe       | Basis Cordes <sup>®</sup> RK | 15A194      | 1       |
| Ichthyol Ges.              | Basis Cordes <sup>®</sup> RK | 15A057      | 1       |
| Ichthyol Gesellsch./Now... | Basis Cordes <sup>®</sup> RK | 15A194      | 1       |
| Ichthyol Gesellsch./Pho... | Basis Cordes <sup>®</sup> RK | 17A083      | 1       |
| ichthyol Gesellschaft ...  | Basis Cordes <sup>®</sup> RK | 14A205      | 1       |
| Ichthyol Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 15A115      | 1       |
| Ichthyol Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 20A0114     | 1       |
| ICHTHYOL- Gesellschaft ... | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| ICHTHYOL- Gesellschaft ... | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 12A045      | 1       |
| Ichthyol Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 12A046      | 1       |
| Ichthyol- Gesellschaft ... | Basis Cordes <sup>®</sup> RK | 15A057      | 1       |
| Ichthyol- Gesellschaft ... | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| Ichthyol Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol- Gesellschaft ... | Basis Cordes <sup>®</sup> RK | 1417E-03300 | 1       |
| Ichthyol- Gesellschaft ... | Basis Cordes <sup>®</sup> RK | 16A034      | 2       |
| Ichthyol- Gesellschaft ... | Basis Cordes <sup>®</sup> RK | 17A083      | 2       |
| Ichthyol Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 15A115      | 1       |
| Ichthyol Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 14A087      | 2       |
| Ichthyol Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 15A057      | 1       |

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| Supplier                    | Substance                    | Batch   | Spectra |
|-----------------------------|------------------------------|---------|---------|
| Ichthyol- Gesellschaft ...  | Basis Cordes <sup>®</sup> RK | 16A035  | 1       |
| Ichthyol Gesellschaft C...  | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol Gesellschaft C...  | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol Gesellschaft- ...  | Basis Cordes <sup>®</sup> RK | 14A205  | 2       |
| Ichthyol Gesellschaft- ...  | Basis Cordes <sup>®</sup> RK | 15A194  | 1       |
| Ichthyol Gesellschaft, ...  | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Ichthyol Gesellschaft/ ...  | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol- Gesellschaft/...  | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Ichthyol Gesellschaft/ ...  | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Ichthyol Gesellschaft/AHD   | Basis Cordes <sup>®</sup> RK | 15A194  | 1       |
| Ichthyol Gesellschaft/AHD   | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol Gesellschaft/AHD   | Basis Cordes <sup>®</sup> RK | 18A0108 | 1       |
| Ichthyol Gesellschaft/AHD   | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Ichthyol Gesellschaft/C...  | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol Gesellschaft/G...  | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol Gesellschaft/G...  | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Ichthyol Gesellschaft/G...  | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol Gesellschaft/G...  | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Ichthyol Gesellschaft/J...  | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Ichthyol Gesellschaft/K...  | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Ichthyol Gesellschaft/N...  | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol Gesellschaft/N...  | Basis Cordes <sup>®</sup> RK | 17A046  | 1       |
| Ichthyol Gesellschaft/N...  | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| ICHTHYOL Gesellschaft/N...  | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol Gesellschaft/N...  | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Ichthyol Gesellschaft/N...  | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol Gesellschaft/N...  | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Ichthyol Gesellschaft/P...  | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol Gesellschaft/P...  | Basis Cordes <sup>®</sup> RK | 20A0069 | 2       |
| Ichthyol Gesellschaft/S...  | Basis Cordes <sup>®</sup> RK | 17A198  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 12A045  | 1       |
| Ichthyol -Gesellschaft      | Basis Cordes <sup>®</sup> RK | 13A038  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 13A039  | 2       |
| Ichthyol- Gesellschaft      | Basis Cordes <sup>®</sup> RK | 13A039  | 2       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 13A104  | 1       |
| ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 13A206  | 2       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 14A148  | 1       |
| ichthyol gesellschaft       | Basis Cordes <sup>®</sup> RK | 14A205  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 14A205  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 15A057  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 16A035  | 1       |
| Ichthyol- Gesellschaft      | Basis Cordes <sup>®</sup> RK | 16A035  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 16A197  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 17A046  | 3       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 17A149  | 4       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 18A134  | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| ICHTHYOL GESELLSCHAFT       | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| ichthyol gesellschaft       | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 19A0217 | 2       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 19A097  | 2       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 20A0001 | 1       |
| Ichthyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 21A0126 | 1       |
| Ichthyol Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 14A038  | 1       |
| Ichthyol Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Ichthyol Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Ichthyol Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 19A114  | 1       |
| Ichthyol GmbH, Phönix       | Basis Cordes <sup>®</sup> RK | 13A038  | 1       |

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| <b>Supplier</b>            | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------------------|--------------|----------------|
| Ichthyol GmBH              | Basis Cordes <sup>®</sup> RK | 13A038       | 1              |
| Ichthyol GmbH              | Basis Cordes <sup>®</sup> RK | 17A083       | 3              |
| Ichthyol GmbH              | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichthyol Pharma            | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichthyol über Phoenix      | Basis Cordes <sup>®</sup> RK | 13A206       | 1              |
| Ichthyol Werke             | Basis Cordes <sup>®</sup> RK | 12A114       | 1              |
| Ichthyol Werke             | Basis Cordes <sup>®</sup> RK | 15A115       | 1              |
| Ichthyol Werke             | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| Ichthyol, Noweda           | Basis Cordes <sup>®</sup> RK | 13A039       | 1              |
| Ichthyol, Noweda           | Basis Cordes <sup>®</sup> RK | 19A097       | 2              |
| Ichthyol/ AEP              | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichthyol/ Anzag            | Basis Cordes <sup>®</sup> RK | 15A115       | 2              |
| Ichthyol/ Anzag            | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichthyol/ Gehe 15.10.19    | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol/ Gehe 22.05.19    | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichthyol/ Gehe             | Basis Cordes <sup>®</sup> RK | 12A045       | 1              |
| Ichthyol/ Gehe             | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| ichthyol/ Gehe             | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol/ Jenne            | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol/ Jenne            | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol/ Krieger          | Basis Cordes <sup>®</sup> RK | 15A172       | 1              |
| Ichthyol/ Krieger          | Basis Cordes <sup>®</sup> RK | 16A125       | 1              |
| Ichthyol/ Krieger          | Basis Cordes <sup>®</sup> RK | 16A197       | 1              |
| Ichthyol/ Krieger          | Basis Cordes <sup>®</sup> RK | 17A198       | 2              |
| Ichthyol/ Krieger          | Basis Cordes <sup>®</sup> RK | 18A134       | 1              |
| Ichthyol/ Krieger          | Basis Cordes <sup>®</sup> RK | 20A0114      | 1              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 11A079       | 1              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 12A046       | 1              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 14A087       | 1              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 17A083       | 2              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol/ Noweda           | Basis Cordes <sup>®</sup> RK | 19A097       | 2              |
| Ichthyol/ NOWEDA           | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol/ Phoenix          | Basis Cordes <sup>®</sup> RK | 13A206       | 1              |
| Ichthyol/ Phoenix          | Basis Cordes <sup>®</sup> RK | 14A205       | 3              |
| Ichthyol/ Phoenix          | Basis Cordes <sup>®</sup> RK | 16A034       | 5              |
| Ichthyol/ Phoenix          | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichthyol/ Phönix 13.05.20  | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol/ Phönix           | Basis Cordes <sup>®</sup> RK | 15A115       | 1              |
| Ichthyol/ Sanacorp         | Basis Cordes <sup>®</sup> RK | 15A057       | 1              |
| ichthyol/ Sanacorp         | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| ichthyol/ Sanacorp         | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| ICHTHYOL/ Sanacorp         | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol/ VDL              | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol/AEP               | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichthyol/AEP               | Basis Cordes <sup>®</sup> RK | 20A0069      | 1              |
| ichthyol/AHD               | Basis Cordes <sup>®</sup> RK | 13A039       | 1              |
| Ichthyol/AHD               | Basis Cordes <sup>®</sup> RK | 14A205       | 1              |
| Ichthyol/AHD               | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichthyol/AHD               | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichthyol/AHD               | Basis Cordes <sup>®</sup> RK | 19A0217      | 2              |
| Ichthyol/AHD               | Basis Cordes <sup>®</sup> RK | 19A097       | 2              |
| Ichthyol/Alliance healt... | Basis Cordes <sup>®</sup> RK | 13A103       | 1              |
| Ichthyol/Alliance Healt... | Basis Cordes <sup>®</sup> RK | 14A087       | 1              |
| Ichthyol/Alliance Healt... | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| Ichthyol/Alliance Healt... | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichthyol/Alliance Healt... | Basis Cordes <sup>®</sup> RK | 20A0001      | 1              |
| Ichthyol/Alliance Healt... | Basis Cordes <sup>®</sup> RK | 20A0114      | 2              |

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| Supplier          | Substance                    | Batch   | Spectra |
|-------------------|------------------------------|---------|---------|
| Ichthyol/Alliance | Basis Cordes <sup>®</sup> RK | 15A115  | 1       |
| Ichthyol/Alliance | Basis Cordes <sup>®</sup> RK | 16A197  | 1       |
| Ichthyol/Alliance | Basis Cordes <sup>®</sup> RK | 17A046  | 3       |
| Ichthyol/Alliance | Basis Cordes <sup>®</sup> RK | 17A193  | 1       |
| Ichthyol/Alliance | Basis Cordes <sup>®</sup> RK | 18A108  | 2       |
| Ichthyol/Alliance | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol/Alliance | Basis Cordes <sup>®</sup> RK | 20A0189 | 1       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 12A045  | 1       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 13A206  | 2       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 15A051  | 1       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol/Anzag    | Basis Cordes <sup>®</sup> RK | 19A097  | 2       |
| Ichthyol/E&J      | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol/E&J      | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol/Ebert    | Basis Cordes <sup>®</sup> RK | 12A114  | 1       |
| Ichthyol/Ebert    | Basis Cordes <sup>®</sup> RK | 17A046  | 1       |
| Ichthyol/Fiebig   | Basis Cordes <sup>®</sup> RK | 12A114  | 1       |
| Ichthyol/Fiebig   | Basis Cordes <sup>®</sup> RK | 14A205  | 2       |
| Ichthyol/Fiebig   | Basis Cordes <sup>®</sup> RK | 17A083  | 3       |
| ichthyol/Fiebig   | Basis Cordes <sup>®</sup> RK | 20A0189 | 1       |
| Ichthyol/gehe     | Basis Cordes <sup>®</sup> RK | 13A039  | 1       |
| Ichthyol/gehe     | Basis Cordes <sup>®</sup> RK | 13A103  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 13A103  | 3       |
| ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 13A104  | 2       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 13A206  | 2       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 14A038  | 2       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 14A087  | 2       |
| ICHTHYOL/GEHE     | Basis Cordes <sup>®</sup> RK | 14A087  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 14A205  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 15A057  | 1       |
| Ichthyol/GEHE     | Basis Cordes <sup>®</sup> RK | 15A057  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 15A115  | 5       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Ichthyol/GEHE     | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 16A035  | 2       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 17A046  | 3       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 18A108  | 3       |
| Ichthyol/GEHE     | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 18A134  | 3       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 18A182  | 4       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 19A0217 | 2       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 19A097  | 3       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Ichthyol/Gehe     | Basis Cordes <sup>®</sup> RK | 20A0189 | 2       |
| Ichthyol/Jenne    | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Ichthyol/Jenne    | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol/Jenne    | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Ichthyol/Kehr     | Basis Cordes <sup>®</sup> RK | 16A197  | 1       |
| Ichthyol/Kehr     | Basis Cordes <sup>®</sup> RK | 17A083  | 2       |
| Ichthyol/Kehr     | Basis Cordes <sup>®</sup> RK | 17A149  | 2       |
| Ichthyol/Kehr     | Basis Cordes <sup>®</sup> RK | 18A182  | 2       |
| ICHTHYOL/Kehr     | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Ichthyol/Kehr     | Basis Cordes <sup>®</sup> RK | 19A097  | 2       |
| ICHTHYOL/Kehr     | Basis Cordes <sup>®</sup> RK | 21A0126 | 1       |
| Ichthyol/Krieger  | Basis Cordes <sup>®</sup> RK | 14A087  | 1       |

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| <b>Supplier</b>            | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------------------|--------------|----------------|
| Ichthyol/Krieger           | Basis Cordes <sup>®</sup> RK | 16A197       | 1              |
| Ichthyol/Krieger           | Basis Cordes <sup>®</sup> RK | 17A198       | 1              |
| Ichthyol/Krieger           | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| ichthyol/Krieger           | Basis Cordes <sup>®</sup> RK | 19A114       | 1              |
| ichthyol/Krieger           | Basis Cordes <sup>®</sup> RK | 20A0001      | 1              |
| Ichthyol/Krieger           | Basis Cordes <sup>®</sup> RK | 20A0001      | 1              |
| Ichthyol/N/17.04.2013/P... | Basis Cordes <sup>®</sup> RK | 12A167       | 1              |
| Ichthyol/N/PZN:01114881    | Basis Cordes <sup>®</sup> RK | 13A104       | 1              |
| Ichthyol/N                 | Basis Cordes <sup>®</sup> RK | 15A115       | 1              |
| Ichthyol/Nowed             | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol/Nowed             | Basis Cordes <sup>®</sup> RK | 20A0069      | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 13A103       | 2              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 13A104       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 14A087       | 2              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 15A057       | 5              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 15a115       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 15a194       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 15A194       | 3              |
| ichthyol/noweda            | Basis Cordes <sup>®</sup> RK | 15A057       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 16A034       | 3              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 16A197       | 1              |
| ichthyol/noweda            | Basis Cordes <sup>®</sup> RK | 17A046       | 4              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 17A046       | 2              |
| ichthyol/noweda            | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 17A083       | 3              |
| ichthyol/noweda            | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 17A149       | 4              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 17A198       | 3              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 18A108       | 3              |
| ICHTHYOL/Noweda            | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 18A109       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 18A134       | 3              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 18A182       | 3              |
| ICHTHYOL/Noweda            | Basis Cordes <sup>®</sup> RK | 18A182       | 2              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 19A0217      | 5              |
| ICHTHYOL/Noweda            | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 19a097       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 19A097       | 4              |
| ICHTHYOL/Noweda            | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 19A114       | 2              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 20A0069      | 2              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 20A0189      | 3              |
| Ichthyol/Noweda            | Basis Cordes <sup>®</sup> RK | 21A0126      | 2              |
| Ichthyol/Otto              | Basis Cordes <sup>®</sup> RK | 13A103       | 1              |
| Ichthyol/Otto              | Basis Cordes <sup>®</sup> RK | 14A087       | 1              |
| Ichthyol/P                 | Basis Cordes <sup>®</sup> RK | 17A046       | 2              |
| Ichthyol/P                 | Basis Cordes <sup>®</sup> RK | 19A097       | 2              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 14A205       | 1              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 15A051       | 7              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 16A034       | 1              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 16A035       | 4              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 17A083       | 2              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 18A108       | 3              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 18A109       | 1              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 18A182       | 2              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 19A097       | 3              |
| Ichthyol/Phoenix           | Basis Cordes <sup>®</sup> RK | 19A114       | 1              |

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| Supplier          | Substance                    | Batch       | Spectra |
|-------------------|------------------------------|-------------|---------|
| Ichthyol/Phoenix  | Basis Cordes <sup>®</sup> RK | 20A0189     | 2       |
| Ichthyol/Phoenix  | Basis Cordes <sup>®</sup> RK | 21A0126     | 2       |
| ICHTHYOL/PHÖNIX   | Basis Cordes <sup>®</sup> RK | 10A108      | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 12A114      | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 14A038      | 4       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 14A087      | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 14A148      | 5       |
| Ichthyol/phönix   | Basis Cordes <sup>®</sup> RK | 14A205      | 3       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 15A172      | 4       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 15A194      | 4       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 16A034      | 4       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 16A035      | 3       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 16A125      | 8       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 16A197      | 5       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 17A083      | 4       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 17A149      | 4       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 17A193      | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 17A198      | 3       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 18A108      | 2       |
| ICHTHYOL/Phönix   | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 18A134      | 2       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 18A182      | 5       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 19A0217     | 2       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 19A114      | 3       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 20A0001     | 1       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 20A0069     | 6       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 20A0189     | 2       |
| Ichthyol/Phönix   | Basis Cordes <sup>®</sup> RK | 21A0126     | 1       |
| Ichthyol/PX       | Basis Cordes <sup>®</sup> RK | 14A205      | 1       |
| Ichthyol/sanacorp | Basis Cordes <sup>®</sup> RK |             | 1       |
| Ichthyol/sanacorp | Basis Cordes <sup>®</sup> RK | 1115E-03300 | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 12A167      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 13A038      | 3       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 13A104      | 3       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 13A206      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 14A038      | 3       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 14A148      | 4       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 14A205      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 15A051      | 5       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 15A115      | 2       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 15A172      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 15A194      | 2       |
| Ichthyol/sanacorp | Basis Cordes <sup>®</sup> RK | 16A034      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 16A034      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 16A035      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 17A083      | 2       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 17A149      | 2       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 17A198      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 18A108      | 3       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 18A134      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 19A097      | 2       |
| Ichthyol/Sanacorp | Basis Cordes <sup>®</sup> RK | 19A114      | 1       |
| Ichthyol/VDL      | Basis Cordes <sup>®</sup> RK | 14A205      | 1       |
| Ichthyol          | Basis Cordes <sup>®</sup> RK | 10071401    | 1       |

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| Supplier | Substance                    | Batch       | Spectra |
|----------|------------------------------|-------------|---------|
| Ichthyol | Basis Cordes <sup>®</sup> RK | 10A064      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 10A109      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 10A138      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 11A067      | 4       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 11A079      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 11A156      | 1       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 1213Q-03300 | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 12A030      | 8       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 12A045      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 12A046      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 12A103      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 12A114      | 6       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 12A167      | 4       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 13A038      | 12      |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 13A039      | 4       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 13A103      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 13A103      | 6       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 13A104      | 2       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 13A206      | 8       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 13A039      | 2       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 14A038      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 14a087      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 14A087      | 5       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 14A149      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 14A205      | 3       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 15A051      | 2       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 15A057      | 4       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 15A115      | 5       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 15A172      | 3       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 15A194      | 4       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 15A057      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 16A034      | 7       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 16A035      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 16A035      | 6       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 16A125      | 2       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 16A197      | 1       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 17A046      | 15      |
| ICHTHYOL | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 17A083      | 2       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 17A083      | 10      |
| ICHTHYOL | Basis Cordes <sup>®</sup> RK | 17A083      | 1       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 17A149      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 17a149      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 17A149      | 14      |
| ICHTHYOL | Basis Cordes <sup>®</sup> RK | 17A149      | 2       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 17A198      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 17A083      | 2       |
| ICHTHYOL | Basis Cordes <sup>®</sup> RK | 18A103      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 18A108      | 4       |
| ICHTHYOL | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| ICHTHYOL | Basis Cordes <sup>®</sup> RK | 18A1080     | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 18A134      | 4       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 18A182      | 15      |
| ICHTHYOL | Basis Cordes <sup>®</sup> RK | 18A182      | 2       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 19111208    | 1       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 19A0217     | 5       |
| ichthyol | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol | Basis Cordes <sup>®</sup> RK | 19A097      | 18      |

continued on the next page



continued from previous page

| Supplier                   | Substance                    | Batch       | Spectra |
|----------------------------|------------------------------|-------------|---------|
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 19A114      | 1       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 19A97       | 1       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 20061501    | 1       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 20A0001     | 3       |
| ichthyol                   | Basis Cordes <sup>®</sup> RK | 20A0069     | 1       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 20A0069     | 7       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 20A0189     | 8       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 21A0126     | 3       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 27102014B   | 1       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 28011507    | 1       |
| Ichthyol                   | Basis Cordes <sup>®</sup> RK | 30041301    | 1       |
| ICHTHYOL_GESELLSCHAFT      | Basis Cordes <sup>®</sup> RK | 20A0189     | 2       |
| Ichthyol_gesellschft       | Basis Cordes <sup>®</sup> RK | 20A0189     | 1       |
| IchthyolAlliance Health... | Basis Cordes <sup>®</sup> RK | 13A206      | 1       |
| ICHTHYOL-G./Noweda         | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol-Ges. / G          | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| Ichthyol-Ges./Phönix       | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| ICHTHYOL-GES.              | Basis Cordes <sup>®</sup> RK | 12A114      | 1       |
| ICHTHYOL-GES/GEHE          | Basis Cordes <sup>®</sup> RK | 11A079      | 1       |
| ICHTHYOL-GES/GEHE          | Basis Cordes <sup>®</sup> RK | 12A045      | 1       |
| Ichthyol-Ges/Sanacor       | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol-Ges/Sanacor       | Basis Cordes <sup>®</sup> RK | 17A083      | 1       |
| Ichthyol-Ges/Sanacor       | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| ICHTHYOL-Gesellsch. Cor... | Basis Cordes <sup>®</sup> RK | 1318A-03300 | 1       |
| IchthyolGesellsch/Ph       | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| IchthyolGesellsch/Ph       | Basis Cordes <sup>®</sup> RK | 18A182      | 1       |
| Ichthyol-Gesellschaft ...  | Basis Cordes <sup>®</sup> RK | 18A1008     | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 17A083      | 2       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 15A194      | 2       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 16A034      | 2       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 18A108      | 1       |
| Ichthyol-Gesellschaft / E  | Basis Cordes <sup>®</sup> RK | 12A045      | 1       |
| Ichthyol-Gesellschaft / G  | Basis Cordes <sup>®</sup> RK | 13A038      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 15A057      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 17A149      | 2       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 18A182      | 2       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 19A0217     | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 19A097      | 2       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 14A205      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 16A034      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 18A182      | 3       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 18A2        | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 17A046      | 2       |
| ICHTHYOL-GESELLSCHAFT /... | Basis Cordes <sup>®</sup> RK | 17A149      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 13A103      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 13A206      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 14A038      | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 20A0069     | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 20A0189     | 1       |
| Ichthyol-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 21A0126     | 1       |
| ICHTHYOL-Gesellschaft /... | Basis Cordes <sup>®</sup> RK | 20A0069     | 1       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 17A046      | 1       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 17A149      | 1       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A097      | 1       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 17A149      | 1       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 15A115      | 1       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A0217     | 4       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 20A0069     | 3       |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 20A0189     | 1       |

continued on the next page

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| <b>Supplier</b>            | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------------------|--------------|----------------|
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 18A108       | 3              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| ICHTHYOL-GESELLSCHAFT C... | Basis Cordes <sup>®</sup> RK | 14A087       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 20A0069      | 1              |
| ICHTHYOL-GESELLSCHAFT C... | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A114       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 14A038       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 14A148       | 2              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 15A051       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 15A172       | 4              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 16A125       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 20A0069      | 2              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 13A103       | 1              |
| ICHTHYOL-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 18D017       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 16A034       | 1              |
| ICHTHYOL-GESELLSCHAFT C... | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| ICHTHYOL-GESELLSCHAFT C... | Basis Cordes <sup>®</sup> RK | 15A057       | 1              |
| ICHTHYOL-GESELLSCHAFT C... | Basis Cordes <sup>®</sup> RK | 15A115       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 15A172       | 4              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 17A149       | 4              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 18A108       | 3              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 18A182       | 3              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A0217      | 2              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A097       | 3              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 20A0069      | 4              |
| Ichthyol-Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 20A0189      | 1              |
| Ichthyolgesellschaft Gehe  | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol-Gesellschaft N... | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichthyol-Gesellschaft/ ... | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichthyol-Gesellschaft/ ... | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| Ichthyol-Gesellschaft/ ... | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichthyol-Gesellschaft/ ... | Basis Cordes <sup>®</sup> RK | 13A206       | 1              |
| Ichthyol-Gesellschaft/ ... | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| ichthyolgesellschaft/ P... | Basis Cordes <sup>®</sup> RK | 20A0069      | 1              |
| Ichthyol-Gesellschaft/ ... | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| Ichthyol-Gesellschaft/AHD  | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| Ichthyol-Gesellschaft/AHD  | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol-Gesellschaft/AHD  | Basis Cordes <sup>®</sup> RK | 21A0126      | 1              |
| Ichthyol-Gesellschaft/A... | Basis Cordes <sup>®</sup> RK | 15A057       | 1              |
| Ichthyol-Gesellschaft/A... | Basis Cordes <sup>®</sup> RK | 17A193       | 1              |
| Ichthyol-Gesellschaft/G... | Basis Cordes <sup>®</sup> RK | 16A035       | 2              |
| Ichthyol-Gesellschaft/G... | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichthyol-Gesellschaft/G... | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichthyol-Gesellschaft/J... | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichthyol-Gesellschaft/N... | Basis Cordes <sup>®</sup> RK | 13A103       | 1              |
| Ichthyol-Gesellschaft/N... | Basis Cordes <sup>®</sup> RK | 13A206       | 2              |
| Ichthyol-Gesellschaft/N... | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichthyol-Gesellschaft/N... | Basis Cordes <sup>®</sup> RK | 20A0189      | 1              |
| Ichthyol-Gesellschaft/P... | Basis Cordes <sup>®</sup> RK | 13A039       | 1              |
| Ichthyol-Gesellschaft/P... | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichthyol-Gesellschaft/P... | Basis Cordes <sup>®</sup> RK | 18A103       | 1              |

*continued on the next page*

continued from previous page

| Supplier                    | Substance        | Batch    | Spectra |
|-----------------------------|------------------|----------|---------|
| Ichthyol-Gesellschaft/P...  | Basis Cordes® RK | 19A0217  | 1       |
| Ichthyol-Gesellschaft/P...  | Basis Cordes® RK | 20A0189  | 1       |
| Ichthyol-Gesellschaft/P...  | Basis Cordes® RK | 16A035   | 1       |
| ICHTHYOL-GESELLSCHAFT/P...  | Basis Cordes® RK | 16A035   | 1       |
| Ichthyol-Gesellschaft/P...  | Basis Cordes® RK | 17A046   | 2       |
| Ichthyol-Gesellschaft/P...  | Basis Cordes® RK | 17A149   | 1       |
| ICHTHYOL-GESELLSCHAFT/P...  | Basis Cordes® RK | 17A149   | 1       |
| ICHTHYOL-Gesellschaft/P...  | Basis Cordes® RK | 19A097   | 1       |
| ICHTHYOL-Gesellschaft/P...  | Basis Cordes® RK | 20A0069  | 1       |
| Ichthyol-Gesellschaft/S...  | Basis Cordes® RK | 16A034   | 1       |
| Ichthyol-Gesellschaft/S...  | Basis Cordes® RK | 16A035   | 2       |
| Ichthyol-Gesellschaft/S...  | Basis Cordes® RK | 17A046   | 1       |
| Ichthyol-Gesellschaft/S...  | Basis Cordes® RK | 17A149   | 1       |
| Ichthyol-Gesellschaft/S...  | Basis Cordes® RK | 19A097   | 2       |
| Ichthyol-Gesellschaft/S...  | Basis Cordes® RK | 17A083   | 1       |
| Ichthyol-Gesellschaft/V...  | Basis Cordes® RK | 13A103   | 1       |
| ICHTHYOL-GESELLSCHAFT       | Basis Cordes® RK | 11A079   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 12051803 | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 12A030   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 12A046   | 1       |
| ICHTHYOL-GESELLSCHAFT       | Basis Cordes® RK | 12A046   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 12A114   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 13A038   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 13A039   | 3       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 13A103   | 3       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 13A206   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 14A038   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 14A087   | 3       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 14A148   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 14A205   | 5       |
| ICHTHYOL-GESELLSCHAFT       | Basis Cordes® RK | 14A205   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 15A051   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 15A057   | 7       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 15A115   | 6       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 15A172   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 15A194   | 5       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 16A034   | 11      |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 16A035   | 6       |
| ICHTHYOL-GESELLSCHAFT       | Basis Cordes® RK | 16A035   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 16A125   | 2       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 17A046   | 5       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 17A083   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 17A083   | 4       |
| ICHTHYOL-GESELLSCHAFT       | Basis Cordes® RK | 17A083   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 17A14    | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 17A149   | 6       |
| ICHTHYOL-GESELLSCHAFT       | Basis Cordes® RK | 17A149   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 18A108   | 4       |
| ICHTHYOL-Gesellschaft       | Basis Cordes® RK | 18A108   | 1       |
| ICHTHYOL-GESELLSCHAFT       | Basis Cordes® RK | 18A108   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 18A182   | 6       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 19A0217  | 2       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 19A097   | 4       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 19A114   | 1       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 20A0069  | 4       |
| IchthyolGesellschaftCor...  | Basis Cordes® RK | 15A115   | 2       |
| Ichthyol-Gesellschaft       | Basis Cordes® RK | 24061704 | 1       |
| Ichthyol-Gesellschaft Co... | Basis Cordes® RK | 18A182   | 1       |
| Ichthyol-Gesellschaft/Ph... | Basis Cordes® RK | 16A034   | 1       |
| Ichtiol/Noweda              | Basis Cordes® RK | 19A114   | 1       |

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| <b>Supplier</b>            | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------------------|--------------|----------------|
| ICHTL/Phönix               | Basis Cordes <sup>®</sup> RK | 18A108       | 3              |
| Ichthyol/Sanacorp          | Basis Cordes <sup>®</sup> RK | 16A034       | 1              |
| Ichthyol Gesellschaft      | Basis Cordes <sup>®</sup> RK | 15A115       | 2              |
| Ichthyol Gesellschaft      | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichtyol - Gesellschaft     | Basis Cordes <sup>®</sup> RK | 13A206       | 1              |
| Ichtyol - Gesellschaft     | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichtyol / Gehe             | Basis Cordes <sup>®</sup> RK | 17A083       | 4              |
| Ichtyol / Gehe             | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichtyol / Gehe             | Basis Cordes <sup>®</sup> RK | 18A182       | 2              |
| Ichtyol / Gehe             | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichtyol /Jenne 16.01.2014  | Basis Cordes <sup>®</sup> RK | 13A039       | 1              |
| Ichtyol 004                | Basis Cordes <sup>®</sup> RK | 12A046       | 1              |
| Ichtyol Gehe               | Basis Cordes <sup>®</sup> RK | 13A206       | 1              |
| Ichtyol Gesellschaft / ... | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| ICHTYOL GESELLSCHAFT Co... | Basis Cordes <sup>®</sup> RK | 15A057       | 1              |
| ICHTYOL GESELLSCHAFT Co... | Basis Cordes <sup>®</sup> RK | 16A197       | 1              |
| Ichtyol- Gesellschaft C... | Basis Cordes <sup>®</sup> RK | 19A097       | 1              |
| ichtyol gesellschaft co... | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| ichtyol gesellschaft co... | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichtyol Gesellschaft/ G... | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichtyol Gesellschaft/ N... | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichtyol Gesellschaft/ P... | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichtyol Gesellschaft       | Basis Cordes <sup>®</sup> RK | 15A057       | 3              |
| Ichtyol Gesllschaft        | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| Ichtyol Gesllschaft        | Basis Cordes <sup>®</sup> RK | 16A034       | 1              |
| Ichtyol GmbH               | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichtyol GmbH               | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichtyol GmbH               | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichtyol/ Noweda            | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichtyol/Anzag              | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichtyol/Anzag              | Basis Cordes <sup>®</sup> RK | 18A108       | 1              |
| Ichtyol/Anzag              | Basis Cordes <sup>®</sup> RK | 19A0217      | 2              |
| Ichtyol/Gehe               | Basis Cordes <sup>®</sup> RK | 13A206       | 1              |
| Ichtyol/Geilenkirchen      | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichtyol/Noweda             | Basis Cordes <sup>®</sup> RK | 15A194       | 1              |
| Ichtyol/Noweda             | Basis Cordes <sup>®</sup> RK | 16A034       | 1              |
| Ichtyol/Noweda             | Basis Cordes <sup>®</sup> RK | 16A035       | 1              |
| Ichtyol/Noweda             | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |
| Ichtyol/Phoenix            | Basis Cordes <sup>®</sup> RK | 14A148       | 1              |
| Ichtyol/Phoenix            | Basis Cordes <sup>®</sup> RK | 15A057       | 1              |
| Ichtyol/Phoenix            | Basis Cordes <sup>®</sup> RK | 18A134       | 1              |
| Ichtyol/Phoenix            | Basis Cordes <sup>®</sup> RK | 20A0114      | 1              |
| Ichtyol/Phönix             | Basis Cordes <sup>®</sup> RK | 18A182       | 1              |
| Ichtyol/Sanacorp           | Basis Cordes <sup>®</sup> RK | 20A0069      | 1              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 11A156       | 1              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 12A114       | 1              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 13A038       | 1              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 13A103       | 2              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 15A115       | 1              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 16A034       | 3              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 16A035       | 2              |
| Ichtyol                    | Basis Cordes <sup>®</sup> RK | 17A198       | 1              |
| Ichtyol-Gesellschaft / Ph  | Basis Cordes <sup>®</sup> RK | 17A083       | 4              |
| Ichtyol-Gesellschaft / Ph  | Basis Cordes <sup>®</sup> RK | 17A149       | 1              |
| Ichtyol-Gesellschaft / ... | Basis Cordes <sup>®</sup> RK | 18A182       | 3              |
| Ichtyol-Gesellschaft /G... | Basis Cordes <sup>®</sup> RK | 20A0189      | 1              |
| Ichtyol-Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 20A0189      | 1              |
| Ichtyol-Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 17A083       | 1              |
| Ichtyol-Gesellschaft Co... | Basis Cordes <sup>®</sup> RK | 19A0217      | 1              |
| Ichtyolgesellschaft Cor... | Basis Cordes <sup>®</sup> RK | 17A046       | 1              |

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| Supplier                    | Substance                    | Batch        | Spectra |
|-----------------------------|------------------------------|--------------|---------|
| Ichtyol-Gesellschaft Co...  | Basis Cordes <sup>®</sup> RK | 20A0069      | 1       |
| Ichtyol-Gesellschaft Co...  | Basis Cordes <sup>®</sup> RK | 20A0189      | 1       |
| Ichtyol-Gesellschaft/Ph...  | Basis Cordes <sup>®</sup> RK | 12A114       | 1       |
| Ichtyol-Gesellschaft/Sa...  | Basis Cordes <sup>®</sup> RK | 20A0069      | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 13A038       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 13A206       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 14A038       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 14A087       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 14A205       | 2       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 15A057       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 15A172       | 4       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 16A034       | 2       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 16A035       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 16A125       | 5       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 16A197       | 5       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 17A046       | 3       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 17A083       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 17A149       | 1       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 17A198       | 6       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 18A108       | 3       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 18A182       | 2       |
| Ichtyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 19A114       | 1       |
| Ichtyol-Gesellschaft AHD... | Basis Cordes <sup>®</sup> RK | 16A034       | 1       |
| Infectopharm/Phönix         | Basis Cordes <sup>®</sup> RK | 18A103       | 1       |
| Infectopharm                | Basis Cordes <sup>®</sup> RK | 3318J-003300 | 1       |
| Jenne                       | Basis Cordes <sup>®</sup> RK | 18A182       | 1       |
| Krieger/Ichthyol            | Basis Cordes <sup>®</sup> RK | 15A172       | 1       |
| Krieger/Ichthyol            | Basis Cordes <sup>®</sup> RK | 15A194       | 1       |
| Krieger                     | Basis Cordes <sup>®</sup> RK | 17A083       | 2       |
| Krieger                     | Basis Cordes <sup>®</sup> RK | 17A149       | 1       |
| krieger                     | Basis Cordes <sup>®</sup> RK | 19A114       | 1       |
| L10                         | Basis Cordes <sup>®</sup> RK | 17A046       | 1       |
| L12                         | Basis Cordes <sup>®</sup> RK | 18A108       | 1       |
| Noweda 29.032016            | Basis Cordes <sup>®</sup> RK | 15A115       | 2       |
| Noweda ichthyol 17.11.1...  | Basis Cordes <sup>®</sup> RK | 18A108       | 1       |
| Noweda/ Ichthyol            | Basis Cordes <sup>®</sup> RK | 16A0335      | 1       |
| noweda/anzag                | Basis Cordes <sup>®</sup> RK | 19A097       | 1       |
| Noweda/Cordes               | Basis Cordes <sup>®</sup> RK | 17A046       | 1       |
| Noweda/Ichthyol             | Basis Cordes <sup>®</sup> RK | 14A038       | 1       |
| Noweda/Ichthyol             | Basis Cordes <sup>®</sup> RK | 18A108       | 1       |
| Noweda/Ichthyol             | Basis Cordes <sup>®</sup> RK | 19A0217      | 1       |
| Noweda/Ichthyol             | Basis Cordes <sup>®</sup> RK | 19A114       | 2       |
| Noweda/Ichthyol             | Basis Cordes <sup>®</sup> RK | 19A097       | 2       |
| Noweda/Wepa                 | Basis Cordes <sup>®</sup> RK | 13A206       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 11A156       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 13A038       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 14A087       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 15A057       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 15A194       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 16A034       | 2       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 16A035       | 3       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 17A149       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 18A108       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 18A109       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 18A134       | 3       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 18A182       | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 19A0217      | 2       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 19A097       | 5       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 20A0189      | 1       |
| Noweda                      | Basis Cordes <sup>®</sup> RK | 21A0126      | 3       |

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| Supplier                     | Substance                    | Batch   | Spectra |
|------------------------------|------------------------------|---------|---------|
| Occasio/ Ichthyol            | Basis Cordes <sup>®</sup> RK | 16A197  | 1       |
| Occasio/ Ichthyol            | Basis Cordes <sup>®</sup> RK | 17A198  | 1       |
| Oststadt                     | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Phoe                         | Basis Cordes <sup>®</sup> RK | 16A035  | 1       |
| phoenix/ ichthyol-gesel. . . | Basis Cordes <sup>®</sup> RK | 18A182  | 4       |
| Phoenix                      | Basis Cordes <sup>®</sup> RK | 13A039  | 1       |
| Phoenix                      | Basis Cordes <sup>®</sup> RK | 19A097  | 2       |
| Phoenix                      | Basis Cordes <sup>®</sup> RK | 21A0203 | 1       |
| Phönix / Gehe                | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Phönix Cordes                | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Phönix Gotha                 | Basis Cordes <sup>®</sup> RK | 12A045  | 1       |
| Phönix Gotha                 | Basis Cordes <sup>®</sup> RK | 12A114  | 1       |
| Phönix Gotha                 | Basis Cordes <sup>®</sup> RK | 13A103  | 2       |
| Phönix Gotha                 | Basis Cordes <sup>®</sup> RK | 13A2C6  | 1       |
| Phönix Gotha                 | Basis Cordes <sup>®</sup> RK | 14A205  | 1       |
| Phönix Gotha                 | Basis Cordes <sup>®</sup> RK | 15A051  | 1       |
| Phönix Gotha                 | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Phönix/Ichthyol              | Basis Cordes <sup>®</sup> RK | 12A046  | 1       |
| Phönix/Ichthyol              | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Phönix/Ichthyol              | Basis Cordes <sup>®</sup> RK | 17A149  | 6       |
| Phönix/Ichthyol              | Basis Cordes <sup>®</sup> RK | 18A108  | 3       |
| Phönix/Ichthyol              | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 12A167  | 2       |
| phönix                       | Basis Cordes <sup>®</sup> RK | 15A115  | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 15A194  | 2       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 18A182  | 2       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Phönix                       | Basis Cordes <sup>®</sup> RK | 20A0189 | 1       |
| Sanacop/Ichthyol             | Basis Cordes <sup>®</sup> RK | 14A046  | 1       |
| Sanacop/Ichthyol             | Basis Cordes <sup>®</sup> RK | 17A046  | 1       |
| Sanacorp / Ichthyol          | Basis Cordes <sup>®</sup> RK | 12A167  | 2       |
| Sanacorp/ Ichthyol Gese. . . | Basis Cordes <sup>®</sup> RK | 12A045  | 1       |
| SANACORP/ICHTHYOL            | Basis Cordes <sup>®</sup> RK | 17A149  | 1       |
| Sanacorp/Ichthyol            | Basis Cordes <sup>®</sup> RK | 18A108  | 1       |
| Sanacorp/Ichthyol            | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Sanacorp/Ichthyol            | Basis Cordes <sup>®</sup> RK | 19A097  | 1       |
| SANACORP/ICHTHYOL            | Basis Cordes <sup>®</sup> RK | 20A0069 | 1       |
| Sanacorp/Ichthyol            | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| sanacorp                     | Basis Cordes <sup>®</sup> RK | 12A046  | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 13A103  | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 15A115  | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 16A034  | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 18A109  | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| SANACORP                     | Basis Cordes <sup>®</sup> RK | 18A182  | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 20A0189 | 1       |
| Sanacorp                     | Basis Cordes <sup>®</sup> RK | 21A0203 | 1       |
| Sonnenberg-Apotheke          | Basis Cordes <sup>®</sup> RK | 4643491 | 1       |
| Spangropharm                 | Basis Cordes <sup>®</sup> RK | 17A083  | 1       |
| Spangropharm                 | Basis Cordes <sup>®</sup> RK | 19A0217 | 1       |
| Spangropharm                 | Basis Cordes <sup>®</sup> RK | 21A0126 | 1       |
| WEPA                         | Basis Cordes <sup>®</sup> RK | 17A046  | 1       |
| Ychthyol-Gesellschaft        | Basis Cordes <sup>®</sup> RK | 16A035  | 2       |

- 287 137 spectra from 1294 *Apo-Ident* customers from a total of 51 786 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Basis Cordes*<sup>®</sup> *RK* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Basis Cordes*<sup>®</sup> *RK* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 280           | 0              | 66 879        |
| <b>Type B</b> | 0              | 120           | 0              | 107 203       |
| <b>Type C</b> | 0              | 1563          | 9              | 286 800       |

The substance/substance group *Basis Cordes*<sup>®</sup> *RK* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.8571 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6827 %) | 99.4275 % (> 99.2366 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Basis Cordes*<sup>®</sup> *RK* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                               | Distance in main model | Distance in second-stage model |
|-----------------------------------------|------------------------|--------------------------------|
| Lanolin DAB                             | 29.03                  | —                              |
| Cooling cream DAB                       | 32.90                  | —                              |
| Clotrimazole 10% Cordes <sup>®</sup> RK | 39.64                  | —                              |
| Macrogols 300                           | 66.76                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Basis Cordes*<sup>®</sup> *RK* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.



### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31078     | 31660               | 18.53                        | 54.28                           |
| 31660     | 31660               | 0.00                         | 44.20                           |
| 34688     | 31660               | 9.02                         | 46.97                           |
| 34839     | 31660               | 10.03                        | 39.77                           |
| 35751     | 31660               | 20.17                        | 35.96                           |
| 35760     | 31660               | 18.55                        | 37.31                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Benzalkonium chloride solution 50%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30667-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Benzalkonium chloride solution 50%; Benzalkonii chloridi solutio 50%

### Special notes

When selecting the *Benzalkonium chloride solution 50%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group          | Type A | Type B | Type C |
|------------------------------------|--------|--------|--------|
| Benzalkonium chloride solution 50% | 4      | 4      | 69     |

## Second-stage model

For differentiation of the substance/substance group *Benzalkonium chloride solution 50%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Benzalkonium chloride solution 50%*:

| Supplier | Substance             | Batch       | Sample ID | Spectra | Certificate |
|----------|-----------------------|-------------|-----------|---------|-------------|
| Caelo    | Benzalkonium chl. . . | 11271919    | 30667     | 40      | 1402369     |
| Caelo    | Benzalkonium chl. . . | 15051325    | 33605     | 40      | 20150804    |
| Caelo    | Benzalkonium chl. . . | 20003906006 | 35856     | 50      | 20201124    |
| Euro OTC | Benzalkonium chl. . . | 1105041V-03 | 31613     | 60      | 20130809    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 190 spectra of 4 reference samples from the substance/substance group *Benzalkonium chloride solution 50%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 969 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Benzalkonium chloride solution 50%*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Benzalkonium chloride soluti... | 15051305 | 32960     | 40      |
| Caelo    | Benzalkonium chloride soluti... | 15051327 | 33834     | 40      |
| Caelo    | Benzalkonium chloride soluti... | 182660   | 34334     | 40      |
| Caelo    | Benzalkonium chloride soluti... | 21004233 | 36175     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 560 spectra from 367 *Apo-Ident* customers from 73 batches from the substance/substance group *Benzalkonium chloride solution 50%*.
- Among them are spectra of independent samples from 69 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance                       | Batch       | Spectra |
|---------------------|---------------------------------|-------------|---------|
| /Phönix             | Benzalkonium chloride soluti... | 20003906001 | 1       |
| AHD                 | Benzalkonium chloride soluti... | 192838002   | 1       |
| Alliance Healthcare | Benzalkonium chloride soluti... | 192838002   | 1       |
| Anzag               | Benzalkonium chloride soluti... | 18039409    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 11271906    | 2       |
| Caelo               | Benzalkonium chloride soluti... | 11271912    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 11271919    | 3       |
| Caelo               | Benzalkonium chloride soluti... | 12254603    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 12254608    | 3       |
| Caelo               | Benzalkonium chloride soluti... | 12254610    | 2       |
| Caelo               | Benzalkonium chloride soluti... | 12254615    | 3       |
| Caelo               | Benzalkonium chloride soluti... | 12254620    | 3       |
| Caelo               | Benzalkonium chloride soluti... | 13152104    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 13152105    | 6       |
| Caelo               | Benzalkonium chloride soluti... | 13152111    | 4       |
| Caelo               | Benzalkonium chloride soluti... | 13152114    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 13152115    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 13152121    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 13152123    | 3       |
| Caelo               | Benzalkonium chloride soluti... | 13152125    | 21      |
| Caelo               | Benzalkonium chloride soluti... | 1315225     | 1       |
| Caelo               | Benzalkonium chloride soluti... | 15051305    | 15      |
| Caelo               | Benzalkonium chloride soluti... | 15051309    | 14      |
| Caelo               | Benzalkonium chloride soluti... | 15051312    | 9       |
| Caelo               | Benzalkonium chloride soluti... | 15051317    | 11      |
| Caelo               | Benzalkonium chloride soluti... | 15051320    | 4       |
| Caelo               | Benzalkonium chloride soluti... | 15051323    | 24      |
| Caelo               | Benzalkonium chloride soluti... | 15051325    | 23      |
| Caelo               | Benzalkonium chloride soluti... | 15051327    | 6       |
| Caelo               | Benzalkonium chloride soluti... | 15119501    | 6       |
| Caelo               | Benzalkonium chloride soluti... | 15119505    | 12      |
| Caelo               | Benzalkonium chloride soluti... | 16089219    | 1       |
| Caelo               | Benzalkonium chloride soluti... | 17044901    | 38      |
| Caelo               | Benzalkonium chloride soluti... | 1704901     | 1       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Caelo                      | Benzalkonium chloride soluti... | 17344901     | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 18036405     | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 18039405     | 31      |
| Caelo                      | Benzalkonium chloride soluti... | 18039409     | 45      |
| Caelo                      | Benzalkonium chloride soluti... | 180394095743 | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 18039410     | 18      |
| Caelo                      | Benzalkonium chloride soluti... | 180394505    | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 18205001     | 2       |
| Caelo                      | Benzalkonium chloride soluti... | 182660002    | 36      |
| Caelo                      | Benzalkonium chloride soluti... | 182660006    | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 18266001     | 34      |
| Caelo                      | Benzalkonium chloride soluti... | 18266002     | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 18266003     | 3       |
| Caelo                      | Benzalkonium chloride soluti... | 18266006     | 13      |
| Caelo                      | Benzalkonium chloride soluti... | 1826606      | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 192838002    | 15      |
| Caelo                      | Benzalkonium chloride soluti... | 192838005    | 4       |
| Caelo                      | Benzalkonium chloride soluti... | 20003906001  | 3       |
| Caelo                      | Benzalkonium chloride soluti... | 20003906004  | 5       |
| Caelo                      | Benzalkonium chloride soluti... | 20003906005  | 4       |
| Caelo                      | Benzalkonium chloride soluti... | 20003906006  | 8       |
| Caelo                      | Benzalkonium chloride soluti... | 200039060001 | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 2003906001   | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 2003906005   | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 21003188001  | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 31011402     | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 5117A-01168  | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 60547317     | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 611benz      | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 7082007      | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 7111806      | 1       |
| Caelo                      | Benzalkonium chloride soluti... | 8041406      | 1       |
| Caelo                      | Benzalkonium chloride soluti... | P-14011922   | 1       |
| Caeolo/Gehe                | Benzalkonium chloride soluti... | 18039405     | 1       |
| Caeolo                     | Benzalkonium chloride soluti... | 15119505     | 1       |
| Caesar & Loretz GmbH/ A... | Benzalkonium chloride soluti... | 192838002    | 1       |
| Caesar & Loretz GmbH/ J... | Benzalkonium chloride soluti... | 182660002    | 1       |
| Caesar & Loretz GmbH/ P... | Benzalkonium chloride soluti... | 20003906001  | 1       |
| Caesar & Loretz GmbH/P...  | Benzalkonium chloride soluti... | 20003906001  | 1       |
| Caesar & Loretz GmbH/Fi... | Benzalkonium chloride soluti... | 18266006     | 1       |
| Caesar & Loretz GmbH/Gehe  | Benzalkonium chloride soluti... | 192838002    | 1       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 18039409     | 2       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 18039410     | 1       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 182660002    | 7       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 18266001     | 5       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 18266006     | 6       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 192838002    | 5       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 192838005    | 4       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 20003906001  | 5       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 20003906005  | 2       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 20003906006  | 1       |
| Caesar & Loretz GmbH       | Benzalkonium chloride soluti... | 21003188001  | 1       |
| Caesar & Loretz GmbHFie... | Benzalkonium chloride soluti... | 18039409     | 1       |
| Caesar/Noweda              | Benzalkonium chloride soluti... | 5012m-01168  | 1       |
| Celo/Sanacorp              | Benzalkonium chloride soluti... | 18039409     | 1       |
| Ebert-Jacobi               | Benzalkonium chloride soluti... | 15051325     | 1       |
| Euro OTC                   | Benzalkonium chloride soluti... | 110041V-03   | 1       |
| Euro OTC                   | Benzalkonium chloride soluti... | 1105041-01   | 4       |
| Euro OTC                   | Benzalkonium chloride soluti... | 1105041V     | 1       |
| Euro OTC                   | Benzalkonium chloride soluti... | 1105041V-03  | 3       |

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| Supplier     | Substance                       | Batch       | Spectra |
|--------------|---------------------------------|-------------|---------|
| Euro OTC     | Benzalkonium chloride soluti... | 15051309    | 1       |
| Fagron       | Benzalkonium chloride soluti... | 15051320    | 1       |
| Fagron       | Benzalkonium chloride soluti... | 15051323    | 1       |
| Fagron       | Benzalkonium chloride soluti... | 15119501    | 1       |
| Fagron       | Benzalkonium chloride soluti... | 18039405    | 1       |
| Fagron       | Benzalkonium chloride soluti... | 2913A-01168 | 1       |
| Fagron       | Benzalkonium chloride soluti... | 7F21-N09    | 1       |
| Fischar      | Benzalkonium chloride soluti... | 17044901    | 1       |
| Gehe         | Benzalkonium chloride soluti... | 15051323    | 1       |
| Gehe         | Benzalkonium chloride soluti... | 15051325    | 1       |
| GEHE         | Benzalkonium chloride soluti... | 17044901    | 1       |
| GEHE         | Benzalkonium chloride soluti... | 18039405    | 1       |
| Gehe         | Benzalkonium chloride soluti... | 18039409    | 2       |
| L10          | Benzalkonium chloride soluti... | 18039405    | 1       |
| L12          | Benzalkonium chloride soluti... | 15051312    | 1       |
| Löhr Center/ | Benzalkonium chloride soluti... | 2013U-01168 | 1       |
| Noweda       | Benzalkonium chloride soluti... | 12254615    | 1       |
| Noweda       | Benzalkonium chloride soluti... | 15051327    | 1       |
| Noweda       | Benzalkonium chloride soluti... | 182660002   | 1       |
| Noweda       | Benzalkonium chloride soluti... | 192838002   | 1       |
| Noweda       | Benzalkonium chloride soluti... | 20003906001 | 1       |
| Phoenix      | Benzalkonium chloride soluti... | 15051309    | 1       |
| Phoenix      | Benzalkonium chloride soluti... | 3412        | 1       |
| Phönix Gotha | Benzalkonium chloride soluti... | 13152125    | 1       |
| Phönix       | Benzalkonium chloride soluti... | 13152125    | 1       |
| Phönix       | Benzalkonium chloride soluti... | 18039410    | 1       |
| Phönix       | Benzalkonium chloride soluti... | 18266001    | 1       |
| Sanacorp     | Benzalkonium chloride soluti... | 12254608    | 1       |
| Sanacorp     | Benzalkonium chloride soluti... | 13152125    | 1       |
| Sanacorp     | Benzalkonium chloride soluti... | 15051325    | 1       |
| Sanacorp     | Benzalkonium chloride soluti... | 15119501    | 1       |
| Sanacorp     | Benzalkonium chloride soluti... | 17044901    | 1       |
| Sanacorp     | Benzalkonium chloride soluti... | 18039405    | 1       |
| Sanacorp     | Benzalkonium chloride soluti... | 4/AKD2      | 1       |

- 288 149 spectra from 1294 *Apo-Ident* customers from a total of 51 817 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Benzalkonium chloride solution 50%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Benzalkonium chloride solution 50%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 190           | 0              | 66 969        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 559           | 1              | 288 149       |

The substance/substance group *Benzalkonium chloride solution 50%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.8421 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.8214 % (> 99.2857 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Benzalkonium chloride solution 50%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Anionic hydrophlic cream without prese... | 46.75                  | —                              |
| Anionic hydrophilic cream SR (NRF p.27)   | 48.65                  | —                              |
| Glycolic acid 70%                         | 55.30                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Benzalkonium chloride solution 50%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30667     | 30667               | 0.00                         | 48.30                           |
| 31613     | 30667               | 8.19                         | 47.42                           |
| 33605     | 30667               | 14.03                        | 47.38                           |
| 35856     | 30667               | 11.76                        | 47.43                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Benzyl alcohol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30574-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Benzyl alcohol; Alkohol benzylicus

### Special notes

When selecting the *Benzyl alcohol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Benzyl alcohol            | 5      | 5      | 37     |

## Second-stage model

For differentiation of the substance/substance group *Benzyl alcohol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Benzyl alcohol*:

| Supplier | Substance      | Batch    | Sample ID | Spectra | Certificate |
|----------|----------------|----------|-----------|---------|-------------|
| Caelo    | Benzyl alcohol | 13292103 | 31220     | 40      | 1403478     |
| Caelo    | Benzyl alcohol | 13292107 | 31369     | 60      | 20131028    |
| Caelo    | Benzyl alcohol | 16277302 | 32969     | 40      | 20161024    |
| Caelo    | Benzyl alcohol | 190780   | 34631     | 40      | 20190410*   |
| Caelo    | Benzyl alcohol | 21002213 | 35724     | 50      | 20210806*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 230 spectra of 5 reference samples from the substance/substance group *Benzyl alcohol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 929 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 200 spectra of 5 reference samples from the substance/substance group *Benzyl alcohol*.
- Among them are spectra of independent samples from 5 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance      | Batch    | Sample ID | Spectra |
|----------|----------------|----------|-----------|---------|
| Caelo    | Benzyl alcohol | 16341802 | 32968     | 40      |
| Caelo    | Benzyl alcohol | 17191002 | 33857     | 40      |
| Caelo    | Benzyl alcohol | 20002326 | 35277     | 40      |
| Caelo    | Benzyl alcohol | 22000629 | 36298     | 40      |
| Caelo    | Benzyl alcohol | 22000851 | 36300     | 40      |

- 107 163 spectra from a total of 2496 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 77 spectra from 24 *Apo-Ident* customers from 41 batches from the substance/substance group *Benzyl alcohol*.
- Among them are spectra of independent samples from 37 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance      | Batch       | Spectra |
|-----------|----------------|-------------|---------|
| Applichem | Benzyl alcohol | 17191004    | 1       |
| Caelo     | Benzyl alcohol | 12108503    | 1       |
| Caelo     | Benzyl alcohol | 12256208    | 1       |
| Caelo     | Benzyl alcohol | 13056803    | 1       |
| Caelo     | Benzyl alcohol | 13292103    | 3       |
| Caelo     | Benzyl alcohol | 13292107    | 2       |
| Caelo     | Benzyl alcohol | 14206201    | 2       |
| Caelo     | Benzyl alcohol | 14206209    | 1       |
| Caelo     | Benzyl alcohol | 15014901    | 5       |
| Caelo     | Benzyl alcohol | 15014907    | 1       |
| Caelo     | Benzyl alcohol | 15318403    | 3       |
| Caelo     | Benzyl alcohol | 15318406    | 1       |
| Caelo     | Benzyl alcohol | 15437503    | 3       |
| Caelo     | Benzyl alcohol | 16277302    | 1       |
| Caelo     | Benzyl alcohol | 16341802    | 2       |
| Caelo     | Benzyl alcohol | 16341805    | 3       |
| Caelo     | Benzyl alcohol | 16341809    | 1       |
| Caelo     | Benzyl alcohol | 17191002    | 3       |
| Caelo     | Benzyl alcohol | 17353903    | 2       |
| Caelo     | Benzyl alcohol | 17353904    | 1       |
| Caelo     | Benzyl alcohol | 17353906    | 2       |
| Caelo     | Benzyl alcohol | 180878      | 1       |
| Caelo     | Benzyl alcohol | 18087802    | 1       |
| Caelo     | Benzyl alcohol | 18087804    | 1       |
| Caelo     | Benzyl alcohol | 18087809    | 1       |
| Caelo     | Benzyl alcohol | 190780      | 3       |
| Caelo     | Benzyl alcohol | 19078001    | 2       |
| Caelo     | Benzyl alcohol | 19078004    | 1       |
| Caelo     | Benzyl alcohol | 19078005    | 1       |
| Caelo     | Benzyl alcohol | 20003555003 | 1       |
| Caelo     | Benzyl alcohol | 2003555003  | 1       |
| Caelo     | Benzyl alcohol | 21003240002 | 2       |
| Caelo     | Benzyl alcohol | AP210225-01 | 1       |

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| Supplier                  | Substance      | Batch        | Spectra |
|---------------------------|----------------|--------------|---------|
| Caesar & Loretz GmbH/Gehe | Benzyl alcohol | 190780002    | 1       |
| Caesar & Loretz GmbH      | Benzyl alcohol | 18087809     | 1       |
| Caesar & Loretz GmbH      | Benzyl alcohol | 18087815     | 1       |
| Caesar & Loretz GmbH      | Benzyl alcohol | 190780002    | 1       |
| Caesar & Loretz GmbH      | Benzyl alcohol | 19078001     | 2       |
| Gatt-Koller               | Benzyl alcohol | 1803541      | 2       |
| Gehe                      | Benzyl alcohol | 15318406     | 1       |
| Gehe                      | Benzyl alcohol | 15437503     | 1       |
| Gehe                      | Benzyl alcohol | 15437509     | 1       |
| Gehe                      | Benzyl alcohol | 15437512     | 1       |
| GEHE                      | Benzyl alcohol | 17353903     | 1       |
| GEHE                      | Benzyl alcohol | 17353906     | 1       |
| Kögl                      | Benzyl alcohol | 1800440      | 2       |
| Kögl                      | Benzyl alcohol | 241507161217 | 1       |
| Kögl                      | Benzyl alcohol | 241507163116 | 1       |
| PHÖNIX                    | Benzyl alcohol | 17191002     | 2       |
| Sanacorp                  | Benzyl alcohol | 15014907     | 1       |

- 288 632 spectra from 1294 *Apo-Ident* customers from a total of 51 848 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Benzyl alcohol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Benzyl alcohol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 230           | 0              | 66 929        |
| Type B | 0              | 200           | 0              | 107 163       |
| Type C | 0              | 77            | 0              | 288 632       |

The substance/substance group *Benzyl alcohol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.3913 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 97.0000 %) |
| Type C | 100.0000 % (> 99.6872 %) | 100.0000 % (> 92.2078 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Benzyl alcohol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance               | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------|---------------------------|-----------------------------------|
| Hydroxyethyl salicylate | 68.05                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Benzyl alcohol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31220     | 31220                  | 0.00                            | 103.21                             |
| 31369     | 31220                  | 1.75                            | 104.68                             |
| 32969     | 35724                  | 10.61                           | 102.33                             |
| 34631     | 34631                  | 0.00                            | 111.05                             |
| 35724     | 35724                  | 0.00                            | 106.47                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Benzyl benzoate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31208-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Benzyl benzoate; Benzylis benzoas

### Special notes

When selecting the *Benzyl benzoate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Benzyl benzoate           | 5      | 3      | 42     |



## Second-stage model

For differentiation of the substance/substance group *Benzyl benzoate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Benzyl benzoate*:

| Supplier | Substance       | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------------|----------|-----------|---------|-------------|
| Caelo    | Benzyl benzoate | 13099320 | 31208     | 40      | 1403156     |
| Caelo    | Benzyl benzoate | 14029602 | 31435     | 60      | 20140207    |
| Caelo    | Benzyl benzoate | 171562   | 33695     | 40      | 20170530*   |
| Caelo    | Benzyl benzoate | 181819   | 34219     | 40      | 20180907*   |
| Caelo    | Benzyl benzoate | 190546   | 34634     | 40      | 20190314*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Benzyl benzoate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Benzyl benzoate*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance       | Batch       | Sample ID | Spectra |
|----------|-----------------|-------------|-----------|---------|
| Caelo    | Benzyl benzoate | 16140805    | 32959     | 40      |
| Caelo    | Benzyl benzoate | 172351      | 33696     | 40      |
| Caelo    | Benzyl benzoate | 21001835001 | 35743     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 63 spectra from 27 *Apo-Ident* customers from 42 batches from the substance/substance group *Benzyl benzoate*.
- Among them are spectra of independent samples from 42 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance       | Batch        | Spectra |
|----------------------------|-----------------|--------------|---------|
| Bombastus                  | Benzyl benzoate | 16140807     | 1       |
| Caelo                      | Benzyl benzoate | 11340415     | 1       |
| Caelo                      | Benzyl benzoate | 14029613     | 1       |
| Caelo                      | Benzyl benzoate | 15133401     | 1       |
| Caelo                      | Benzyl benzoate | 15243002     | 1       |
| Caelo                      | Benzyl benzoate | 15243005     | 1       |
| Caelo                      | Benzyl benzoate | 15243012     | 1       |
| Caelo                      | Benzyl benzoate | 15250301     | 1       |
| Caelo                      | Benzyl benzoate | 16140806     | 2       |
| Caelo                      | Benzyl benzoate | 16140807     | 1       |
| Caelo                      | Benzyl benzoate | 16140808     | 2       |
| Caelo                      | Benzyl benzoate | 16140810     | 2       |
| Caelo                      | Benzyl benzoate | 16250301     | 2       |
| Caelo                      | Benzyl benzoate | 17156204     | 1       |
| Caelo                      | Benzyl benzoate | 1723         | 1       |
| Caelo                      | Benzyl benzoate | 17235101     | 3       |
| Caelo                      | Benzyl benzoate | 18003001     | 1       |
| Caelo                      | Benzyl benzoate | 18003202     | 1       |
| Caelo                      | Benzyl benzoate | 19054602     | 5       |
| Caelo                      | Benzyl benzoate | 200000645005 | 1       |
| Caelo                      | Benzyl benzoate | 20000645001  | 1       |
| Caelo                      | Benzyl benzoate | 20000645002  | 1       |
| Caelo                      | Benzyl benzoate | 20000645004  | 2       |
| Caelo                      | Benzyl benzoate | 20000645005  | 1       |
| Caelo                      | Benzyl benzoate | 2003862003   | 1       |
| Caelo                      | Benzyl benzoate | 21001835001  | 1       |
| Caelo                      | Benzyl benzoate | 90546001     | 1       |
| Caesar & Loretz GmbH/Kr... | Benzyl benzoate | 190546005    | 2       |
| Caesar & Loretz GmbH       | Benzyl benzoate | 12141003     | 2       |
| Caesar & Loretz GmbH       | Benzyl benzoate | 13099313     | 1       |
| Caesar & Loretz GmbH       | Benzyl benzoate | 14029603     | 1       |
| Caesar & Loretz GmbH       | Benzyl benzoate | 14029613     | 1       |
| Caesar & Loretz GmbH       | Benzyl benzoate | 15133401     | 1       |
| Caesar & Loretz GmbH       | Benzyl benzoate | 18003101     | 1       |
| Caesar & Loretz GmbH       | Benzyl benzoate | 18181906     | 2       |

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| Supplier             | Substance       | Batch       | Spectra |
|----------------------|-----------------|-------------|---------|
| Caesar & Loretz GmbH | Benzyl benzoate | 190546004   | 1       |
| Caesar & Loretz GmbH | Benzyl benzoate | 19054605    | 3       |
| Caesar & Loretz GmbH | Benzyl benzoate | 19054607    | 3       |
| Caesar & Loretz GmbH | Benzyl benzoate | 20000645003 | 1       |
| Gatt-Koller          | Benzyl benzoate | KNC0919J18  | 1       |
| Gehe                 | Benzyl benzoate | 13099317    | 1       |
| Gehe                 | Benzyl benzoate | 15243003    | 1       |
| Gehe                 | Benzyl benzoate | 15243006    | 1       |
| Phönix               | Benzyl benzoate | 12141008    | 1       |
| Sanacorp             | Benzyl benzoate | 15243014    | 1       |

- 288 646 spectra from 1294 *Apo-Ident* customers from a total of 51 847 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Benzyl benzoate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Benzyl benzoate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 220           | 0              | 66 939        |
| Type B | 0              | 130           | 0              | 107 233       |
| Type C | 0              | 62            | 1              | 288 646       |

The substance/substance group *Benzyl benzoate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| Type C | 100.0000 % (> 99.6872 %) | 98.4127 % (> 93.6508 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Benzyl benzoate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------|---------------------------|-----------------------------------|
| Benzyl nicotinate | 31.48                     | —                                 |
| Methyl salicylate | 95.40                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Benzyl benzoate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31208     | 31208                  | 0.00                            | 47.76                              |
| 31435     | 31208                  | 2.13                            | 50.52                              |
| 33695     | 33695                  | 0.00                            | 44.06                              |
| 34219     | 34219                  | 0.00                            | 45.93                              |
| 34634     | 34634                  | 0.00                            | 48.90                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Benzyl nicotinate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30502-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Benzyl nicotinate; Benzyliis nicotinas

### Special notes

When selecting the *Benzyl nicotinate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Benzyl nicotinate         | 5      | 3      | 44     |

## Second-stage model

For differentiation of the substance/substance group *Benzyl nicotinate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Benzyl nicotinate*:

| Supplier | Substance         | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------------|----------|-----------|---------|-------------|
| Caelo    | Benzyl nicotinate | 13272502 | 31199     | 40      | 1403109     |
| Caelo    | Benzyl nicotinate | 14112404 | 31383     | 40      | 20140407    |
| Caelo    | Benzyl nicotinate | 16358301 | 32967     | 40      | 20170113    |
| Caelo    | Benzyl nicotinate | 163583   | 33055     | 40      | 20170113*   |
| Caelo    | Benzyl nicotinate | 191097   | 34450     | 40      | 20190614*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 200 spectra of 5 reference samples from the substance/substance group *Benzyl nicotinate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 959 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Benzyl nicotinate*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



| Supplier | Substance         | Batch       | Sample ID | Spectra |
|----------|-------------------|-------------|-----------|---------|
| Caelo    | Benzyl nicotinate | 15444804    | 32592     | 40      |
| Caelo    | Benzyl nicotinate | 16358302    | 32966     | 40      |
| Caelo    | Benzyl nicotinate | 21002554002 | 35735     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 106 spectra from 67 *Apo-Ident* customers from 46 batches from the substance/substance group *Benzyl nicotinate*.
- Among them are spectra of independent samples from 44 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier       | Substance         | Batch       | Spectra |
|----------------|-------------------|-------------|---------|
| Anzag/ichthyol | Benzyl nicotinate | 13035408    | 1       |
| anzag          | Benzyl nicotinate | 12282802    | 1       |
| Anzag          | Benzyl nicotinate | 12282802    | 1       |
| Anzag          | Benzyl nicotinate | 16358302    | 1       |
| Anzag          | Benzyl nicotinate | 17236704    | 1       |
| Beiersdorf AG  | Benzyl nicotinate | 15293104    | 1       |
| Caelo          | Benzyl nicotinate | 10111403    | 1       |
| Caelo          | Benzyl nicotinate | 12142004    | 1       |
| Caelo          | Benzyl nicotinate | 12142008    | 2       |
| Caelo          | Benzyl nicotinate | 1217I-01176 | 1       |
| Caelo          | Benzyl nicotinate | 12282802    | 2       |
| Caelo          | Benzyl nicotinate | 12282804    | 1       |
| Caelo          | Benzyl nicotinate | 13035402    | 3       |
| Caelo          | Benzyl nicotinate | 13157201    | 1       |
| Caelo          | Benzyl nicotinate | 13157205    | 3       |
| Caelo          | Benzyl nicotinate | 13272502    | 2       |
| Caelo          | Benzyl nicotinate | 14112404    | 1       |
| Caelo          | Benzyl nicotinate | 14112405    | 1       |
| Caelo          | Benzyl nicotinate | 14112408    | 4       |
| Caelo          | Benzyl nicotinate | 15124402    | 5       |
| Caelo          | Benzyl nicotinate | 15124408    | 1       |
| Caelo          | Benzyl nicotinate | 1529304     | 1       |
| Caelo          | Benzyl nicotinate | 15293104    | 1       |
| Caelo          | Benzyl nicotinate | 15444803    | 1       |
| Caelo          | Benzyl nicotinate | 15444804    | 4       |
| Caelo          | Benzyl nicotinate | 16154409    | 1       |
| Caelo          | Benzyl nicotinate | 16358302    | 8       |
| Caelo          | Benzyl nicotinate | 16358308    | 3       |
| Caelo          | Benzyl nicotinate | 17191405    | 1       |
| Caelo          | Benzyl nicotinate | 17236704    | 3       |
| Caelo          | Benzyl nicotinate | 17236705    | 1       |
| Caelo          | Benzyl nicotinate | 17236707    | 3       |
| Caelo          | Benzyl nicotinate | 18032104    | 1       |
| Caelo          | Benzyl nicotinate | 18032105    | 3       |
| Caelo          | Benzyl nicotinate | 18032110    | 1       |

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| Supplier                   | Substance         | Batch        | Spectra |
|----------------------------|-------------------|--------------|---------|
| Caelo                      | Benzyl nicotinate | 18032112     | 2       |
| Caelo                      | Benzyl nicotinate | 180321125750 | 1       |
| Caelo                      | Benzyl nicotinate | 18215204     | 2       |
| Caelo                      | Benzyl nicotinate | 19000599003  | 3       |
| Caelo                      | Benzyl nicotinate | 19028904     | 3       |
| Caelo                      | Benzyl nicotinate | 19028908     | 1       |
| Caelo                      | Benzyl nicotinate | 19028909     | 1       |
| Caelo                      | Benzyl nicotinate | 19109704     | 2       |
| Caelo                      | Benzyl nicotinate | 20002141003  | 3       |
| Caelo                      | Benzyl nicotinate | 2091301      | 1       |
| Caelo                      | Benzyl nicotinate | 40757015     | 1       |
| Caesar & Loretz GmbH, A... | Benzyl nicotinate | 18032104     | 1       |
| Caesar & Loretz GmbH/Ph... | Benzyl nicotinate | 19000599003  | 1       |
| Caesar & Loretz GmbH       | Benzyl nicotinate | 19000599003  | 3       |
| Caesar & Loretz GmbH       | Benzyl nicotinate | 19109704     | 3       |
| Caesar & Loretz GmbH       | Benzyl nicotinate | 20002141003  | 1       |
| Caesar & Loretz GmbH       | Benzyl nicotinate | 21002554002  | 1       |
| Caesar Loretz GmbH         | Benzyl nicotinate | 17191405     | 1       |
| Fagron                     | Benzyl nicotinate | 12I20-N01    | 1       |
| Fagron                     | Benzyl nicotinate | 18215206     | 1       |
| Fiebig                     | Benzyl nicotinate | 19028904     | 1       |
| Gatt-Koller                | Benzyl nicotinate | 1803252      | 1       |
| Noweda                     | Benzyl nicotinate | 19000599003  | 1       |
| Phönix 28.01.2014          | Benzyl nicotinate | 13272502     | 1       |
| Phönix                     | Benzyl nicotinate | 17236707     | 1       |
| VDL                        | Benzyl nicotinate | 12D25-N07    | 1       |

- 288 603 spectra from 1294 *Apo-Ident* customers from a total of 51 842 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Benzyl nicotinate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Benzyl nicotinate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 200           | 0              | 66 959        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 105           | 1              | 288 603       |

The substance/substance group *Benzyl nicotinate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.0566 % (> 96.2264 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Benzyl nicotinate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                 | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------------|---------------------------|-----------------------------------|
| Benzyl benzoate           | 25.10                     | —                                 |
| Cinnamon bark oil, Ceylon | 53.20                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Benzyl nicotinate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31199     | 31199                  | 0.00                            | 31.05                              |
| 31383     | 34450                  | 2.93                            | 28.69                              |
| 32967     | 33055                  | 1.56                            | 32.61                              |
| 33055     | 33055                  | 0.00                            | 32.97                              |
| 34450     | 34450                  | 0.00                            | 30.23                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Bergamot oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31678-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Bergamot oil; Oleum citrus bergamia

### Special notes

When selecting the *Bergamot oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Bergamot oil              | 4      | 2      | 45     |

## Second-stage model

For differentiation of the substance/substance group *Bergamot oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Bergamot oil*:

| Supplier | Substance    | Batch    | Sample ID | Spectra | Certificate        |
|----------|--------------|----------|-----------|---------|--------------------|
| Caelo    | Bergamot oil | 15042001 | 31678     | 60      | AR-15-FG-008850-02 |
| Caelo    | Bergamot oil | 15042001 | 31696     | 60      | 20150217           |
| Caelo    | Bergamot oil | 16083611 | 33497     | 40      | 20160404           |
| Caelo    | Bergamot oil | 16083611 | 33655     | 40      | 20160404           |
| Caelo    | Bergamot oil | 190681   | 34445     | 40      | 20190312*          |
| Caelo    | Bergamot oil | 192330   | 34705     | 40      | 20190828*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 280 spectra of 6 reference samples from the substance/substance group *Bergamot oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 879 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Bergamot oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.



| Supplier | Substance    | Batch  | Sample ID | Spectra |
|----------|--------------|--------|-----------|---------|
| Caelo    | Bergamot oil | 171992 | 33894     | 40      |
| Caelo    | Bergamot oil | 180207 | 34230     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 122 spectra from 58 *Apo-Ident* customers from 47 batches from the substance/substance group *Bergamot oil*.
- Among them are spectra of independent samples from 45 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier          | Substance    | Batch       | Spectra |
|-------------------|--------------|-------------|---------|
|                   | Bergamot oil | 18020710    | 1       |
| Bergland / Noweda | Bergamot oil | P911156     | 1       |
| Bombastus         | Bergamot oil | 17199205    | 3       |
| Bombastus         | Bergamot oil | 18001281    | 3       |
| Bombastus         | Bergamot oil | 1801281     | 1       |
| Bombastus         | Bergamot oil | 19000361    | 6       |
| Bombastus         | Bergamot oil | 19001360    | 1       |
| Bombastus         | Bergamot oil | 190033632   | 1       |
| Bombastus         | Bergamot oil | 19003632    | 4       |
| Bombastus         | Bergamot oil | 19006566    | 1       |
| Bombastus         | Bergamot oil | 19006566702 | 1       |
| Bombastus         | Bergamot oil | 19006588    | 1       |
| Bombastus         | Bergamot oil | 21001126    | 1       |
| Bombastus         | Bergamot oil | 300470      | 1       |
| Bombastus         | Bergamot oil | 309494      | 1       |
| Bombastus         | Bergamot oil | 309941      | 7       |
| Caelo             | Bergamot oil | 14125805    | 2       |
| Caelo             | Bergamot oil | 15042001    | 3       |
| Caelo             | Bergamot oil | 15042002    | 1       |
| Caelo             | Bergamot oil | 15042008    | 2       |
| Caelo             | Bergamot oil | 15042011    | 3       |
| Caelo             | Bergamot oil | 16083601    | 14      |
| Caelo             | Bergamot oil | 16083611    | 1       |
| Caelo             | Bergamot oil | 17199201    | 1       |
| Caelo             | Bergamot oil | 17199204    | 5       |
| Caelo             | Bergamot oil | 18020702    | 10      |
| Caelo             | Bergamot oil | 18020709    | 1       |
| Caelo             | Bergamot oil | 18020710    | 6       |
| Caelo             | Bergamot oil | 18020711    | 1       |
| Caelo             | Bergamot oil | 19068101    | 5       |
| Caelo             | Bergamot oil | 19068105    | 4       |
| Caelo             | Bergamot oil | 192330002   | 1       |
| Caelo             | Bergamot oil | 192330004   | 5       |
| Caelo             | Bergamot oil | 192330006   | 2       |
| Caelo             | Bergamot oil | 192330010   | 1       |
| Caelo             | Bergamot oil | 19233013    | 1       |

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| Supplier                   | Substance    | Batch           | Spectra |
|----------------------------|--------------|-----------------|---------|
| Caeolo                     | Bergamot oil | 305910          | 1       |
| Caeolo / Phönix            | Bergamot oil | 17199204        | 1       |
| Caesar & Loretz GmbH/No... | Bergamot oil | 19068105        | 1       |
| Caesar & Loretz GmbH/Ph... | Bergamot oil | 192330007       | 1       |
| Caesar & Loretz GmbH       | Bergamot oil | 18020702        | 1       |
| Caesar & Loretz GmbH       | Bergamot oil | 18020710        | 1       |
| Caesar & Loretz GmbH       | Bergamot oil | 192330006       | 2       |
| Ebert                      | Bergamot oil | 297727          | 1       |
| Fagron                     | Bergamot oil | D01BE14M-12143B | 1       |
| Primavera/Direkt           | Bergamot oil | 892H24          | 1       |
| Taoasis GmbH               | Bergamot oil | 18110048-8248   | 2       |
| Taoasis                    | Bergamot oil | 1700901-4097    | 1       |
| Taoasis                    | Bergamot oil | 19045-8439      | 1       |
| Taoasis                    | Bergamot oil | 19821-122171    | 1       |
| Taoasis                    | Bergamot oil | 20023-11905     | 1       |
| Taoasis                    | Bergamot oil | 53731-127819    | 1       |
| Taoasis                    | Bergamot oil | 5836            | 1       |

- 288 587 spectra from 1294 *Apo-Ident* customers from a total of 51 841 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Bergamot oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Bergamot oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 280           | 0              | 66 879        |
| <b>Type B</b> | 0              | 80            | 0              | 107 283       |
| <b>Type C</b> | 0              | 122           | 0              | 288 587       |

The substance/substance group *Bergamot oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.8571 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 95.0820 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Bergamot oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------|---------------------------|-----------------------------------|
| Bitter orange oil | 47.62                     | —                                 |
| Caraway oil       | 48.33                     | —                                 |
| Dwarf pine oil    | 48.75                     | —                                 |
| Spearmint oil     | 49.86                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Bergamot oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31678     | 31678                  | 0.00                            | 61.42                              |
| 31696     | 31678                  | 1.52                            | 61.89                              |
| 33497     | 31678                  | 9.12                            | 63.25                              |
| 33655     | 31678                  | 11.66                           | 62.70                              |
| 34445     | 34445                  | 0.00                            | 51.45                              |
| 34705     | 34705                  | 0.00                            | 53.20                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Bitter-fennel fruit oil</b>                                   |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30398-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Bitter-fennel fruit oil; Foeniculi amari fructus aetheroleum

### Special notes

When selecting the *Bitter-fennel fruit oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Bitter-fennel fruit oil   | 6      | 3      | 33     |

## Second-stage model

For differentiation of the substance/substance group *Bitter-fennel fruit oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Bitter-fennel fruit oil*:

| Supplier  | Substance           | Batch    | Sample ID | Spectra | Certificate |
|-----------|---------------------|----------|-----------|---------|-------------|
| Bombastus | Bitter-fennel fr... | 295236   | 32922     | 40      | 1704221     |
| Bombastus | Bitter-fennel fr... | 18003219 | 34520     | 40      | 125095      |
| Bombastus | Bitter-fennel fr... | 20004137 | 35263     | 40      | 20200911    |
| Caelo     | Bitter-fennel fr... | 14190402 | 31706     | 60      | 20140625    |
| Caelo     | Bitter-fennel fr... | 15160103 | 31805     | 60      | 1703170     |
| Caelo     | Bitter-fennel fr... | 21003435 | 35789     | 50      | 20211029*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 290 spectra of 6 reference samples from the substance/substance group *Bitter-fennel fruit oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 869 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Bitter-fennel fruit oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance               | Batch    | Sample ID | Spectra |
|----------|-------------------------|----------|-----------|---------|
| Caelo    | Bitter-fennel fruit oil | 16008606 | 32961     | 40      |
| Caelo    | Bitter-fennel fruit oil | 171809   | 33680     | 40      |
| Caelo    | Bitter-fennel fruit oil | 191763   | 34650     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 83 spectra from 53 *Apo-Ident* customers from 35 batches from the substance/substance group *Bitter-fennel fruit oil*.
- Among them are spectra of independent samples from 33 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance               | Batch       | Spectra |
|----------------------|-------------------------|-------------|---------|
| Bombastus            | Bitter-fennel fruit oil | 18003219    | 1       |
| Bombastus            | Bitter-fennel fruit oil | 274253      | 1       |
| Bombastus            | Bitter-fennel fruit oil | 278909      | 2       |
| Bombastus            | Bitter-fennel fruit oil | 281715      | 1       |
| Bombastus            | Bitter-fennel fruit oil | 285544      | 1       |
| Bombastus            | Bitter-fennel fruit oil | 289232      | 1       |
| Bombastus            | Bitter-fennel fruit oil | 291598      | 1       |
| Caelo                | Bitter-fennel fruit oil | 11079207    | 1       |
| Caelo                | Bitter-fennel fruit oil | 12061412    | 1       |
| Caelo                | Bitter-fennel fruit oil | 12218103    | 1       |
| Caelo                | Bitter-fennel fruit oil | 12218104    | 4       |
| Caelo                | Bitter-fennel fruit oil | 12370303    | 1       |
| Caelo                | Bitter-fennel fruit oil | 12370306    | 4       |
| Caelo                | Bitter-fennel fruit oil | 12370312    | 1       |
| Caelo                | Bitter-fennel fruit oil | 14190401    | 1       |
| Caelo                | Bitter-fennel fruit oil | 14190402    | 3       |
| Caelo                | Bitter-fennel fruit oil | 15160101    | 2       |
| Caelo                | Bitter-fennel fruit oil | 15160106    | 2       |
| Caelo                | Bitter-fennel fruit oil | 16008601    | 3       |
| Caelo                | Bitter-fennel fruit oil | 16008606    | 7       |
| Caelo                | Bitter-fennel fruit oil | 16008608    | 3       |
| Caelo                | Bitter-fennel fruit oil | 17180901    | 6       |
| Caelo                | Bitter-fennel fruit oil | 17337601    | 7       |
| Caelo                | Bitter-fennel fruit oil | 17337606    | 3       |
| Caelo                | Bitter-fennel fruit oil | 17337608    | 1       |
| Caelo                | Bitter-fennel fruit oil | 18277905    | 2       |
| Caelo                | Bitter-fennel fruit oil | 18277907    | 2       |
| Caelo                | Bitter-fennel fruit oil | 191763002   | 3       |
| Caelo                | Bitter-fennel fruit oil | 191763003   | 1       |
| Caelo                | Bitter-fennel fruit oil | 19176301    | 2       |
| Caelo                | Bitter-fennel fruit oil | 20004125002 | 2       |
| Caelo                | Bitter-fennel fruit oil | 24101403    | 1       |
| Caelo                | Bitter-fennel fruit oil | 268017      | 1       |
| Caesar & Loretz GmbH | Bitter-fennel fruit oil | 18277902    | 1       |
| Caesar & Loretz GmbH | Bitter-fennel fruit oil | 20004125002 | 1       |

*continued on the next page*



continued from previous page

| Supplier    | Substance               | Batch    | Spectra |
|-------------|-------------------------|----------|---------|
| Celo / Kehr | Bitter-fennel fruit oil | 12370314 | 1       |
| Gehe        | Bitter-fennel fruit oil | 16008601 | 1       |
| Gehe        | Bitter-fennel fruit oil | 291598   | 1       |
| Noweda      | Bitter-fennel fruit oil | 18277902 | 1       |
| Phönix      | Bitter-fennel fruit oil | 17180901 | 1       |
| Sanacorp    | Bitter-fennel fruit oil | 16008606 | 1       |
| Sanacorp    | Bitter-fennel fruit oil | 17337601 | 1       |
| Sanacorp    | Bitter-fennel fruit oil | 278909   | 1       |

- 288 626 spectra from 1294 *Apo-Ident* customers from a total of 51 853 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Bitter-fennel fruit oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Bitter-fennel fruit oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 290           | 0              | 66 869        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 83            | 0              | 288 626       |

The substance/substance group *Bitter-fennel fruit oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.9310 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6872 %) | 100.0000 % (> 92.7711 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Bitter-fennel fruit oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance      | Distance in<br>main model | Distance in<br>second-stage model |
|----------------|---------------------------|-----------------------------------|
| Star anise oil | 30.15                     | —                                 |
| Anise oil      | 44.34                     | —                                 |
| Wormwood oil   | 63.71                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Bitter-fennel fruit oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31706     | 31805                  | 1.68                            | 68.25                              |
| 31805     | 31805                  | 0.00                            | 67.49                              |
| 32922     | 32922                  | 0.00                            | 49.98                              |
| 34520     | 32922                  | 12.14                           | 50.21                              |
| 35263     | 32922                  | 6.83                            | 49.03                              |
| 35789     | 35789                  | 0.00                            | 71.95                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Cajeput (essentiel oil)</b>                                   |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 31502-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Cajeput (essentiel oil); Oleum Cajeputi artificiale

### Special notes

When selecting the *Cajeput (essentiel oil)* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Cajeput (essentiel oil)   | 2      | 3      | 12     |

## Second-stage model

For differentiation of the substance/substance group *Cajeput (essentiel oil)* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cajeput (essentiel oil)*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Cajeput (essenti... | 13141409 | 31502     | 60      | 1412341     |
| Caelo    | Cajeput (essenti... | 14225206 | 31605     | 60      | 20140730    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 2 reference samples from the substance/substance group *Cajeput (essentiel oil)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 039 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Cajeput (essentiel oil)*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance               | Batch    | Sample ID | Spectra |
|----------|-------------------------|----------|-----------|---------|
| Caelo    | Cajeput (essentiel oil) | 162770   | 32688     | 40      |
| Caelo    | Cajeput (essentiel oil) | 16277003 | 33620     | 40      |
| Caelo    | Cajeput (essentiel oil) | 172410   | 33910     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 21 spectra from 9 *Apo-Ident* customers from 12 batches from the substance/substance group *Cajeput (essentiel oil)*.
- Among them are spectra of independent samples from 12 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier               | Substance               | Batch          | Spectra |
|------------------------|-------------------------|----------------|---------|
| Bombastus              | Cajeput (essentiel oil) | 20001840       | 1       |
| Caelo                  | Cajeput (essentiel oil) | 15063501       | 2       |
| Caelo                  | Cajeput (essentiel oil) | 16277004       | 1       |
| Caelo                  | Cajeput (essentiel oil) | 17241002       | 7       |
| Caelo                  | Cajeput (essentiel oil) | 17241004       | 2       |
| Caelo                  | Cajeput (essentiel oil) | 17241008       | 1       |
| Caelo                  | Cajeput (essentiel oil) | 21111818       | 1       |
| Caesar & Loretz/Noweda | Cajeput (essentiel oil) | 14225210       | 1       |
| Fagron                 | Cajeput (essentiel oil) | 15063511       | 1       |
| Noweda                 | Cajeput (essentiel oil) | 17241008       | 1       |
| Taoasis                | Cajeput (essentiel oil) | 1518-122595    | 1       |
| Taoasis                | Cajeput (essentiel oil) | 6781010-120111 | 1       |
| Taoasis                | Cajeput (essentiel oil) | 6781012-119058 | 1       |

- 288 688 spectra from 1294 *Apo-Ident* customers from a total of 51 876 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cajeput (essentiel oil)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cajeput (essentiel oil)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 20            | 1              | 288 688       |

The substance/substance group *Cajeput (essentiel oil)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6875 %) | 95.2381 % (> 80.9524 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cajeput (essentiel oil)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in main model | Distance in second-stage model |
|-------------------------------|------------------------|--------------------------------|
| Myrtle oil                    | 18.04                  | —                              |
| Eucalyptus oil                | 19.55                  | —                              |
| Rosemary oil                  | 21.31                  | —                              |
| Turpentine oil                | 21.33                  | —                              |
| Juniper wood oil              | 22.58                  | —                              |
| Cypress oil                   | 32.69                  | —                              |
| Verbena oil, nature-identical | 42.41                  | —                              |
| Petroleum ether DAB           | 46.59                  | —                              |
| Peppermint oil                | 46.61                  | —                              |
| Acorus oil                    | 47.44                  | —                              |
| Cineole                       | 47.79                  | —                              |
| Cedar wood oil                | 48.18                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cajeput (essentiel oil)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31502     | 31502               | 0.00                         | 22.10                           |
| 31605     | 31502               | 10.01                        | 20.70                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by

laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Camphor oil 20%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30551-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Camphor oil 20%; Oleum camphoratum 20%

### Special notes

When selecting the *Camphor oil 20%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Camphor oil 20%           | 3      | 2      | 27     |

## Second-stage model

For differentiation of the substance/substance group *Camphor oil 20%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Camphor oil 20%*:

| Supplier | Substance       | Batch       | Sample ID | Spectra | Certificate |
|----------|-----------------|-------------|-----------|---------|-------------|
| Caelo    | Camphor oil 20% | 12261202    | 31154     | 40      | 1404534     |
| Caelo    | Camphor oil 20% | 13369902    | 31347     | 60      | 20131112    |
| Caelo    | Camphor oil 20% | 20003142002 | 35287     | 40      | 20201023    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 140 spectra of 3 reference samples from the substance/substance group *Camphor oil 20%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 019 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Camphor oil 20%*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance       | Batch    | Sample ID | Spectra |
|----------|-----------------|----------|-----------|---------|
| Caelo    | Camphor oil 20% | 17083502 | 33494     | 40      |
| Caelo    | Camphor oil 20% | 21003296 | 35948     | 40      |
| Caelo    | Camphor oil 20% | 17083502 | 33495     | 40      |

- 107 243 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 107 spectra from 56 *Apo-Ident* customers from 29 batches from the substance/substance group *Camphor oil 20%*.
- Among them are spectra of independent samples from 27 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance       | Batch        | Spectra |
|----------------------------|-----------------|--------------|---------|
| ahd/lamotte                | Camphor oil 20% | 133699902    | 1       |
| Caelo                      | Camphor oil 20% | 12122502     | 6       |
| Caelo                      | Camphor oil 20% | 1226103      | 1       |
| Caelo                      | Camphor oil 20% | 12261203     | 2       |
| Caelo                      | Camphor oil 20% | 13039603     | 1       |
| Caelo                      | Camphor oil 20% | 13369902     | 4       |
| Caelo                      | Camphor oil 20% | 14028202     | 2       |
| Caelo                      | Camphor oil 20% | 14147303     | 3       |
| Caelo                      | Camphor oil 20% | 15056906     | 1       |
| Caelo                      | Camphor oil 20% | 15056907     | 12      |
| Caelo                      | Camphor oil 20% | 15246805     | 2       |
| Caelo                      | Camphor oil 20% | 15246809     | 7       |
| Caelo                      | Camphor oil 20% | 16085301     | 3       |
| Caelo                      | Camphor oil 20% | 16085302     | 6       |
| Caelo                      | Camphor oil 20% | 16316101     | 6       |
| Caelo                      | Camphor oil 20% | 16316102     | 1       |
| Caelo                      | Camphor oil 20% | 17083502     | 4       |
| Caelo                      | Camphor oil 20% | 17195105     | 2       |
| Caelo                      | Camphor oil 20% | 17301902     | 7       |
| Caelo                      | Camphor oil 20% | 17301903     | 1       |
| Caelo                      | Camphor oil 20% | 18143002     | 2       |
| Caelo                      | Camphor oil 20% | 18143005     | 2       |
| Caelo                      | Camphor oil 20% | 18143008     | 4       |
| Caelo                      | Camphor oil 20% | 19141301     | 2       |
| Caelo                      | Camphor oil 20% | 19141302     | 1       |
| Caelo                      | Camphor oil 20% | 200031420002 | 1       |
| Caelo                      | Camphor oil 20% | 20003142002  | 2       |
| Caelo                      | Camphor oil 20% | 9250001      | 2       |
| Caesar & Loretz GmbH/ F... | Camphor oil 20% | 18143008     | 1       |
| Caesar & Loretz GmbH/ Ph   | Camphor oil 20% | 18143005     | 1       |
| Caesar & Loretz GmbH/No... | Camphor oil 20% | 19141301     | 1       |
| Caesar & Loretz GmbH       | Camphor oil 20% | 18143002     | 1       |
| Caesar & Loretz GmbH       | Camphor oil 20% | 18143008     | 1       |
| Caesar & Loretz GmbH       | Camphor oil 20% | 19141301     | 4       |
| Caesar & Loretz GmbH       | Camphor oil 20% | 192358004    | 1       |
| Cealo/AHD                  | Camphor oil 20% | 16316101     | 1       |
| Fagron                     | Camphor oil 20% | 17301902     | 1       |
| Fiebig                     | Camphor oil 20% | 17301902     | 2       |
| gehe                       | Camphor oil 20% | 15246805     | 1       |
| Noweda                     | Camphor oil 20% | 14147303     | 1       |
| Phoenix                    | Camphor oil 20% | 16316101     | 1       |
| Phönix                     | Camphor oil 20% | 13039603     | 1       |
| Sanacorp                   | Camphor oil 20% | 13039603     | 1       |

- 288 602 spectra from 1294 *Apo-Ident* customers from a total of 51 859 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Camphor oil 20%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Camphor oil 20%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 140           | 0              | 67 019        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 107           | 0              | 288 602       |

The substance/substance group *Camphor oil 20%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.7143 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 94.3925 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Camphor oil 20%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                           | Distance in main model | Distance in second-stage model |
|-------------------------------------|------------------------|--------------------------------|
| All-rac-alpha-tocopheryl acetate    | 29.14                  | —                              |
| Petroleum oil, not for internal use | 32.04                  | —                              |
| Guaiazulene 25%, water-soluble      | 44.90                  | —                              |
| Triglycerides, medium-chain         | 48.96                  | —                              |
| Peppermint oil                      | 59.03                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Camphor oil 20%* is separated from critical neighbours in a second-stage

model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31154     | 31154               | 0.00                         | 29.98                           |
| 31347     | 31154               | 2.79                         | 29.29                           |
| 35287     | 31154               | 6.45                         | 28.19                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Camphor ointment</b>                                          |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 32515-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Camphor ointment; Unguentum camphoratum

### Special notes

When selecting the *Camphor ointment* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Camphor ointment          | 3      | 1      | 4      |

## Second-stage model

For differentiation of the substance/substance group *Camphor ointment* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Camphor ointment*:

| Supplier | Substance        | Batch    | Sample ID | Spectra | Certificate |
|----------|------------------|----------|-----------|---------|-------------|
| Caelo    | Camphor ointment | 161773   | 32515     | 40      | 20160711*   |
| Caelo    | Camphor ointment | 17045702 | 33224     | 40      | 20170214    |
| Caelo    | Camphor ointment | 192250   | 35267     | 40      | 20190927    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 3 reference samples from the substance/substance group *Camphor ointment*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 039 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Camphor ointment*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance        | Batch  | Sample ID | Spectra |
|----------|------------------|--------|-----------|---------|
| Caelo    | Camphor ointment | 180955 | 34159     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 4 spectra from 2 *Apo-Ident* customers from 4 batches from the substance/substance group *Camphor ointment*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance        | Batch       | Spectra |
|----------|------------------|-------------|---------|
| Caelo    | Camphor ointment | 1319I-03370 | 1       |
| Caelo    | Camphor ointment | 1925003     | 1       |
| Caelo    | Camphor ointment | 2215Q-03370 | 1       |
| Caelo    | Camphor ointment | 4118I-03370 | 1       |

- 288 705 spectra from 1294 *Apo-Ident* customers from a total of 51 884 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Camphor ointment* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Camphor ointment* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 4             | 0              | 288 705       |

The substance/substance group *Camphor ointment* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6893 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Camphor ointment* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                             | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------------------------|---------------------------|-----------------------------------|
| Squalane                              | 24.43                     | —                                 |
| Wool fat                              | 29.03                     | —                                 |
| Triglycerides, medium-chain           | 32.30                     | —                                 |
| Camphor oil 20%                       | 36.38                     | —                                 |
| Isopropyl myristate                   | 41.18                     | —                                 |
| Isopropyl palmitate                   | 42.78                     | —                                 |
| Emulsifying hydrophobic base gel DAC  | 45.83                     | —                                 |
| 2-ethylhexyl laurate                  | 47.26                     | —                                 |
| Hydrophobic base gel DAC              | 47.26                     | —                                 |
| Metronidazole 25% in white petrolatum | 50.65                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Camphor ointment* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 32515     | 32515                  | 0.00                            | 22.97                              |
| 33224     | 32515                  | 7.59                            | 28.21                              |
| 35267     | 32515                  | 5.98                            | 22.91                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Camphor spirit</b>                                            |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30937-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Camphor spirit; Spiritus camphoratus

### Special notes

When selecting the *Camphor spirit* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Camphor spirit            | 6      | 2      | 56     |

## Second-stage model

For differentiation of the substance/substance group *Camphor spirit* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Camphor spirit*:

| Supplier | Substance      | Batch    | Sample ID | Spectra | Certificate |
|----------|----------------|----------|-----------|---------|-------------|
| Caelo    | Camphor spirit | 12196804 | 30937     | 50      | 20120721    |
| Caelo    | Camphor spirit | 13354201 | 31389     | 40      | 1506005     |
| Caelo    | Camphor spirit | 16039501 | 32307     | 40      | 20160229    |
| Caelo    | Camphor spirit | 20002801 | 35254     | 40      | 20200922*   |
| Euro OTC | Camphor spirit | 1506006  | 31700     | 60      | 20150625*   |
| Euro OTC | Camphor spirit | 1506007  | 31701     | 60      | 20150625*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 290 spectra of 6 reference samples from the substance/substance group *Camphor spirit*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 869 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Camphor spirit*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.



| Supplier | Substance      | Batch  | Sample ID | Spectra |
|----------|----------------|--------|-----------|---------|
| Caelo    | Camphor spirit | 170923 | 33327     | 40      |
| Caelo    | Camphor spirit | 182721 | 34328     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 144 spectra from 78 *Apo-Ident* customers from 59 batches from the substance/substance group *Camphor spirit*.
- Among them are spectra of independent samples from 56 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance      | Batch       | Spectra |
|----------------------------|----------------|-------------|---------|
| Anzag ek:13.14EUR 14.08.12 | Camphor spirit | 11347401    | 1       |
| ANZAG                      | Camphor spirit | 121002801   | 1       |
| Caela/ Noweda              | Camphor spirit | 17318502    | 1       |
| Caelo                      | Camphor spirit | 16141101    | 1       |
| Caelo                      | Camphor spirit | 10058403    | 1       |
| Caelo                      | Camphor spirit | 10514C      | 1       |
| Caelo                      | Camphor spirit | 11347401    | 1       |
| Caelo                      | Camphor spirit | 12196803    | 4       |
| Caelo                      | Camphor spirit | 12196804    | 1       |
| Caelo                      | Camphor spirit | 13354204    | 2       |
| Caelo                      | Camphor spirit | 13354206    | 1       |
| Caelo                      | Camphor spirit | 13354210    | 1       |
| Caelo                      | Camphor spirit | 16039501    | 1       |
| Caelo                      | Camphor spirit | 16039505    | 2       |
| Caelo                      | Camphor spirit | 16141101    | 1       |
| Caelo                      | Camphor spirit | 16141105    | 3       |
| Caelo                      | Camphor spirit | 16141106    | 2       |
| Caelo                      | Camphor spirit | 17092302    | 3       |
| Caelo                      | Camphor spirit | 17092303    | 3       |
| Caelo                      | Camphor spirit | 17092305    | 7       |
| Caelo                      | Camphor spirit | 17318502    | 5       |
| Caelo                      | Camphor spirit | 17318503    | 2       |
| Caelo                      | Camphor spirit | 17318506    | 2       |
| Caelo                      | Camphor spirit | 18272101    | 6       |
| Caelo                      | Camphor spirit | 18272104    | 2       |
| Caelo                      | Camphor spirit | 18272105    | 1       |
| Caelo                      | Camphor spirit | 1872101     | 1       |
| Caelo                      | Camphor spirit | 191396002   | 1       |
| Caelo                      | Camphor spirit | 19139601    | 4       |
| Caelo                      | Camphor spirit | 19139602    | 2       |
| Caelo                      | Camphor spirit | 19139605    | 1       |
| Caelo                      | Camphor spirit | 20002801003 | 3       |
| Caelo                      | Camphor spirit | 20002801004 | 2       |
| Caelo                      | Camphor spirit | 20002801005 | 2       |
| Caelo                      | Camphor spirit | 22101201    | 1       |
| Caelo                      | Camphor spirit | 30101309    | 1       |

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| Supplier                    | Substance      | Batch       | Spectra |
|-----------------------------|----------------|-------------|---------|
| Caelo                       | Camphor spirit | 5031507     | 1       |
| Caelo                       | Camphor spirit | 62143436    | 1       |
| Caesar & Loretz GmbH        | Camphor spirit | 18272101    | 2       |
| Caesar & Loretz GmbH        | Camphor spirit | 19136002    | 1       |
| Caesar & Loretz GmbH        | Camphor spirit | 19139601    | 1       |
| Caesar & Loretz GmbH        | Camphor spirit | 19139604    | 1       |
| Caesar & Loretz GmbH        | Camphor spirit | 19139605    | 1       |
| Caesar & Loretz GmbH        | Camphor spirit | 20002801004 | 1       |
| Caesar & Loretz GmbH        | Camphor spirit | 20002801005 | 2       |
| Caleo/ Anzag                | Camphor spirit | 11347401    | 1       |
| Caleo/ Noweda               | Camphor spirit | 18272101    | 4       |
| EIGEN                       | Camphor spirit | 4220E-02319 | 1       |
| Eigen                       | Camphor spirit | 5016E-02319 | 1       |
| EIGEN                       | Camphor spirit | EIGEN       | 1       |
| Eu Rho                      | Camphor spirit | 1405029-01  | 1       |
| EuRho                       | Camphor spirit | 1307039-01  | 1       |
| Euro OCT                    | Camphor spirit | 1210028-01  | 1       |
| Euro OTC                    | Camphor spirit | 110022-02   | 1       |
| Euro OTC                    | Camphor spirit | 1108022-01  | 1       |
| Euro OTC                    | Camphor spirit | 1108022-02  | 1       |
| Euro OTC                    | Camphor spirit | 1210028-01  | 6       |
| Euro OTC                    | Camphor spirit | 121028-01   | 1       |
| Euro OTC                    | Camphor spirit | 1301024-02  | 2       |
| Euro OTC                    | Camphor spirit | 1307039-01  | 4       |
| Euro OTC                    | Camphor spirit | 1307040     | 1       |
| Euro OTC                    | Camphor spirit | 1307040-01  | 3       |
| Euro OTC                    | Camphor spirit | 1405029-01  | 4       |
| Euro OTC                    | Camphor spirit | 1405030     | 1       |
| Euro OTC                    | Camphor spirit | 1405030-01  | 3       |
| Euro OTC                    | Camphor spirit | 140503010   | 1       |
| Euro OTC                    | Camphor spirit | 140503-03   | 1       |
| Euro OTC                    | Camphor spirit | 1506006-01  | 6       |
| Euro OTC                    | Camphor spirit | 19071208    | 1       |
| Fagron                      | Camphor spirit | 17092303    | 1       |
| GEHE                        | Camphor spirit | 1301024-02  | 1       |
| gepepharm/Gehe              | Camphor spirit | 17092303    | 3       |
| Noweda                      | Camphor spirit | 20002801003 | 1       |
| Phoenix 03.12.12            | Camphor spirit | 1307039-01  | 1       |
| PKH GmbH                    | Camphor spirit | 1405030-01  | 1       |
| Sanacorp                    | Camphor spirit | 1210026-01  | 1       |
| Spreewälder/AHD             | Camphor spirit | 1301024-02  | 1       |
| SpreewälderArzneimittel ... | Camphor spirit | 702110      | 1       |

- 288 565 spectra from 1294 *Apo-Ident* customers from a total of 51 831 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Camphor spirit* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Camphor spirit* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 290           | 0              | 66 869        |
| Type B | 0              | 80            | 0              | 107 283       |
| Type C | 0              | 142           | 2              | 288 565       |

The substance/substance group *Camphor spirit* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.9310 %) |
| Type B | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 98.6111 % (> 96.5278 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Camphor spirit* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance             | Distance in main model | Distance in second-stage model |
|-----------------------|------------------------|--------------------------------|
| Isopropyl alcohol 70% | 54.01                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Camphor spirit* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30937     | 31701               | 5.06                         | 61.30                           |
| 31389     | 31389               | 0.00                         | 62.51                           |
| 31700     | 31700               | 0.00                         | 58.97                           |
| 31701     | 31701               | 0.00                         | 59.75                           |
| 32307     | 31389               | 5.80                         | 63.80                           |
| 35254     | 35254               | 0.00                         | 61.43                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Caraway oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30876-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Caraway oil; Carvi aetheroleum

### Special notes

When selecting the *Caraway oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Caraway oil               | 3      | 4      | 108    |

## Second-stage model

For differentiation of the substance/substance group *Caraway oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Caraway oil*:

| Supplier | Substance   | Batch     | Sample ID | Spectra | Certificate        |
|----------|-------------|-----------|-----------|---------|--------------------|
| Caelo    | Caraway oil | 12043508  | 31024     | 40      | AR-14-FG-012307-01 |
| Caelo    | Caraway oil | 14166811  | 31666     | 60      | 20140604           |
| Fagron   | Caraway oil | 12J22-N03 | 30876     | 39      | 20121025           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 139 spectra of 3 reference samples from the substance/substance group *Caraway oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 020 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 170 spectra of 4 reference samples from the substance/substance group *Caraway oil*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance   | Batch       | Sample ID | Spectra |
|-----------|-------------|-------------|-----------|---------|
| Bombastus | Caraway oil | 21002966    | 36192     | 40      |
| Caelo     | Caraway oil | 16252906    | 33252     | 40      |
| Caelo     | Caraway oil | 181649      | 34229     | 40      |
| Caelo     | Caraway oil | 20004511009 | 35744     | 50      |



- 107 193 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 293 spectra from 145 *Apo-Ident* customers from 111 batches from the substance/substance group *Caraway oil*.
- Among them are spectra of independent samples from 108 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance   | Batch    | Spectra |
|-----------|-------------|----------|---------|
|           | Caraway oil | 81816288 | 1       |
| Bombastus | Caraway oil | 17001363 | 3       |
| Bombastus | Caraway oil | 17001364 | 2       |
| Bombastus | Caraway oil | 18001017 | 1       |
| Bombastus | Caraway oil | 18004843 | 8       |
| Bombastus | Caraway oil | 19002890 | 1       |
| Bombastus | Caraway oil | 19006263 | 2       |
| Bombastus | Caraway oil | 20005147 | 1       |
| Bombastus | Caraway oil | 21002966 | 1       |
| Bombastus | Caraway oil | 268955   | 1       |
| Bombastus | Caraway oil | 270424   | 3       |
| Bombastus | Caraway oil | 272320   | 1       |
| Bombastus | Caraway oil | 274361   | 1       |
| Bombastus | Caraway oil | 276856   | 3       |
| Bombastus | Caraway oil | 280523   | 1       |
| Bombastus | Caraway oil | 284758   | 4       |
| Bombastus | Caraway oil | 287725   | 1       |
| Bombastus | Caraway oil | 287889   | 1       |
| Bombastus | Caraway oil | 290759   | 1       |
| Bombastus | Caraway oil | 291934   | 10      |
| Bombastus | Caraway oil | 295058   | 6       |
| Bombastus | Caraway oil | 295572   | 1       |
| Bombastus | Caraway oil | 297505   | 3       |
| Bombastus | Caraway oil | 299607   | 1       |
| Bombastus | Caraway oil | 299609   | 1       |
| Bombastus | Caraway oil | 300797   | 5       |
| Bombastus | Caraway oil | 303305   | 8       |
| Bombastus | Caraway oil | 308593   | 1       |
| Bombastus | Caraway oil | 308902   | 5       |
| Caelo     | Caraway oil | 10319108 | 1       |
| Caelo     | Caraway oil | 10319115 | 2       |
| Caelo     | Caraway oil | 10319116 | 1       |
| Caelo     | Caraway oil | 10319117 | 1       |
| Caelo     | Caraway oil | 10319118 | 4       |
| Caelo     | Caraway oil | 10319120 | 2       |
| Caelo     | Caraway oil | 1041705  | 1       |
| Caelo     | Caraway oil | 12013508 | 1       |
| Caelo     | Caraway oil | 12043502 | 1       |
| Caelo     | Caraway oil | 12043503 | 4       |
| Caelo     | Caraway oil | 12043507 | 3       |
| Caelo     | Caraway oil | 12043508 | 3       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caelo                      | Caraway oil      | 12043511     | 8              |
| Caelo                      | Caraway oil      | 12043512     | 1              |
| Caelo                      | Caraway oil      | 12043513     | 9              |
| Caelo                      | Caraway oil      | 12043516     | 1              |
| Caelo                      | Caraway oil      | 12043518     | 1              |
| Caelo                      | Caraway oil      | 14166802     | 4              |
| Caelo                      | Caraway oil      | 14166803     | 3              |
| Caelo                      | Caraway oil      | 14166806     | 2              |
| Caelo                      | Caraway oil      | 14166807     | 1              |
| Caelo                      | Caraway oil      | 14166810     | 3              |
| Caelo                      | Caraway oil      | 14166811     | 1              |
| Caelo                      | Caraway oil      | 14166812     | 1              |
| Caelo                      | Caraway oil      | 1508506      | 1              |
| Caelo                      | Caraway oil      | 15085703     | 1              |
| Caelo                      | Caraway oil      | 15085704     | 4              |
| Caelo                      | Caraway oil      | 15085706     | 2              |
| Caelo                      | Caraway oil      | 15085707     | 4              |
| Caelo                      | Caraway oil      | 15085709     | 3              |
| Caelo                      | Caraway oil      | 15085710     | 5              |
| Caelo                      | Caraway oil      | 15085713     | 2              |
| Caelo                      | Caraway oil      | 15085714     | 1              |
| Caelo                      | Caraway oil      | 16252902     | 6              |
| Caelo                      | Caraway oil      | 16252903     | 4              |
| Caelo                      | Caraway oil      | 16252904     | 1              |
| Caelo                      | Caraway oil      | 16252906     | 4              |
| Caelo                      | Caraway oil      | 16252909     | 2              |
| Caelo                      | Caraway oil      | 16252910     | 5              |
| Caelo                      | Caraway oil      | 16252917     | 5              |
| Caelo                      | Caraway oil      | 16252918     | 2              |
| Caelo                      | Caraway oil      | 1625903      | 1              |
| Caelo                      | Caraway oil      | 17001363     | 3              |
| Caelo                      | Caraway oil      | 17101301     | 1              |
| Caelo                      | Caraway oil      | 17321902     | 1              |
| Caelo                      | Caraway oil      | 18164090     | 1              |
| Caelo                      | Caraway oil      | 18164901     | 8              |
| Caelo                      | Caraway oil      | 18164902     | 4              |
| Caelo                      | Caraway oil      | 18164905     | 2              |
| Caelo                      | Caraway oil      | 18164907     | 1              |
| Caelo                      | Caraway oil      | 18164909     | 4              |
| Caelo                      | Caraway oil      | 18164913     | 6              |
| Caelo                      | Caraway oil      | 18164914     | 2              |
| Caelo                      | Caraway oil      | 19121207     | 1              |
| Caelo                      | Caraway oil      | 20001729001  | 3              |
| Caelo                      | Caraway oil      | 20001729003  | 2              |
| Caelo                      | Caraway oil      | 20004511001  | 4              |
| Caelo                      | Caraway oil      | 20004511002  | 1              |
| Caelo                      | Caraway oil      | 20004511003  | 2              |
| Caelo                      | Caraway oil      | 20004511008  | 1              |
| Caelo                      | Caraway oil      | 2011903      | 1              |
| Caelo                      | Caraway oil      | 2031504      | 1              |
| Caelo                      | Caraway oil      | 22051306     | 1              |
| Caelo                      | Caraway oil      | 27041503     | 1              |
| Caelo                      | Caraway oil      | 28091205     | 1              |
| Caelo                      | Caraway oil      | 297505       | 1              |
| Caelo                      | Caraway oil      | 300797       | 1              |
| Caelo                      | Caraway oil      | 5091402      | 1              |
| Caelo                      | Caraway oil      | 6091401      | 1              |
| Caesar & Loretz GmbH/No... | Caraway oil      | 18164902     | 1              |
| Caesar & Loretz GmbH       | Caraway oil      | 18164901     | 1              |
| Caesar & Loretz GmbH       | Caraway oil      | 18164902     | 1              |

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| Supplier             | Substance   | Batch       | Spectra |
|----------------------|-------------|-------------|---------|
| Caesar & Loretz GmbH | Caraway oil | 18164910    | 1       |
| Caesar & Loretz GmbH | Caraway oil | 18164913    | 2       |
| Caesar & Loretz GmbH | Caraway oil | 20001729003 | 1       |
| Caesar & Loretz GmbH | Caraway oil | 20004511001 | 1       |
| Caesar/Noweda        | Caraway oil | 712Q-01968  | 2       |
| Cealo/Gehe           | Caraway oil | 16252909    | 1       |
| Euro OTC             | Caraway oil | 17001363    | 1       |
| Fagron               | Caraway oil | 11/13-N03   | 2       |
| Fagron               | Caraway oil | 11A19-N08   | 1       |
| Fagron               | Caraway oil | 11L13-N03   | 2       |
| Fagron               | Caraway oil | 12J22N03    | 2       |
| Fagron               | Caraway oil | 12J22-N03   | 1       |
| Fagron               | Caraway oil | 12J2-N03    | 1       |
| Fagron               | Caraway oil | 13C08-N03   | 3       |
| Fagron               | Caraway oil | 13c08-N08   | 1       |
| Fagron               | Caraway oil | 13E06-N13   | 1       |
| Fagron               | Caraway oil | 287725      | 1       |
| Fagron               | Caraway oil | 295058      | 1       |
| Fagron               | Caraway oil | 6999440     | 1       |
| Fiebig               | Caraway oil | 15085707    | 1       |
| Fiebig               | Caraway oil | 308902      | 1       |
| Gatt-Koller          | Caraway oil | 1801492     | 2       |
| Gehe                 | Caraway oil | 14166811    | 1       |
| GEHE                 | Caraway oil | 18164901    | 1       |
| Klenk                | Caraway oil | 274361      | 1       |
| Kögl                 | Caraway oil | 49303161217 | 1       |
| Kögl                 | Caraway oil | 49303162716 | 1       |
| L12                  | Caraway oil | 16252903    | 1       |
| Nachprüfung          | Caraway oil | 15085713    | 1       |
| Noweda               | Caraway oil | 18164905    | 1       |
| Noweda               | Caraway oil | 18164909    | 1       |
| Phönix               | Caraway oil | 12043511    | 1       |
| Phönix               | Caraway oil | 12J22-N03   | 1       |
| Phönix               | Caraway oil | 16252909    | 1       |
| Phönix               | Caraway oil | 276856      | 1       |
| Schubert             | Caraway oil | 1031E0-801  | 1       |

- 288 416 spectra from 1294 *Apo-Ident* customers from a total of 51 778 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Caraway oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Caraway oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 139           | 0              | 67 020        |
| <b>Type B</b> | 0              | 170           | 0              | 107 193       |
| <b>Type C</b> | 0              | 289           | 4              | 288 416       |

The substance/substance group *Caraway oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.6835 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.4706 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.6348 % (> 97.6109 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Caraway oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>  | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|-------------------|-------------------------------|---------------------------------------|
| Citric oil        | 32.85                         | —                                     |
| Spearmint oil     | 33.20                         | —                                     |
| Bitter orange oil | 34.60                         | —                                     |
| Grapefruit oil    | 39.84                         | —                                     |
| Dwarf pine oil    | 44.80                         | —                                     |
| Sweet orange oil  | 46.09                         | —                                     |
| Bergamot oil      | 51.79                         | —                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Caraway oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 30876            | 31024                      | 7.74                                | 33.18                                  |
| 31024            | 31024                      | 0.00                                | 35.91                                  |
| 31666            | 31024                      | 11.63                               | 33.20                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at

least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | Castor oil, virgin / Sorbitan- and glycerol monooleate           |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30741-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Castor oil, virgin / Sorbitan- and glycerol monooleate; Castor oil, refined; Castor oil, virgin; Ricini oleum raffinatum; Ricini oleum virginale; Sorbitan- and glycerol monooleate

### Special notes

When selecting the *Castor oil, virgin / Sorbitan- and glycerol monooleate* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                              | Type A | Type B | Type C |
|--------------------------------------------------------|--------|--------|--------|
| Castor oil, virgin / Sorbitan- and glycerol monooleate | 17     | 31     | 629    |



## Second-stage model

For differentiation of the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate        |
|----------|---------------------|----------|-----------|---------|--------------------|
| Caelo    | Castor oil, refi... | 162362   | 32344     | 40      | 20160818*          |
| Caelo    | Castor oil, refi... | 163146   | 33072     | 40      | 20161121*          |
| Caelo    | Castor oil, refi... | 20001513 | 35029     | 40      | 20200527*          |
| Caelo    | Castor oil, refi... | 21000789 | 35284     | 40      | 20210406*          |
| Caelo    | Castor oil, refi... | 21000100 | 35296     | 40      | 20210122*          |
| Caelo    | Castor oil, virgin  | 14020104 | 36338     | 40      | AR-15-FG-005211-01 |
| Caelo    | Castor oil, virgin  | 21001404 | 36359     | 50      | 20210429*          |
| Caelo    | Castor oil, virgin  | 21002000 | 36360     | 50      | 20210702*          |
| Euro OTC | Castor oil, virgin  | 1509003  | 36339     | 60      | 20150918*          |
| Euro OTC | Castor oil, virgin  | 1512024  | 36341     | 60      | 20160111*          |
| Euro OTC | Castor oil, virgin  | 1611005  | 36346     | 40      | 20161208*          |
| Euro OTC | Castor oil, virgin  | 1902019  | 36351     | 40      | 20190329*          |
| Caelo    | Sorbitan- and gl... | 14202402 | 31574     | 60      | AR-15-FG-009320-01 |
| Caelo    | Sorbitan- and gl... | 15122301 | 31726     | 60      | 20150420           |
| Caelo    | Sorbitan- and gl... | 16234301 | 33454     | 40      | 20160829           |
| Caelo    | Sorbitan- and gl... | 16234301 | 33455     | 40      | 20160829           |
| Caelo    | Sorbitan- and gl... | 190802   | 34534     | 40      | 20190411*          |
| Caelo    | Sorbitan- and gl... | 192210   | 34771     | 40      | 20190909*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 820 spectra of 18 reference samples from the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 17 different batches.
- 66 339 spectra from a total of 1362 batches from further 226 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 1290 spectra of 31 reference samples from the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate*.
- Among them are spectra of independent samples from 31 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance                       | Batch            | Sample ID | Spectra |
|-----------|---------------------------------|------------------|-----------|---------|
| Bombastus | Castor oil, refined             | 21003348         | 36190     | 40      |
| Caelo     | Castor oil, refined             | 12149306         | 30776     | 40      |
| Caelo     | Castor oil, refined             | 14304807         | 31751     | 60      |
| Caelo     | Castor oil, refined             | 160922           | 32207     | 40      |
| Caelo     | Castor oil, refined             | 161672           | 32312     | 40      |
| Caelo     | Castor oil, refined             | 162731           | 32681     | 40      |
| Caelo     | Castor oil, refined             | 170272           | 33071     | 40      |
| Caelo     | Castor oil, refined             | 171899           | 33678     | 40      |
| Caelo     | Castor oil, refined             | 192831           | 34738     | 40      |
| Caelo     | Castor oil, refined             | 21002982         | 35833     | 50      |
| Caelo     | Castor oil, refined             | 22000815         | 36075     | 40      |
| Caelo     | Castor oil, virgin              | 12114603         | 36337     | 40      |
| Caelo     | Castor oil, virgin              | 161028           | 36343     | 40      |
| Caelo     | Castor oil, virgin              | 162000           | 36344     | 40      |
| Caelo     | Castor oil, virgin              | 170271           | 36347     | 40      |
| Caelo     | Castor oil, virgin              | 191326           | 36352     | 40      |
| Caelo     | Castor oil, virgin              | 191970           | 36353     | 40      |
| Caelo     | Castor oil, virgin              | 192511           | 36354     | 40      |
| Caelo     | Castor oil, virgin              | 20000498         | 36355     | 40      |
| Caelo     | Castor oil, virgin              | 20001240         | 36356     | 40      |
| Caelo     | Castor oil, virgin              | 20002353         | 36357     | 40      |
| Caelo     | Castor oil, virgin              | 21000493         | 36358     | 40      |
| Caelo     | Castor oil, virgin              | 22000100         | 36361     | 40      |
| Euro OTC  | Castor oil, virgin              | 1604019          | 36342     | 40      |
| Euro OTC  | Castor oil, virgin              | 1705035          | 36348     | 40      |
| Euro OTC  | Castor oil, virgin              | 1801007          | 36349     | 40      |
| Euro OTC  | Castor oil, virgin              | 1807003-01       | 36350     | 40      |
| Fagron    | Castor oil, virgin              | 15D02-B02-314240 | 36340     | 60      |
| Fagron    | Castor oil, virgin              | 16J12-B01-328159 | 36345     | 40      |
| Caelo     | Sorbitan- and glycerol monoo... | 17132202         | 33936     | 40      |
| Caelo     | Sorbitan- and glycerol monoo... | 182151           | 34252     | 40      |

- 106 073 spectra from a total of 2470 batches from further 348 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 3962 spectra from 823 *Apo-Ident* customers from 635 batches from the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate*.
- Among them are spectra of independent samples from 625 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
|                            | Castor oil, refined             | 13341606         | 1       |
|                            | Castor oil, refined             | 288126           | 1       |
|                            | Castor oil, refined             | 60082103         | 1       |
| 13.10.2016 Phoenix 3,77EUR | Castor oil, refined             | 1512024-02       | 1       |
| ACM                        | Castor oil, refined             | KNC0899J15       | 1       |
| AEP Direkt                 | Castor oil, refined             | 20005113         | 1       |
| AEPDirekt                  | Castor oil, refined             | 19006129         | 2       |
| AHC                        | Castor oil, refined             | 1807003-01       | 1       |
| AHD 27.11.14 EK 2,53       | Castor oil, refined             | 1407053-01       | 1       |
| AHD/Caealo 15.08.14        | Castor oil, refined             | 14020109         | 1       |
| AHD/Lamotte                | Castor oil, refined             | 1000009899       | 1       |
| AHD                        | Castor oil, refined             | 1000005818       | 1       |
| AHD                        | Castor oil, refined             | 14199604         | 2       |
| ALH                        | Castor oil, refined             | 1000002766       | 1       |
| ALH                        | Castor oil, refined             | 1000004198       | 2       |
| Alliance Healthcare        | Castor oil, refined             | 1512024-02       | 1       |
| Alliance                   | Castor oil, refined             | 300629           | 1       |
| AllianceHealthcare         | Castor oil, refined             | 15144304         | 1       |
| Allianz Healthcare         | Castor oil, refined             | 16102804         | 1       |
| Allianz Healthcare         | Castor oil, refined             | 19002830         | 1       |
| Allianz Healthcare         | Castor oil, refined             | 6861795          | 1       |
| Allianz                    | Castor oil, refined             | 18001340         | 1       |
| Alte Apotheke              | Castor oil, refined             | 1000002384       | 1       |
| antares-apotheke Ler       | Castor oil, refined             | 17H22-B01-341158 | 1       |
| antares-apotheke Ler       | Castor oil, refined             | 17K27-B01-352719 | 1       |
| Anzag 04.03.2014           | Castor oil, refined             | 1308019-02       | 1       |
| Anzag/Henry Lamotte        | Castor oil, refined             | 1504006-02       | 1       |
| Anzag                      | Castor oil, refined             | 16016207         | 1       |
| Anzag                      | Castor oil, refined             | 19132603         | 1       |
| Anzag                      | Castor oil, refined             | 19251102         | 1       |
| Anzag                      | Castor oil, refined             | 292409           | 1       |
| Anzag                      | Castor oil, refined             | 305230           | 1       |
| Anzag                      | Castor oil, refined             | 5334001          | 4       |
| apo-ident/Gehe             | Castor oil, refined             | 1801007-01       | 1       |
| apoident                   | Castor oil, refined             | 1807003-01       | 1       |
| apomix                     | Sorbitan- and glycerol monoo... | 10118            | 5       |
| apomix                     | Sorbitan- and glycerol monoo... | 10420            | 1       |
| apomix                     | Sorbitan- and glycerol monoo... | 10719            | 4       |
| apomix                     | Sorbitan- and glycerol monoo... | 11116            | 7       |
| apomix                     | Castor oil, refined             | 1A160119         | 1       |
| apomix                     | Castor oil, refined             | 1A170321         | 1       |
| apomix                     | Sorbitan- and glycerol monoo... | 20515            | 3       |
| apomix                     | Sorbitan- and glycerol monoo... | 21115            | 3       |
| apomix                     | Castor oil, refined             | 2A180320         | 1       |
| apomix                     | Castor oil, refined             | 3A150518         | 1       |
| apomix                     | Castor oil, refined             | 5A020920         | 2       |
| apomix                     | Castor oil, refined             | 6A081020         | 2       |
| apomix                     | Castor oil, refined             | 6A250719         | 1       |
| apomix                     | Castor oil, refined             | 7A090919         | 1       |
| apomix                     | Castor oil, refined             | 8A281220         | 1       |
| Aponorm                    | Castor oil, refined             | 17H22-B01-341047 | 1       |
| Bären Apotheke             | Castor oil, refined             | 1611005-01       | 1       |
| Bom                        | Castor oil, refined             | 280791           | 1       |
| Bomastus AHD               | Castor oil, refined             | 19002830         | 2       |

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| Supplier              | Substance           | Batch          | Spectra |
|-----------------------|---------------------|----------------|---------|
| Bomastus              | Castor oil, refined | 19002830       | 2       |
| Bomastus              | Castor oil, refined | 297429         | 5       |
| Bomastus-Werke AG     | Castor oil, refined | 307456         | 1       |
| Bomastus-Werke/Phönix | Castor oil, refined | 300629         | 1       |
| Bombas/AHD            | Castor oil, refined | 20005113       | 2       |
| Bombas                | Castor oil, refined | 278660         | 1       |
| Bomastus              | Castor oil, refined | 104356         | 1       |
| Bomastus              | Castor oil, refined | 110816-3       | 1       |
| Bomastus              | Castor oil, refined | 1412006-01     | 1       |
| Bomastus              | Castor oil, refined | 161101R/301591 | 1       |
| Bomastus              | Castor oil, refined | 17001710       | 3       |
| Bomastus              | Castor oil, refined | 17001711       | 27      |
| Bomastus              | Castor oil, refined | 17002279       | 2       |
| Bomastus              | Castor oil, refined | 1700228        | 1       |
| Bomastus              | Castor oil, refined | 17002280       | 15      |
| Bomastus              | Castor oil, refined | 18001339       | 16      |
| Bomastus              | Castor oil, refined | 18001340       | 66      |
| Bomastus              | Castor oil, refined | 18003728       | 1       |
| Bomastus              | Castor oil, refined | 18003729       | 6       |
| Bomastus              | Castor oil, refined | 18003730       | 37      |
| Bomastus              | Castor oil, refined | 18006813       | 2       |
| Bomastus              | Castor oil, refined | 18006814       | 8       |
| Bomastus              | Castor oil, refined | 18006815       | 34      |
| Bomastus              | Castor oil, refined | 18007370       | 1       |
| Bomastus              | Castor oil, refined | 180306R/311684 | 1       |
| Bomastus              | Castor oil, refined | 190002830      | 1       |
| Bomastus              | Castor oil, refined | 19002829       | 10      |
| Bomastus              | Castor oil, refined | 19002830       | 56      |
| Bomastus              | Castor oil, refined | 19006127       | 2       |
| Bomastus              | Castor oil, refined | 19006128       | 11      |
| Bomastus              | Castor oil, refined | 19006129       | 37      |
| Bomastus              | Castor oil, refined | 190061795      | 1       |
| Bomastus              | Castor oil, refined | 1902019-01     | 1       |
| Bomastus              | Castor oil, refined | 20002400       | 2       |
| Bomastus              | Castor oil, refined | 20002401       | 41      |
| Bomastus              | Castor oil, refined | 20005112       | 4       |
| Bomastus              | Castor oil, refined | 20005113       | 26      |
| Bomastus              | Castor oil, refined | 21003346       | 2       |
| Bomastus              | Castor oil, refined | 21003347       | 1       |
| Bomastus              | Castor oil, refined | 21003348       | 4       |
| Bomastus              | Castor oil, refined | 2401           | 1       |
| Bomastus              | Castor oil, refined | 268699         | 1       |
| Bomastus              | Castor oil, refined | 270580         | 1       |
| Bomastus              | Castor oil, refined | 271753         | 2       |
| Bomastus              | Castor oil, refined | 273389         | 2       |
| Bomastus              | Castor oil, refined | 273390         | 5       |
| Bomastus              | Castor oil, refined | 273881         | 2       |
| Bomastus              | Castor oil, refined | 273882         | 9       |
| Bomastus              | Castor oil, refined | 275937         | 10      |
| Bomastus              | Castor oil, refined | 275938         | 12      |
| Bomastus              | Castor oil, refined | 278660         | 3       |
| Bomastus              | Castor oil, refined | 278661         | 12      |
| Bomastus              | Castor oil, refined | 280791         | 17      |
| Bomastus              | Castor oil, refined | 281943         | 15      |
| Bomastus              | Castor oil, refined | 281944         | 7       |
| Bomastus              | Castor oil, refined | 283620         | 7       |
| Bomastus              | Castor oil, refined | 284505         | 7       |
| Bomastus              | Castor oil, refined | 285757         | 3       |
| Bomastus              | Castor oil, refined | 285801         | 12      |
| Bomastus              | Castor oil, refined | 287167         | 10      |

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| Supplier               | Substance           | Batch              | Spectra |
|------------------------|---------------------|--------------------|---------|
| Bombastus              | Castor oil, refined | 288126             | 16      |
| Bombastus              | Castor oil, refined | 288638             | 6       |
| Bombastus              | Castor oil, refined | 288639             | 16      |
| Bombastus              | Castor oil, refined | 290212             | 4       |
| Bombastus              | Castor oil, refined | 290213             | 17      |
| Bombastus              | Castor oil, refined | 290714a            | 1       |
| Bombastus              | Castor oil, refined | 291722             | 18      |
| Bombastus              | Castor oil, refined | 292409             | 16      |
| Bombastus              | Castor oil, refined | 294667             | 8       |
| Bombastus              | Castor oil, refined | 294668             | 15      |
| Bombastus              | Castor oil, refined | 295412             | 27      |
| Bombastus              | Castor oil, refined | 296751             | 18      |
| Bombastus              | Castor oil, refined | 29730              | 1       |
| Bombastus              | Castor oil, refined | 297429             | 2       |
| Bombastus              | Castor oil, refined | 297430             | 11      |
| Bombastus              | Castor oil, refined | 298698             | 9       |
| Bombastus              | Castor oil, refined | 298699             | 31      |
| Bombastus              | Castor oil, refined | 300628             | 3       |
| Bombastus              | Castor oil, refined | 300629             | 29      |
| Bombastus              | Castor oil, refined | 301587             | 6       |
| Bombastus              | Castor oil, refined | 301590             | 5       |
| Bombastus              | Castor oil, refined | 301591             | 28      |
| Bombastus              | Castor oil, refined | 303857             | 5       |
| Bombastus              | Castor oil, refined | 303858             | 28      |
| Bombastus              | Castor oil, refined | 305229             | 7       |
| Bombastus              | Castor oil, refined | 305230             | 34      |
| Bombastus              | Castor oil, refined | 307456             | 10      |
| Bombastus              | Castor oil, refined | 307457             | 23      |
| Bombastus              | Castor oil, refined | 30825              | 1       |
| Bombastus              | Castor oil, refined | 308824             | 8       |
| Bombastus              | Castor oil, refined | 308825             | 47      |
| Bombastus              | Castor oil, refined | 311683             | 2       |
| Bombastus              | Castor oil, refined | 311684             | 36      |
| Bombastus              | Castor oil, refined | 3888               | 1       |
| Bombastus              | Castor oil, refined | 415Q-02009         | 1       |
| Bombastus              | Castor oil, refined | 4958               | 2       |
| Bombastus              | Castor oil, refined | 60082102           | 1       |
| Bombastus              | Castor oil, refined | 60082103           | 6       |
| Bombastus              | Castor oil, refined | 6861789            | 1       |
| Bombastus              | Castor oil, refined | 6861795            | 2       |
| Bombastus              | Castor oil, refined | 91696              | 1       |
| Bombastus              | Castor oil, refined | Bombastus/20005113 | 1       |
| Bombastu-Werke AG/Gehe | Castor oil, refined | 278660             | 1       |
| Bombastu-Werke AG/Gehe | Castor oil, refined | 281944             | 1       |
| Bombastus/ Anzag       | Castor oil, refined | 288126             | 1       |
| Bpmbastus/AEP          | Castor oil, refined | 21003348           | 1       |
| Caeleo/ Noweda         | Castor oil, refined | 18238102           | 1       |
| Caelo                  | Castor oil, refined | 1/AKD1             | 1       |
| Caelo                  | Castor oil, refined | 1000002384         | 1       |
| Caelo                  | Castor oil, refined | 1000003564         | 8       |
| Caelo                  | Castor oil, refined | 1000004198         | 4       |
| Caelo                  | Castor oil, refined | 1000004554         | 1       |
| Caelo                  | Castor oil, refined | 1000005818         | 6       |
| Caelo                  | Castor oil, refined | 1000006447         | 1       |
| Caelo                  | Castor oil, refined | 1000013797         | 1       |
| Caelo                  | Castor oil, refined | 100004198          | 1       |
| Caelo                  | Castor oil, refined | 10021402           | 1       |
| Caelo                  | Castor oil, refined | 1091505            | 1       |
| Caelo                  | Castor oil, refined | 11173803           | 1       |
| Caelo                  | Castor oil, refined | 11359502           | 1       |

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| Supplier | Substance           | Batch               | Spectra |
|----------|---------------------|---------------------|---------|
| Caelo    | Castor oil, refined | 11359507            | 1       |
| Caelo    | Castor oil, refined | 11359508            | 1       |
| Caelo    | Castor oil, refined | 1140318/17113803    | 1       |
| Caelo    | Castor oil, refined | 1206039-01          | 1       |
| Caelo    | Castor oil, refined | 12071107            | 1       |
| Caelo    | Castor oil, refined | 12114603            | 2       |
| Caelo    | Castor oil, refined | 12114605            | 10      |
| Caelo    | Castor oil, refined | 12114606            | 2       |
| Caelo    | Castor oil, refined | 12121307            | 1       |
| Caelo    | Castor oil, refined | 12149306            | 4       |
| Caelo    | Castor oil, refined | 12270106            | 10      |
| Caelo    | Castor oil, refined | 12270108            | 3       |
| Caelo    | Castor oil, refined | 12270111            | 5       |
| Caelo    | Castor oil, refined | 12318204            | 1       |
| Caelo    | Castor oil, refined | 12318207            | 1       |
| Caelo    | Castor oil, refined | 123384              | 2       |
| Caelo    | Castor oil, refined | 124189              | 3       |
| Caelo    | Castor oil, refined | 124637              | 1       |
| Caelo    | Castor oil, refined | 1304013-01          | 2       |
| Caelo    | Castor oil, refined | 13041803            | 1       |
| Caelo    | Castor oil, refined | 13043601            | 10      |
| Caelo    | Castor oil, refined | 13065401            | 1       |
| Caelo    | Castor oil, refined | 13065405            | 20      |
| Caelo    | Castor oil, refined | 1308019-02          | 1       |
| Caelo    | Castor oil, refined | 13096304            | 9       |
| Caelo    | Castor oil, refined | 131344604           | 1       |
| Caelo    | Castor oil, refined | 13134603            | 3       |
| Caelo    | Castor oil, refined | 13134603-3417310103 | 1       |
| Caelo    | Castor oil, refined | 13134604            | 20      |
| Caelo    | Castor oil, refined | 13134608            | 6       |
| Caelo    | Castor oil, refined | 13134608-3438311151 | 1       |
| Caelo    | Castor oil, refined | 13134609            | 14      |
| Caelo    | Castor oil, refined | 13174505            | 2       |
| Caelo    | Castor oil, refined | 13174507            | 1       |
| Caelo    | Castor oil, refined | 1319609             | 1       |
| Caelo    | Castor oil, refined | 13196308            | 1       |
| Caelo    | Castor oil, refined | 13196309            | 10      |
| Caelo    | Castor oil, refined | 13196313            | 13      |
| Caelo    | Castor oil, refined | 13357506            | 1       |
| Caelo    | Castor oil, refined | 135277              | 1       |
| Caelo    | Castor oil, refined | 13G29-B01           | 1       |
| Caelo    | Castor oil, refined | 13I27-B01-287858    | 1       |
| Caelo    | Castor oil, refined | 14020104            | 2       |
| Caelo    | Castor oil, refined | 14020105            | 5       |
| Caelo    | Castor oil, refined | 14020108            | 11      |
| Caelo    | Castor oil, refined | 14020109            | 6       |
| Caelo    | Castor oil, refined | 1403024-02          | 2       |
| Caelo    | Castor oil, refined | 14058808            | 1       |
| Caelo    | Castor oil, refined | 14058809            | 1       |
| Caelo    | Castor oil, refined | 14058810            | 4       |
| Caelo    | Castor oil, refined | 1407053-01          | 1       |
| Caelo    | Castor oil, refined | 1407053-02man       | 1       |
| Caelo    | Castor oil, refined | 14115405            | 1       |
| Caelo    | Castor oil, refined | 1412006-01          | 2       |
| Caelo    | Castor oil, refined | 1412006-02          | 2       |
| Caelo    | Castor oil, refined | 14122006-01         | 1       |
| Caelo    | Castor oil, refined | 14144305            | 2       |
| Caelo    | Castor oil, refined | 1418103             | 1       |
| Caelo    | Castor oil, refined | 14181102            | 1       |
| Caelo    | Castor oil, refined | 14181103            | 9       |

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| Supplier | Substance           | Batch            | Spectra |
|----------|---------------------|------------------|---------|
| Caelo    | Castor oil, refined | 14199501         | 12      |
| Caelo    | Castor oil, refined | 14199502         | 3       |
| Caelo    | Castor oil, refined | 14199602         | 1       |
| Caelo    | Castor oil, refined | 14199603         | 7       |
| Caelo    | Castor oil, refined | 14199604         | 5       |
| Caelo    | Castor oil, refined | 14199605         | 8       |
| Caelo    | Castor oil, refined | 14199609         | 9       |
| Caelo    | Castor oil, refined | 1420106          | 1       |
| Caelo    | Castor oil, refined | 14304803         | 5       |
| Caelo    | Castor oil, refined | 14304806         | 1       |
| Caelo    | Castor oil, refined | 14304807         | 3       |
| Caelo    | Castor oil, refined | 14330601         | 4       |
| Caelo    | Castor oil, refined | 14330604         | 9       |
| Caelo    | Castor oil, refined | 14330605         | 6       |
| Caelo    | Castor oil, refined | 14330606         | 10      |
| Caelo    | Castor oil, refined | 15/355/Ri        | 1       |
| Caelo    | Castor oil, refined | 15012016         | 1       |
| Caelo    | Castor oil, refined | 150400602        | 1       |
| Caelo    | Castor oil, refined | 1504006-02       | 3       |
| Caelo    | Castor oil, refined | 15067302         | 1       |
| Caelo    | Castor oil, refined | 15067306         | 1       |
| Caelo    | Castor oil, refined | 1509003-001      | 1       |
| Caelo    | Castor oil, refined | 1509003-01       | 10      |
| Caelo    | Castor oil, refined | 1512024-01       | 1       |
| Caelo    | Castor oil, refined | 151202402        | 2       |
| Caelo    | Castor oil, refined | 1512024-02       | 1       |
| Caelo    | Castor oil, refined | 15144302         | 8       |
| Caelo    | Castor oil, refined | 15144303         | 7       |
| Caelo    | Castor oil, refined | 15144304         | 9       |
| Caelo    | Castor oil, refined | 15144305         | 2       |
| Caelo    | Castor oil, refined | 15144306         | 3       |
| Caelo    | Castor oil, refined | 15144307         | 3       |
| Caelo    | Castor oil, refined | 15145101         | 7       |
| Caelo    | Castor oil, refined | 15145104         | 2       |
| Caelo    | Castor oil, refined | 15145105         | 1       |
| Caelo    | Castor oil, refined | 15145106         | 1       |
| Caelo    | Castor oil, refined | 15253403         | 1       |
| Caelo    | Castor oil, refined | 15253404         | 5       |
| Caelo    | Castor oil, refined | 1525w3404        | 1       |
| Caelo    | Castor oil, refined | 15383201         | 2       |
| Caelo    | Castor oil, refined | 15392001         | 14      |
| Caelo    | Castor oil, refined | 15392002         | 4       |
| Caelo    | Castor oil, refined | 15392003         | 7       |
| Caelo    | Castor oil, refined | 15392005         | 2       |
| Caelo    | Castor oil, refined | 15392007         | 6       |
| Caelo    | Castor oil, refined | 15399802         | 2       |
| Caelo    | Castor oil, refined | 15399806         | 1       |
| Caelo    | Castor oil, refined | 15J15-B08-318730 | 2       |
| Caelo    | Castor oil, refined | 16/081/R         | 1       |
| Caelo    | Castor oil, refined | 16016202         | 6       |
| Caelo    | Castor oil, refined | 16016203         | 8       |
| Caelo    | Castor oil, refined | 16016204         | 1       |
| Caelo    | Castor oil, refined | 16016206         | 7       |
| Caelo    | Castor oil, refined | 16016207         | 8       |
| Caelo    | Castor oil, refined | 16016210         | 2       |
| Caelo    | Castor oil, refined | 16017101         | 1       |
| Caelo    | Castor oil, refined | 16017102         | 1       |
| Caelo    | Castor oil, refined | 1604019-01       | 1       |
| Caelo    | Castor oil, refined | 1604019-02       | 3       |
| Caelo    | Castor oil, refined | 16091703         | 1       |

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| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Castor oil, refined             | 16092203     | 1       |
| Caelo    | Castor oil, refined             | 16102801     | 21      |
| Caelo    | Castor oil, refined             | 16102802     | 9       |
| Caelo    | Castor oil, refined             | 16102803     | 3       |
| Caelo    | Castor oil, refined             | 16102804     | 14      |
| Caelo    | Castor oil, refined             | 1611005-01   | 1       |
| Caelo    | Castor oil, refined             | 1611005-012x | 1       |
| Caelo    | Castor oil, refined             | 1611005-02   | 3       |
| Caelo    | Castor oil, refined             | 16167203     | 1       |
| Caelo    | Castor oil, refined             | 16200007     | 19      |
| Caelo    | Castor oil, refined             | 1620007      | 1       |
| Caelo    | Sorbitan- and glycerol monoo... | 16234301     | 12      |
| Caelo    | Castor oil, refined             | 16236205     | 1       |
| Caelo    | Castor oil, refined             | 16273101     | 2       |
| Caelo    | Castor oil, refined             | 16273103     | 2       |
| Caelo    | Castor oil, refined             | 16273105     | 1       |
| Caelo    | Castor oil, refined             | 16296301     | 1       |
| Caelo    | Castor oil, refined             | 16314602     | 1       |
| Caelo    | Castor oil, refined             | 16314603     | 2       |
| Caelo    | Castor oil, refined             | 16314604     | 2       |
| Caelo    | Castor oil, refined             | 1673101      | 1       |
| Caelo    | Castor oil, refined             | 17001711     | 7       |
| Caelo    | Castor oil, refined             | 17002280     | 3       |
| Caelo    | Castor oil, refined             | 17015501     | 3       |
| Caelo    | Castor oil, refined             | 17027101     | 1       |
| Caelo    | Castor oil, refined             | 17027201     | 1       |
| Caelo    | Castor oil, refined             | 17027202     | 1       |
| Caelo    | Castor oil, refined             | 17027203     | 1       |
| Caelo    | Castor oil, refined             | 17027204     | 2       |
| Caelo    | Castor oil, refined             | 17027206     | 3       |
| Caelo    | Castor oil, refined             | 1705035-01   | 7       |
| Caelo    | Castor oil, refined             | 1707403      | 1       |
| Caelo    | Castor oil, refined             | 17107401     | 5       |
| Caelo    | Castor oil, refined             | 17107402     | 4       |
| Caelo    | Castor oil, refined             | 17107403     | 17      |
| Caelo    | Castor oil, refined             | 17107404     | 1       |
| Caelo    | Castor oil, refined             | 17107407     | 17      |
| Caelo    | Castor oil, refined             | 17107501     | 2       |
| Caelo    | Castor oil, refined             | 17107503     | 2       |
| Caelo    | Castor oil, refined             | 17107504     | 2       |
| Caelo    | Castor oil, refined             | 17107506     | 1       |
| Caelo    | Castor oil, refined             | 17113801     | 2       |
| Caelo    | Castor oil, refined             | 17113802     | 3       |
| Caelo    | Castor oil, refined             | 17113803     | 37      |
| Caelo    | Sorbitan- and glycerol monoo... | 17132201     | 1       |
| Caelo    | Castor oil, refined             | 1713803      | 1       |
| Caelo    | Castor oil, refined             | 171707402    | 1       |
| Caelo    | Castor oil, refined             | 17189906     | 1       |
| Caelo    | Castor oil, refined             | 17189909     | 1       |
| Caelo    | Castor oil, refined             | 17251901     | 31      |
| Caelo    | Castor oil, refined             | 17251902     | 1       |
| Caelo    | Castor oil, refined             | 17251906     | 8       |
| Caelo    | Castor oil, refined             | 17273902     | 2       |
| Caelo    | Castor oil, refined             | 17273903     | 2       |
| Caelo    | Castor oil, refined             | 17273905     | 1       |
| Caelo    | Castor oil, refined             | 17273906     | 1       |
| Caelo    | Castor oil, refined             | 17307702     | 3       |
| Caelo    | Castor oil, refined             | 17359301     | 2       |
| Caelo    | Castor oil, refined             | 17359304     | 1       |
| Caelo    | Castor oil, refined             | 17359306     | 1       |

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| Supplier | Substance           | Batch            | Spectra |
|----------|---------------------|------------------|---------|
| Caelo    | Castor oil, refined | 17K27-B01        | 2       |
| Caelo    | Castor oil, refined | 17K27-B01-352719 | 1       |
| Caelo    | Castor oil, refined | 18001340         | 11      |
| Caelo    | Castor oil, refined | 1800134006861795 | 1       |
| Caelo    | Castor oil, refined | 180033501        | 1       |
| Caelo    | Castor oil, refined | 18003729         | 3       |
| Caelo    | Castor oil, refined | 18003730         | 4       |
| Caelo    | Castor oil, refined | 1801007-01       | 9       |
| Caelo    | Castor oil, refined | 18021505         | 1       |
| Caelo    | Castor oil, refined | 18033501         | 50      |
| Caelo    | Castor oil, refined | 1803501          | 1       |
| Caelo    | Castor oil, refined | 1807003-01       | 1       |
| Caelo    | Castor oil, refined | 18083604         | 3       |
| Caelo    | Castor oil, refined | 18083605         | 3       |
| Caelo    | Castor oil, refined | 18114502         | 19      |
| Caelo    | Castor oil, refined | 18114503         | 1       |
| Caelo    | Castor oil, refined | 18121704         | 1       |
| Caelo    | Castor oil, refined | 18154902         | 2       |
| Caelo    | Castor oil, refined | 18154904         | 1       |
| Caelo    | Castor oil, refined | 18154905         | 1       |
| Caelo    | Castor oil, refined | 18154907         | 1       |
| Caelo    | Castor oil, refined | 18155801         | 1       |
| Caelo    | Castor oil, refined | 18155804         | 1       |
| Caelo    | Castor oil, refined | 18224101         | 1       |
| Caelo    | Castor oil, refined | 18224103         | 1       |
| Caelo    | Castor oil, refined | 18224104         | 3       |
| Caelo    | Castor oil, refined | 18224106         | 1       |
| Caelo    | Castor oil, refined | 18224107         | 1       |
| Caelo    | Castor oil, refined | 18233501         | 1       |
| Caelo    | Castor oil, refined | 18238102         | 27      |
| Caelo    | Castor oil, refined | 18295701         | 2       |
| Caelo    | Castor oil, refined | 18295702         | 16      |
| Caelo    | Castor oil, refined | 18295703         | 2       |
| Caelo    | Castor oil, refined | 19012705         | 9       |
| Caelo    | Castor oil, refined | 19012706         | 1       |
| Caelo    | Castor oil, refined | 19012707         | 2       |
| Caelo    | Castor oil, refined | 19012709         | 1       |
| Caelo    | Castor oil, refined | 19020702         | 1       |
| Caelo    | Castor oil, refined | 19080701         | 10      |
| Caelo    | Castor oil, refined | 19080702         | 1       |
| Caelo    | Castor oil, refined | 19080706         | 6       |
| Caelo    | Castor oil, refined | 19080707         | 6       |
| Caelo    | Castor oil, refined | 19091802         | 1       |
| Caelo    | Castor oil, refined | 1912705          | 1       |
| Caelo    | Castor oil, refined | 19132601         | 1       |
| Caelo    | Castor oil, refined | 19132603         | 37      |
| Caelo    | Castor oil, refined | 1913A-02009      | 1       |
| Caelo    | Castor oil, refined | 19197001         | 1       |
| Caelo    | Castor oil, refined | 19222501         | 5       |
| Caelo    | Castor oil, refined | 19222504         | 1       |
| Caelo    | Castor oil, refined | 19251101         | 1       |
| Caelo    | Castor oil, refined | 19251102         | 11      |
| Caelo    | Castor oil, refined | 19251103         | 3       |
| Caelo    | Castor oil, refined | 192831001        | 1       |
| Caelo    | Castor oil, refined | 192831006        | 2       |
| Caelo    | Castor oil, refined | 1980706          | 1       |
| Caelo    | Castor oil, refined | 200001240002     | 1       |
| Caelo    | Castor oil, refined | 200002353001     | 1       |
| Caelo    | Castor oil, refined | 200002920089     | 1       |
| Caelo    | Castor oil, refined | 2000049002       | 1       |

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| Supplier | Substance           | Batch         | Spectra |
|----------|---------------------|---------------|---------|
| Caelo    | Castor oil, refined | 20000498001   | 1       |
| Caelo    | Castor oil, refined | 20000498002   | 30      |
| Caelo    | Castor oil, refined | 20000498004   | 3       |
| Caelo    | Castor oil, refined | 20000498008   | 1       |
| Caelo    | Castor oil, refined | 20002353001   | 35      |
| Caelo    | Castor oil, refined | 20004358003   | 12      |
| Caelo    | Castor oil, refined | 20004358006   | 1       |
| Caelo    | Castor oil, refined | 2000498002    | 3       |
| Caelo    | Castor oil, refined | 2002353001    | 1       |
| Caelo    | Castor oil, refined | 20161102-3    | 1       |
| Caelo    | Castor oil, refined | 21000493002   | 1       |
| Caelo    | Castor oil, refined | 21000493003   | 6       |
| Caelo    | Castor oil, refined | 21000493006   | 9       |
| Caelo    | Castor oil, refined | 21001404002   | 1       |
| Caelo    | Castor oil, refined | 21001404003   | 8       |
| Caelo    | Castor oil, refined | 21002000002   | 2       |
| Caelo    | Castor oil, refined | 22051303      | 1       |
| Caelo    | Castor oil, refined | 22071302      | 1       |
| Caelo    | Castor oil, refined | 24101402      | 1       |
| Caelo    | Castor oil, refined | 26041403      | 1       |
| Caelo    | Castor oil, refined | 269565        | 1       |
| Caelo    | Castor oil, refined | 272591        | 1       |
| Caelo    | Castor oil, refined | 275938        | 3       |
| Caelo    | Castor oil, refined | 278661        | 3       |
| Caelo    | Castor oil, refined | 28051512      | 1       |
| Caelo    | Castor oil, refined | 284505        | 1       |
| Caelo    | Castor oil, refined | 287167        | 2       |
| Caelo    | Castor oil, refined | 288126        | 1       |
| Caelo    | Castor oil, refined | 290212        | 6       |
| Caelo    | Castor oil, refined | 292409        | 2       |
| Caelo    | Castor oil, refined | 294667        | 1       |
| Caelo    | Castor oil, refined | 294668        | 3       |
| Caelo    | Castor oil, refined | 295412        | 2       |
| Caelo    | Castor oil, refined | 296751        | 5       |
| Caelo    | Castor oil, refined | 297430        | 1       |
| Caelo    | Castor oil, refined | 298698        | 1       |
| Caelo    | Castor oil, refined | 298699        | 4       |
| Caelo    | Castor oil, refined | 2x20003205002 | 1       |
| Caelo    | Castor oil, refined | 30031302      | 1       |
| Caelo    | Castor oil, refined | 30031504      | 1       |
| Caelo    | Castor oil, refined | 30041808      | 1       |
| Caelo    | Castor oil, refined | 300629        | 3       |
| Caelo    | Castor oil, refined | 301587        | 2       |
| Caelo    | Castor oil, refined | 301591        | 6       |
| Caelo    | Castor oil, refined | 303857        | 3       |
| Caelo    | Castor oil, refined | 303858        | 1       |
| Caelo    | Castor oil, refined | 305230        | 2       |
| Caelo    | Castor oil, refined | 3071713       | 1       |
| Caelo    | Castor oil, refined | 307429        | 1       |
| Caelo    | Castor oil, refined | 307457        | 5       |
| Caelo    | Castor oil, refined | 308824        | 4       |
| Caelo    | Castor oil, refined | 308825        | 3       |
| Caelo    | Castor oil, refined | 311683        | 1       |
| Caelo    | Castor oil, refined | 311684        | 3       |
| Caelo    | Castor oil, refined | 3791723       | 1       |
| Caelo    | Castor oil, refined | 420301113     | 1       |
| Caelo    | Castor oil, refined | 4330605       | 1       |
| Caelo    | Castor oil, refined | 4614M-02009   | 1       |
| Caelo    | Castor oil, refined | 5121809       | 1       |
| Caelo    | Castor oil, refined | 5334001       | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance           | Batch               | Spectra |
|----------------------------|---------------------|---------------------|---------|
| Caelo                      | Castor oil, refined | 5450801             | 4       |
| Caelo                      | Castor oil, refined | 5899201             | 1       |
| Caelo                      | Castor oil, refined | 60082103            | 1       |
| Caelo                      | Castor oil, refined | 6051411             | 1       |
| Caelo                      | Castor oil, refined | 6861795             | 1       |
| Caelo                      | Castor oil, refined | 8003726001          | 6       |
| Caelo                      | Castor oil, refined | 8003726002          | 2       |
| Caelo                      | Castor oil, refined | 8041711             | 1       |
| Caelo                      | Castor oil, refined | 9061817             | 1       |
| Caelo                      | Castor oil, refined | Fertigarzneimittel  | 1       |
| Caelo                      | Castor oil, refined | OPW001382           | 1       |
| Caelo                      | Castor oil, refined | P-09121924/19080707 | 1       |
| Caelo                      | Castor oil, refined | P161/14             | 1       |
| Caecolo/Phoenix            | Castor oil, refined | 8003726002          | 1       |
| Caesa / Alliance Health... | Castor oil, refined | 18238102            | 1       |
| Caesar & Loretz GmbH / ... | Castor oil, refined | 21000493006         | 1       |
| Caesar & Loretz GmbH / ... | Castor oil, refined | 18295703            | 3       |
| Caesar & Loretz GmbH/Je... | Castor oil, refined | 20004358003         | 1       |
| Caesar & Loretz GmbH/Kehr  | Castor oil, refined | 19251102            | 2       |
| Caesar & Loretz GmbH/No... | Castor oil, refined | 19080701            | 2       |
| Caesar & Loretz GmbH/No... | Castor oil, refined | 21000493006         | 1       |
| Caesar & Loretz GmbH/Sa... | Castor oil, refined | 20000498002         | 4       |
| Caesar & Loretz GmbH/Sa... | Castor oil, refined | 20002353001         | 2       |
| Caesar & Loretz GmbH/Sa... | Castor oil, refined | 21000493003         | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 16102802            | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 16236202            | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 16273105            | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 17113803            | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 18114503            | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 19080701            | 2       |
| Caesar & Loretz GmbH       | Castor oil, refined | 19132603            | 11      |
| Caesar & Loretz GmbH       | Castor oil, refined | 19222501            | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 19251102            | 3       |
| Caesar & Loretz GmbH       | Castor oil, refined | 192831010           | 2       |
| Caesar & Loretz GmbH       | Castor oil, refined | 20000292005         | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 20000498002         | 7       |
| Caesar & Loretz GmbH       | Castor oil, refined | 20002353001         | 5       |
| Caesar & Loretz GmbH       | Castor oil, refined | 20002399            | 2       |
| Caesar & Loretz GmbH       | Castor oil, refined | 20003370005         | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 20004358003         | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 21000493006         | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 21001404003         | 1       |
| Caesar & Loretz GmbH       | Castor oil, refined | 21002000003         | 1       |
| Caesar&Loretz/Caesar&Lo... | Castor oil, refined | 15144304            | 1       |
| Caesar-Loretz/Sanacorp     | Castor oil, refined | 17251901            | 1       |
| Calo/Sanacorp              | Castor oil, refined | 16102802            | 2       |
| castor Products company    | Castor oil, refined | 136225              | 1       |
| Castor Pruducts Company... | Castor oil, refined | 1407053-02          | 1       |
| Castor Pruducts Company... | Castor oil, refined | 1512024-01          | 1       |
| Castor Pruducts Company... | Castor oil, refined | 1512024-02          | 1       |
| Castor/Phoenix             | Castor oil, refined | 142862              | 1       |
| Castor/Phönix              | Castor oil, refined | 1509003-02          | 1       |
| Cealo/AHD                  | Castor oil, refined | 16102804            | 1       |
| Cealo/Sanacorp             | Castor oil, refined | 20000498002         | 1       |
| Cealo                      | Castor oil, refined | 1000004198          | 1       |
| Cealo                      | Castor oil, refined | 13096304            | 1       |
| Cealo                      | Castor oil, refined | 14199609            | 1       |
| Cealo                      | Castor oil, refined | 16102801            | 1       |
| Cealo                      | Castor oil, refined | 20002353001         | 1       |
| Defektur Abfüllung         | Castor oil, refined | 5945                | 1       |

continued on the next page

continued from previous page

| Supplier            | Substance           | Batch           | Spectra |
|---------------------|---------------------|-----------------|---------|
| Defektur Abfüllung  | Castor oil, refined | 6001            | 2       |
| Defektur Abfüllung  | Castor oil, refined | 6081            | 1       |
| Defektur Abfüllung  | Castor oil, refined | 6189            | 1       |
| Defektur Abfüllung  | Castor oil, refined | 6260            | 1       |
| Defektur Abfüllung  | Castor oil, refined | 6333            | 1       |
| Defektur Abfüllung  | Castor oil, refined | 6414            | 1       |
| Defektur            | Castor oil, refined | 5052            | 3       |
| Defektur            | Castor oil, refined | 5196            | 1       |
| Defektur            | Castor oil, refined | 5253            | 2       |
| Defektur            | Castor oil, refined | 5334            | 3       |
| Defektur            | Castor oil, refined | 5408            | 2       |
| Defektur            | Castor oil, refined | 5775            | 1       |
| Defektur            | Castor oil, refined | 6442            | 1       |
| Delta               | Castor oil, refined | 17251906        | 1       |
| Ebert-Jacobi        | Castor oil, refined | 6861795         | 1       |
| entspricht          | Castor oil, refined | 18295702        | 1       |
| Eur                 | Castor oil, refined | 1407053-01      | 1       |
| EuRho / 11          | Castor oil, refined | 1504006-02      | 2       |
| Eurho / Sanacorp    | Castor oil, refined | 121008-02       | 1       |
| EuRho AHC           | Castor oil, refined | 1611005-01      | 1       |
| EuRho/GEHE          | Castor oil, refined | 136225          | 1       |
| EuRho/GEHE          | Castor oil, refined | 1705035         | 1       |
| EuRho/GEHE          | Castor oil, refined | 1705035-01      | 2       |
| EuRho/Geilenkirchen | Castor oil, refined | 1304013-02      | 1       |
| EuRho               | Castor oil, refined | 1206039-02      | 1       |
| EuRho               | Castor oil, refined | 1212008-01      | 3       |
| EuRho               | Castor oil, refined | 1212008-02      | 1       |
| EuRho               | Castor oil, refined | 1304013-02      | 1       |
| EuRho               | Castor oil, refined | 141-2006-02     | 1       |
| EuRho               | Castor oil, refined | 1509003-01      | 1       |
| EuRho               | Castor oil, refined | 1512024-01      | 2       |
| EuRho               | Castor oil, refined | 161100501       | 1       |
| Euro OCT            | Castor oil, refined | 14112006-02     | 1       |
| Euro OTC            | Castor oil, refined | 10000005818     | 1       |
| Euro OTC            | Castor oil, refined | 10022015D       | 1       |
| Euro OTC            | Castor oil, refined | 1014A03553      | 1       |
| Euro OTC            | Castor oil, refined | 1112013C        | 1       |
| Euro OTC            | Castor oil, refined | 1202041-01      | 1       |
| Euro OTC            | Castor oil, refined | 1206039-01      | 2       |
| Euro OTC            | Castor oil, refined | 121008-01       | 1       |
| Euro OTC            | Castor oil, refined | 1212008-01      | 4       |
| Euro OTC            | Castor oil, refined | 1212008-02      | 9       |
| Euro OTC            | Castor oil, refined | 1220616         | 1       |
| Euro OTC            | Castor oil, refined | 126279          | 1       |
| Euro OTC            | Castor oil, refined | 128224          | 1       |
| Euro OTC            | Castor oil, refined | 129(1705035-01) | 1       |
| Euro OTC            | Castor oil, refined | 130(1801007-01) | 1       |
| Euro OTC            | Castor oil, refined | 1304013-01      | 7       |
| Euro OTC            | Castor oil, refined | 1304013-02      | 11      |
| Euro OTC            | Castor oil, refined | 130401313-02    | 1       |
| Euro OTC            | Castor oil, refined | 13071301        | 2       |
| Euro OTC            | Castor oil, refined | 1308019-01      | 11      |
| Euro OTC            | Castor oil, refined | 130801902       | 1       |
| Euro OTC            | Castor oil, refined | 1308019-02      | 3       |
| Euro OTC            | Castor oil, refined | 131(1801007-01) | 1       |
| Euro OTC            | Castor oil, refined | 135277          | 1       |
| Euro OTC            | Castor oil, refined | 136225          | 1       |
| Euro OTC            | Castor oil, refined | 140302401       | 1       |
| Euro OTC            | Castor oil, refined | 1403024-01      | 11      |
| Euro OTC            | Castor oil, refined | 140302402       | 2       |

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| <b>Supplier</b> | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------|--------------|----------------|
| Euro OTC        | Castor oil, refined | 1403024-02   | 9              |
| Euro OTC        | Castor oil, refined | 140705301    | 2              |
| Euro OTC        | Castor oil, refined | 1407053-01   | 4              |
| Euro OTC        | Castor oil, refined | 1407053-02   | 9              |
| Euro OTC        | Castor oil, refined | 141200601    | 1              |
| Euro OTC        | Castor oil, refined | 1412006-01   | 6              |
| Euro OTC        | Castor oil, refined | 141200602    | 2              |
| Euro OTC        | Castor oil, refined | 1412006-02   | 13             |
| Euro OTC        | Castor oil, refined | 142862       | 3              |
| Euro OTC        | Castor oil, refined | 145943       | 2              |
| Euro OTC        | Castor oil, refined | 1504006-01   | 11             |
| Euro OTC        | Castor oil, refined | 150400602    | 1              |
| Euro OTC        | Castor oil, refined | 1504006-02   | 9              |
| Euro OTC        | Castor oil, refined | 1504006-06   | 1              |
| Euro OTC        | Castor oil, refined | 15072014B    | 1              |
| Euro OTC        | Castor oil, refined | 150900301    | 1              |
| Euro OTC        | Castor oil, refined | 1509003-01   | 27             |
| Euro OTC        | Castor oil, refined | 150900302    | 1              |
| Euro OTC        | Castor oil, refined | 1509003-02   | 23             |
| Euro OTC        | Castor oil, refined | 1512004-02   | 1              |
| Euro OTC        | Castor oil, refined | 1512024      | 1              |
| Euro OTC        | Castor oil, refined | 151202401    | 1              |
| Euro OTC        | Castor oil, refined | 1512024-01   | 18             |
| Euro OTC        | Castor oil, refined | 1512024-014  | 1              |
| Euro OTC        | Castor oil, refined | 1512024-02   | 23             |
| Euro OTC        | Castor oil, refined | 151204-02    | 1              |
| Euro OTC        | Castor oil, refined | 1513A03553   | 2              |
| Euro OTC        | Castor oil, refined | 154006-02    | 1              |
| Euro OTC        | Castor oil, refined | 15943        | 1              |
| Euro OTC        | Castor oil, refined | 16040019-02  | 1              |
| Euro OTC        | Castor oil, refined | 1604019-01   | 34             |
| Euro OTC        | Castor oil, refined | 160401902    | 1              |
| Euro OTC        | Castor oil, refined | 1604019-02   | 10             |
| Euro OTC        | Castor oil, refined | 1611005      | 1              |
| Euro OTC        | Castor oil, refined | 161100501    | 2              |
| Euro OTC        | Castor oil, refined | 1611005-01   | 26             |
| Euro OTC        | Castor oil, refined | 1611005-02   | 9              |
| Euro OTC        | Castor oil, refined | 170503-01    | 1              |
| Euro OTC        | Castor oil, refined | 170503501    | 4              |
| Euro OTC        | Castor oil, refined | 1705035-01   | 60             |
| Euro OTC        | Castor oil, refined | 18001340     | 1              |
| Euro OTC        | Castor oil, refined | 1801007      | 1              |
| Euro OTC        | Castor oil, refined | 180100701    | 9              |
| Euro OTC        | Castor oil, refined | 1801007-01   | 51             |
| Euro OTC        | Castor oil, refined | 180107-01    | 1              |
| Euro OTC        | Castor oil, refined | 18033501     | 1              |
| Euro OTC        | Castor oil, refined | 180700301    | 4              |
| Euro OTC        | Castor oil, refined | 1807003-01   | 44             |
| Euro OTC        | Castor oil, refined | 1902019-01   | 18             |
| Euro OTC        | Castor oil, refined | 1902019-02   | 5              |
| Euro OTC        | Castor oil, refined | 1902019-03   | 17             |
| Euro OTC        | Castor oil, refined | 1902019-04   | 3              |
| Euro OTC        | Castor oil, refined | 2022015C     | 1              |
| Euro OTC        | Castor oil, refined | 290714b      | 1              |
| Euro OTC        | Castor oil, refined | 301591       | 2              |
| Euro OTC        | Castor oil, refined | 303858       | 1              |
| Euro OTC        | Castor oil, refined | 31032015A    | 1              |
| Euro OTC        | Castor oil, refined | 3313U-03553  | 1              |
| Euro OTC        | Castor oil, refined | 3413U03553   | 1              |
| Euro OTC        | Castor oil, refined | 3513I-03553  | 1              |

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| Supplier    | Substance           | Batch             | Spectra |
|-------------|---------------------|-------------------|---------|
| Euro OTC    | Castor oil, refined | 5581              | 1       |
| Euro OTC    | Castor oil, refined | 60082103          | 1       |
| Euro OTC    | Castor oil, refined | 705035-01         | 1       |
| Euro OTC    | Castor oil, refined | 8003726001        | 3       |
| Euro OTC    | Castor oil, refined | 8004605002        | 2       |
| Euro OTC    | Castor oil, refined | ChB120115         | 1       |
| Euro/Noweda | Castor oil, refined | 1412006-02        | 1       |
| Euro/Noweda | Castor oil, refined | 1604019-01        | 2       |
| Euro/Noweda | Castor oil, refined | 1604019-02        | 1       |
| Fagron      | Castor oil, refined |                   | 1       |
| Fagron      | Castor oil, refined | 126F07-B06-324379 | 1       |
| Fagron      | Castor oil, refined | 127170            | 1       |
| Fagron      | Castor oil, refined | 12D04-N09         | 2       |
| Fagron      | Castor oil, refined | 12H29-N04         | 2       |
| Fagron      | Castor oil, refined | 13/27-B01-287857  | 1       |
| Fagron      | Castor oil, refined | 13/27-B01-287858  | 1       |
| Fagron      | Castor oil, refined | 13065405          | 1       |
| Fagron      | Castor oil, refined | 13134609          | 1       |
| Fagron      | Castor oil, refined | 133085            | 1       |
| Fagron      | Castor oil, refined | 13C08-N08         | 2       |
| Fagron      | Castor oil, refined | 13D29-N01         | 1       |
| Fagron      | Castor oil, refined | 13G29B01          | 1       |
| Fagron      | Castor oil, refined | 13G29-B01-285422  | 1       |
| Fagron      | Castor oil, refined | 13I27-B01-287857  | 1       |
| Fagron      | Castor oil, refined | 13I27-B01-287858  | 1       |
| Fagron      | Castor oil, refined | 14020108          | 1       |
| Fagron      | Castor oil, refined | 1407053-02        | 1       |
| Fagron      | Castor oil, refined | 14330601          | 1       |
| Fagron      | Castor oil, refined | 14A28-B07-304816  | 1       |
| Fagron      | Castor oil, refined | 14C17-B01         | 3       |
| Fagron      | Castor oil, refined | 14c17-b01-293832  | 1       |
| Fagron      | Castor oil, refined | 14C17-B01-293833  | 2       |
| Fagron      | Castor oil, refined | 14C17-B01-293834  | 1       |
| Fagron      | Castor oil, refined | 150383            | 1       |
| Fagron      | Castor oil, refined | 1504006-01        | 1       |
| Fagron      | Castor oil, refined | 1528-B07-3048     | 1       |
| Fagron      | Castor oil, refined | 15A28B07          | 1       |
| Fagron      | Castor oil, refined | 15A28-B07-304816  | 2       |
| Fagron      | Castor oil, refined | 15A28-B07-304817  | 3       |
| Fagron      | Castor oil, refined | 15A28-B07-304818  | 1       |
| Fagron      | Castor oil, refined | 15D02-B02-311714  | 1       |
| Fagron      | Castor oil, refined | 15D02-B02-314240  | 1       |
| Fagron      | Castor oil, refined | 15J15-B08         | 4       |
| Fagron      | Castor oil, refined | 15J15-B08-316099  | 1       |
| Fagron      | Castor oil, refined | 15J15-B08-318730  | 2       |
| Fagron      | Castor oil, refined | 16/12-b01-329507  | 1       |
| Fagron      | Castor oil, refined | 16C29-B01         | 1       |
| Fagron      | Castor oil, refined | 16C29-B01-320886  | 1       |
| Fagron      | Castor oil, refined | 16C29-B01-322133  | 2       |
| Fagron      | Castor oil, refined | 16F07-B06         | 1       |
| Fagron      | Castor oil, refined | 16F07-B06-324379  | 4       |
| Fagron      | Castor oil, refined | 16H05-B03         | 3       |
| Fagron      | Castor oil, refined | 16h05-b03-326864  | 2       |
| Fagron      | Castor oil, refined | 16H05-B03-326864  | 11      |
| Fagron      | Castor oil, refined | 16J12-B01         | 1       |
| Fagron      | Castor oil, refined | 16J12-B01-328159  | 3       |
| Fagron      | Castor oil, refined | 16J12-B01-328160  | 1       |
| Fagron      | Castor oil, refined | 16J12-B01-329507  | 2       |
| Fagron      | Castor oil, refined | 16J12-B328159     | 1       |
| Fagron      | Castor oil, refined | 1705035-01        | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance           | Batch                  | Spectra |
|----------------------------|---------------------|------------------------|---------|
| Fagron                     | Castor oil, refined | 17A19-B06-335016       | 1       |
| Fagron                     | Castor oil, refined | 17H22-B01-341047       | 2       |
| Fagron                     | Castor oil, refined | 17H22-B01-341158       | 2       |
| Fagron                     | Castor oil, refined | 17K27-B01-352719       | 1       |
| Fagron                     | Castor oil, refined | 18001340               | 2       |
| Fagron                     | Castor oil, refined | 18003730               | 3       |
| Fagron                     | Castor oil, refined | 1801007-01             | 1       |
| Fagron                     | Castor oil, refined | 18033501               | 1       |
| Fagron                     | Castor oil, refined | 19H13-B04              | 1       |
| Fagron                     | Castor oil, refined | 19H13-B04-191756       | 2       |
| Fagron                     | Castor oil, refined | 19H13-B04-191756211713 | 1       |
| Fagron                     | Castor oil, refined | 19h13-b04-191757       | 2       |
| Fagron                     | Castor oil, refined | 19H13-B04-191757       | 3       |
| Fagron                     | Castor oil, refined | 19H13-B04-191757       | 1       |
| Fagron                     | Castor oil, refined | 20D09-T09_080454       | 1       |
| Fagron                     | Castor oil, refined | 20D09-T09-074227       | 1       |
| Fagron                     | Castor oil, refined | 20D09-T09-080454       | 3       |
| Fagron                     | Castor oil, refined | 20J08-T05-084215       | 3       |
| Fagron                     | Castor oil, refined | 294668                 | 1       |
| Fagron                     | Castor oil, refined | 2D09-T09-074228        | 1       |
| Fagron                     | Castor oil, refined | 301591                 | 1       |
| Fagron                     | Castor oil, refined | 303858                 | 1       |
| Fagron                     | Castor oil, refined | 5450801                | 1       |
| Fagron                     | Castor oil, refined | 810201818C             | 1       |
| Fagron                     | Castor oil, refined | 0PW001871              | 2       |
| Fagron                     | Castor oil, refined | T09-0742207            | 1       |
| Fargon /12.07.2013 / No... | Castor oil, refined | 13D29-N01              | 1       |
| Fargron                    | Castor oil, refined | 16j12-b01-329507       | 1       |
| Fiebig/Lamotte             | Castor oil, refined | 1000010810             | 3       |
| Fiebig                     | Castor oil, refined | 1000004554             | 3       |
| Fiebig                     | Castor oil, refined | 1000009899             | 4       |
| Fiebig                     | Castor oil, refined | 294668                 | 1       |
| Fiebig                     | Castor oil, refined | 8003726001             | 5       |
| Fiebig                     | Castor oil, refined | 8003726002             | 5       |
| Finteler Apotheke          | Castor oil, refined | 1611005-01             | 1       |
| Gatt-Koller                | Castor oil, refined | 1803582                | 2       |
| Gatt-Koller                | Castor oil, refined | 1900038                | 2       |
| Gehe 05.03.2014            | Castor oil, refined | 278660                 | 1       |
| GEHE 17.07.2014            | Castor oil, refined | 285757                 | 1       |
| Gehe Kassel 06.06.2015     | Castor oil, refined | 290212                 | 1       |
| GEHE Kassel 13.02.2019     | Castor oil, refined | 18003729               | 1       |
| Gehe Kassel                | Castor oil, refined | 288638                 | 2       |
| Gehe/Lamotte               | Castor oil, refined | 1000004198             | 1       |
| Gehe/Lamotte               | Castor oil, refined | 1000004554             | 1       |
| Gehe/Lamotte               | Castor oil, refined | 1000005199             | 1       |
| Gehe                       | Castor oil, refined | 1000001128             | 1       |
| Gehe                       | Castor oil, refined | 1000001914             | 2       |
| Gehe                       | Castor oil, refined | 1000002384             | 1       |
| GEHE                       | Castor oil, refined | 11359507               | 1       |
| Gehe                       | Castor oil, refined | 124189                 | 1       |
| Gehe                       | Castor oil, refined | 130155                 | 1       |
| Gehe                       | Castor oil, refined | 1304013-01             | 2       |
| Gehe                       | Castor oil, refined | 136225                 | 1       |
| Gehe                       | Castor oil, refined | 14058808               | 1       |
| Gehe                       | Castor oil, refined | 1412006/02             | 1       |
| Gehe                       | Castor oil, refined | 1412006-02             | 2       |
| Gehe                       | Castor oil, refined | 1512024-01             | 1       |
| Gehe                       | Castor oil, refined | 1604019-01             | 2       |
| Gehe                       | Castor oil, refined | 1611005-01             | 2       |
| Gehe                       | Castor oil, refined | 17001711               | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance           | Batch          | Spectra |
|----------------------------|---------------------|----------------|---------|
| GEHE                       | Castor oil, refined | 17107506       | 1       |
| Gehe                       | Castor oil, refined | 18001340       | 1       |
| Gehe                       | Castor oil, refined | 18003730       | 1       |
| GEHE                       | Castor oil, refined | 18003730       | 2       |
| Gehe                       | Castor oil, refined | 18006815       | 2       |
| Gehe                       | Castor oil, refined | 1807003-01     | 2       |
| Gehe                       | Castor oil, refined | 18295702       | 1       |
| GEHE                       | Castor oil, refined | 19002829       | 1       |
| Gehe                       | Castor oil, refined | 19002830       | 1       |
| Gehe                       | Castor oil, refined | 19006129       | 2       |
| Gehe                       | Castor oil, refined | 19251102       | 1       |
| Gehe                       | Castor oil, refined | 20002401       | 4       |
| Gehe                       | Castor oil, refined | 20005113       | 2       |
| Gehe                       | Castor oil, refined | 21000493006    | 2       |
| Gehe                       | Castor oil, refined | 275937         | 1       |
| Gehe                       | Castor oil, refined | 283620         | 3       |
| Gehe                       | Castor oil, refined | 294667         | 1       |
| Gehe                       | Castor oil, refined | 305229         | 1       |
| Geilenkirchen              | Castor oil, refined | 1509003-01     | 2       |
| Geo-Chem/sanacorp          | Castor oil, refined | 1206039-01     | 1       |
| Geo-Chem/sanacorp          | Castor oil, refined | 1212008-01     | 1       |
| GMP-konform                | Castor oil, refined | 8003726001     | 1       |
| H.Lamotte/Noweda           | Castor oil, refined | 1000001914     | 1       |
| H.Lamotte/Noweda           | Castor oil, refined | 123812         | 1       |
| H.Lamotte/Noweda           | Castor oil, refined | 125162         | 2       |
| H.Lamotte                  | Castor oil, refined | 1000004554     | 2       |
| Hänseler                   | Castor oil, refined |                | 2       |
| harn                       | Castor oil, refined | 17002280       | 1       |
| Hedinger / Noweda          | Castor oil, refined | 1407053-02     | 3       |
| Hedinger/Phönix            | Castor oil, refined | 8007232001     | 1       |
| Hedinger/Sanacorp          | Castor oil, refined | 290213         | 1       |
| Henning/ Phoenix           | Castor oil, refined | 5899201        | 2       |
| Henry la Motte             | Castor oil, refined | 1000005818     | 1       |
| Henry la Motte             | Castor oil, refined | 125162         | 1       |
| Henry la Motte             | Castor oil, refined | 5899201        | 1       |
| Henry Lam.                 | Castor oil, refined | 5334001        | 2       |
| Henry Lamotte              | Castor oil, refined | 1000007717L100 | 1       |
| Henry Lamotte / AHD        | Castor oil, refined | 8005323001     | 1       |
| Henry Lamotte / Anzag      | Castor oil, refined | 1000009899     | 1       |
| Henry Lamotte / Kehr       | Castor oil, refined | 1000000714     | 1       |
| Henry Lamotte / Noweda     | Castor oil, refined | 123384         | 1       |
| Henry Lamotte / Noweda     | Castor oil, refined | 5450801        | 2       |
| Henry Lamotte OHLS GMBH... | Castor oil, refined | 8005323001     | 1       |
| Henry Lamotte Oils GmbH... | Castor oil, refined | 1000005199     | 1       |
| Henry Lamotte oils GmbH... | Castor oil, refined | 10000000714    | 1       |
| Henry Lamotte oils GmbH... | Castor oil, refined | 1000001128     | 1       |
| henry lamotte oils gmbh... | Castor oil, refined | 1000004198     | 1       |
| Henry Lamotte Oils GmbH... | Castor oil, refined | 123384         | 1       |
| Henry Lamotte Oils GmbH... | Castor oil, refined | 124189         | 1       |
| Henry Lamotte Oils GmbH... | Castor oil, refined | 123812         | 2       |
| henry lamotte oils gmbh... | Castor oil, refined | 1000002384     | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000000714     | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000000714     | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000001914     | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000002384     | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000002766     | 1       |
| Henry Lamotte oils GmbH    | Castor oil, refined | 1000004554     | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000005199     | 2       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000009899     | 2       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 1000010810     | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance           | Batch          | Spectra |
|----------------------------|---------------------|----------------|---------|
| Henry Lamotte Oils GmbH    | Castor oil, refined | 123812         | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 124637         | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 5450801        | 1       |
| Henry Lamotte Oils GmbH    | Castor oil, refined | 8003726001     | 1       |
| Henry Lamotte Oils, Gehe   | Castor oil, refined | 5450801        | 1       |
| Henry Lamotte Oils/ San... | Castor oil, refined | 16102804       | 1       |
| Henry Lamotte Oils/Ebert   | Castor oil, refined | 1000004554     | 1       |
| Henry Lamotte Oils/Gehe    | Castor oil, refined | 123384         | 1       |
| Henry Lamotte Oils/GEHE    | Castor oil, refined | 124637         | 1       |
| Henry Lamotte Oils/Gehe    | Castor oil, refined | 5334001        | 1       |
| Henry Lamotte Oils/GEHE    | Castor oil, refined | 5899201        | 1       |
| Henry Lamotte Oils/Noweda  | Castor oil, refined | 1000005818     | 1       |
| Henry Lamotte Oils/Noweda  | Castor oil, refined | 123812         | 1       |
| Henry Lamotte Oils/Noweda  | Castor oil, refined | 8003726001     | 8       |
| Henry Lamotte Oils/Nowe... | Castor oil, refined | 1000005199     | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 10000001128    | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 1000001128     | 2       |
| Henry Lamotte Oils         | Castor oil, refined | 1000001914     | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 1000002384     | 4       |
| Henry Lamotte Oils         | Castor oil, refined | 1000004198     | 4       |
| Henry Lamotte Oils         | Castor oil, refined | 1000004198L101 | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 1000009899     | 2       |
| Henry Lamotte oils         | Castor oil, refined | 1000010810     | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 100004198      | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 123812         | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 5334001        | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 5450801        | 2       |
| Henry Lamotte Oils         | Castor oil, refined | 5899201        | 1       |
| Henry Lamotte Oils         | Castor oil, refined | 8003726001     | 1       |
| Henry Lamotte/ Alliance... | Castor oil, refined | 1000004554     | 1       |
| Henry Lamotte/ Alliance... | Castor oil, refined | 8003726002     | 1       |
| Henry Lamotte/ Alliance    | Castor oil, refined | 1000005818     | 2       |
| Henry Lamotte/ Alliance    | Castor oil, refined | 1000009899     | 1       |
| Henry Lamotte/ Anzag       | Castor oil, refined | 1000004554     | 1       |
| Henry Lamotte/ Phönix      | Castor oil, refined | 1000003564     | 1       |
| Henry Lamotte/ Phönix      | Castor oil, refined | 1000004198     | 3       |
| Henry Lamotte/AHD          | Castor oil, refined | 1000001128     | 2       |
| Henry Lamotte/Ebert        | Castor oil, refined | 5450801        | 3       |
| Henry Lamotte/Fiebig       | Castor oil, refined | 1000005818     | 4       |
| Henry Lamotte/Gehe         | Castor oil, refined | 1000001128     | 1       |
| Henry Lamotte/Gehe         | Castor oil, refined | 5450801        | 2       |
| Henry Lamotte/Jenne 22...  | Castor oil, refined | 8006040002     | 2       |
| Henry Lamotte/Noewda       | Castor oil, refined | 100000238      | 1       |
| Henry Lamotte/Noewda       | Castor oil, refined | 1000004198     | 1       |
| Henry Lamotte/Noweda       | Castor oil, refined | 1000001914     | 1       |
| Henry Lamotte/Noweda       | Castor oil, refined | 1000002384     | 1       |
| Henry Lamotte/Noweda       | Castor oil, refined | 1000004554     | 3       |
| Henry Lamotte/Noweda       | Castor oil, refined | 123812         | 1       |
| Henry Lamotte/Noweda       | Castor oil, refined | 124637         | 1       |
| Henry Lamotte/Noweda       | Castor oil, refined | 8005323001     | 1       |
| Henry Lamotte/Noweda       | Castor oil, refined | 8006040002     | 1       |
| Henry Lamotte/Phoenix      | Castor oil, refined | 1000000714     | 1       |
| Henry Lamotte/Phoenix      | Castor oil, refined | 1000001914     | 3       |
| Henry Lamotte/Phoenix      | Castor oil, refined | 125473         | 2       |
| Henry Lamotte/Sanacorp     | Castor oil, refined | 1000001914     | 3       |
| Henry Lamotte/Sanacorp     | Castor oil, refined | 123384         | 3       |
| Henry Lamotte/Sanacorp     | Castor oil, refined | 124189         | 1       |
| Henry Lamotte/Sanacorp     | Castor oil, refined | 5899201        | 2       |
| Henry Lamotte              | Castor oil, refined | 10000005818    | 1       |
| Henry Lamotte              | Castor oil, refined | 1000000714     | 1       |

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continued from previous page

| Supplier                    | Substance           | Batch            | Spectra |
|-----------------------------|---------------------|------------------|---------|
| Henry Lamotte               | Castor oil, refined | 1000001128       | 5       |
| Henry Lamotte               | Castor oil, refined | 1000001914       | 11      |
| Henry Lamotte               | Castor oil, refined | 1000002384       | 7       |
| Henry Lamotte               | Castor oil, refined | 1000002766       | 5       |
| Henry Lamotte               | Castor oil, refined | 1000003564       | 11      |
| Henry Lamotte               | Castor oil, refined | 1000004198       | 4       |
| Henry Lamotte               | Castor oil, refined | 1000004553L100   | 1       |
| Henry Lamotte               | Castor oil, refined | 1000005818       | 2       |
| Henry Lamotte               | Castor oil, refined | 1000005818L102   | 1       |
| Henry Lamotte               | Castor oil, refined | 1000007724       | 2       |
| henry Lamotte               | Castor oil, refined | 1000009899       | 1       |
| Henry Lamotte               | Castor oil, refined | 1000011593       | 1       |
| Henry Lamotte               | Castor oil, refined | 1000014634       | 1       |
| Henry Lamotte               | Castor oil, refined | 123812           | 1       |
| Henry Lamotte               | Castor oil, refined | 125162           | 1       |
| Henry Lamotte               | Castor oil, refined | 125473           | 3       |
| Henry Lamotte               | Castor oil, refined | 2X1000004554     | 1       |
| Henry Lamotte               | Castor oil, refined | 5334001          | 1       |
| Henry Lamotte               | Castor oil, refined | 5450801          | 1       |
| Henry Lamotte               | Castor oil, refined | 8003726002       | 2       |
| Henry Lamotte               | Castor oil, refined | 8005323001       | 2       |
| Henry Lamotte               | Castor oil, refined | 8006040001       | 1       |
| Henry Lamotte               | Castor oil, refined | 8006040002       | 1       |
| Henry Lamotten Oils GmbH    | Castor oil, refined | 8003726002       | 4       |
| Henry Lamotte-Phönix        | Castor oil, refined | 1000005199       | 1       |
| Henry Lamotte-Phönix        | Castor oil, refined | 1000005818       | 1       |
| Henry/Alliance              | Castor oil, refined | 1000005199       | 1       |
| Henry/Phoenix               | Castor oil, refined | 1000004554       | 1       |
| Henry/Sanacorp              | Castor oil, refined | 1000010810       | 3       |
| Henry/Sanacorp              | Castor oil, refined | 8006040002       | 1       |
| henry                       | Castor oil, refined | 1000009899       | 1       |
| HenryLamotte/Anzag          | Castor oil, refined | 2114I-02009      | 1       |
| HenryLamotte/Phoenix        | Castor oil, refined | 5280301          | 1       |
| HenryLamotte                | Castor oil, refined | 1914             | 1       |
| HenryLamotte                | Castor oil, refined | 5899201          | 1       |
| Hennry Lamotte/Phönix       | Castor oil, refined | 1000010810       | 2       |
| Hennry Lamotte/Phönix       | Castor oil, refined | 8005323001       | 3       |
| Hubertus Apotheke           | Castor oil, refined | 16J12-B01-328159 | 2       |
| Ichthyol-Gesellschaft, ...  | Castor oil, refined | 306532           | 1       |
| Jenne,Lamotte               | Castor oil, refined | 123384           | 1       |
| Jenne/HenryLamotte          | Castor oil, refined | 1000016454       | 1       |
| Jenne                       | Castor oil, refined | 20002353001      | 1       |
| Kehr/Henry Lamotte          | Castor oil, refined | 1000005818       | 1       |
| Kehr                        | Castor oil, refined | 18001339         | 1       |
| Kehr                        | Castor oil, refined | 308824           | 5       |
| Kehr                        | Castor oil, refined | 311683           | 3       |
| Kögl                        | Castor oil, refined | 112304172017     | 3       |
| Kögl                        | Castor oil, refined | 1701849          | 3       |
| Kögl                        | Castor oil, refined | 1801521          | 2       |
| Kögl                        | Castor oil, refined | 1802385          | 1       |
| KÖGL                        | Castor oil, refined | 1900992          | 1       |
| Kögl                        | Castor oil, refined | 20172348         | 2       |
| Kögl                        | Castor oil, refined | 254508163316     | 1       |
| Kögl                        | Castor oil, refined | 36102170817      | 1       |
| Kögl                        | Castor oil, refined | 36102171217      | 1       |
| Kögl                        | Castor oil, refined | 404411164916     | 2       |
| Krieger/Lamotte             | Castor oil, refined | 1000001128       | 1       |
| L10                         | Castor oil, refined | 17015501         | 1       |
| Laborchemie Apolida GmbH... | Castor oil, refined | 17107407         | 1       |
| Lamotte / Sanacorp          | Castor oil, refined | 10000051995648   | 1       |

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| Supplier                   | Substance           | Batch       | Spectra |
|----------------------------|---------------------|-------------|---------|
| Lamotte Jenne              | Castor oil, refined | 1000004554  | 2       |
| Lamotte Jenne              | Castor oil, refined | 1000005818  | 1       |
| Lamotte / AHC              | Castor oil, refined | 1000009899  | 1       |
| Lamotte / AHC              | Castor oil, refined | 1000010810  | 3       |
| Lamotte / AHC              | Castor oil, refined | 8003726002  | 3       |
| Lamotte / Anzag            | Castor oil, refined | 8003726002  | 2       |
| Lamotte / Gehe             | Castor oil, refined | 123384      | 2       |
| Lamotte / Gehe             | Castor oil, refined | 5334001     | 1       |
| Lamotte / Gehe             | Castor oil, refined | 8003726001  | 2       |
| Lamotte / Gehe             | Castor oil, refined | 8005323001  | 1       |
| Lamotte / Noweda           | Castor oil, refined | 125162      | 1       |
| LaMotte / Phoenix          | Castor oil, refined | 1000001128  | 3       |
| LaMotte / Phoenix          | Castor oil, refined | 1000002384  | 1       |
| LaMotte / Phoenix          | Castor oil, refined | 1000002766  | 2       |
| Lamotte / Phoenix          | Castor oil, refined | 8006040002  | 1       |
| Lamotte / Sanacorp         | Castor oil, refined | 8005322001  | 1       |
| lamotte Phoenix            | Castor oil, refined | 288721      | 1       |
| lamotte phönix             | Castor oil, refined | 125162      | 1       |
| Lamotte Phönix             | Castor oil, refined | 5450801     | 2       |
| Lamotte Spangro Juni 2014  | Castor oil, refined | 123384      | 1       |
| Lamotte/ Alliance Healt... | Castor oil, refined | 8003726002  | 2       |
| Lamotte/ Gehe              | Castor oil, refined | 1000004554  | 2       |
| Lamotte/ Noweda            | Castor oil, refined | 20002401    | 1       |
| lamotte/ Phoenix           | Castor oil, refined | 1000003564  | 1       |
| lamotte/ Phoenix           | Castor oil, refined | 1000004198  | 1       |
| lamotte/ Phoenix           | Castor oil, refined | 1000004554  | 1       |
| Lamotte/ Sanacorp          | Castor oil, refined | 1000001128  | 1       |
| Lamotte/ Sanacorp          | Castor oil, refined | 1000002384  | 2       |
| Lamotte/ Sanacorp          | Castor oil, refined | 1000004554  | 1       |
| Lamotte/ Sanacorp          | Castor oil, refined | 1000005199  | 1       |
| Lamotte/ Sanacorp          | Castor oil, refined | 1000010810  | 1       |
| Lamotte/4                  | Castor oil, refined | 10000010810 | 1       |
| Lamotte/4                  | Castor oil, refined | 125473      | 1       |
| Lamotte/Allia              | Castor oil, refined | 10000010810 | 1       |
| Lamotte/Allia              | Castor oil, refined | 1000009899  | 3       |
| Lamotte/Allia              | Castor oil, refined | 8005323001  | 2       |
| Lamotte/Allia              | Castor oil, refined | 8007232001  | 1       |
| Lamotte/Alliance Health... | Castor oil, refined | 8003726001  | 1       |
| Lamotte/Alliance           | Castor oil, refined | 124637      | 2       |
| Lamotte/Alliance           | Castor oil, refined | 5450801     | 1       |
| Lamotte/Anzag              | Castor oil, refined | 1000001914  | 2       |
| Lamotte/Anzag              | Castor oil, refined | 1000002384  | 1       |
| Lamotte/Anzag              | Castor oil, refined | 1000004554  | 2       |
| Lamotte/Anzag              | Castor oil, refined | 1000005818  | 3       |
| Lamotte/Anzag              | Castor oil, refined | 1000009899  | 2       |
| Lamotte/Anzag              | Castor oil, refined | 1000010810  | 3       |
| Lamotte/Anzag              | Castor oil, refined | 123812      | 1       |
| lamotte/anzag              | Castor oil, refined | 5334001     | 1       |
| Lamotte/Anzag              | Castor oil, refined | 8003726002  | 1       |
| Lamotte/Anzag              | Castor oil, refined | 800372602   | 1       |
| Lamotte/Anzag              | Castor oil, refined | 8005323001  | 1       |
| lamotte/Gehe               | Castor oil, refined | 124189      | 2       |
| Lamotte/gehe               | Castor oil, refined | 1241892     | 1       |
| lamotte/Gehe               | Castor oil, refined | 124637      | 1       |
| Lamotte/gehe               | Castor oil, refined | 125162      | 1       |
| Lamotte/gehe               | Castor oil, refined | 125473      | 1       |
| Lamotte/Gehe               | Castor oil, refined | 1914        | 2       |
| Lamotte/Gehe               | Castor oil, refined | 4198        | 1       |
| Lamotte/Gehe               | Castor oil, refined | 8003726002  | 1       |
| Lamotte/Gehe               | Castor oil, refined | 8007232001  | 2       |

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| Supplier                   | Substance           | Batch           | Spectra |
|----------------------------|---------------------|-----------------|---------|
| Lamotte/Krieger            | Castor oil, refined | 1000001128      | 1       |
| Lamotte/L3                 | Castor oil, refined | 5450801         | 1       |
| Lamotte/N/04.06.13/PZN:... | Castor oil, refined | 123384          | 1       |
| lamotte/Novatis            | Castor oil, refined | 8006040002      | 1       |
| Lamotte/Noweda             | Castor oil, refined | 1000004198      | 2       |
| Lamotte/Noweda             | Castor oil, refined | 1000005199      | 2       |
| Lamotte/Noweda             | Castor oil, refined | 1000013797      | 1       |
| Lamotte/Noweda             | Castor oil, refined | 124189          | 1       |
| Lamotte/Ph                 | Castor oil, refined | 10000009899     | 1       |
| Lamotte/Phoenix            | Castor oil, refined | 10000010335L101 | 1       |
| Lamotte/Phoenix            | Castor oil, refined | 1000005199      | 1       |
| Lamotte/Phoenix            | Castor oil, refined | 1000005818      | 1       |
| Lamotte/Phoenix            | Castor oil, refined | 1000009899      | 3       |
| Lamotte/Phoenix            | Castor oil, refined | 1000010810      | 3       |
| Lamotte/Phoenix            | Castor oil, refined | 8003726001      | 2       |
| Lamotte/Phoenix            | Castor oil, refined | 8005323001      | 2       |
| Lamotte/Phönix             | Castor oil, refined | 1000003564      | 7       |
| Lamotte/Phönix             | Castor oil, refined | 1000004198      | 2       |
| Lamotte/Phönix             | Castor oil, refined | 1000005199      | 2       |
| Lamotte/Phönix             | Castor oil, refined | 1000005818      | 2       |
| Lamotte/Phönix             | Castor oil, refined | 1000009899      | 1       |
| Lamotte/Phönix             | Castor oil, refined | 1128            | 1       |
| lamotte/Phönix             | Castor oil, refined | 5899201         | 1       |
| Lamotte/Phönix             | Castor oil, refined | 8003726001      | 1       |
| Lamotte/Phönix             | Castor oil, refined | 8003726002      | 1       |
| Lamotte/Phönix             | Castor oil, refined | 8005323001      | 1       |
| Lamotte/Sanacorp 18.01...  | Castor oil, refined | 8007232001      | 1       |
| Lamotte/Sanacorp           | Castor oil, refined | 1000001128      | 2       |
| Lamotte/Sanacorp           | Castor oil, refined | 1000002384      | 2       |
| Lamotte/Sanacorp           | Castor oil, refined | 1000003888L101  | 1       |
| Lamotte/Sanacorp           | Castor oil, refined | 1000004198      | 1       |
| Lamotte/Sanacorp           | Castor oil, refined | 1000009899      | 1       |
| Lamotte/Sanacorp           | Castor oil, refined | 123812          | 1       |
| Lamotte/Sanacorp           | Castor oil, refined | 124189          | 3       |
| Lamotte/Sanacorp           | Castor oil, refined | 125162          | 1       |
| Lamotte/Sanacorp           | Castor oil, refined | 125473          | 3       |
| Lamotte/Sanacorp           | Castor oil, refined | 5899201         | 1       |
| Lamotte/Sanacorp           | Castor oil, refined | 8003726001      | 1       |
| LaMotte/Spangro            | Castor oil, refined | 1000004554      | 2       |
| LaMotte/Spangro            | Castor oil, refined | 8003726001      | 1       |
| Lamotte                    | Castor oil, refined | 1000000714      | 1       |
| Lamotte                    | Castor oil, refined | 1000002384      | 1       |
| Lamotte                    | Castor oil, refined | 1000003564      | 1       |
| lamotte                    | Castor oil, refined | 1000004198      | 1       |
| Lamotte                    | Castor oil, refined | 1000004198      | 1       |
| Lamotte                    | Castor oil, refined | 10000045545455  | 1       |
| Lamotte                    | Castor oil, refined | 1000007717      | 1       |
| Lamotte                    | Castor oil, refined | 1000007724L100  | 1       |
| Lamotte                    | Castor oil, refined | 1000009899      | 2       |
| Lamotte                    | Castor oil, refined | 100003564       | 1       |
| Lamotte                    | Castor oil, refined | 123812          | 2       |
| Lamotte                    | Castor oil, refined | 124189          | 2       |
| Lamotte                    | Castor oil, refined | 5188401         | 1       |
| Lamotte                    | Castor oil, refined | 5199            | 1       |
| Lamotte                    | Castor oil, refined | 5334001         | 3       |
| lamotte                    | Castor oil, refined | 5450801         | 1       |
| Lamotte                    | Castor oil, refined | 5450801         | 4       |
| Lamotte                    | Castor oil, refined | 8003726001      | 2       |
| Lamotte                    | Castor oil, refined | 800532001       | 1       |
| Lamotte                    | Castor oil, refined | 8005323001      | 4       |

continued on the next page



continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Marktapotheke              | Castor oil, refined             | 1512024-02  | 1       |
| Now/Cael030.12.16 EUR2,25  | Castor oil, refined             | 16236202    | 1       |
| Noweda / H. Lamotte        | Castor oil, refined             | 1000004198  | 1       |
| Noweda / Henry Lamotte     | Castor oil, refined             | 123384      | 2       |
| Noweda / Henry Lamotte     | Castor oil, refined             | 5280301     | 1       |
| Noweda / Henry Lamotte     | Castor oil, refined             | 5334001     | 2       |
| Noweda 21.10.2019          | Castor oil, refined             | 18006815    | 1       |
| Noweda/ Bombatus           | Castor oil, refined             | 305230      | 1       |
| Noweda/Euro                | Castor oil, refined             | 1611005-02  | 1       |
| Noweda/Henry Lamotte       | Castor oil, refined             | 1000001914  | 1       |
| Noweda/Henry Lamotte       | Castor oil, refined             | 123812      | 4       |
| Noweda/Henry Lamotte       | Castor oil, refined             | 124637      | 1       |
| Noweda/Henry Lamotte       | Castor oil, refined             | 125473      | 1       |
| Noweda/Henry Lamotte       | Castor oil, refined             | 5899201     | 2       |
| Noweda                     | Castor oil, refined             | 1000003564  | 1       |
| Noweda                     | Castor oil, refined             | 1000004554  | 1       |
| Noweda                     | Castor oil, refined             | 1000005818  | 1       |
| Noweda                     | Castor oil, refined             | 1304013-01  | 1       |
| Noweda                     | Castor oil, refined             | 1308019-01  | 1       |
| Noweda                     | Castor oil, refined             | 13196313    | 1       |
| Noweda                     | Castor oil, refined             | 16167202    | 1       |
| Noweda                     | Castor oil, refined             | 19002830    | 1       |
| Noweda                     | Castor oil, refined             | 19006129    | 2       |
| Noweda                     | Castor oil, refined             | 1902019-01  | 2       |
| Noweda                     | Castor oil, refined             | 19080701    | 1       |
| Noweda                     | Castor oil, refined             | 192831005   | 1       |
| Noweda                     | Castor oil, refined             | 273390      | 1       |
| Noweda                     | Castor oil, refined             | 8003726002  | 2       |
| Noweda                     | Castor oil, refined             | 8004605002  | 1       |
| Otto Fischar Gmbh          | Castor oil, refined             | 5334001     | 1       |
| Otto Fischar               | Castor oil, refined             | 1000001914  | 1       |
| Ph.Eur.                    | Castor oil, refined             | 6861795     | 1       |
| Ph.Eur.8.0                 | Castor oil, refined             | 140705301   | 1       |
| Pharmachem/ Phönix         | Sorbitan- and glycerol monoo... | ZA143/19    | 1       |
| Pharmachem                 | Sorbitan- and glycerol monoo... | 231017      | 1       |
| Pharmachem                 | Sorbitan- and glycerol monoo... | 280617      | 1       |
| phö                        | Castor oil, refined             | 5450801     | 1       |
| Phoenix 06.09.2018 2,99EUR | Castor oil, refined             | 1801007-01  | 4       |
| Phoenix 14.09.18           | Castor oil, refined             | 18001340    | 1       |
| Phoenix 15.08.2017 3,67EUR | Castor oil, refined             | 1611005-02  | 1       |
| Phoenix/ Bombatus-Werke... | Castor oil, refined             | 17002280    | 1       |
| Phoenix/ Henry Lamotte     | Castor oil, refined             | 125162      | 1       |
| Phoenix/Lamotte            | Castor oil, refined             | 123812      | 2       |
| Phoenix                    | Castor oil, refined             | 1000006447  | 1       |
| Phoenix                    | Castor oil, refined             | 1705035-01  | 1       |
| Phoenix                    | Castor oil, refined             | 17107407    | 1       |
| Phoenix                    | Castor oil, refined             | 17359304    | 1       |
| Phoenix                    | Castor oil, refined             | 18003729    | 1       |
| Phoenix                    | Castor oil, refined             | 18003730    | 1       |
| Phoenix                    | Castor oil, refined             | 180100-01   | 1       |
| Phoenix                    | Castor oil, refined             | 19002830    | 1       |
| Phoenix                    | Castor oil, refined             | 20001513002 | 1       |
| Phoenix                    | Castor oil, refined             | 20002401    | 1       |
| Phoenix                    | Castor oil, refined             | 308825      | 1       |
| Phönix Gotha               | Castor oil, refined             | 1509003-01  | 1       |
| Phönix/Fischar             | Castor oil, refined             | 17002280    | 1       |
| Phönix/Henry Lamotte       | Castor oil, refined             | 1000005199  | 1       |
| Phönix/Henry Lamotte       | Castor oil, refined             | 1000009899  | 1       |
| Phönix                     | Castor oil, refined             | 1212008-01  | 1       |
| Phönix                     | Castor oil, refined             | 123384      | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Phönix                     | Castor oil, refined             | 13043601         | 1       |
| Phönix                     | Castor oil, refined             | 1308019-01       | 1       |
| Phönix                     | Castor oil, refined             | 1403024-01       | 1       |
| Phönix                     | Castor oil, refined             | 1512024-02       | 1       |
| Phönix                     | Castor oil, refined             | 1611005-01       | 1       |
| Phönix                     | Castor oil, refined             | 17251901         | 1       |
| Phönix                     | Castor oil, refined             | 17251906         | 1       |
| phönix                     | Castor oil, refined             | 17h22-b01-341158 | 1       |
| Phonix                     | Castor oil, refined             | 1807003-01       | 1       |
| Phönix                     | Castor oil, refined             | 19002830         | 1       |
| Phönix                     | Castor oil, refined             | 1902019-01       | 1       |
| Phönix                     | Castor oil, refined             | 20002401         | 3       |
| Phönix                     | Sorbitan- and glycerol monoo... | 21115            | 2       |
| phönix                     | Castor oil, refined             | 305230           | 2       |
| PHÖNIX                     | Castor oil, refined             | 308825           | 1       |
| Products Company           | Castor oil, refined             | 1604019-02       | 1       |
| Rez                        | Castor oil, refined             | 5519             | 2       |
| Rondell Apotheke           | Castor oil, refined             | 15145101         | 1       |
| Sana 10.02.15 EK 2,57      | Castor oil, refined             | 1407053-02       | 1       |
| Sanacorp 22.11.21, 4,77EUR | Castor oil, refined             | 211125           | 1       |
| Sanacorp, 9,48EUR, 17.1.17 | Castor oil, refined             | 301587           | 1       |
| Sanacorp/ Lamotte          | Castor oil, refined             | 1000010810       | 2       |
| Sanacorp                   | Castor oil, refined             | 1000005199       | 1       |
| Sanacorp                   | Castor oil, refined             | 12149306         | 1       |
| Sanacorp                   | Castor oil, refined             | 12270111         | 1       |
| Sanacorp                   | Castor oil, refined             | 123812           | 3       |
| Sanacorp                   | Castor oil, refined             | 128224           | 1       |
| Sanacorp                   | Castor oil, refined             | 130260           | 1       |
| Sanacorp                   | Castor oil, refined             | 13196308         | 1       |
| Sanacorp                   | Castor oil, refined             | 14020105         | 1       |
| Sanacorp                   | Castor oil, refined             | 14330601         | 1       |
| Sanacorp                   | Castor oil, refined             | 1504006-01       | 1       |
| Sanacorp                   | Castor oil, refined             | 1509003-01       | 1       |
| sanacorp                   | Castor oil, refined             | 15144302         | 2       |
| sanacorp                   | Castor oil, refined             | 15A28-B07-304818 | 1       |
| Sanacorp                   | Castor oil, refined             | 15D02-Bo2-311714 | 1       |
| Sanacorp                   | Castor oil, refined             | 17002279         | 1       |
| Sanacorp                   | Castor oil, refined             | 1705035-01       | 1       |
| Sanacorp                   | Castor oil, refined             | 17107403         | 1       |
| Sanacorp                   | Castor oil, refined             | 18001340         | 1       |
| Sanacorp                   | Castor oil, refined             | 18003730         | 1       |
| Sanacorp                   | Castor oil, refined             | 19006129         | 2       |
| Sanacorp                   | Castor oil, refined             | 1902019-01       | 1       |
| Sanacorp                   | Castor oil, refined             | 19080706         | 2       |
| Sanacorp                   | Castor oil, refined             | 19132603         | 2       |
| Sanacorp                   | Castor oil, refined             | 281943           | 1       |
| Sanacorp                   | Castor oil, refined             | 307459           | 1       |
| Sanacorp                   | Castor oil, refined             | 308824           | 1       |
| Sanacorp;09,04.15; 3,33EUR | Castor oil, refined             | 291722           | 1       |
| Spinnrad                   | Castor oil, refined             | 1218301118       | 1       |
| Spinnrad                   | Castor oil, refined             | 31730112         | 1       |
| Stumpf/Henry Lamotte       | Castor oil, refined             | 124189           | 4       |
| Stumpf/Henry Lamotte       | Castor oil, refined             | 125162           | 1       |
| Unisan                     | Castor oil, refined             | 1504006-02       | 1       |
| VDL                        | Castor oil, refined             | 290213           | 1       |
| VDL; 9,58EUR; 6.10.2015    | Castor oil, refined             | 294667           | 2       |
| VDL;17.10.14,3,96EUR       | Castor oil, refined             | 288639           | 1       |

- 284 747 spectra from 1294 *Apo-Ident* customers from a total of 51 290 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Castor oil, virgin / Sorbitan- and glycerol monooleate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 820           | 0              | 66 339        |
| <b>Type B</b> | 0              | 1290          | 0              | 106 073       |
| <b>Type C</b> | 0              | 3958          | 4              | 284 651       |

The substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.2683 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.5349 %) |
| <b>Type C</b> | 100.0000 % (> 99.6859 %) | 99.8990 % (> 99.8233 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                 | Distance in main model | Distance in second-stage model |
|---------------------------|------------------------|--------------------------------|
| Triglycerol diisostearate | 37.06                  | —                              |
| Soy lecithin, liquid      | 46.35                  | —                              |
| Shea butter, refined      | 58.25                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Castor oil, virgin / Sorbitan- and glycerol monooleate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31574     | 31574               | 0.00                         | 50.94                           |
| 31726     | 31574               | 5.99                         | 61.74                           |
| 32344     | 32344               | 0.00                         | 67.60                           |
| 33072     | 33072               | 0.00                         | 65.27                           |
| 33454     | 34534               | 5.34                         | 55.39                           |
| 33455     | 31574               | 5.31                         | 54.85                           |
| 34534     | 34534               | 0.00                         | 61.88                           |
| 34771     | 34771               | 0.00                         | 64.06                           |
| 35029     | 35029               | 0.00                         | 64.42                           |
| 35284     | 35284               | 0.00                         | 66.32                           |
| 35296     | 35296               | 0.00                         | 68.23                           |
| 36338     | 36338               | 0.00                         | 67.63                           |
| 36339     | 36339               | 0.00                         | 68.61                           |
| 36341     | 36341               | 0.00                         | 70.57                           |
| 36346     | 36346               | 0.00                         | 69.99                           |
| 36351     | 36351               | 0.00                         | 69.07                           |
| 36359     | 36359               | 0.00                         | 69.63                           |
| 36360     | 36360               | 0.00                         | 63.34                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Cedar leaf oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31106-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Cedar leaf oil; Oleum cedri e fol. aether.

### Special notes

When selecting the *Cedar leaf oil* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Cedar leaf oil            | 2      | 1      | 1      |

## Second-stage model

For differentiation of the substance/substance group *Cedar leaf oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cedar leaf oil*:

| Supplier | Substance      | Batch    | Sample ID | Spectra | Certificate |
|----------|----------------|----------|-----------|---------|-------------|
| Caelo    | Cedar leaf oil | 13337901 | 31106     | 40      | 1404622     |
| Caelo    | Cedar leaf oil | 13337901 | 31200     | 40      | 20131011    |
| Caelo    | Cedar leaf oil | 13337902 | 31421     | 60      | 20131011    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 140 spectra of 3 reference samples from the substance/substance group *Cedar leaf oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 019 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Cedar leaf oil*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch    | Sample ID | Spectra |
|----------|----------------|----------|-----------|---------|
| Caelo    | Cedar leaf oil | 15305207 | 33607     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 12 spectra from 4 *Apo-Ident* customers from 1 batches from the substance/substance group *Cedar leaf oil*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance      | Batch    | Spectra |
|----------|----------------|----------|---------|
| Caelo    | Cedar leaf oil | 15305206 | 12      |

- 288 697 spectra from 1294 *Apo-Ident* customers from a total of 51 887 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cedar leaf oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cedar leaf oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 140           | 0              | 67 019        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 12            | 0              | 288 697       |

The substance/substance group *Cedar leaf oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.7143 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6878 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.



### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cedar leaf oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance    | Distance in<br>main model | Distance in<br>second-stage model |
|--------------|---------------------------|-----------------------------------|
| Wormwood oil | 65.88                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cedar leaf oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31106     | 31106                  | 0.00                            | 87.94                              |
| 31200     | 31106                  | 1.46                            | 89.38                              |
| 31421     | 31106                  | 2.33                            | 90.68                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Cedar wood oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30938-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Cedar wood oil

### Special notes

When selecting the *Cedar wood oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Cedar wood oil            | 6      | 2      | 14     |

## Second-stage model

For differentiation of the substance/substance group *Cedar wood oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cedar wood oil*:

| Supplier | Substance      | Batch    | Sample ID | Spectra | Certificate |
|----------|----------------|----------|-----------|---------|-------------|
| Caelo    | Cedar wood oil | 12180708 | 30938     | 50      | 1404506     |
| Caelo    | Cedar wood oil | 12180710 | 31267     | 40      | 20120628    |
| Caelo    | Cedar wood oil | 14230204 | 32455     | 40      | 1610271     |
| Caelo    | Cedar wood oil | 181579   | 34444     | 40      | 20180605*   |
| Caelo    | Cedar wood oil | 181983   | 34453     | 40      | 20180718*   |
| Caelo    | Cedar wood oil | 191665   | 34622     | 40      | 20190624*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 250 spectra of 6 reference samples from the substance/substance group *Cedar wood oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 909 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Cedar wood oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch    | Sample ID | Spectra |
|----------|----------------|----------|-----------|---------|
| Caelo    | Cedar wood oil | 14230211 | 32748     | 40      |
| Caelo    | Cedar wood oil | 16028815 | 33785     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 19 spectra from 16 *Apo-Ident* customers from 15 batches from the substance/substance group *Cedar wood oil*.
- Among them are spectra of independent samples from 14 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance      | Batch     | Spectra |
|-----------|----------------|-----------|---------|
| Bombastus | Cedar wood oil | 18004870  | 1       |
| Caelo     | Cedar wood oil | 12180703  | 1       |
| Caelo     | Cedar wood oil | 12180709  | 1       |
| Caelo     | Cedar wood oil | 12180710  | 1       |
| Caelo     | Cedar wood oil | 12180715  | 1       |
| Caelo     | Cedar wood oil | 1218718   | 1       |
| Caelo     | Cedar wood oil | 14230211  | 4       |
| Caelo     | Cedar wood oil | 16028804  | 1       |
| Caelo     | Cedar wood oil | 16028805  | 1       |
| Caelo     | Cedar wood oil | 16028812  | 1       |
| Caelo     | Cedar wood oil | 16028815  | 1       |
| Caelo     | Cedar wood oil | 18198313  | 1       |
| Caelo     | Cedar wood oil | 191665003 | 2       |
| L12       | Cedar wood oil | 18157901  | 1       |
| Phönix    | Cedar wood oil | 308062    | 1       |

- 288 690 spectra from 1294 *Apo-Ident* customers from a total of 51 873 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cedar wood oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cedar wood oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 250           | 0              | 66 909        |
| Type B | 0              | 80            | 0              | 107 283       |
| Type C | 0              | 19            | 0              | 288 690       |

The substance/substance group *Cedar wood oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.6000 %) |
| Type B | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| Type C | 100.0000 % (> 99.6875 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cedar wood oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in main model | Distance in second-stage model |
|-------------------------------|------------------------|--------------------------------|
| Acorus oil                    | 12.59                  | —                              |
| Dwarf pine oil                | 22.98                  | —                              |
| Verbena oil, nature-identical | 24.38                  | —                              |
| Juniper oil                   | 28.10                  | —                              |
| Cypress oil                   | 29.10                  | —                              |
| Bergamot oil                  | 35.07                  | —                              |
| Myrtle oil                    | 37.73                  | —                              |
| Peppermint oil                | 38.29                  | —                              |
| Turpentine oil                | 41.50                  | —                              |
| Bitter orange oil             | 42.14                  | —                              |
| Citric oil                    | 44.41                  | —                              |
| Caraway oil                   | 46.71                  | —                              |
| Eucalyptus oil                | 48.33                  | —                              |
| Tea tree oil                  | 49.49                  | —                              |
| Geranium oil, genuine         | 52.81                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cedar wood oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30938     | 30938               | 0.00                         | 25.19                           |
| 31267     | 30938               | 1.92                         | 24.06                           |
| 32455     | 32455               | 0.00                         | 25.20                           |
| 34444     | 34444               | 0.00                         | 28.19                           |
| 34453     | 34453               | 0.00                         | 25.39                           |
| 34622     | 34622               | 0.00                         | 25.14                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Cetiol® HE**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30755-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Cetiol® HE

### Special notes

When selecting the *Cetiol® HE* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Cetiol® HE                | 4      | 3      | 31     |

## Second-stage model

For differentiation of the substance/substance group *Cetiol<sup>®</sup> HE* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cetiol<sup>®</sup> HE*:

| Supplier | Substance              | Batch    | Sample ID | Spectra | Certificate |
|----------|------------------------|----------|-----------|---------|-------------|
| Caelo    | Cetiol <sup>®</sup> HE | 11162809 | 30755     | 40      | 20110616    |
| Caelo    | Cetiol <sup>®</sup> HE | 13292302 | 31179     | 40      | 1402589     |
| Caelo    | Cetiol <sup>®</sup> HE | 13357702 | 31366     | 40      | 20131112    |
| Caelo    | Cetiol <sup>®</sup> HE | 16254506 | 33459     | 40      | 20160901    |
| Caelo    | Cetiol <sup>®</sup> HE | 16254506 | 33460     | 40      | 20160901    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 200 spectra of 5 reference samples from the substance/substance group *Cetiol<sup>®</sup> HE*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 959 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Cetiol<sup>®</sup> HE*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance              | Batch       | Sample ID | Spectra |
|----------|------------------------|-------------|-----------|---------|
| Caelo    | Cetiol <sup>®</sup> HE | 161120      | 32196     | 40      |
| Caelo    | Cetiol <sup>®</sup> HE | 172830      | 33676     | 40      |
| Caelo    | Cetiol <sup>®</sup> HE | 20002450003 | 35853     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 152 spectra from 88 *Apo-Ident* customers from 35 batches from the substance/substance group *Cetiol<sup>®</sup> HE*.
- Among them are spectra of independent samples from 31 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance              | Batch       | Spectra |
|-----------|------------------------|-------------|---------|
| Bombastus | Cetiol <sup>®</sup> HE | 16254506    | 1       |
| Bombastus | Cetiol <sup>®</sup> HE | 16254508    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 11081403    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 11162809    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 11162811    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 12361804    | 4       |
| Caelo     | Cetiol <sup>®</sup> HE | 12361808    | 4       |
| Caelo     | Cetiol <sup>®</sup> HE | 13158901    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 13158902    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 13158903    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 13158904    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 13292302    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 13357702    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 13357703    | 4       |
| Caelo     | Cetiol <sup>®</sup> HE | 14033502    | 10      |
| Caelo     | Cetiol <sup>®</sup> HE | 143033502   | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 14322405    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 14322407    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 15298004    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 16112005    | 3       |
| Caelo     | Cetiol <sup>®</sup> HE | 16254502    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 16254504    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 16254506    | 9       |
| Caelo     | Cetiol <sup>®</sup> HE | 16254508    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 17072203    | 14      |
| Caelo     | Cetiol <sup>®</sup> HE | 17283001    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 17283006    | 8       |
| Caelo     | Cetiol <sup>®</sup> HE | 17283008    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 190935002   | 10      |
| Caelo     | Cetiol <sup>®</sup> HE | 190935004   | 2       |
| Caelo     | Cetiol <sup>®</sup> HE | 19093501    | 5       |
| Caelo     | Cetiol <sup>®</sup> HE | 19093502    | 1       |
| Caelo     | Cetiol <sup>®</sup> HE | 20002450002 | 3       |
| Caelo     | Cetiol <sup>®</sup> HE | 20002450006 | 2       |
| Caelo     | Cetiol <sup>®</sup> HE | 4111711     | 1       |

*continued on the next page*

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| Supplier                   | Substance              | Batch       | Spectra |
|----------------------------|------------------------|-------------|---------|
| Caesar & Loretz GmbH/Gehe  | Cetiol <sup>®</sup> HE | 17283008    | 1       |
| Caesar & Loretz GmbH/Ph... | Cetiol <sup>®</sup> HE | 190935002   | 1       |
| Caesar & Loretz GmbH       | Cetiol <sup>®</sup> HE | 190935002   | 1       |
| Caesar & Loretz GmbH       | Cetiol <sup>®</sup> HE | 19093501    | 5       |
| Caesar/ Noweda             | Cetiol <sup>®</sup> HE | 2613E-01243 | 1       |
| Carlo/Gehe/11,9            | Cetiol <sup>®</sup> HE | 19093501    | 1       |
| GEHE                       | Cetiol <sup>®</sup> HE | 12361804    | 1       |
| Noweda                     | Cetiol <sup>®</sup> HE | 13158903    | 1       |
| Phönix                     | Cetiol <sup>®</sup> HE | 13357702    | 1       |
| Phönix                     | Cetiol <sup>®</sup> HE | 14033502    | 2       |
| Sanacorp                   | Cetiol <sup>®</sup> HE | 1/AKD14     | 1       |

- 288 557 spectra from 1294 *Apo-Ident* customers from a total of 51 854 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cetiol<sup>®</sup> HE* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cetiol<sup>®</sup> HE* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 200           | 0              | 66 959        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 152           | 0              | 288 557       |

The substance/substance group *Cetiol<sup>®</sup> HE* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 96.0526 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cetiol<sup>®</sup> HE* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Polysorbate 80                            | 15.01                     | —                                 |
| Polysorbate 20                            | 18.26                     | —                                 |
| Macrogolglycerol ricinoleate              | 19.19                     | —                                 |
| Polysorbate 60                            | 24.46                     | —                                 |
| Macrogol 20 glycerol monostearate type... | 24.75                     | —                                 |
| Macrogol 8 stearate type I                | 25.71                     | —                                 |
| Macrogolglycerol hydroxystearate 40       | 32.13                     | —                                 |
| Lauromacrogol 400                         | 34.32                     | —                                 |
| Macrogol ointment                         | 35.96                     | —                                 |
| Macrogol 4 lauryl ether                   | 36.60                     | —                                 |
| Macrogols 400                             | 44.27                     | —                                 |
| Macrogol-2-laurylether                    | 46.55                     | —                                 |
| Macrogols 300                             | 54.65                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cetiol® HE* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30755     | 31179                  | 7.75                            | 16.10                              |
| 31179     | 31179                  | 0.00                            | 18.52                              |
| 31366     | 31179                  | 5.73                            | 17.85                              |
| 33459     | 31179                  | 5.56                            | 16.97                              |
| 33460     | 31179                  | 7.14                            | 16.39                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Cineole**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 33897-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Cineole; Cineolum

### Special notes

When selecting the *Cineole* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Cineole                   | 3      | 1      | 0      |

### Second-stage model

For differentiation of the substance/substance group *Cineole* the following second-stage model is used:



*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cineole*:

| Supplier | Substance | Batch       | Sample ID | Spectra | Certificate |
|----------|-----------|-------------|-----------|---------|-------------|
| Caelo    | Cineole   | 173099      | 33897     | 40      | 20171205*   |
| Caelo    | Cineole   | 191846      | 34616     | 40      | 20190722*   |
| Caelo    | Cineole   | 21003193003 | 36051     | 40      | 20211206    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 120 spectra of 3 reference samples from the substance/substance group *Cineole*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 039 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Cineole*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance | Batch    | Sample ID | Spectra |
|----------|-----------|----------|-----------|---------|
| Caelo    | Cineole   | 20001181 | 35024     | 40      |

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 0 spectra from 0 *Apo-Ident* customers from 0 batches from the substance/substance group *Cineole*.
- Among them are spectra of independent samples from 0 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.
- 288 709 spectra from 1294 *Apo-Ident* customers from a total of 51 888 batches from a further 344 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cineole* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cineole* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 0             | 0              | 288 709       |

The substance/substance group *Cineole* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6894 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cineole* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance      | Distance in<br>main model | Distance in<br>second-stage model |
|----------------|---------------------------|-----------------------------------|
| Eucalyptus oil | 26.93                     | —                                 |
| Turpentine oil | 47.28                     | —                                 |
| Rosemary oil   | 49.08                     | —                                 |
| Sage oil       | 54.14                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cineole* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 33897     | 33897                  | 0.00                            | 34.42                              |
| 34616     | 34616                  | 0.00                            | 37.28                              |
| 36051     | 34616                  | 4.09                            | 36.76                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Cinnamon bark oil, artificial</b>                             |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30605-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Cinnamon bark oil, artificial; Oleum Cinnamomi artificiale

### Special notes

When selecting the *Cinnamon bark oil, artificial* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group     | Type A | Type B | Type C |
|-------------------------------|--------|--------|--------|
| Cinnamon bark oil, artificial | 2      | 2      | 9      |

## Second-stage model

For differentiation of the substance/substance group *Cinnamon bark oil, artificial* the following second-stage model is used:

- [Submodel 16](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cinnamon bark oil, artificial*:

| Supplier | Substance             | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------------------|----------|-----------|---------|-------------|
| Caelo    | Cinnamon bark oi. . . | 14377301 | 31617     | 60      | 20150107    |
| Caelo    | Cinnamon bark oi. . . | 180217   | 34057     | 40      | 20180124*   |
| Caelo    | Cinnamon bark oi. . . | 180217   | 34625     | 40      | 20180124*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 140 spectra of 3 reference samples from the substance/substance group *Cinnamon bark oil, artificial*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 019 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Cinnamon bark oil, artificial*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance                     | Batch    | Sample ID | Spectra |
|----------|-------------------------------|----------|-----------|---------|
| Caelo    | Cinnamon bark oil, artificial | 16026505 | 33609     | 40      |
| Caelo    | Cinnamon bark oil, artificial | 20001053 | 34989     | 40      |
| Caelo    | Cinnamon bark oil, artificial | 16026505 | 33610     | 40      |

- 107 243 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 10 spectra from 8 *Apo-Ident* customers from 9 batches from the substance/substance group *Cinnamon bark oil, artificial*.
- Among them are spectra of independent samples from 9 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance                     | Batch    | Spectra |
|----------|-------------------------------|----------|---------|
| Caelo    | Cinnamon bark oil, artificial | 10112014 | 1       |
| Caelo    | Cinnamon bark oil, artificial | 11275903 | 1       |
| Caelo    | Cinnamon bark oil, artificial | 12019604 | 1       |
| Caelo    | Cinnamon bark oil, artificial | 14377304 | 1       |
| Caelo    | Cinnamon bark oil, artificial | 14377307 | 1       |
| Caelo    | Cinnamon bark oil, artificial | 16026509 | 1       |
| Caelo    | Cinnamon bark oil, artificial | 18021701 | 2       |
| Caelo    | Cinnamon bark oil, artificial | 18021710 | 1       |
| Caelo    | Cinnamon bark oil, artificial | 2031501  | 1       |

- 288 699 spectra from 1294 *Apo-Ident* customers from a total of 51 879 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cinnamon bark oil, artificial* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cinnamon bark oil, artificial* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 140           | 0              | 67 019        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 10            | 0              | 288 699       |

The substance/substance group *Cinnamon bark oil, artificial* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.7143 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6879 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cinnamon bark oil, artificial* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                 | Distance in main model | Distance in second-stage model |
|---------------------------|------------------------|--------------------------------|
| Cinnamon bark oil, Ceylon | 6.86                   | 10.23                          |
| Benzyl nicotinate         | 94.80                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cinnamon bark oil, artificial* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31617     | 34057               | 2.72                         | 17.45                           |
| 34057     | 34057               | 0.00                         | 17.71                           |
| 34625     | 34625               | 0.00                         | 19.29                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Cinnamon bark oil, Ceylon**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30251-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Cinnamon bark oil, Ceylon; Cinnamomi zeylanici corticis aetheroleum

### Special notes

When selecting the *Cinnamon bark oil, Ceylon* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Cinnamon bark oil, Ceylon | 4      | 3      | 32     |

## Second-stage model

For differentiation of the substance/substance group *Cinnamon bark oil, Ceylon* the following second-stage model is used:

- [Submodel 16](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cinnamon bark oil, Ceylon*:

| Supplier | Substance             | Batch    | Sample ID | Spectra | Certificate        |
|----------|-----------------------|----------|-----------|---------|--------------------|
| Caelo    | Cinnamon bark oi. . . | 14092802 | 31560     | 60      | AR-15-FG-001171-01 |
| Caelo    | Cinnamon bark oi. . . | 163243   | 33091     | 40      | 20161129*          |
| Caelo    | Cinnamon bark oi. . . | 20002260 | 34990     | 40      | 20200721*          |
| Caelo    | Cinnamon bark oi. . . | 21000324 | 35279     | 40      | 20210204*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 180 spectra of 4 reference samples from the substance/substance group *Cinnamon bark oil, Ceylon*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 979 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Cinnamon bark oil, Ceylon*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance                 | Batch    | Sample ID | Spectra |
|----------|---------------------------|----------|-----------|---------|
| Caelo    | Cinnamon bark oil, Ceylon | 15278210 | 33480     | 40      |
| Caelo    | Cinnamon bark oil, Ceylon | 15278218 | 33783     | 40      |
| Caelo    | Cinnamon bark oil, Ceylon | 180130   | 34992     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 66 spectra from 40 *Apo-Ident* customers from 35 batches from the substance/substance group *Cinnamon bark oil, Ceylon*.
- Among them are spectra of independent samples from 32 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                 | Batch       | Spectra |
|----------------------------|---------------------------|-------------|---------|
| /Noweda                    | Cinnamon bark oil, Ceylon | 13044802    | 2       |
| Caelo                      | Cinnamon bark oil, Ceylon |             | 2       |
| Caelo                      | Cinnamon bark oil, Ceylon | 12181403    | 2       |
| Caelo                      | Cinnamon bark oil, Ceylon | 12181408    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 13044802    | 4       |
| Caelo                      | Cinnamon bark oil, Ceylon | 13044808    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 13044809    | 2       |
| Caelo                      | Cinnamon bark oil, Ceylon | 13044810    | 3       |
| Caelo                      | Cinnamon bark oil, Ceylon | 14071203    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 14092802    | 3       |
| Caelo                      | Cinnamon bark oil, Ceylon | 14092805    | 5       |
| Caelo                      | Cinnamon bark oil, Ceylon | 14092806    | 2       |
| Caelo                      | Cinnamon bark oil, Ceylon | 15151106    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 15278206    | 3       |
| Caelo                      | Cinnamon bark oil, Ceylon | 15278210    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 16324307    | 2       |
| Caelo                      | Cinnamon bark oil, Ceylon | 16324308    | 3       |
| Caelo                      | Cinnamon bark oil, Ceylon | 180096801   | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 18009801    | 3       |
| Caelo                      | Cinnamon bark oil, Ceylon | 180130005   | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 18013004    | 3       |
| Caelo                      | Cinnamon bark oil, Ceylon | 18013005    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 18013015    | 2       |
| Caelo                      | Cinnamon bark oil, Ceylon | 18013019    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 20002514007 | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 20004169005 | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 24061702    | 1       |
| Caelo                      | Cinnamon bark oil, Ceylon | 24061703    | 1       |
| Caesar & Loretz GmbH/No... | Cinnamon bark oil, Ceylon | 18013004    | 1       |
| Caesar & Loretz GmbH/No... | Cinnamon bark oil, Ceylon | 18013010    | 1       |
| Caesar & Loretz GmbH       | Cinnamon bark oil, Ceylon | 18013004    | 1       |
| Caesar & Loretz GmbH       | Cinnamon bark oil, Ceylon | 18013010    | 1       |
| Dr.Schlegels Resana/NOW    | Cinnamon bark oil, Ceylon | 1205-3566   | 1       |
| Dr.Schlegels Resana/NOW    | Cinnamon bark oil, Ceylon | 1407-4584   | 1       |
| Kögl                       | Cinnamon bark oil, Ceylon | 20170928    | 1       |

*continued on the next page*

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| Supplier       | Substance                 | Batch         | Spectra |
|----------------|---------------------------|---------------|---------|
| L12            | Cinnamon bark oil, Ceylon | 18013004      | 1       |
| Now            | Cinnamon bark oil, Ceylon | 15278210      | 1       |
| Ölbaum / Anzag | Cinnamon bark oil, Ceylon | 10220032803   | 1       |
| Taoasis GmbH   | Cinnamon bark oil, Ceylon | 130111-110345 | 1       |
| Taoasis        | Cinnamon bark oil, Ceylon | 130111-110762 | 1       |

- 288 643 spectra from 1294 *Apo-Ident* customers from a total of 51 854 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cinnamon bark oil, Ceylon* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cinnamon bark oil, Ceylon* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 180           | 0              | 66 979        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 64            | 2              | 288 643       |

The substance/substance group *Cinnamon bark oil, Ceylon* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.6667 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6872 %) | 96.9697 % (> 92.4242 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cinnamon bark oil, Ceylon* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------|---------------------------|-----------------------------------|
| Cinnamon bark oil, artificial | 11.70                     | 12.36                             |
| Benzyl nicotinate             | 88.71                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cinnamon bark oil, Ceylon* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31560     | 31560                  | 0.00                            | 32.49                              |
| 33091     | 33091                  | 0.00                            | 28.83                              |
| 34990     | 34990                  | 0.00                            | 18.25                              |
| 35279     | 35279                  | 0.00                            | 15.14                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Citronella oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30208-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Citronella oil; Citronellae aetheroleum

### Special notes

When selecting the *Citronella oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Citronella oil            | 5      | 3      | 79     |



## Second-stage model

For differentiation of the substance/substance group *Citronella oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Citronella oil*:

| Supplier | Substance      | Batch    | Sample ID | Spectra | Certificate |
|----------|----------------|----------|-----------|---------|-------------|
| Caelo    | Citronella oil | 12359903 | 31251     | 40      | 1405526     |
| Caelo    | Citronella oil | 13287808 | 31408     | 40      | 20130827    |
| Caelo    | Citronella oil | 14229803 | 31631     | 60      | 20140825    |
| Caelo    | Citronella oil | 190590   | 34645     | 40      | 20190307*   |
| Caelo    | Citronella oil | 21002216 | 35831     | 50      | 20210820*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 230 spectra of 5 reference samples from the substance/substance group *Citronella oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 929 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Citronella oil*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance      | Batch    | Sample ID | Spectra |
|----------|----------------|----------|-----------|---------|
| Caelo    | Citronella oil | 162791   | 32692     | 40      |
| Caelo    | Citronella oil | 172831   | 33675     | 40      |
| Caelo    | Citronella oil | 20002042 | 35036     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 142 spectra from 77 *Apo-Ident* customers from 81 batches from the substance/substance group *Citronella oil*.
- Among them are spectra of independent samples from 79 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier    | Substance      | Batch       | Spectra |
|-------------|----------------|-------------|---------|
| ASAV/Noweda | Citronella oil | 10507031858 | 1       |
| Bergland    | Citronella oil | C400822     | 1       |
| Bombastus   | Citronella oil | 1213A-01974 | 1       |
| Bombastus   | Citronella oil | 18000579    | 1       |
| Bombastus   | Citronella oil | 18004736    | 5       |
| Bombastus   | Citronella oil | 18004737    | 1       |
| Bombastus   | Citronella oil | 1804737     | 1       |
| Bombastus   | Citronella oil | 19001887    | 6       |
| Bombastus   | Citronella oil | 19003198    | 4       |
| Bombastus   | Citronella oil | 19004993    | 1       |
| Bombastus   | Citronella oil | 20002149    | 1       |
| Bombastus   | Citronella oil | 20002737    | 3       |
| Bombastus   | Citronella oil | 269807      | 1       |
| Bombastus   | Citronella oil | 276241      | 1       |
| Bombastus   | Citronella oil | 280657      | 2       |
| Bombastus   | Citronella oil | 286270      | 2       |
| Bombastus   | Citronella oil | 289426      | 2       |
| Bombastus   | Citronella oil | 296167      | 1       |
| Bombastus   | Citronella oil | 297193      | 1       |
| Bombastus   | Citronella oil | 297194      | 1       |
| Bombastus   | Citronella oil | 302908      | 3       |
| Bombastus   | Citronella oil | 302910      | 1       |
| Bombastus   | Citronella oil | 303977      | 2       |
| Bombastus   | Citronella oil | 305282      | 2       |
| Bombastus   | Citronella oil | 309032      | 1       |
| Bombastus   | Citronella oil | 310645      | 3       |
| Caelo       | Citronella oil | 10193312    | 1       |
| Caelo       | Citronella oil | 11074201    | 1       |
| Caelo       | Citronella oil | 11074203    | 1       |
| Caelo       | Citronella oil | 11101301    | 1       |
| Caelo       | Citronella oil | 12359902    | 1       |
| Caelo       | Citronella oil | 12359903    | 1       |
| Caelo       | Citronella oil | 12359907    | 1       |
| Caelo       | Citronella oil | 12359909    | 1       |
| Caelo       | Citronella oil | 1328780     | 1       |

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| Supplier             | Substance      | Batch            | Spectra |
|----------------------|----------------|------------------|---------|
| Caelo                | Citronella oil | 13287802         | 1       |
| Caelo                | Citronella oil | 13287804         | 1       |
| Caelo                | Citronella oil | 13287807         | 2       |
| Caelo                | Citronella oil | 13287809         | 1       |
| Caelo                | Citronella oil | 14229803         | 1       |
| Caelo                | Citronella oil | 14229805         | 1       |
| Caelo                | Citronella oil | 14229806         | 3       |
| Caelo                | Citronella oil | 15222302         | 1       |
| Caelo                | Citronella oil | 15222303         | 1       |
| Caelo                | Citronella oil | 15257304         | 4       |
| Caelo                | Citronella oil | 15257305         | 3       |
| Caelo                | Citronella oil | 15257307         | 2       |
| Caelo                | Citronella oil | 15257308         | 1       |
| Caelo                | Citronella oil | 15257309         | 3       |
| Caelo                | Citronella oil | 16014103         | 1       |
| Caelo                | Citronella oil | 16279105         | 3       |
| Caelo                | Citronella oil | 16279111         | 1       |
| Caelo                | Citronella oil | 17283102         | 2       |
| Caelo                | Citronella oil | 17364801         | 2       |
| Caelo                | Citronella oil | 18084103         | 2       |
| Caelo                | Citronella oil | 18084105         | 2       |
| Caelo                | Citronella oil | 18084106         | 3       |
| Caelo                | Citronella oil | 18325201         | 2       |
| Caelo                | Citronella oil | 190590001        | 2       |
| Caelo                | Citronella oil | 19059001         | 1       |
| Caelo                | Citronella oil | 19059004         | 2       |
| Caelo                | Citronella oil | 19059005         | 1       |
| Caelo                | Citronella oil | 19059006         | 3       |
| Caelo                | Citronella oil | 20002042002      | 2       |
| Caelo                | Citronella oil | 20003596003      | 1       |
| Caelo                | Citronella oil | 21002216001      | 1       |
| Caelo                | Citronella oil | 276241           | 1       |
| Caelo                | Citronella oil | 286270           | 1       |
| Caelo                | Citronella oil | 303977           | 2       |
| Caelo                | Citronella oil | 310645           | 2       |
| Caelo                | Citronella oil | 3216M-01974      | 1       |
| Caelo                | Citronella oil | 5117E-01974      | 1       |
| Caelo                | Citronella oil | 9208297          | 1       |
| Caesar & Loretz GmbH | Citronella oil | 19059004         | 1       |
| Caesar & Loretz GmbH | Citronella oil | 20003596003      | 1       |
| Caesar/Lorenz        | Citronella oil | 12224603         | 1       |
| Fiebig               | Citronella oil | 17364801         | 1       |
| Gehe                 | Citronella oil | 115257304        | 1       |
| Gehe                 | Citronella oil | 15257304         | 1       |
| Kaders               | Citronella oil | 131097           | 1       |
| Kögl                 | Citronella oil | 1701478          | 1       |
| Kögl                 | Citronella oil | 228107163916     | 1       |
| Noweda               | Citronella oil | 17283102         | 1       |
| Phoenix              | Citronella oil | 16279106         | 1       |
| Phoenix              | Citronella oil | 19003198         | 1       |
| Phoenix              | Citronella oil | 305282           | 1       |
| Phönix Gotha         | Citronella oil | 288826           | 1       |
| Resana               | Citronella oil | 1701-5627        | 1       |
| Taoasis/Noweda       | Citronella oil | 4025121016491    | 1       |
| Taoasis              | Citronella oil | 104719-124702106 | 1       |
| Taoasis              | Citronella oil | 104719-125577    | 1       |
| Taoasis              | Citronella oil | 6151-12045       | 1       |

- 288 567 spectra from 1294 *Apo-Ident* customers from a total of 51 808 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Citronella oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Citronella oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 230           | 0              | 66 929        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 141           | 1              | 288 567       |

The substance/substance group *Citronella oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.3913 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.2958 % (> 97.1831 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Citronella oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Melissa oil                               | 37.64                  | —                              |
| Rose oil (genuine / artificial)           | 39.56                  | —                              |
| Geranium oil, genuine                     | 41.90                  | —                              |
| Tea tree oil                              | 46.16                  | —                              |
| Matricaria oil, rich in (-)-alpha-bisa... | 50.90                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Citronella oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31251     | 31251               | 0.00                         | 41.50                           |
| 31408     | 35831               | 3.52                         | 41.65                           |
| 31631     | 31251               | 2.66                         | 43.15                           |
| 34645     | 34645               | 0.00                         | 42.40                           |
| 35831     | 35831               | 0.00                         | 40.00                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Citrus oils**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31017-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Citrus oils; Aurantii dulcis aetheroleum; Bitter orange oil; Citric oil; Grapefruit oil; Limonis aetheroleum; Oleum aurantii pericarpium; Oleum citri paradisi artificiale; Sweet orange oil

### Special notes

When selecting the *Citrus oils* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Citrus oils               | 19     | 14     | 317    |

## Second-stage model

For differentiation of the substance/substance group *Citrus oils* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Citrus oils*:

| Supplier | Substance         | Batch            | Sample ID | Spectra | Certificate |
|----------|-------------------|------------------|-----------|---------|-------------|
| Caelo    | Bitter orange oil | 13303803         | 31861     | 60      | 1606482     |
| Caelo    | Bitter orange oil | 15397901         | 32181     | 40      | 20151125    |
| Caelo    | Bitter orange oil | 170369           | 33062     | 30      | 20170224*   |
| Caelo    | Bitter orange oil | 191187           | 34601     | 40      | 20190503*   |
| Caelo    | Citric oil        | 13259522         | 31432     | 60      | 20130816    |
| Caelo    | Citric oil        | 183280           | 34627     | 40      | 20190122*   |
| Euro OTC | Citric oil        | 1202024-01       | 31524     | 60      | 20120312    |
| Fagron   | Citric oil        | 13E06-N10        | 31046     | 40      | 20130618    |
| Fagron   | Citric oil        | 12G13-B06-287454 | 31261     | 40      | 1407356     |
| Caelo    | Grapefruit oil    | 12367403         | 31017     | 40      | 1404621     |
| Caelo    | Grapefruit oil    | 13252306         | 31417     | 60      | 20130802    |
| Caelo    | Grapefruit oil    | 15429104         | 33630     | 40      | 20151222    |
| Caelo    | Grapefruit oil    | 191292           | 34606     | 40      | 20190508*   |
| Caelo    | Sweet orange oil  | 12043412         | 31164     | 40      | 1405105     |
| Caelo    | Sweet orange oil  | 13378901         | 31206     | 40      | 1405107     |
| Caelo    | Sweet orange oil  | 13024204         | 31273     | 40      | 20130124    |
| Caelo    | Sweet orange oil  | 13378906         | 31295     | 40      | 1407188     |
| Caelo    | Sweet orange oil  | 13401605         | 31297     | 40      | 20131220    |
| Caelo    | Sweet orange oil  | 13024204         | 31411     | 40      | 20130124    |
| Caelo    | Sweet orange oil  | 13378906         | 31418     | 60      | 20131127    |
| Caelo    | Sweet orange oil  | 191138           | 34438     | 40      | 20190430*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 930 spectra of 21 reference samples from the substance/substance group *Citrus oils*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 19 different batches.
- 66 229 spectra from a total of 1360 batches from further 225 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 610 spectra of 15 reference samples from the substance/substance group *Citrus oils*.
- Among them are spectra of independent samples from 14 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance         | Batch    | Sample ID | Spectra |
|-----------|-------------------|----------|-----------|---------|
| Caelo     | Bitter orange oil | 180889   | 34078     | 40      |
| Caelo     | Bitter orange oil | 20000798 | 35032     | 40      |
| Bombastus | Citric oil        | 22000886 | 36216     | 40      |
| Caelo     | Citric oil        | 162752   | 32687     | 40      |
| Caelo     | Citric oil        | 171068   | 33305     | 40      |
| Caelo     | Citric oil        | 192813   | 34722     | 40      |
| Caelo     | Citric oil        | 22000485 | 36176     | 40      |
| Caelo     | Citric oil        | 22001195 | 36308     | 40      |
| Caelo     | Grapefruit oil    | 172307   | 34054     | 40      |
| Caelo     | Grapefruit oil    | 182318   | 34237     | 40      |
| Caelo     | Grapefruit oil    | 21003280 | 35828     | 50      |
| Caelo     | Sweet orange oil  | 171596   | 33307     | 40      |
| Caelo     | Sweet orange oil  | 16015501 | 33467     | 40      |
| Caelo     | Sweet orange oil  | 192837   | 35033     | 40      |
| Caelo     | Bitter orange oil | 15397901 | 32351     | 40      |

- 106 753 spectra from a total of 2486 batches from further 347 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 839 spectra from 378 *Apo-Ident* customers from 325 batches from the substance/substance group *Citrus oils*.
- Among them are spectra of independent samples from 309 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                | Substance        | Batch    | Spectra |
|-------------------------|------------------|----------|---------|
| Anzag 15.11.12 ek:17,18 | Citric oil       | 12040507 | 1       |
| Anzag                   | Sweet orange oil | 11310411 | 1       |
| Apotheker-Bauer         | Grapefruit oil   |          | 1       |
| Bergland/ Noweda        | Citric oil       | K702513  | 1       |
| Bergland                | Citric oil       | K501939  | 1       |
| Bombastus               | Citric oil       | 17000590 | 1       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Bombastus       | Sweet orange oil  | 17001382     | 3              |
| Bombastus       | Citric oil        | 17001554     | 1              |
| Bombastus       | Citric oil        | 18001850     | 10             |
| Bombastus       | Citric oil        | 18002047     | 3              |
| Bombastus       | Citric oil        | 18003457     | 1              |
| Bombastus       | Citric oil        | 18006258     | 1              |
| Bombastus       | Sweet orange oil  | 18006507     | 1              |
| Bombastus       | Citric oil        | 18092216     | 1              |
| Bombastus       | Sweet orange oil  | 19001154     | 1              |
| Bombastus       | Citric oil        | 19001156     | 1              |
| Bombastus       | Citric oil        | 19005247     | 3              |
| Bombastus       | Sweet orange oil  | 19005887     | 1              |
| Bombastus       | Citric oil        | 20001099     | 2              |
| Bombastus       | Citric oil        | 256839       | 1              |
| Bombastus       | Citric oil        | 266679       | 1              |
| Bombastus       | Citric oil        | 269281       | 1              |
| Bombastus       | Sweet orange oil  | 271897       | 1              |
| Bombastus       | Citric oil        | 280999       | 4              |
| Bombastus       | Citric oil        | 284045       | 1              |
| Bombastus       | Citric oil        | 284351       | 1              |
| Bombastus       | Sweet orange oil  | 285361       | 1              |
| Bombastus       | Citric oil        | 285568       | 1              |
| Bombastus       | Citric oil        | 289673       | 1              |
| Bombastus       | Citric oil        | 294337       | 2              |
| Bombastus       | Citric oil        | 294951       | 1              |
| Bombastus       | Citric oil        | 297734       | 1              |
| Bombastus       | Citric oil        | 299753       | 1              |
| Bombastus       | Citric oil        | 300294       | 1              |
| Bombastus       | Citric oil        | 303673       | 1              |
| Bombastus       | Citric oil        | 305855       | 1              |
| Bombastus       | Citric oil        | 307781       | 1              |
| Bombastus       | Citric oil        | 308515       | 1              |
| Caelo           | Citric oil        | 10375003     | 1              |
| Caelo           | Citric oil        | 10375012     | 2              |
| Caelo           | Citric oil        | 10375014     | 1              |
| Caelo           | Sweet orange oil  | 10375113     | 1              |
| Caelo           | Citric oil        | 11231807     | 1              |
| Caelo           | Citric oil        | 1135408      | 1              |
| Caelo           | Citric oil        | 12040502     | 3              |
| Caelo           | Citric oil        | 12040504     | 9              |
| Caelo           | Sweet orange oil  | 120430103    | 1              |
| Caelo           | Sweet orange oil  | 12043403     | 4              |
| Caelo           | Sweet orange oil  | 12043406     | 1              |
| Caelo           | Sweet orange oil  | 12043409     | 1              |
| Caelo           | Sweet orange oil  | 12043410     | 1              |
| Caelo           | Bitter orange oil | 12121802     | 1              |
| Caelo           | Sweet orange oil  | 12322603     | 1              |
| Caelo           | Citric oil        | 123600001    | 1              |
| Caelo           | Citric oil        | 123600002    | 1              |
| Caelo           | Citric oil        | 12360001     | 2              |
| Caelo           | Citric oil        | 12360002     | 6              |
| Caelo           | Citric oil        | 12360010c    | 1              |
| Caelo           | Citric oil        | 12360011     | 11             |
| Caelo           | Citric oil        | 12360012     | 7              |
| Caelo           | Citric oil        | 12360012x2   | 1              |
| Caelo           | Grapefruit oil    | 12367403     | 1              |
| Caelo           | Citric oil        | 12367408     | 1              |
| Caelo           | Sweet orange oil  | 1302404      | 1              |
| Caelo           | Sweet orange oil  | 13024202     | 1              |
| Caelo           | Sweet orange oil  | 13024204     | 4              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|-------------------|------------------|----------------|
| Caelo           | Citric oil        | 132259504        | 1              |
| Caelo           | Grapefruit oil    | 13252303         | 1              |
| Caelo           | Grapefruit oil    | 13252306         | 1              |
| Caelo           | Citric oil        | 1325904          | 1              |
| Caelo           | Citric oil        | 13259504         | 8              |
| Caelo           | Citric oil        | 13259508         | 8              |
| Caelo           | Citric oil        | 13259512         | 1              |
| Caelo           | Citric oil        | 13259523         | 6              |
| Caelo           | Sweet orange oil  | 13303803         | 1              |
| Caelo           | Sweet orange oil  | 13378906         | 1              |
| Caelo           | Sweet orange oil  | 13389401         | 1              |
| Caelo           | Sweet orange oil  | 13389406         | 3              |
| Caelo           | Sweet orange oil  | 13389407         | 1              |
| Caelo           | Citric oil        | 1359512          | 1              |
| Caelo           | Grapefruit oil    | 14107304         | 2              |
| Caelo           | Citric oil        | 14121807         | 4              |
| Caelo           | Citric oil        | 14121808         | 2              |
| Caelo           | Citric oil        | 14121815         | 5              |
| Caelo           | Sweet orange oil  | 14133504         | 2              |
| Caelo           | Sweet orange oil  | 14133505         | 1              |
| Caelo           | Sweet orange oil  | 14150105         | 2              |
| Caelo           | Sweet orange oil  | 1418E-01959      | 1              |
| Caelo           | Sweet orange oil  | 14348803         | 3              |
| Caelo           | Sweet orange oil  | 14348809         | 1              |
| Caelo           | Citric oil        | 14365201         | 3              |
| Caelo           | Citric oil        | 14365202         | 4              |
| Caelo           | Citric oil        | 14365212         | 17             |
| Caelo           | Citric oil        | 14B14-B04-338799 | 1              |
| Caelo           | Sweet orange oil  | 15045101         | 8              |
| Caelo           | Sweet orange oil  | 15045104         | 2              |
| Caelo           | Sweet orange oil  | 15051313         | 1              |
| Caelo           | Citric oil        | 15051314         | 1              |
| Caelo           | Sweet orange oil  | 15051701         | 1              |
| Caelo           | Citric oil        | 15121403         | 1              |
| Caelo           | Grapefruit oil    | 15171201         | 1              |
| Caelo           | Citric oil        | 15182702         | 1              |
| Caelo           | Citric oil        | 15182703         | 14             |
| Caelo           | Citric oil        | 15182705         | 1              |
| Caelo           | Citric oil        | 15182711         | 6              |
| Caelo           | Citric oil        | 15182718         | 4              |
| Caelo           | Citric oil        | 15182721         | 1              |
| Caelo           | Sweet orange oil  | 15182904         | 1              |
| Caelo           | Sweet orange oil  | 15182907         | 1              |
| Caelo           | Sweet orange oil  | 15285            | 1              |
| Caelo           | Sweet orange oil  | 15316601         | 3              |
| Caelo           | Bitter orange oil | 15397903         | 1              |
| Caelo           | Bitter orange oil | 15397905         | 2              |
| Caelo           | Sweet orange oil  | 15402401         | 1              |
| Caelo           | Sweet orange oil  | 15402404         | 1              |
| Caelo           | Sweet orange oil  | 15402407         | 2              |
| Caelo           | Sweet orange oil  | 15402409         | 1              |
| Caelo           | Grapefruit oil    | 15429101         | 2              |
| Caelo           | Grapefruit oil    | 15429103         | 1              |
| Caelo           | Grapefruit oil    | 15429105         | 2              |
| Caelo           | Citric oil        | 15F29-B04        | 1              |
| Caelo           | Sweet orange oil  | 16015501         | 1              |
| Caelo           | Citric oil        | 16028702         | 12             |
| Caelo           | Citric oil        | 16028703         | 1              |
| Caelo           | Citric oil        | 16028709         | 1              |
| Caelo           | Citric oil        | 16028712         | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|-------------------|------------------|----------------|
| Caelo           | Citric oil        | 16028715         | 3              |
| Caelo           | Citric oil        | 16028719         | 7              |
| Caelo           | Sweet orange oil  | 16083501         | 1              |
| Caelo           | Sweet orange oil  | 16083506         | 1              |
| Caelo           | Sweet orange oil  | 16083507         | 1              |
| Caelo           | Sweet orange oil  | 16083508         | 1              |
| Caelo           | Citric oil        | 16275202         | 14             |
| Caelo           | Citric oil        | 16275203         | 3              |
| Caelo           | Citric oil        | 16275216         | 16             |
| Caelo           | Sweet orange oil  | 17001382         | 1              |
| Caelo           | Citric oil        | 170106807        | 1              |
| Caelo           | Bitter orange oil | 17036903         | 2              |
| Caelo           | Bitter orange oil | 170369035481     | 1              |
| Caelo           | Citric oil        | 1706807          | 1              |
| Caelo           | Grapefruit oil    | 17072301         | 2              |
| Caelo           | Grapefruit oil    | 17072302         | 1              |
| Caelo           | Citric oil        | 17106802         | 1              |
| Caelo           | Citric oil        | 17106807         | 15             |
| Caelo           | Sweet orange oil  | 17159602         | 1              |
| Caelo           | Sweet orange oil  | 17159603         | 4              |
| Caelo           | Citric oil        | 1716807          | 1              |
| Caelo           | Grapefruit oil    | 17230701         | 1              |
| Caelo           | Citric oil        | 173201           | 1              |
| Caelo           | Citric oil        | 17321101         | 1              |
| Caelo           | Citric oil        | 17321102         | 1              |
| Caelo           | Citric oil        | 17321103         | 1              |
| Caelo           | Citric oil        | 17321104         | 1              |
| Caelo           | Sweet orange oil  | 17347506         | 3              |
| Caelo           | Sweet orange oil  | 17347509         | 1              |
| Caelo           | Sweet orange oil  | 17347510         | 1              |
| Caelo           | Sweet orange oil  | 17347513         | 3              |
| Caelo           | Citric oil        | 17814-B04-350559 | 1              |
| Caelo           | Citric oil        | 17B14-B04-334835 | 1              |
| Caelo           | Citric oil        | 17B14-B04-341736 | 1              |
| Caelo           | Citric oil        | 18092202         | 30             |
| Caelo           | Citric oil        | 18092204         | 1              |
| Caelo           | Citric oil        | 18092207         | 1              |
| Caelo           | Citric oil        | 18092208         | 1              |
| Caelo           | Citric oil        | 18092210         | 3              |
| Caelo           | Citric oil        | 18092211         | 1              |
| Caelo           | Citric oil        | 18092215         | 1              |
| Caelo           | Citric oil        | 18092216         | 8              |
| Caelo           | Sweet orange oil  | 18171601         | 4              |
| Caelo           | Sweet orange oil  | 18171603         | 1              |
| Caelo           | Sweet orange oil  | 18171609         | 4              |
| Caelo           | Sweet orange oil  | 18171610         | 1              |
| Caelo           | Grapefruit oil    | 18231803         | 3              |
| Caelo           | Citric oil        | 18328001         | 1              |
| Caelo           | Citric oil        | 18328003         | 19             |
| Caelo           | Citric oil        | 18328006         | 5              |
| Caelo           | Citric oil        | 18328008         | 10             |
| Caelo           | Citric oil        | 18328009         | 2              |
| Caelo           | Citric oil        | 18328011         | 5              |
| Caelo           | Citric oil        | 18328016         | 8              |
| Caelo           | Citric oil        | 18328018         | 1              |
| Caelo           | Citric oil        | 1832816          | 1              |
| Caelo           | Citric oil        | 18382003         | 1              |
| Caelo           | Sweet orange oil  | 19033301         | 5              |
| Caelo           | Sweet orange oil  | 19033302         | 1              |
| Caelo           | Sweet orange oil  | 19033311         | 1              |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b>    | <b>Spectra</b> |
|----------------------------|-------------------|-----------------|----------------|
| Caelo                      | Sweet orange oil  | 19113805        | 5              |
| Caelo                      | Sweet orange oil  | 19113806        | 1              |
| Caelo                      | Bitter orange oil | 191187002       | 1              |
| Caelo                      | Grapefruit oil    | 191292003       | 1              |
| Caelo                      | Grapefruit oil    | 19129202        | 1              |
| Caelo                      | Citric oil        | 192813001       | 16             |
| Caelo                      | Citric oil        | 192813002       | 2              |
| Caelo                      | Citric oil        | 192813004       | 2              |
| Caelo                      | Citric oil        | 192813005       | 3              |
| Caelo                      | Citric oil        | 192813006       | 2              |
| Caelo                      | Citric oil        | 192813012       | 18             |
| Caelo                      | Citric oil        | 192813015       | 1              |
| Caelo                      | Citric oil        | 192813016       | 7              |
| Caelo                      | Citric oil        | 1928132002      | 1              |
| Caelo                      | Sweet orange oil  | 192837007       | 2              |
| Caelo                      | Sweet orange oil  | 192837015       | 1              |
| Caelo                      | Sweet orange oil  | 20003796002     | 3              |
| Caelo                      | Sweet orange oil  | 20003796014     | 2              |
| Caelo                      | Citric oil        | 20004025004     | 7              |
| Caelo                      | Citric oil        | 20004025008     | 1              |
| Caelo                      | Citric oil        | 20004025010     | 1              |
| Caelo                      | Citric oil        | 20004025012     | 1              |
| Caelo                      | Citric oil        | 20004025013     | 2              |
| Caelo                      | Citric oil        | 2004025008      | 1              |
| Caelo                      | Citric oil        | 20111307        | 1              |
| Caelo                      | Citric oil        | 20117           | 1              |
| Caelo                      | Citric oil        | 202170C16028702 | 1              |
| Caelo                      | Sweet orange oil  | 21003265002     | 1              |
| Caelo                      | Bitter orange oil | 23061815        | 1              |
| Caelo                      | Citric oil        | 24071801        | 1              |
| Caelo                      | Citric oil        | 2515I-01973     | 1              |
| Caelo                      | Sweet orange oil  | 26041703        | 1              |
| Caelo                      | Citric oil        | 28051308        | 1              |
| Caelo                      | Citric oil        | 2x192813002     | 1              |
| Caelo                      | Citric oil        | 308515          | 2              |
| Caelo                      | Citric oil        | 31121206        | 1              |
| Caelo                      | Citric oil        | 3710A-01973     | 1              |
| Caelo                      | Sweet orange oil  | 4111710         | 1              |
| Caelo                      | Citric oil        | 619M-01973      | 1              |
| Caelo                      | Sweet orange oil  | 7051301         | 1              |
| Caelo                      | Sweet orange oil  | 8121204         | 1              |
| Caelo                      | Citric oil        | 90(16275216)    | 1              |
| Caelo                      | Sweet orange oil  | 91138002        | 1              |
| Caelo                      | Citric oil        | 9322802         | 1              |
| Caelo                      | Citric oil        | 9322815         | 1              |
| Caelo                      | Citric oil        | Caelo           | 1              |
| Caecolo/Phoenix            | Sweet orange oil  | 18171609        | 1              |
| Caesar & Loretz GmbH/ G... | Citric oil        | 22000485005     | 1              |
| Caesar & Loretz GmbH/ K... | Citric oil        | 18328003        | 1              |
| Caesar & Loretz GmbH/ N... | Citric oil        | 18231803        | 1              |
| Caesar & Loretz GmbH/Fi... | Citric oil        | 18092210        | 1              |
| Caesar & Loretz GmbH/Gehe  | Citric oil        | 18092202        | 1              |
| Caesar & Loretz GmbH/GEHE  | Citric oil        | 18328009        | 1              |
| Caesar & Loretz GmbH/gehe  | Sweet orange oil  | 19033307        | 1              |
| Caesar & Loretz GmbH/Je... | Citric oil        | 18328003        | 1              |
| Caesar & Loretz GmbH       | Citric oil        | 17106807        | 1              |
| Caesar & Loretz GmbH       | Bitter orange oil | 18088904        | 1              |
| Caesar & Loretz GmbH       | Sweet orange oil  | 18171601        | 1              |
| Caesar & Loretz GmbH       | Citric oil        | 18328003        | 7              |
| Caesar & Loretz GmbH       | Citric oil        | 18328008        | 5              |

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| Supplier                  | Substance        | Batch             | Spectra |
|---------------------------|------------------|-------------------|---------|
| Caesar & Loretz GmbH      | Citric oil       | 18328009          | 1       |
| Caesar & Loretz GmbH      | Citric oil       | 18328011          | 1       |
| Caesar & Loretz GmbH      | Citric oil       | 18328016          | 2       |
| Caesar & Loretz GmbH      | Sweet orange oil | 19113805          | 2       |
| Caesar & Loretz GmbH      | Citric oil       | 192813001         | 1       |
| Caesar & Loretz GmbH      | Citric oil       | 192813004         | 1       |
| Caesar & Loretz GmbH      | Citric oil       | 192813006         | 1       |
| Caesar & Loretz GmbH      | Citric oil       | 192813012         | 3       |
| Caesar & Loretz GmbH      | Sweet orange oil | 192837016         | 1       |
| Caesar & Loretz GmbH      | Sweet orange oil | 20003796002       | 1       |
| Caesar & Loretz GmbH      | Citric oil       | 20004025004       | 4       |
| Calo                      | Sweet orange oil | 13024204          | 1       |
| Cealo                     | Citric oil       | 12360002          | 1       |
| Cealo                     | Citric oil       | 20004025008       | 1       |
| Eigenherstellung Defektur | Citric oil       | 6082101           | 1       |
| Fagro/Gehe                | Citric oil       | 14H06-B02-299949  | 1       |
| Fagron                    | Citric oil       |                   | 1       |
| Fagron                    | Citric oil       | 1176523           | 1       |
| Fagron                    | Citric oil       | 1198627           | 1       |
| Fagron                    | Citric oil       | 11B04-N02         | 1       |
| Fagron                    | Citric oil       | 11C28-N060363/440 | 2       |
| Fagron                    | Citric oil       | 11I05-N13         | 1       |
| Fagron                    | Citric oil       | 11K28-N04         | 1       |
| Fagron                    | Citric oil       | 12A23-N05         | 8       |
| Fagron                    | Citric oil       | 12A23-N05         | 1       |
| Fagron                    | Citric oil       | 12G04-N21         | 2       |
| Fagron                    | Citric oil       | 12g13-b06-287454  | 1       |
| Fagron                    | Citric oil       | 12G13-B06-287454  | 1       |
| Fagron                    | Citric oil       | 13b01-n02         | 1       |
| Fagron                    | Citric oil       | 13B01N02          | 2       |
| Fagron                    | Citric oil       | 13B01-N02         | 5       |
| Fagron                    | Citric oil       | 13E06-N10         | 6       |
| Fagron                    | Citric oil       | 13K14-B03         | 2       |
| Fagron                    | Citric oil       | 13K14-B03-289819  | 1       |
| Fagron                    | Citric oil       | 13K14-B03-294706  | 5       |
| Fagron                    | Citric oil       | 13K14-B03-787033  | 1       |
| Fagron                    | Citric oil       | 13K14-B03         | 1       |
| Fagron                    | Citric oil       | 14H06_B02_308273  | 1       |
| Fagron                    | Citric oil       | 14H06-B02         | 1       |
| Fagron                    | Citric oil       | 14H06-B02-299949  | 5       |
| Fagron                    | Citric oil       | 14H06-B02-301947  | 1       |
| Fagron                    | Citric oil       | 14H06-B02-308273  | 4       |
| Fagron                    | Citric oil       | 15F29-B04         | 2       |
| Fagron                    | Citric oil       | 15F29-B04-309901  | 1       |
| Fagron                    | Citric oil       | 15F29-B04-322985  | 3       |
| Fagron                    | Citric oil       | 15F29-B04-325354  | 2       |
| Fagron                    | Citric oil       | 15F29-B04-327600  | 3       |
| Fagron                    | Citric oil       | 15F29-B04-328222  | 1       |
| Fagron                    | Citric oil       | 15F29-B04-330854  | 1       |
| Fagron                    | Citric oil       | 174B14-B04-352490 | 1       |
| Fagron                    | Citric oil       | 17B14-B004        | 1       |
| Fagron                    | Citric oil       | 17B14-B04         | 3       |
| Fagron                    | Citric oil       | 17b14-b04-334835  | 1       |
| Fagron                    | Citric oil       | 17B14-B04-334835  | 2       |
| Fagron                    | Citric oil       | 17B14-B04-341736  | 2       |
| Fagron                    | Citric oil       | 17B14-B04-349813  | 2       |
| Fagron                    | Citric oil       | 17B14-B04-350559  | 2       |
| Fagron                    | Citric oil       | 17B14-B04-352490  | 3       |
| Fagron                    | Citric oil       | 18092202          | 1       |
| Fagron                    | Citric oil       | 18328003          | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Fagron                     | Citric oil       | 19K11-08-366883  | 1              |
| Fagron                     | Citric oil       | 19K11-F08-366880 | 2              |
| Fagron                     | Citric oil       | 19k11-F08-366883 | 2              |
| Fagron                     | Citric oil       | 19K11-F08-366883 | 3              |
| Fagron                     | Citric oil       | 268961           | 1              |
| Fagron                     | Citric oil       | 602796           | 1              |
| Fagron                     | Citric oil       | 645920           | 3              |
| Fagron                     | Citric oil       | 709110           | 1              |
| Fagron                     | Citric oil       | 733117           | 1              |
| Fagron                     | Citric oil       | 881578           | 2              |
| Fagron                     | Citric oil       | 984901           | 1              |
| Fagron                     | Citric oil       | 17B14-B04-349813 | 1              |
| Fiebig 09.11.12 ek:6,92    | Sweet orange oil | 11031802         | 1              |
| Fiebig                     | Citric oil       | 17106802         | 2              |
| Fiebig                     | Sweet orange oil | 17347510         | 1              |
| Fiebig                     | Citric oil       | 18092203         | 1              |
| Fiebig                     | Sweet orange oil | 18171604         | 1              |
| Fiebig                     | Sweet orange oil | 18171610         | 1              |
| Gatt-Koller                | Citric oil       | 1800504          | 1              |
| Gehe                       | Citric oil       | 13K14-B03-294706 | 1              |
| Gehe                       | Citric oil       | 15171201         | 2              |
| GEHE                       | Citric oil       | 16275216         | 1              |
| Gehe                       | Citric oil       | 17106807         | 1              |
| Gehe                       | Sweet orange oil | 18171609         | 1              |
| Gehe                       | Citric oil       | 297734           | 1              |
| Gehe                       | Citric oil       | 306549           | 1              |
| Gehe                       | Citric oil       | 827023           | 2              |
| Hänseler                   | Citric oil       |                  | 6              |
| Hänseler                   | Citric oil       | 2019040017       | 1              |
| Jenne/Phoenix              | Sweet orange oil | 191138002        | 1              |
| Jenne                      | Sweet orange oil | 17347509         | 1              |
| L12                        | Citric oil       | 17B14-B04-352490 | 1              |
| Nachprüfung                | Sweet orange oil | 12043403         | 1              |
| Noweda                     | Citric oil       | 12360002         | 1              |
| Noweda                     | Citric oil       | 192813012        | 1              |
| Ph.Eur.                    | Sweet orange oil | 17159602         | 1              |
| Phoenix Göttingen 07.01... | Citric oil       | 17B14-B04-350559 | 1              |
| Phoenix                    | Sweet orange oil | 16015502         | 1              |
| Phoenix                    | Sweet orange oil | 16083506         | 1              |
| Phoenix                    | Sweet orange oil | 17159603         | 2              |
| Phoenix                    | Citric oil       | 310806           | 1              |
| Phönix                     | Citric oil       | 1176523          | 1              |
| Phönix                     | Citric oil       | 17B14-B04-341736 | 1              |
| Phönix                     | Citric oil       | 17B14-B04-352490 | 1              |
| Phönix                     | Citric oil       | 19K11-F08        | 1              |
| Phönix                     | Citric oil       | F08-3668803      | 1              |
| Primavera                  | Citric oil       | 154A26           | 1              |
| Primavera                  | Sweet orange oil | 530914           | 1              |
| Sanacorp                   | Citric oil       |                  | 1              |
| Sanacorp                   | Citric oil       | 12040504         | 1              |
| Sanacorp                   | Citric oil       | 13259504         | 1              |
| Sanacorp                   | Citric oil       | 15182711         | 1              |
| Sanacorp                   | Citric oil       | 18092210         | 3              |
| Sanacorp                   | Citric oil       | 18328008         | 1              |
| Sanacorp                   | Citric oil       | 5/AKD1           | 1              |
| Sanacorp                   | Citric oil       | 18328016         | 1              |
| Spangro 7.11.18            | Citric oil       | 17321101         | 1              |
| Taoasis / Noweda           | Sweet orange oil | B8583MX          | 1              |
| Taoasis/Taoasis            | Grapefruit oil   | 31564-118378     | 1              |
| Taoasis/Taoasis            | Grapefruit oil   | 44040A-127409    | 1              |

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| Supplier             | Substance        | Batch           | Spectra |
|----------------------|------------------|-----------------|---------|
| Taoasis              | Citric oil       | 11635IT-N01     | 1       |
| Taoasis              | Citric oil       | 122527-122620   | 1       |
| Taoasis              | Citric oil       | 122650-123634   | 1       |
| Taoasis              | Citric oil       | 140116-115338   | 1       |
| Taoasis              | Citric oil       | 1401270-121612  | 1       |
| Taoasis              | Sweet orange oil | 140129-115917   | 1       |
| Taoasis              | Citric oil       | 1786-125280     | 1       |
| Taoasis              | Citric oil       | 2LI08M-73396    | 1       |
| Taoasis              | Grapefruit oil   | 31564-120540    | 1       |
| Taoasis              | Grapefruit oil   | 333555-111392   | 1       |
| Taoasis              | Citric oil       | 3805201         | 1       |
| Taoasis              | Citric oil       | 3J16M-125453    | 1       |
| Taoasis              | Grapefruit oil   | 44040A-124468   | 1       |
| Taoasis              | Citric oil       | 4LI14M-118369   | 1       |
| Taoasis              | Citric oil       | 5LI12M-109229   | 1       |
| Taoasis              | Grapefruit oil   | AR18-12022-3600 | 2       |
| Taoasis              | Citric oil       | E200450-11318   | 1       |
| Taoasis GmbH         | Sweet orange oil | 128129          | 1       |
| VDL;4,32EUR;25.04.15 | Citric oil       | 14121815        | 1       |

- 287 870 spectra from 1294 *Apo-Ident* customers from a total of 51 566 batches from a further 340 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Citrus oils* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Citrus oils* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 930           | 0              | 66 229        |
| <b>Type B</b> | 0              | 610           | 0              | 106 753       |
| <b>Type C</b> | 0              | 831           | 8              | 287 870       |

The substance/substance group *Citrus oils* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.3548 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.0164 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.0465 % (> 98.6889 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Citrus oils* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance    | Distance in<br>main model | Distance in<br>second-stage model |
|--------------|---------------------------|-----------------------------------|
| Mandarin oil | 21.57                     | –                                 |
| Caraway oil  | 25.29                     | –                                 |
| Bergamot oil | 61.03                     | –                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Citrus oils* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31017     | 31017                  | 0.00                            | 41.70                              |
| 31046     | 34627                  | 7.98                            | 32.34                              |
| 31164     | 31164                  | 0.00                            | 42.89                              |
| 31206     | 31206                  | 0.00                            | 44.13                              |
| 31261     | 31261                  | 0.00                            | 28.78                              |
| 31273     | 31206                  | 2.69                            | 47.16                              |
| 31295     | 31295                  | 0.00                            | 43.36                              |
| 31297     | 31295                  | 2.69                            | 44.69                              |
| 31411     | 31295                  | 2.00                            | 44.75                              |
| 31417     | 31164                  | 2.39                            | 41.80                              |
| 31418     | 31295                  | 1.80                            | 42.88                              |
| 31432     | 31261                  | 2.02                            | 27.89                              |
| 31524     | 31261                  | 5.70                            | 29.65                              |
| 31861     | 31861                  | 0.00                            | 28.34                              |
| 32181     | 31861                  | 8.87                            | 36.73                              |
| 33062     | 33062                  | 0.00                            | 34.86                              |
| 33630     | 31164                  | 2.60                            | 40.72                              |
| 34438     | 34438                  | 0.00                            | 41.12                              |
| 34601     | 34601                  | 0.00                            | 33.51                              |
| 34606     | 34606                  | 0.00                            | 42.67                              |
| 34627     | 34627                  | 0.00                            | 30.80                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical

variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | Clotrimazole 10% Cordes® RK                                      |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30213-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Clotrimazole 10% Cordes® RK

### Special notes

When selecting the *Clotrimazole 10% Cordes® RK* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group   | Type A | Type B | Type C |
|-----------------------------|--------|--------|--------|
| Clotrimazole 10% Cordes® RK | 4      | 1      | 14     |

## Second-stage model

For differentiation of the substance/substance group *Clotrimazole 10% Cordes® RK* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Clotrimazole 10% Cordes® RK*:

| Supplier | Substance           | Batch   | Sample ID | Spectra | Certificate |
|----------|---------------------|---------|-----------|---------|-------------|
| Ichthyol | Clotrimazole 10%... | 12D016  | 31101     | 40      | 1507525     |
| Ichthyol | Clotrimazole 10%... | 14D009  | 31806     | 60      | 20140606    |
| Ichthyol | Clotrimazole 10%... | 14D009  | 32950     | 40      | 20140606    |
| Ichthyol | Clotrimazole 10%... | 17D005  | 34483     | 40      | 20170915    |
| Ichthyol | Clotrimazole 10%... | 20D0009 | 34837     | 40      | 20200306    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Clotrimazole 10% Cordes® RK*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 939 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Clotrimazole 10% Cordes® RK*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                               | Batch  | Sample ID | Spectra |
|----------|-----------------------------------------|--------|-----------|---------|
| Ichthyol | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003 | 33498     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH, Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 319 spectra from 54 *Apo-Ident* customers from 19 batches from the substance/substance group *Clotrimazole 10% Cordes<sup>®</sup> RK*.
- Among them are spectra of independent samples from 14 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                    | Substance                               | Batch    | Spectra |
|-----------------------------|-----------------------------------------|----------|---------|
| AHD/ichthyol                | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D0089  | 1       |
| Bombastus                   | Clotrimazole 10% Cordes <sup>®</sup> RK | 19002830 | 1       |
| Caelo                       | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016   | 11      |
| Caelo                       | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009   | 1       |
| Caelo                       | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003   | 17      |
| Caelo                       | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 1       |
| Caesar & Loretz GmbH/Je...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 18330004 | 2       |
| Cordes/AHD                  | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003   | 1       |
| Cordes                      | Clotrimazole 10% Cordes <sup>®</sup> RK | 11D044   | 1       |
| Fiebig 30.04.2019           | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 1       |
| Gehe/ Ichthyol Gesellsc...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009  | 1       |
| Gehe/Ichthyol               | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009  | 1       |
| Ichthyol Gesellschaft       | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009  | 2       |
| Ichthol/Jenne               | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009  | 35      |
| Ichthol/Phönix              | Clotrimazole 10% Cordes <sup>®</sup> RK | 2D0009   | 1       |
| Ichthyol Noweda             | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016   | 1       |
| ICHTHYOL / Noweda           | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003   | 1       |
| Ichthyol Gesellschaft C...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 11D044   | 1       |
| Ichthyol Gesellschaft/J...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003   | 2       |
| Ichthyol Gesellschaft/N...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 1       |
| Ichthyol Gesellschaft Co... | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 1       |
| ICHTHYOL/1                  | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 1       |
| Ichthyol/AHCA               | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 1       |
| Ichthyol/AHD                | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016   | 1       |
| Ichthyol/AHD                | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 6       |
| Ichthyol/AHD                | Clotrimazole 10% Cordes <sup>®</sup> RK | 17DQ05   | 1       |
| Ichthyol/Alliance Healt...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016   | 1       |
| Ichthyol/Anzag              | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 2       |
| Ichthyol/E&J                | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003   | 1       |
| Ichthyol/Gehe               | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009   | 2       |
| Ichthyol/Gehe               | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003   | 1       |
| Ichthyol/Gehe               | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 6       |
| Ichthyol/Jenne              | Clotrimazole 10% Cordes <sup>®</sup> RK | 11D044   | 1       |
| Ichthyol/Jenne              | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 119     |
| Ichthyol/Noweda             | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009   | 1       |
| Ichthyol/Noweda             | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003   | 1       |
| Ichthyol/Noweda             | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005   | 2       |

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| Supplier                    | Substance                               | Batch   | Spectra |
|-----------------------------|-----------------------------------------|---------|---------|
| Ichthyol/Phokd              | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003  | 1       |
| Ichthyol/Phönix             | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003  | 1       |
| Ichthyol/Phönix             | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 2       |
| Ichthyol/Phönix             | Clotrimazole 10% Cordes <sup>®</sup> RK | 20d0009 | 1       |
| Ichthyol/Phönix             | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009 | 1       |
| Ichthyol/sanacorp           | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009 | 1       |
| Ichthyol                    | Clotrimazole 10% Cordes <sup>®</sup> RK | 11D044  | 25      |
| Ichthyol                    | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016  | 8       |
| Ichthyol                    | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009  | 1       |
| Ichthyol                    | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003  | 1       |
| Ichthyol                    | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 4       |
| Ichthyol                    | Clotrimazole 10% Cordes <sup>®</sup> RK | 9D036   | 9       |
| Ichthyol4D/ Noweda          | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009  | 1       |
| Ichthyol-Ges. / G           | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 1       |
| Ichthyol-Ges./Sanac.        | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003  | 1       |
| Ichthyol-Ges./Sanac.        | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 1       |
| Ichthyol-Gesellschaft / K   | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016  | 1       |
| Ichthyol-Gesellschaft /...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 1       |
| Ichthyol-Gesellschaft /...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009 | 1       |
| ICHTHYOL-GESELLSCHAFT C...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009  | 1       |
| Ichthyol-Gesellschaft /...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003  | 1       |
| Ichthyol-Gesellschaft/N...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 110044  | 1       |
| Ichthyol-Gesellschaft/S...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009  | 1       |
| Ichthyol-Gesellschaft       | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016  | 2       |
| Ichthyol-Gesellschaft       | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003  | 1       |
| ICHTHYOL-GESELLSCHAFT       | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 3       |
| Ichthyol-Gesellschaft/ N... | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009  | 2       |
| ichtiol gehe                | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D03   | 1       |
| ichtyol gesellschaft co...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 2       |
| Ichtyol/ Alliance           | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009 | 1       |
| Ichtyol                     | Clotrimazole 10% Cordes <sup>®</sup> RK | 11D044  | 1       |
| Ichtyol-Gesellschaft /G...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 20D0009 | 1       |
| Noweda/Ichthyol-Gesells...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 12D016  | 3       |
| Noweda                      | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009  | 1       |
| Noweda                      | Clotrimazole 10% Cordes <sup>®</sup> RK | 17D005  | 1       |
| Sanacorp                    | Clotrimazole 10% Cordes <sup>®</sup> RK | 16D003  | 1       |
| THC/ Phönix Pharma Eink...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 128843  | 1       |
| WE 29.11.16 Ichthyol/Sa...  | Clotrimazole 10% Cordes <sup>®</sup> RK | 14D009  | 1       |

- 288 390 spectra from 1294 *Apo-Ident* customers from a total of 51 873 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Clotrimazole 10% Cordes<sup>®</sup> RK* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Clotrimazole 10% Cordes<sup>®</sup> RK* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 220           | 0              | 66 939        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 317           | 2              | 288 390       |



The substance/substance group *Clotrimazole 10% Cordes® RK* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.3730 % (> 98.4326 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Clotrimazole 10% Cordes® RK* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>  | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|-------------------|-------------------------------|---------------------------------------|
| Lanolin DAB       | 41.21                         | –                                     |
| Basis Cordes® RK  | 47.01                         | –                                     |
| Cooling cream DAB | 66.97                         | –                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Clotrimazole 10% Cordes® RK* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31101            | 31101                      | 0.00                                | 97.53                                  |
| 31806            | 31101                      | 19.20                               | 112.90                                 |
| 32950            | 31101                      | 22.54                               | 110.00                                 |
| 34483            | 31101                      | 8.06                                | 104.81                                 |
| 34837            | 31101                      | 6.81                                | 95.91                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all

substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Clove oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30858-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Clove oil; Caryophylli floris aetheroleum

### Special notes

When selecting the *Clove oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Clove oil                 | 6      | 7      | 189    |

## Second-stage model

For differentiation of the substance/substance group *Clove oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Clove oil*:

| Supplier | Substance | Batch      | Sample ID | Spectra | Certificate        |
|----------|-----------|------------|-----------|---------|--------------------|
| Caelo    | Clove oil | 12165905   | 30858     | 40      | 20120627           |
| Caelo    | Clove oil | 13334902   | 31299     | 40      | 20131009           |
| Caelo    | Clove oil | 13334902   | 31409     | 40      | 20131009           |
| Euro OTC | Clove oil | 1210057-01 | 31526     | 60      | AR-14-FG-013260-01 |
| Euro OTC | Clove oil | 1505022    | 31707     | 60      | 0000010252         |
| Euro OTC | Clove oil | 1912007    | 34805     | 40      | 20200203*          |
| Euro OTC | Clove oil | 2007038    | 35119     | 40      | 20201001*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 320 spectra of 7 reference samples from the substance/substance group *Clove oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 839 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 290 spectra of 7 reference samples from the substance/substance group *Clove oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 7 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance | Batch    | Sample ID | Spectra |
|-----------|-----------|----------|-----------|---------|
| Bombastus | Clove oil | 20005612 | 36219     | 40      |
| Caelo     | Clove oil | 15402108 | 33299     | 40      |
| Caelo     | Clove oil | 171965   | 33683     | 40      |
| Euro OTC  | Clove oil | 1710036  | 33847     | 40      |
| Euro OTC  | Clove oil | 1802017  | 33999     | 40      |
| Euro OTC  | Clove oil | 1906025  | 34658     | 40      |
| Euro OTC  | Clove oil | 2108025  | 35762     | 50      |

- 107073 spectra from a total of 2494 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 933 spectra from 278 *Apo-Ident* customers from 194 batches from the substance/substance group *Clove oil*.
- Among them are spectra of independent samples from 188 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance | Batch           | Spectra |
|----------------------------|-----------|-----------------|---------|
| AHD                        | Clove oil | 16131413        | 1       |
| Alliance Health 03.01.2... | Clove oil | 17354209        | 1       |
| Bombastus                  | Clove oil |                 | 1       |
| Bombastus                  | Clove oil | 1612020C/296428 | 1       |
| Bombastus                  | Clove oil | 17000945        | 3       |
| Bombastus                  | Clove oil | 18000797        | 6       |
| Bombastus                  | Clove oil | 18004278        | 3       |
| Bombastus                  | Clove oil | 18004760        | 1       |
| Bombastus                  | Clove oil | 19001976        | 1       |
| Bombastus                  | Clove oil | 20002025        | 3       |
| Bombastus                  | Clove oil | 2000G12         | 1       |
| Bombastus                  | Clove oil | 265673          | 1       |
| Bombastus                  | Clove oil | 267699          | 1       |
| Bombastus                  | Clove oil | 273027          | 1       |
| Bombastus                  | Clove oil | 274495          | 1       |
| Bombastus                  | Clove oil | 274829          | 1       |
| Bombastus                  | Clove oil | 279262          | 2       |
| Bombastus                  | Clove oil | 288875          | 2       |
| Bombastus                  | Clove oil | 294000          | 3       |
| Bombastus                  | Clove oil | 295672          | 2       |
| Bombastus                  | Clove oil | 296428          | 2       |
| Bombastus                  | Clove oil | 296568          | 4       |
| Bombastus                  | Clove oil | 296979          | 1       |
| Bombastus                  | Clove oil | 297263          | 2       |
| Bombastus                  | Clove oil | 300899          | 1       |
| Bombastus                  | Clove oil | 300901          | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|-----------------|------------------|---------------------|----------------|
| Bombastus       | Clove oil        | 302351              | 1              |
| Bombastus       | Clove oil        | 302858              | 2              |
| Bombastus       | Clove oil        | 303337              | 1              |
| Bombastus       | Clove oil        | 307074              | 1              |
| Bombastus       | Clove oil        | 308074              | 2              |
| Bombastus       | Clove oil        | 308728              | 1              |
| Bombastus       | Clove oil        | 310830              | 6              |
| Bombastus       | Clove oil        | 60010610            | 1              |
| Caelo           | Clove oil        |                     | 1              |
| Caelo           | Clove oil        | 10272002            | 3              |
| Caelo           | Clove oil        | 10272012            | 3              |
| Caelo           | Clove oil        | 10272014            | 2              |
| Caelo           | Clove oil        | 11231702            | 8              |
| Caelo           | Clove oil        | 11231703            | 4              |
| Caelo           | Clove oil        | 11231704            | 3              |
| Caelo           | Clove oil        | 11231705            | 1              |
| Caelo           | Clove oil        | 11231706            | 8              |
| Caelo           | Clove oil        | 11231709            | 4              |
| Caelo           | Clove oil        | 11K17-No7           | 1              |
| Caelo           | Clove oil        | 12011502            | 1              |
| Caelo           | Clove oil        | 12165902            | 6              |
| Caelo           | Clove oil        | 12165904            | 1              |
| Caelo           | Clove oil        | 12165905            | 16             |
| Caelo           | Clove oil        | 12272004-1-0        | 1              |
| Caelo           | Clove oil        | 12380601            | 11             |
| Caelo           | Clove oil        | 123806012x          | 1              |
| Caelo           | Clove oil        | 13106501            | 12             |
| Caelo           | Clove oil        | 13106502            | 5              |
| Caelo           | Clove oil        | 13182301            | 18             |
| Caelo           | Clove oil        | 13182301-3373319042 | 1              |
| Caelo           | Clove oil        | 13334902            | 14             |
| Caelo           | Clove oil        | 13334905            | 8              |
| Caelo           | Clove oil        | 14133602            | 8              |
| Caelo           | Clove oil        | 14133603            | 5              |
| Caelo           | Clove oil        | 14133606            | 1              |
| Caelo           | Clove oil        | 14133608            | 9              |
| Caelo           | Clove oil        | 14243101            | 4              |
| Caelo           | Clove oil        | 14243102            | 1              |
| Caelo           | Clove oil        | 14243103            | 13             |
| Caelo           | Clove oil        | 14243104            | 18             |
| Caelo           | Clove oil        | 14243105            | 1              |
| Caelo           | Clove oil        | 15051508            | 1              |
| Caelo           | Clove oil        | 15101401            | 1              |
| Caelo           | Clove oil        | 15119303            | 2              |
| Caelo           | Clove oil        | 15119304            | 22             |
| Caelo           | Clove oil        | 1519304             | 1              |
| Caelo           | Clove oil        | 15316012            | 1              |
| Caelo           | Clove oil        | 15316101            | 2              |
| Caelo           | Clove oil        | 15316102            | 56             |
| Caelo           | Clove oil        | 15316103            | 20             |
| Caelo           | Clove oil        | 15316192            | 1              |
| Caelo           | Clove oil        | 15316403            | 1              |
| Caelo           | Clove oil        | 1540208             | 1              |
| Caelo           | Clove oil        | 154021              | 1              |
| Caelo           | Clove oil        | 15402101            | 10             |
| Caelo           | Clove oil        | 15402102            | 5              |
| Caelo           | Clove oil        | 15402108            | 30             |
| Caelo           | Clove oil        | 15402109            | 6              |
| Caelo           | Clove oil        | 15402120            | 1              |
| Caelo           | Clove oil        | 16081806            | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Clove oil        | 16121305     | 1              |
| Caelo           | Clove oil        | 16131401     | 18             |
| Caelo           | Clove oil        | 16131412     | 23             |
| Caelo           | Clove oil        | 16131413     | 35             |
| Caelo           | Clove oil        | 16131416     | 1              |
| Caelo           | Clove oil        | 17051402     | 1              |
| Caelo           | Clove oil        | 1735403      | 1              |
| Caelo           | Clove oil        | 1735405      | 1              |
| Caelo           | Clove oil        | 17354203     | 11             |
| Caelo           | Clove oil        | 17354205     | 28             |
| Caelo           | Clove oil        | 17354209     | 45             |
| Caelo           | Clove oil        | 18071302     | 1              |
| Caelo           | Clove oil        | 1809002-01   | 1              |
| Caelo           | Clove oil        | 181178002    | 1              |
| Caelo           | Clove oil        | 18121411     | 1              |
| Caelo           | Clove oil        | 181780002    | 1              |
| Caelo           | Clove oil        | 18178002     | 12             |
| Caelo           | Clove oil        | 181780022    | 1              |
| Caelo           | Clove oil        | 18178004     | 1              |
| Caelo           | Clove oil        | 18178005     | 26             |
| Caelo           | Clove oil        | 18178009     | 1              |
| Caelo           | Clove oil        | 18178013     | 2              |
| Caelo           | Clove oil        | 19066804     | 22             |
| Caelo           | Clove oil        | 19066805     | 4              |
| Caelo           | Clove oil        | 19066809     | 3              |
| Caelo           | Clove oil        | 19081706     | 1              |
| Caelo           | Clove oil        | 1912007-01   | 1              |
| Caelo           | Clove oil        | 193031001    | 17             |
| Caelo           | Clove oil        | 193031005    | 6              |
| Caelo           | Clove oil        | 193031006    | 22             |
| Caelo           | Clove oil        | 20003989002  | 1              |
| Caelo           | Clove oil        | 20003989004  | 13             |
| Caelo           | Clove oil        | 20003989006  | 1              |
| Caelo           | Clove oil        | 20003989009  | 1              |
| Caelo           | Clove oil        | 20021308     | 1              |
| Caelo           | Clove oil        | 2081402      | 1              |
| Caelo           | Clove oil        | 2091306      | 1              |
| Caelo           | Clove oil        | 21002670001  | 1              |
| Caelo           | Clove oil        | 21111817     | 1              |
| Caelo           | Clove oil        | 23041404     | 1              |
| Caelo           | Clove oil        | 23051405     | 1              |
| Caelo           | Clove oil        | 23081402     | 1              |
| Caelo           | Clove oil        | 265130       | 1              |
| Caelo           | Clove oil        | 267700       | 1              |
| Caelo           | Clove oil        | 272735       | 2              |
| Caelo           | Clove oil        | 28051313     | 1              |
| Caelo           | Clove oil        | 28051510     | 1              |
| Caelo           | Clove oil        | 2965568      | 1              |
| Caelo           | Clove oil        | 297263       | 1              |
| Caelo           | Clove oil        | 30111304     | 1              |
| Caelo           | Clove oil        | 302858       | 2              |
| Caelo           | Clove oil        | 303337       | 1              |
| Caelo           | Clove oil        | 3512M-01969  | 1              |
| Caelo           | Clove oil        | 3613Q01969   | 1              |
| Caelo           | Clove oil        | 402109       | 1              |
| Caelo           | Clove oil        | 4061404      | 1              |
| Caelo           | Clove oil        | 6071501      | 1              |
| Caelo           | Clove oil        | 7051806      | 1              |
| Caelo           | Clove oil        | 9308768      | 2              |
| Caelo           | Clove oil        | 0-130513-1   | 1              |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------------------|------------------|------------------|----------------|
| Caesar & Loretz GmbH / ...  | Clove oil        | 20003989004      | 1              |
| Caesar & Loretz GmbH/Al...  | Clove oil        | 193031001        | 1              |
| Caesar & Loretz GmbH/Al...  | Clove oil        | 193031006        | 1              |
| Caesar & Loretz GmbH/No...  | Clove oil        | 193031001        | 3              |
| Caesar & Loretz GmbH/Ph...  | Clove oil        | 19066804         | 3              |
| Caesar & Loretz GmbH/Sa...  | Clove oil        | 18178002         | 2              |
| Caesar & Loretz GmbH/Sa...  | Clove oil        | 19066805         | 1              |
| Caesar & Loretz GmbH/Sa...  | Clove oil        | 19066809         | 2              |
| Caesar & Loretz GmbH/Sa...  | Clove oil        | 20003989002      | 1              |
| Caesar & Loretz GmbH        | Clove oil        | 16131413         | 1              |
| Caesar & Loretz GmbH        | Clove oil        | 17354209         | 2              |
| Caesar & Loretz GmbH        | Clove oil        | 18178005         | 1              |
| Caesar & Loretz GmbH        | Clove oil        | 18178013         | 4              |
| Caesar & Loretz GmbH        | Clove oil        | 19066804         | 4              |
| Caesar & Loretz GmbH        | Clove oil        | 19066805         | 1              |
| Caesar & Loretz GmbH        | Clove oil        | 19066809         | 2              |
| Caesar & Loretz GmbH        | Clove oil        | 193031005        | 1              |
| Caesar & Loretz GmbH        | Clove oil        | 193031006        | 4              |
| Caesar & Loretz GmbH        | Clove oil        | 20003989002      | 1              |
| Caesar & Loretz GmbH        | Clove oil        | 20003989006      | 1              |
| Caesar & Loretz GmbH        | Clove oil        | 20003989009      | 2              |
| Caesar & Loretz             | Clove oil        | 15402102         | 1              |
| Caesar/Noweda               | Clove oil        | 12165902         | 1              |
| Caesar/Noweda               | Clove oil        | 13334905         | 1              |
| Caesar-Loretz/Fiebig        | Clove oil        | 16131413         | 1              |
| Calo, Hilden/ Phönix        | Clove oil        | 19066804         | 2              |
| Calo                        | Clove oil        | 13106501         | 1              |
| Cealo                       | Clove oil        | 12165905         | 1              |
| Cealo                       | Clove oil        | 193031006        | 1              |
| Celo/Gehe 28.04.22 18,55EUR | Clove oil        | 20003989009      | 1              |
| EuRho                       | Clove oil        | 1210057-01       | 2              |
| Euro OTC                    | Clove oil        | 1108015-01       | 2              |
| Euro OTC                    | Clove oil        | 1206012-01       | 1              |
| Euro OTC                    | Clove oil        | 1206013-01       | 8              |
| Euro OTC                    | Clove oil        | 121005701        | 1              |
| Euro OTC                    | Clove oil        | 1210057-01       | 1              |
| Euro OTC                    | Clove oil        | 1505022-01       | 3              |
| Euro OTC                    | Clove oil        | 1505022-02       | 1              |
| Euro OTC                    | Clove oil        | 15402101         | 1              |
| Euro OTC                    | Clove oil        | 171003601        | 1              |
| Euro OTC                    | Clove oil        | 1809002-01       | 2              |
| Euro OTC                    | Clove oil        | 2007038-01       | 2              |
| Euro OTC                    | Clove oil        | 274495           | 1              |
| Euro OTC                    | Clove oil        | 5210A-01969      | 1              |
| Euro OTC                    | Clove oil        | 725892           | 1              |
| Euro/Gehe                   | Clove oil        | 1210057-01       | 1              |
| Fagron                      | Clove oil        | 11K17-N07        | 3              |
| Fagron                      | Clove oil        | 11L21-N07        | 2              |
| Fagron                      | Clove oil        | 11L21-N07        | 1              |
| Fagron                      | Clove oil        | 12C27N04         | 3              |
| Fagron                      | Clove oil        | 12C27-N04        | 2              |
| Fagron                      | Clove oil        | 12F01-N01        | 5              |
| Fagron                      | Clove oil        | 13L03-B01        | 3              |
| Fagron                      | Clove oil        | 13L03-B01_294950 | 1              |
| Fagron                      | Clove oil        | 13L03-B01-292270 | 1              |
| Fagron                      | Clove oil        | 14G11-B04-297218 | 3              |
| Fagron                      | Clove oil        | 1512211969       | 1              |
| Fagron                      | Clove oil        | 18178002         | 1              |
| Fagron                      | Clove oil        | 204211969        | 1              |
| Fagron                      | Clove oil        | 208211969        | 1              |

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| <b>Supplier</b>         | <b>Substance</b> | <b>Batch</b>   | <b>Spectra</b> |
|-------------------------|------------------|----------------|----------------|
| Fagron                  | Clove oil        | 3113Q01969     | 1              |
| Fagron                  | Clove oil        | 3716Q-01969    | 1              |
| Fagron                  | Clove oil        | 792191         | 1              |
| Fagron                  | Clove oil        | 826188         | 1              |
| Fiebig                  | Clove oil        | 18178002       | 1              |
| Fischar/Gehe            | Clove oil        | 13334905       | 1              |
| Gatt-Koller             | Clove oil        | 1900308        | 1              |
| Gehe/ EuRho             | Clove oil        | 1906025-01     | 1              |
| Gehe/Lamotte            | Clove oil        | 16131401       | 1              |
| Gehe                    | Clove oil        | 13106501       | 1              |
| Gehe                    | Clove oil        | 14243103       | 1              |
| Gehe                    | Clove oil        | 14243104       | 1              |
| Gehe                    | Clove oil        | 15316103       | 1              |
| GEHE                    | Clove oil        | 15402108       | 1              |
| GEHE                    | Clove oil        | 16131414       | 1              |
| GEHE                    | Clove oil        | 17354205       | 1              |
| Gehe                    | Clove oil        | 303338         | 1              |
| Henry Lamotte Oils GmbH | Clove oil        | 18178002       | 2              |
| Jenne                   | Clove oil        | 17354209       | 1              |
| Jenne                   | Clove oil        | 18178005       | 1              |
| Kögl                    | Clove oil        |                | 1              |
| Kögl                    | Clove oil        | 102415         | 1              |
| Kögl                    | Clove oil        | 1700323        | 1              |
| Kögl                    | Clove oil        | 307209160217   | 1              |
| Kögl                    | Clove oil        | 428812160317   | 1              |
| L10                     | Clove oil        | 16131413       | 1              |
| L12                     | Clove oil        | 15402108       | 2              |
| L12                     | Clove oil        | 16131401       | 3              |
| L30                     | Clove oil        | 17354205       | 2              |
| L30                     | Clove oil        | 17354209       | 1              |
| Nachprüfung             | Clove oil        | 123456         | 1              |
| Nachprüfung             | Clove oil        | 220Q-01969     | 1              |
| Noweda                  | Clove oil        | 1031374        | 1              |
| Noweda                  | Clove oil        | 1066804        | 1              |
| Noweda                  | Clove oil        | 13334902       | 1              |
| Noweda                  | Clove oil        | 15316102       | 1              |
| Noweda                  | Clove oil        | 17354209       | 1              |
| Noweda                  | Clove oil        | 18178005       | 2              |
| Noweda                  | Clove oil        | 19066804       | 1              |
| Noweda                  | Clove oil        | 19066809       | 1              |
| Phoenix                 | Clove oil        | 15316102       | 1              |
| Phönix/Kremer           | Clove oil        | 15402108       | 1              |
| Phönix                  | Clove oil        | 12165905       | 1              |
| Phonix                  | Clove oil        | 13334905       | 1              |
| Phönix                  | Clove oil        | 15402108       | 1              |
| Phönix                  | Clove oil        | 18178013       | 2              |
| phönix                  | Clove oil        | 297263         | 1              |
| Primavera/Direkt        | Clove oil        | 389D25         | 1              |
| Primavera/Sanacorp      | Clove oil        | 356D25         | 1              |
| Sanacop/Taoasis         | Clove oil        | 2352-6320      | 1              |
| Sanacorp EK:17,64 EU... | Clove oil        | 15402109       | 1              |
| Sanacorp                | Clove oil        | 12165905       | 1              |
| Sanacorp                | Clove oil        | 16131401       | 1              |
| Sanacorp                | Clove oil        | 16131410       | 1              |
| Sanacorp                | Clove oil        | 16131414       | 1              |
| Sanacorp                | Clove oil        | 17354204       | 1              |
| Sanacorp                | Clove oil        | 18178005       | 1              |
| Sanacorp                | Clove oil        | 193031005      | 2              |
| Taoasis/ Sanacorp       | Clove oil        | B130612-112414 | 1              |
| Taoasis                 | Clove oil        | 130301-110695  | 2              |

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| Supplier                  | Substance | Batch      | Spectra |
|---------------------------|-----------|------------|---------|
| Taoasis                   | Clove oil | 97204      | 1       |
| Vögele                    | Clove oil | 2017107539 | 1       |
| Vögele                    | Clove oil | 2018100124 | 1       |
| Vögele                    | Clove oil | 2018102519 | 1       |
| WE:Sanacorp 13.08.2016... | Clove oil | 15316103   | 1       |
| Wolf                      | Clove oil | 6811       | 1       |

- 287 776 spectra from 1294 *Apo-Ident* customers from a total of 51 697 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Clove oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Clove oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 320           | 0              | 66 839        |
| <b>Type B</b> | 0              | 290           | 0              | 107 073       |
| <b>Type C</b> | 0              | 926           | 7              | 287 776       |

The substance/substance group *Clove oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.1250 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 97.9310 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.2497 % (> 98.9282 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Clove oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance | Distance in<br>main model | Distance in<br>second-stage model |
|-----------|---------------------------|-----------------------------------|
| Eugenol   | 22.57                     | —                                 |
| Pine tar  | 211.51                    | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Clove oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30858     | 34805                  | 2.97                            | 41.19                              |
| 31299     | 34805                  | 4.33                            | 36.09                              |
| 31409     | 35119                  | 3.88                            | 35.21                              |
| 31526     | 31526                  | 0.00                            | 27.00                              |
| 31707     | 31707                  | 0.00                            | 38.25                              |
| 34805     | 34805                  | 0.00                            | 38.34                              |
| 35119     | 35119                  | 0.00                            | 32.63                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Coal tar spirit SR**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31126-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Coal tar spirit SR; Spiritus picis lithanthracis SR

### Special notes

When selecting the *Coal tar spirit SR* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Coal tar spirit SR        | 4      | 2      | 90     |

## Second-stage model

For differentiation of the substance/substance group *Coal tar spirit SR* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Coal tar spirit SR*:

| Supplier | Substance          | Batch     | Sample ID | Spectra | Certificate |
|----------|--------------------|-----------|-----------|---------|-------------|
| apomix   | Coal tar spirit SR | 04C151014 | 31626     | 60      | 20141022    |
| apomix   | Coal tar spirit SR | 05B170715 | 33466     | 40      | 20150728    |
| Fagron   | Coal tar spirit SR | 13D05-M14 | 31126     | 40      | 1403343     |
| Fagron   | Coal tar spirit SR | 05A290319 | 34595     | 40      | 20190409    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 180 spectra of 4 reference samples from the substance/substance group *Coal tar spirit SR*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 979 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Coal tar spirit SR*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance          | Batch     | Sample ID | Spectra |
|----------|--------------------|-----------|-----------|---------|
| apomix   | Coal tar spirit SR | 01B180220 | 35459     | 40      |
| Fagron   | Coal tar spirit SR | 04B200916 | 33464     | 40      |
| Fagron   | Coal tar spirit SR | 04B200916 | 33465     | 40      |



- 107 243 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 307 spectra from 199 *Apo-Ident* customers from 99 batches from the substance/substance group *Coal tar spirit SR*.
- Among them are spectra of independent samples from 90 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance          | Batch    | Spectra |
|----------|--------------------|----------|---------|
| Anzag    | Coal tar spirit SR | 2A140219 | 1       |
| apomix   | Coal tar spirit SR | 1A040112 | 1       |
| apomix   | Coal tar spirit SR | 1A140115 | 2       |
| apomix   | Coal tar spirit SR | 1A170119 | 1       |
| apomix   | Coal tar spirit SR | 1A180220 | 5       |
| apomix   | Coal tar spirit SR | 1A190216 | 7       |
| apomix   | Coal tar spirit SR | 1b020718 | 1       |
| apomix   | Coal tar spirit SR | 1B020718 | 3       |
| apomix   | Coal tar spirit SR | 1B120214 | 2       |
| apomix   | Coal tar spirit SR | 1B180220 | 2       |
| apomix   | Coal tar spirit SR | 1B190216 | 1       |
| apomix   | Coal tar spirit SR | 1B300617 | 4       |
| apomix   | Coal tar spirit SR | 1C020718 | 10      |
| apomix   | Coal tar spirit SR | 1c300617 | 1       |
| apomix   | Coal tar spirit SR | 1C300617 | 2       |
| apomix   | Coal tar spirit SR | 1D020718 | 4       |
| apomix   | Coal tar spirit SR | 2A161017 | 9       |
| apomix   | Coal tar spirit SR | 2B040121 | 1       |
| apomix   | Coal tar spirit SR | 2B070316 | 1       |
| apomix   | Coal tar spirit SR | 2B270215 | 2       |
| apomix   | Coal tar spirit SR | 2C040413 | 1       |
| apomix   | Coal tar spirit SR | 2C16101  | 1       |
| apomix   | Coal tar spirit SR | 2C161017 | 1       |
| apomix   | Coal tar spirit SR | 2C280414 | 2       |
| apomix   | Coal tar spirit SR | 2D161017 | 1       |
| apomix   | Coal tar spirit SR | 3A111018 | 5       |
| apomix   | Coal tar spirit SR | 3A170616 | 1       |
| apomix   | Coal tar spirit SR | 3A200320 | 1       |
| apomix   | Coal tar spirit SR | 3B010415 | 1       |
| apomix   | Coal tar spirit SR | 3B111018 | 2       |
| apomix   | Coal tar spirit SR | 3B170616 | 5       |
| apomix   | Coal tar spirit SR | 3B270613 | 2       |
| apomix   | Coal tar spirit SR | 3C230508 | 1       |
| apomix   | Coal tar spirit SR | 4A070319 | 4       |
| apomix   | Coal tar spirit SR | 4A170615 | 2       |
| apomix   | Coal tar spirit SR | 4A190712 | 1       |
| apomix   | Coal tar spirit SR | 4B200916 | 1       |
| apomix   | Coal tar spirit SR | 4B220813 | 1       |
| apomix   | Coal tar spirit SR | 4B221009 | 1       |
| apomix   | Coal tar spirit SR | 4C151014 | 1       |
| apomix   | Coal tar spirit SR | 5A101210 | 1       |

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| Supplier                   | Substance          | Batch               | Spectra |
|----------------------------|--------------------|---------------------|---------|
| apomix                     | Coal tar spirit SR | 5A231116            | 3       |
| apomix                     | Coal tar spirit SR | 5A260521            | 1       |
| apomix                     | Coal tar spirit SR | 5B170715            | 6       |
| apomix                     | Coal tar spirit SR | 5B231116            | 5       |
| apomix                     | Coal tar spirit SR | 5B270420            | 2       |
| apomix                     | Coal tar spirit SR | 5B271112            | 1       |
| apomix                     | Coal tar spirit SR | 5B290319            | 2       |
| apomix                     | Coal tar spirit SR | 5C231116            | 9       |
| apomix                     | Coal tar spirit SR | 6A210915            | 1       |
| apomix                     | Coal tar spirit SR | 6A211212            | 1       |
| apomix                     | Coal tar spirit SR | 6A300419            | 3       |
| apomix                     | Coal tar spirit SR | 6B031213            | 1       |
| apomix                     | Coal tar spirit SR | 6B090620            | 6       |
| apomix                     | Coal tar spirit SR | 7633599             | 1       |
| apomix                     | Coal tar spirit SR | 8A021220            | 5       |
| apomix                     | Coal tar spirit SR | 8A050619            | 3       |
| apomix                     | Coal tar spirit SR | 8B050619            | 2       |
| apomix                     | Coal tar spirit SR | 9A141019            | 7       |
| Bombastus                  | Coal tar spirit SR | 1A170119            | 2       |
| Bombastus                  | Coal tar spirit SR | 4C151014            | 1       |
| Caelo                      | Coal tar spirit SR | 1B020718            | 1       |
| Caelo                      | Coal tar spirit SR | 2A070316            | 1       |
| Caelo                      | Coal tar spirit SR | 2a120918            | 1       |
| Caelo                      | Coal tar spirit SR | 2A161017            | 1       |
| Caelo                      | Coal tar spirit SR | 3A111018            | 2       |
| Caelo                      | Coal tar spirit SR | 3B150507            | 1       |
| Caelo                      | Coal tar spirit SR | 5C271112            | 1       |
| Caelo                      | Coal tar spirit SR | 6A031213            | 1       |
| Caelo                      | Coal tar spirit SR | 6B031213            | 1       |
| Caesar & Loretz GmbH / ... | Coal tar spirit SR | 6A300419            | 1       |
| Caesar & Loretz GmbH       | Coal tar spirit SR | 1B170119            | 2       |
| Euro OTC                   | Coal tar spirit SR | 1414/04-M02         | 1       |
| Fagron                     | Coal tar spirit SR | 11E18-M02           | 1       |
| Fagron                     | Coal tar spirit SR | 13D05-M14           | 1       |
| Fagron                     | Coal tar spirit SR | 13G16-M01           | 1       |
| Fagron                     | Coal tar spirit SR | 14/04-M02           | 1       |
| Fagron                     | Coal tar spirit SR | 1404-M02            | 1       |
| Fagron                     | Coal tar spirit SR | 14A30M01            | 1       |
| Fagron                     | Coal tar spirit SR | 14A30-M01           | 2       |
| Fagron                     | Coal tar spirit SR | 14I04-M02           | 1       |
| Fagron                     | Coal tar spirit SR | 15C11-M09           | 2       |
| Fagron                     | Coal tar spirit SR | 170209SKTS02A070316 | 1       |
| Fagron                     | Coal tar spirit SR | 1A180220            | 1       |
| Fagron                     | Coal tar spirit SR | 2A070316            | 5       |
| Fagron                     | Coal tar spirit SR | 2A120918            | 14      |
| Fagron                     | Coal tar spirit SR | 2a140219            | 1       |
| Fagron                     | Coal tar spirit SR | 2A140219            | 12      |
| Fagron                     | Coal tar spirit SR | 2A180220            | 7       |
| Fagron                     | Coal tar spirit SR | 2A1880220           | 1       |
| Fagron                     | Coal tar spirit SR | 2A270215            | 2       |
| Fagron                     | Coal tar spirit SR | 2x05A290319         | 1       |
| Fagron                     | Coal tar spirit SR | 3A130614            | 1       |
| Fagron                     | Coal tar spirit SR | 4A270420            | 11      |
| Fagron                     | Coal tar spirit SR | 4b200916            | 1       |
| Fagron                     | Coal tar spirit SR | 4B200916            | 4       |
| Fagron                     | Coal tar spirit SR | 5a290319            | 1       |
| Fagron                     | Coal tar spirit SR | 5A290319            | 6       |
| Fagron                     | Coal tar spirit SR | 5C231116            | 1       |
| Fagron                     | Coal tar spirit SR | 6b210915            | 1       |
| Fagron                     | Coal tar spirit SR | 6B210915            | 4       |

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| Supplier              | Substance          | Batch     | Spectra |
|-----------------------|--------------------|-----------|---------|
| Fagron                | Coal tar spirit SR | 7A160519  | 6       |
| Fagron                | Coal tar spirit SR | 9A021220  | 2       |
| Fargon/Noweda         | Coal tar spirit SR | 4A270420  | 1       |
| Fiebig                | Coal tar spirit SR | 7a160519  | 1       |
| Fragon                | Coal tar spirit SR | 1B170119  | 1       |
| Gehe amax             | Coal tar spirit SR | 5C231116  | 1       |
| Gehe                  | Coal tar spirit SR | 13D05-M14 | 1       |
| GEHE                  | Coal tar spirit SR | 2A120918  | 1       |
| Gehe                  | Coal tar spirit SR | 6B211212  | 1       |
| Hageda                | Coal tar spirit SR | 2A140219  | 1       |
| Ichthyol-Gesellschaft | Coal tar spirit SR | 1B300617  | 1       |
| Kehr / PKH GmbH       | Coal tar spirit SR | 1A040121  | 1       |
| Kehr/PKH Halle        | Coal tar spirit SR | 1A170119  | 1       |
| noweda/anzag          | Coal tar spirit SR | 2A140219  | 1       |
| Noweda/PKH Halle      | Coal tar spirit SR | 9A141019  | 1       |
| Noweda                | Coal tar spirit SR | 2A140219  | 1       |
| Noweda                | Coal tar spirit SR | 5A290319  | 1       |
| Noweda                | Coal tar spirit SR | 7A160519  | 1       |
| Phoenix               | Coal tar spirit SR | 2A180220  | 1       |
| Phoenix               | Coal tar spirit SR | 3B170616  | 1       |
| Phoenix               | Coal tar spirit SR | 4A270420  | 1       |
| Phönix                | Coal tar spirit SR | 1B300617  | 1       |
| PKH GmbH / Noweda     | Coal tar spirit SR | 7A160519  | 1       |
| PKH GmbH/ Gehe        | Coal tar spirit SR | 3C170616  | 1       |
| PKH GmbH/Noweda       | Coal tar spirit SR | 2A070316  | 2       |
| PKH GmbH/Noweda       | Coal tar spirit SR | 2A140219  | 1       |
| PKH GmbH/Noweda       | Coal tar spirit SR | 9A021220  | 1       |
| PKH GmbH              | Coal tar spirit SR | 5B181113  | 1       |
| PKH Halle / Anzag     | Coal tar spirit SR | 4C151014  | 1       |
| PKH Halle / Noweda    | Coal tar spirit SR | 1A180220  | 1       |
| pkh halle,phönix      | Coal tar spirit SR | 4A170615  | 1       |
| PKH Halle/Phönix      | Coal tar spirit SR | 5B290319  | 1       |
| PKH Halle/Sanacorp    | Coal tar spirit SR | 3A010415  | 1       |
| PKH Halle             | Coal tar spirit SR | 1C300617  | 1       |
| PKH Halle             | Coal tar spirit SR | 3B111018  | 1       |
| PKH Halle             | Coal tar spirit SR | 3B130614  | 1       |
| PKH Halle             | Coal tar spirit SR | 4C151014  | 1       |
| PKH Halle             | Coal tar spirit SR | 5B170715  | 1       |
| PKH Halle             | Coal tar spirit SR | 6B090620  | 1       |
| PKH/ Noweda           | Coal tar spirit SR | 1B020718  | 1       |
| Reichelt              | Coal tar spirit SR | 4B200916  | 1       |
| Sanacorp              | Coal tar spirit SR | 4B151014  | 1       |

- 288 402 spectra from 1294 *Apo-Ident* customers from a total of 51 790 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Coal tar spirit SR* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Coal tar spirit SR* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 180           | 0              | 66 979        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 306           | 1              | 288 402       |

The substance/substance group *Coal tar spirit SR* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.6667 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.6743 % (> 98.6971 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Coal tar spirit SR* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance    | Distance in main model | Distance in second-stage model |
|--------------|------------------------|--------------------------------|
| Ethanol 96%  | 48.89                  | –                              |
| Dexpanthenol | 82.10                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Coal tar spirit SR* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31126     | 31126               | 0.00                         | 72.09                           |
| 31626     | 31126               | 4.52                         | 72.16                           |
| 33466     | 31126               | 12.58                        | 67.11                           |
| 34595     | 31126               | 10.75                        | 54.62                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at

least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Collodion 4%</b>                                              |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30210-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Collodion 4%

### Special notes

When selecting the *Collodion 4%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Collodion 4%              | 5      | 3      | 38     |



## Second-stage model

For differentiation of the substance/substance group *Collodion 4%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Collodion 4%*:

| Supplier | Substance    | Batch       | Sample ID | Spectra | Certificate |
|----------|--------------|-------------|-----------|---------|-------------|
| Caelo    | Collodion 4% | 13325403    | 31186     | 40      | 1402569     |
| Caelo    | Collodion 4% | 13325411    | 31434     | 60      | 20131016    |
| Caelo    | Collodion 4% | 16284201    | 32962     | 40      | 20161107    |
| Caelo    | Collodion 4% | 190996      | 34635     | 40      | 20190418*   |
| Caelo    | Collodion 4% | 20003623003 | 35852     | 50      | 20201127    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 230 spectra of 5 reference samples from the substance/substance group *Collodion 4%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 929 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Collodion 4%*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance    | Batch    | Sample ID | Spectra |
|----------|--------------|----------|-----------|---------|
| Caelo    | Collodion 4% | 16337201 | 33514     | 40      |
| Caelo    | Collodion 4% | 18070501 | 34070     | 40      |
| Caelo    | Collodion 4% | 20001913 | 34998     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 113 spectra from 50 *Apo-Ident* customers from 42 batches from the substance/substance group *Collodion 4%*.
- Among them are spectra of independent samples from 38 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                  | Substance    | Batch       | Spectra |
|---------------------------|--------------|-------------|---------|
| Caelo                     | Collodion 4% | 16284201    | 1       |
| Caelo                     | Collodion 4% | 11336001    | 1       |
| Caelo                     | Collodion 4% | 12035903    | 2       |
| Caelo                     | Collodion 4% | 12035913    | 2       |
| Caelo                     | Collodion 4% | 12035916    | 5       |
| Caelo                     | Collodion 4% | 1218A-01286 | 1       |
| Caelo                     | Collodion 4% | 13325401    | 1       |
| Caelo                     | Collodion 4% | 13325402    | 3       |
| Caelo                     | Collodion 4% | 13325403    | 3       |
| Caelo                     | Collodion 4% | 13325405    | 3       |
| Caelo                     | Collodion 4% | 13325411    | 2       |
| Caelo                     | Collodion 4% | 14079101    | 4       |
| Caelo                     | Collodion 4% | 14079105    | 4       |
| Caelo                     | Collodion 4% | 15199203    | 6       |
| Caelo                     | Collodion 4% | 15199205    | 1       |
| Caelo                     | Collodion 4% | 15199206    | 3       |
| Caelo                     | Collodion 4% | 15429002    | 3       |
| Caelo                     | Collodion 4% | 16284201    | 3       |
| Caelo                     | Collodion 4% | 16337201    | 10      |
| Caelo                     | Collodion 4% | 18070501    | 9       |
| Caelo                     | Collodion 4% | 18221605    | 2       |
| Caelo                     | Collodion 4% | 18221606    | 2       |
| Caelo                     | Collodion 4% | 19099601    | 4       |
| Caelo                     | Collodion 4% | 19289202    | 1       |
| Caelo                     | Collodion 4% | 20001913002 | 3       |
| Caelo                     | Collodion 4% | 20021305    | 1       |
| Caelo                     | Collodion 4% | 27041502    | 1       |
| Caelo                     | Collodion 4% | 5011905     | 1       |
| Caelo                     | Collodion 4% | 7031404     | 1       |
| Caelo                     | Collodion 4% | 90266259    | 1       |
| Caesar & Loretz GmbH/J... | Collodion 4% | 18070501    | 2       |
| Caesar & Loretz GmbH      | Collodion 4% | 18070501    | 1       |
| Caesar & Loretz GmbH      | Collodion 4% | 20001913001 | 1       |
| Caesar & Loretz GmbH      | Collodion 4% | 20001913002 | 1       |
| Caesar & Loretz GmbH      | Collodion 4% | 20003623003 | 1       |

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| Supplier                  | Substance    | Batch        | Spectra |
|---------------------------|--------------|--------------|---------|
| Caesar & Loretz/AHC       | Collodion 4% | 18221605     | 2       |
| Caesar & Loretz/Sanacorp  | Collodion 4% | 15199206     | 1       |
| Caesar&Loretz GmbH /Anzag | Collodion 4% | 14079105     | 1       |
| Caesar&loretz,Phoenix     | Collodion 4% | 12035916     | 1       |
| Defektur                  | Collodion 4% | 12035916     | 1       |
| Euro OTC                  | Collodion 4% | 14079105     | 1       |
| Euro OTC                  | Collodion 4% | 15199203     | 1       |
| Euro OTC                  | Collodion 4% | 16284202     | 1       |
| Euro OTC                  | Collodion 4% | 16337201     | 1       |
| Euro OTC                  | Collodion 4% | 16337202     | 1       |
| Gatt-Koller               | Collodion 4% | 1803807      | 2       |
| Gatt-Koller               | Collodion 4% | 1900117      | 1       |
| Gatt-Koller               | Collodion 4% | 1900585      | 2       |
| Gehe                      | Collodion 4% | 11336004     | 1       |
| Kögl                      | Collodion 4% | 1700246      | 1       |
| Kögl                      | Collodion 4% | 1701628      | 1       |
| Kögl                      | Collodion 4% | 1801945      | 2       |
| Kögl                      | Collodion 4% | 20171534     | 1       |
| Kögl                      | Collodion 4% | 384211160717 | 1       |

- 288 596 spectra from 1294 *Apo-Ident* customers from a total of 51 846 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Collodion 4%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Collodion 4%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 230           | 0              | 66 929        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 113           | 0              | 288 596       |

The substance/substance group *Collodion 4%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.3913 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 94.6903 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Collodion 4%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance   | Distance in<br>main model | Distance in<br>second-stage model |
|-------------|---------------------------|-----------------------------------|
| Lanolin DAB | 148.06                    | –                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Collodion 4%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31186     | 31186                  | 0.00                            | 199.62                             |
| 31434     | 34635                  | 4.75                            | 199.44                             |
| 32962     | 31186                  | 26.27                           | 185.23                             |
| 34635     | 34635                  | 0.00                            | 206.03                             |
| 35852     | 34635                  | 6.58                            | 209.47                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | Cooling cream / Cooling cream with rose oil                      |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30889-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Cooling cream / Cooling cream with rose oil; Cooling cream DAB; Cooling ointment DAB 6; Unguentum leniens; Unguentum leniens DAB 6

### Special notes

When selecting the *Cooling cream / Cooling cream with rose oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                   | Type A | Type B | Type C |
|---------------------------------------------|--------|--------|--------|
| Cooling cream / Cooling cream with rose oil | 24     | 126    | 2381   |

## Second-stage model

For differentiation of the substance/substance group *Cooling cream / Cooling cream with rose oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cooling cream / Cooling cream with rose oil*:

| Supplier      | Substance           | Batch            | Sample ID | Spectra | Certificate |
|---------------|---------------------|------------------|-----------|---------|-------------|
| Bombastus     | Cooling cream DAB   | 275667           | 30890     | 90      | 20121221    |
| Bombastus     | Cooling cream DAB   | 19001417         | 34501     | 40      | 20190318    |
| Caelo         | Cooling cream DAB   | 12364802         | 30889     | 130     | 20121217    |
| Caelo         | Cooling cream DAB   | 13051601         | 31052     | 40      | 20130221    |
| Caelo         | Cooling cream DAB   | 13315101         | 31224     | 70      | 20130925    |
| Caelo         | Cooling cream DAB   | 153277           | 31992     | 60      | 20150930*   |
| Caelo         | Cooling cream DAB   | 172551           | 33779     | 30      | 20170927*   |
| Caelo         | Cooling cream DAB   | 20000333         | 34973     | 40      | 20200218*   |
| Caelo         | Cooling cream DAB   | 20002954         | 35230     | 40      | 20201027*   |
| Caelo         | Cooling cream DAB   | 20002955         | 35231     | 40      | 20201027*   |
| Caelo         | Cooling cream DAB   | 20003302         | 35233     | 40      | 20201120*   |
| Caelo         | Cooling cream DAB   | 20003303         | 35234     | 40      | 20201120*   |
| Caelo         | Cooling cream DAB   | 20003304         | 35235     | 40      | 20201120*   |
| Fagron        | Cooling cream DAB   | 18K05-T08-061775 | 34499     | 40      | 20190125    |
| Fagron        | Cooling cream DAB   | 19C21-T06-065275 | 34500     | 40      | 20190614    |
| Henry Lamotte | Cooling cream DAB   | 5321500          | 30921     | 80      | 20120627    |
| Henry Lamotte | Cooling cream DAB   | 8005213002       | 34502     | 40      | 20190306    |
| Caelo         | Cooling ointment... | 13317001         | 31249     | 40      | 1405180     |
| Caelo         | Cooling ointment... | 153029           | 31922     | 60      | 20150911*   |
| Caelo         | Cooling ointment... | 160897           | 32293     | 40      | 20160405*   |
| Caelo         | Cooling ointment... | 160896           | 32294     | 40      | 20160405*   |
| Caelo         | Cooling ointment... | 162223           | 32506     | 40      | 20160727*   |
| Caelo         | Cooling ointment... | 162224           | 32507     | 40      | 20160727*   |
| Caelo         | Cooling ointment... | 170413           | 33180     | 40      | 20170221*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 1200 spectra of 24 reference samples from the substance/substance group *Cooling cream / Cooling cream with rose oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 24 different batches.
- 65 959 spectra from a total of 1355 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 4930 spectra of 131 reference samples from the substance/substance group *Cooling cream / Cooling cream with rose oil*.
- Among them are spectra of independent samples from 126 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance         | Batch     | Sample ID | Spectra |
|-----------|-------------------|-----------|-----------|---------|
| apomix    | Cooling cream DAB | 15D071221 | 36241     | 40      |
| Bombastus | Cooling cream DAB | 22000756  | 36201     | 40      |
| Caelo     | Cooling cream DAB | 153281    | 31993     | 60      |
| Caelo     | Cooling cream DAB | 161293    | 32227     | 40      |
| Caelo     | Cooling cream DAB | 161294    | 32229     | 40      |
| Caelo     | Cooling cream DAB | 161295    | 32230     | 40      |
| Caelo     | Cooling cream DAB | 161296    | 32231     | 40      |
| Caelo     | Cooling cream DAB | 161297    | 32232     | 40      |
| Caelo     | Cooling cream DAB | 161341    | 32233     | 40      |
| Caelo     | Cooling cream DAB | 161342    | 32234     | 40      |
| Caelo     | Cooling cream DAB | 161338    | 32235     | 40      |
| Caelo     | Cooling cream DAB | 161718    | 32408     | 40      |
| Caelo     | Cooling cream DAB | 161719    | 32409     | 40      |
| Caelo     | Cooling cream DAB | 161720    | 32411     | 40      |
| Caelo     | Cooling cream DAB | 161725    | 32413     | 40      |
| Caelo     | Cooling cream DAB | 161727    | 32414     | 40      |
| Caelo     | Cooling cream DAB | 161728    | 32415     | 40      |
| Caelo     | Cooling cream DAB | 161729    | 32416     | 40      |
| Caelo     | Cooling cream DAB | 162445    | 32624     | 40      |
| Caelo     | Cooling cream DAB | 162446    | 32625     | 40      |
| Caelo     | Cooling cream DAB | 162447    | 32626     | 40      |
| Caelo     | Cooling cream DAB | 162462    | 32627     | 40      |
| Caelo     | Cooling cream DAB | 162463    | 32628     | 40      |
| Caelo     | Cooling cream DAB | 162464    | 32629     | 40      |
| Caelo     | Cooling cream DAB | 163017    | 32888     | 40      |
| Caelo     | Cooling cream DAB | 163018    | 32889     | 40      |
| Caelo     | Cooling cream DAB | 163019    | 32890     | 40      |
| Caelo     | Cooling cream DAB | 163020    | 32891     | 40      |
| Caelo     | Cooling cream DAB | 163021    | 32892     | 40      |
| Caelo     | Cooling cream DAB | 170004    | 33112     | 40      |
| Caelo     | Cooling cream DAB | 170005    | 33113     | 40      |
| Caelo     | Cooling cream DAB | 163540    | 33164     | 40      |
| Caelo     | Cooling cream DAB | 163544    | 33165     | 40      |
| Caelo     | Cooling cream DAB | 170003    | 33168     | 40      |
| Caelo     | Cooling cream DAB | 170006    | 33169     | 40      |
| Caelo     | Cooling cream DAB | 171251    | 33340     | 40      |
| Caelo     | Cooling cream DAB | 171157    | 33341     | 40      |
| Caelo     | Cooling cream DAB | 171250    | 33342     | 40      |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Sample ID</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|------------------|----------------|
| Caelo           | Cooling cream DAB | 171159       | 33343            | 40             |
| Caelo           | Cooling cream DAB | 171249       | 33344            | 40             |
| Caelo           | Cooling cream DAB | 171160       | 33345            | 40             |
| Caelo           | Cooling cream DAB | 171227       | 33346            | 40             |
| Caelo           | Cooling cream DAB | 171228       | 33347            | 40             |
| Caelo           | Cooling cream DAB | 171156       | 33348            | 40             |
| Caelo           | Cooling cream DAB | 171248       | 33349            | 40             |
| Caelo           | Cooling cream DAB | 170748       | 33404            | 40             |
| Caelo           | Cooling cream DAB | 171567       | 33563            | 40             |
| Caelo           | Cooling cream DAB | 171570       | 33564            | 40             |
| Caelo           | Cooling cream DAB | 171571       | 33565            | 40             |
| Caelo           | Cooling cream DAB | 171572       | 33566            | 40             |
| Caelo           | Cooling cream DAB | 171573       | 33567            | 40             |
| Caelo           | Cooling cream DAB | 171897       | 33568            | 40             |
| Caelo           | Cooling cream DAB | 172536       | 33771            | 40             |
| Caelo           | Cooling cream DAB | 172539       | 33773            | 40             |
| Caelo           | Cooling cream DAB | 172540       | 33774            | 40             |
| Caelo           | Cooling cream DAB | 172541       | 33775            | 40             |
| Caelo           | Cooling cream DAB | 172544       | 33776            | 40             |
| Caelo           | Cooling cream DAB | 172545       | 33777            | 40             |
| Caelo           | Cooling cream DAB | 172546       | 33778            | 40             |
| Caelo           | Cooling cream DAB | 172548       | 33780            | 40             |
| Caelo           | Cooling cream DAB | 172549       | 33781            | 40             |
| Caelo           | Cooling cream DAB | 172550       | 33782            | 40             |
| Caelo           | Cooling cream DAB | 180424       | 34150            | 40             |
| Caelo           | Cooling cream DAB | 182729       | 34354            | 40             |
| Caelo           | Cooling cream DAB | 191501       | 34786            | 40             |
| Caelo           | Cooling cream DAB | 192370       | 34787            | 40             |
| Caelo           | Cooling cream DAB | 20001719     | 34974            | 40             |
| Caelo           | Cooling cream DAB | 20002951     | 35171            | 40             |
| Caelo           | Cooling cream DAB | 20002950     | 35227            | 40             |
| Caelo           | Cooling cream DAB | 20002952     | 35228            | 40             |
| Caelo           | Cooling cream DAB | 20002953     | 35229            | 40             |
| Caelo           | Cooling cream DAB | 20002956     | 35232            | 40             |
| Caelo           | Cooling cream DAB | 20003305     | 35236            | 40             |
| Caelo           | Cooling cream DAB | 21000659     | 35347            | 40             |
| Caelo           | Cooling cream DAB | 21000660     | 35348            | 40             |
| Caelo           | Cooling cream DAB | 21000661     | 35349            | 40             |
| Caelo           | Cooling cream DAB | 21000662     | 35350            | 40             |
| Caelo           | Cooling cream DAB | 21000663     | 35351            | 40             |
| Caelo           | Cooling cream DAB | 21000664     | 35352            | 40             |
| Caelo           | Cooling cream DAB | 21000665     | 35353            | 40             |
| Caelo           | Cooling cream DAB | 21000666     | 35354            | 40             |
| Caelo           | Cooling cream DAB | 21000667     | 35355            | 40             |
| Caelo           | Cooling cream DAB | 21000668     | 35356            | 40             |
| Caelo           | Cooling cream DAB | 21001230     | 35357            | 40             |
| Caelo           | Cooling cream DAB | 21001231     | 35358            | 40             |
| Caelo           | Cooling cream DAB | 21001232     | 35359            | 40             |
| Caelo           | Cooling cream DAB | 21001233     | 35360            | 40             |
| Caelo           | Cooling cream DAB | 21001234     | 35361            | 40             |
| Caelo           | Cooling cream DAB | 21001854     | 35668            | 50             |
| Caelo           | Cooling cream DAB | 21001855     | 35669            | 50             |
| Caelo           | Cooling cream DAB | 21001859     | 35670            | 50             |
| Caelo           | Cooling cream DAB | 21001856     | 35671            | 50             |
| Caelo           | Cooling cream DAB | 21001857     | 35672            | 50             |
| Caelo           | Cooling cream DAB | 21001858     | 35673            | 50             |
| Caelo           | Cooling cream DAB | 21002376     | 35674            | 50             |
| Caelo           | Cooling cream DAB | 21002377     | 35675            | 50             |
| Caelo           | Cooling cream DAB | 21002378     | 35676            | 50             |
| Caelo           | Cooling cream DAB | 21002379     | 35677            | 50             |

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| Supplier | Substance              | Batch      | Sample ID | Spectra |
|----------|------------------------|------------|-----------|---------|
| Caelo    | Cooling cream DAB      | 21002380   | 35678     | 50      |
| Caelo    | Cooling cream DAB      | 21002381   | 35679     | 50      |
| Caelo    | Cooling cream DAB      | 21002382   | 35680     | 50      |
| Caelo    | Cooling cream DAB      | 21002383   | 35681     | 50      |
| Caelo    | Cooling cream DAB      | 21003382   | 35917     | 10      |
| Caelo    | Cooling cream DAB      | 21003385   | 35918     | 10      |
| Caelo    | Cooling cream DAB      | 21003386   | 35919     | 10      |
| Caelo    | Cooling cream DAB      | 21003387   | 35920     | 10      |
| Caelo    | Cooling cream DAB      | 21003381   | 35953     | 10      |
| Caelo    | Cooling cream DAB      | 21003383   | 35954     | 10      |
| Caelo    | Cooling cream DAB      | 21003388   | 35955     | 10      |
| Caelo    | Cooling cream DAB      | 21003389   | 35956     | 10      |
| Caelo    | Cooling cream DAB      | 22000024   | 36109     | 40      |
| Caelo    | Cooling cream DAB      | 22000025   | 36110     | 10      |
| Caelo    | Cooling cream DAB      | 22000026   | 36111     | 10      |
| Caelo    | Cooling cream DAB      | 22000027   | 36112     | 10      |
| Caelo    | Cooling cream DAB      | 22000028   | 36113     | 10      |
| Caelo    | Cooling cream DAB      | 22000029   | 36114     | 10      |
| Caelo    | Cooling cream DAB      | 22000030   | 36115     | 10      |
| Caelo    | Cooling cream DAB      | 22000031   | 36116     | 10      |
| Caelo    | Cooling cream DAB      | 22000033   | 36117     | 10      |
| Euro OTC | Cooling cream DAB      | 2108020-01 | 35773     | 50      |
| Caelo    | Cooling ointment DAB 6 | 12306001   | 31037     | 40      |
| Caelo    | Cooling ointment DAB 6 | 180218     | 34142     | 40      |
| Caelo    | Cooling ointment DAB 6 | 181897     | 34265     | 40      |
| Caelo    | Cooling ointment DAB 6 | 19000801   | 34982     | 40      |
| Caelo    | Cooling ointment DAB 6 | 20003917   | 35323     | 40      |
| Caelo    | Cooling ointment DAB 6 | 21004034   | 35937     | 40      |
| Caelo    | Cooling cream DAB      | 161293     | 32228     | 40      |
| Caelo    | Cooling cream DAB      | 161719     | 32410     | 40      |
| Caelo    | Cooling cream DAB      | 161720     | 32412     | 40      |
| Caelo    | Cooling cream DAB      | 170004     | 33166     | 40      |
| Caelo    | Cooling cream DAB      | 170005     | 33167     | 40      |

- 102 433 spectra from a total of 2375 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 11 125 spectra from 1029 *Apo-Ident* customers from 2003 batches from the substance/substance group *Cooling cream / Cooling cream with rose oil*.
- Among them are spectra of independent samples from 1979 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance              | Batch            | Spectra |
|----------------------|------------------------|------------------|---------|
| /Phoenix<br>16302001 | Cooling cream DAB      | 14328801         | 1       |
|                      | Cooling cream DAB      | 15L03-T06-028365 | 1       |
|                      | Cooling ointment DAB 6 | 17075102         | 1       |
|                      | Cooling cream DAB      | 17189701         | 1       |
|                      | Cooling cream DAB      | 16302001         | 2       |

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| Supplier                   | Substance              | Batch            | Spectra |
|----------------------------|------------------------|------------------|---------|
| A.H.D.                     | Cooling cream DAB      | 13226301         | 1       |
| aelo/Noweda                | Cooling cream DAB      | 18219301         | 2       |
| AEP                        | Cooling cream DAB      | 18004433         | 1       |
| AEP                        | Cooling cream DAB      | 19074101         | 1       |
| AEP                        | Cooling cream DAB      | 19074401         | 1       |
| AHC/Lamotte                | Cooling cream DAB      | 8003478009       | 1       |
| AHD, 08.11.13              | Cooling cream DAB      | 13225801         | 1       |
| AHD                        | Cooling cream DAB      | 1000010941       | 4       |
| AHD                        | Cooling cream DAB      | 16354401         | 2       |
| AHD                        | Cooling cream DAB      | 17189701         | 1       |
| AHD                        | Cooling ointment DAB 6 | 18218301         | 1       |
| AHD                        | Cooling cream DAB      | 18219301         | 1       |
| AHD                        | Cooling cream DAB      | 18272801         | 1       |
| AHD                        | Cooling cream DAB      | 19001402         | 1       |
| AHD                        | Cooling cream DAB      | 19073701         | 1       |
| AHD                        | Cooling cream DAB      | 19073803         | 1       |
| AHDFiebig                  | Cooling cream DAB      | 17075101         | 1       |
| AHL/Henry                  | Cooling cream DAB      | 61360            | 1       |
| AHL/Henry                  | Cooling cream DAB      | 8003478008       | 1       |
| AHL                        | Cooling cream DAB      | 302385           | 1       |
| AHL                        | Cooling cream DAB      | 8003158005       | 2       |
| AIH                        | Cooling cream DAB      | 305131           | 1       |
| Alliance H.                | Cooling cream DAB      | 15434401         | 1       |
| Alliance Health Care       | Cooling cream DAB      | 20000331001      | 1       |
| alliance healthcare        | Cooling cream DAB      | 18006325         | 1       |
| Alliance Healthcare        | Cooling cream DAB      | 18219041         | 1       |
| Alliance Healthcare        | Cooling cream DAB      | 19073801         | 2       |
| Alliance Healthcare        | Cooling cream DAB      | 19237601         | 2       |
| Alliance Healthcare        | Cooling cream DAB      | 21003385001      | 1       |
| Alliance Healthcare        | Cooling cream DAB      | 277366           | 1       |
| Alliance Healthcare        | Cooling cream DAB      | 277368           | 1       |
| Alliance Healthcare        | Cooling cream DAB      | 277534           | 1       |
| Alliance Healthcare        | Cooling cream DAB      | 278444           | 1       |
| Alliance Healthcare        | Cooling cream DAB      | 278523           | 1       |
| Alliance                   | Cooling cream DAB      | 15066601         | 1       |
| Alliance                   | Cooling cream DAB      | 17189701         | 1       |
| Alliance                   | Cooling cream DAB      | 17298401         | 2       |
| Alliance                   | Cooling cream DAB      | 20001259001      | 1       |
| Allianz Healthcare 05.1... | Cooling cream DAB      | 14271101         | 1       |
| Anzag 05.02.13 ek: 9,38EUR | Cooling cream DAB      | 12312801         | 1       |
| Anzag 07.05.13 ek: 9,38EUR | Cooling cream DAB      | 13059701         | 1       |
| Anzag 21.02.2013           | Cooling cream DAB      | 12291901         | 1       |
| Anzag 25.10.12             | Cooling cream DAB      | 272484           | 1       |
| Anzag 27.12.12 ek:9,09     | Cooling cream DAB      | 12312301         | 1       |
| Anzag 31.10.12 ek:9.12EUR  | Cooling cream DAB      | 12187301         | 1       |
| Anzag/Lamotte              | Cooling cream DAB      | 5407300          | 1       |
| Anzag                      | Cooling cream DAB      | 13175101         | 1       |
| Anzag                      | Cooling ointment DAB 6 | 17075102         | 1       |
| Anzag                      | Cooling cream DAB      | 18003752         | 2       |
| Anzag                      | Cooling cream DAB      | 272347           | 1       |
| Anzag                      | Cooling cream DAB      | 272348           | 1       |
| ANZAG                      | Cooling cream DAB      | 273504           | 1       |
| Anzag                      | Cooling cream DAB      | 274042           | 1       |
| Anzag                      | Cooling cream DAB      | 274911           | 1       |
| Anzag                      | Cooling cream DAB      | 5253700          | 1       |
| Anzag                      | Cooling cream DAB      | 6002062002       | 1       |
| Anzag                      | Cooling cream DAB      | 60082802         | 1       |
| apomix                     | Cooling cream DAB      | 16f13-to8-034247 | 1       |
| apomix                     | Cooling cream DAB      | 299362           | 1       |
| apomix                     | Cooling ointment DAB 6 | 38150420         | 1       |

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| <b>Supplier</b>   | <b>Substance</b>  | <b>Batch</b>   | <b>Spectra</b> |
|-------------------|-------------------|----------------|----------------|
| apomix            | Cooling cream DAB | 3B150420       | 3              |
| apomix            | Cooling cream DAB | 9A230621       | 1              |
| Audor Pharma      | Cooling cream DAB | 180003171      | 1              |
| Audor Pharma      | Cooling cream DAB | 19074201       | 1              |
| Bambustus/Gehe    | Cooling cream DAB | 18002085       | 1              |
| Beiersdorf / E    | Cooling cream DAB | 290486         | 1              |
| Berkel AHK        | Cooling cream DAB | 13226301       | 3              |
| Berkel AHK        | Cooling cream DAB | 14268101       | 1              |
| Bionorica Ethics  | Cooling cream DAB | 17001966       | 1              |
| Bionorica SE      | Cooling cream DAB | 17330801       | 1              |
| Bionorica/Phoenix | Cooling cream DAB | 17115601       | 1              |
| Bomastus/Phönix   | Cooling cream DAB | 304582         | 1              |
| Bomastus          | Cooling cream DAB | 19004564       | 1              |
| Bomastus          | Cooling cream DAB | 20001622       | 1              |
| Bomastus-Werke AG | Cooling cream DAB | 18005195       | 1              |
| bomb/alliance     | Cooling cream DAB | 307924         | 2              |
| bomb/phönix       | Cooling cream DAB | 18000328       | 2              |
| Bomb/Phönix       | Cooling cream DAB | 19001401       | 1              |
| bomb              | Cooling cream DAB | 296316         | 1              |
| Bomba/AHD         | Cooling cream DAB | 277269         | 1              |
| Bomba/AHD         | Cooling cream DAB | 281031         | 2              |
| Bomba/AHD         | Cooling cream DAB | 281920         | 1              |
| Bomba/AHD         | Cooling cream DAB | 283115         | 1              |
| bombast           | Cooling cream DAB | 17001964       | 1              |
| Bombastus         | Cooling cream DAB |                | 1              |
| Bombastus         | Cooling cream DAB | 104948         | 1              |
| Bombastus         | Cooling cream DAB | 1109212541     | 1              |
| Bombastus         | Cooling cream DAB | 12082013A      | 1              |
| Bombastus         | Cooling cream DAB | 129845         | 1              |
| Bombastus         | Cooling cream DAB | 13012014A      | 1              |
| Bombastus         | Cooling cream DAB | 13315101       | 2              |
| Bombastus         | Cooling cream DAB | 13315701       | 1              |
| Bombastus         | Cooling cream DAB | 14052014B      | 1              |
| Bombastus         | Cooling cream DAB | 1418E-02541    | 1              |
| Bombastus         | Cooling cream DAB | 151113a        | 1              |
| Bombastus         | Cooling cream DAB | 160321(intern) | 1              |
| Bombastus         | Cooling cream DAB | 16095503       | 1              |
| Bombastus         | Cooling cream DAB | 16244701       | 1              |
| Bombastus         | Cooling cream DAB | 17000220       | 3              |
| Bombastus         | Cooling cream DAB | 17000221       | 2              |
| Bombastus         | Cooling cream DAB | 17000222       | 4              |
| Bombastus         | Cooling cream DAB | 17000223       | 1              |
| Bombastus         | Cooling cream DAB | 17000225       | 1              |
| Bombastus         | Cooling cream DAB | 17000226       | 1              |
| Bombastus         | Cooling cream DAB | 17000227       | 1              |
| Bombastus         | Cooling cream DAB | 17000228       | 3              |
| Bombastus         | Cooling cream DAB | 17000229       | 4              |
| Bombastus         | Cooling cream DAB | 17000969       | 1              |
| Bombastus         | Cooling cream DAB | 17000970       | 1              |
| Bombastus         | Cooling cream DAB | 17000971       | 2              |
| Bombastus         | Cooling cream DAB | 17000972       | 1              |
| Bombastus         | Cooling cream DAB | 17000973       | 2              |
| Bombastus         | Cooling cream DAB | 17000974       | 2              |
| Bombastus         | Cooling cream DAB | 17000975       | 2              |
| Bombastus         | Cooling cream DAB | 17000976       | 3              |
| Bombastus         | Cooling cream DAB | 17000977       | 3              |
| Bombastus         | Cooling cream DAB | 17000979       | 3              |
| Bombastus         | Cooling cream DAB | 17000980       | 1              |
| Bombastus         | Cooling cream DAB | 17000982       | 2              |
| Bombastus         | Cooling cream DAB | 17000983       | 8              |

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| Supplier  | Substance              | Batch       | Spectra |
|-----------|------------------------|-------------|---------|
| Bombastus | Cooling cream DAB      | 17000984    | 1       |
| Bombastus | Cooling cream DAB      | 17000985    | 5       |
| Bombastus | Cooling cream DAB      | 17000986    | 3       |
| Bombastus | Cooling cream DAB      | 17001957    | 1       |
| Bombastus | Cooling cream DAB      | 17001958    | 2       |
| Bombastus | Cooling cream DAB      | 17001961    | 4       |
| Bombastus | Cooling cream DAB      | 17001962    | 2       |
| Bombastus | Cooling cream DAB      | 17001963    | 1       |
| Bombastus | Cooling cream DAB      | 17001964    | 3       |
| Bombastus | Cooling cream DAB      | 17001965    | 7       |
| Bombastus | Cooling cream DAB      | 17001966    | 2       |
| Bombastus | Cooling cream DAB      | 17001967    | 4       |
| Bombastus | Cooling cream DAB      | 17001968    | 3       |
| Bombastus | Cooling cream DAB      | 17001969    | 4       |
| Bombastus | Cooling cream DAB      | 17001970    | 9       |
| Bombastus | Cooling cream DAB      | 17001971    | 5       |
| Bombastus | Cooling cream DAB      | 17075201    | 1       |
| Bombastus | Cooling ointment DAB 6 | 17189701    | 6       |
| Bombastus | Cooling cream DAB      | 1718A-02541 | 1       |
| Bombastus | Cooling ointment DAB 6 | 17254901    | 1       |
| Bombastus | Cooling cream DAB      | 180000339   | 1       |
| Bombastus | Cooling cream DAB      | 1800030     | 1       |
| Bombastus | Cooling cream DAB      | 18000325    | 3       |
| Bombastus | Cooling ointment DAB 6 | 18000327    | 5       |
| Bombastus | Cooling cream DAB      | 18000328    | 1       |
| Bombastus | Cooling cream DAB      | 180003302x  | 1       |
| Bombastus | Cooling cream DAB      | 18000331    | 1       |
| Bombastus | Cooling cream DAB      | 18000332    | 2       |
| Bombastus | Cooling cream DAB      | 18000333    | 2       |
| Bombastus | Cooling cream DAB      | 18000334    | 1       |
| Bombastus | Cooling cream DAB      | 18000336    | 2       |
| Bombastus | Cooling cream DAB      | 18000337    | 6       |
| Bombastus | Cooling cream DAB      | 18000338    | 2       |
| Bombastus | Cooling ointment DAB 6 | 18000339    | 8       |
| Bombastus | Cooling cream DAB      | 18001074    | 10      |
| Bombastus | Cooling cream DAB      | 18001075    | 2       |
| Bombastus | Cooling cream DAB      | 18001076    | 1       |
| Bombastus | Cooling cream DAB      | 18001078    | 3       |
| Bombastus | Cooling cream DAB      | 18001079    | 3       |
| Bombastus | Cooling cream DAB      | 18001080    | 1       |
| Bombastus | Cooling cream DAB      | 18001081    | 3       |
| Bombastus | Cooling cream DAB      | 18001082    | 5       |
| Bombastus | Cooling cream DAB      | 18001083    | 1       |
| Bombastus | Cooling cream DAB      | 18001084    | 4       |
| Bombastus | Cooling cream DAB      | 18001085    | 1       |
| Bombastus | Cooling cream DAB      | 18001086    | 1       |
| Bombastus | Cooling cream DAB      | 18002069    | 1       |
| Bombastus | Cooling cream DAB      | 18002083    | 3       |
| Bombastus | Cooling cream DAB      | 18002084    | 3       |
| Bombastus | Cooling cream DAB      | 18002085    | 8       |
| Bombastus | Cooling cream DAB      | 18002086    | 2       |
| Bombastus | Cooling cream DAB      | 18002087    | 2       |
| Bombastus | Cooling cream DAB      | 18002088    | 3       |
| Bombastus | Cooling cream DAB      | 18002090    | 2       |
| Bombastus | Cooling cream DAB      | 18002092    | 1       |
| Bombastus | Cooling cream DAB      | 18002093    | 4       |
| Bombastus | Cooling cream DAB      | 18002094    | 8       |
| Bombastus | Cooling cream DAB      | 18002095    | 6       |
| Bombastus | Cooling cream DAB      | 18002096    | 3       |
| Bombastus | Cooling cream DAB      | 18002239    | 2       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Bombastus       | Cooling cream DAB      | 18002240     | 3              |
| Bombastus       | Cooling cream DAB      | 18002242     | 1              |
| Bombastus       | Cooling cream DAB      | 18002243     | 4              |
| Bombastus       | Cooling cream DAB      | 18002244     | 7              |
| Bombastus       | Cooling cream DAB      | 18002306     | 5              |
| Bombastus       | Cooling cream DAB      | 18002307     | 1              |
| Bombastus       | Cooling cream DAB      | 18002308     | 4              |
| Bombastus       | Cooling cream DAB      | 18002309     | 4              |
| Bombastus       | Cooling cream DAB      | 18003168     | 1              |
| Bombastus       | Cooling cream DAB      | 18003169     | 2              |
| Bombastus       | Cooling cream DAB      | 18003171     | 2              |
| Bombastus       | Cooling cream DAB      | 18003172     | 1              |
| Bombastus       | Cooling cream DAB      | 18003173     | 3              |
| Bombastus       | Cooling cream DAB      | 18003174     | 6              |
| Bombastus       | Cooling cream DAB      | 18003175     | 3              |
| Bombastus       | Cooling cream DAB      | 18003176     | 6              |
| Bombastus       | Cooling cream DAB      | 18003177     | 4              |
| Bombastus       | Cooling cream DAB      | 1800339      | 1              |
| Bombastus       | Cooling cream DAB      | 18003744     | 1              |
| Bombastus       | Cooling cream DAB      | 18003746     | 3              |
| Bombastus       | Cooling cream DAB      | 18003749     | 1              |
| Bombastus       | Cooling cream DAB      | 18003750     | 1              |
| Bombastus       | Cooling cream DAB      | 18003751     | 4              |
| Bombastus       | Cooling cream DAB      | 18003752     | 3              |
| Bombastus       | Cooling cream DAB      | 18003753     | 8              |
| Bombastus       | Cooling cream DAB      | 18004426     | 5              |
| Bombastus       | Cooling cream DAB      | 18004427     | 1              |
| Bombastus       | Cooling cream DAB      | 18004428     | 1              |
| Bombastus       | Cooling cream DAB      | 18004429     | 5              |
| Bombastus       | Cooling cream DAB      | 18004430     | 2              |
| Bombastus       | Cooling cream DAB      | 18004431     | 1              |
| Bombastus       | Cooling cream DAB      | 18004432     | 1              |
| Bombastus       | Cooling cream DAB      | 18004433     | 6              |
| Bombastus       | Cooling cream DAB      | 18004434     | 8              |
| Bombastus       | Cooling ointment DAB 6 | 18004435     | 5              |
| Bombastus       | Cooling cream DAB      | 18005193     | 3              |
| Bombastus       | Cooling cream DAB      | 18005194     | 6              |
| Bombastus       | Cooling cream DAB      | 18005195     | 4              |
| Bombastus       | Cooling cream DAB      | 18005196     | 1              |
| Bombastus       | Cooling cream DAB      | 18005197     | 4              |
| Bombastus       | Cooling cream DAB      | 18005198     | 3              |
| Bombastus       | Cooling cream DAB      | 18005199     | 3              |
| Bombastus       | Cooling ointment DAB 6 | 18005201     | 4              |
| Bombastus       | Cooling cream DAB      | 18005203     | 6              |
| Bombastus       | Cooling ointment DAB 6 | 18005204     | 8              |
| Bombastus       | Cooling cream DAB      | 18005205     | 3              |
| Bombastus       | Cooling cream DAB      | 18005206     | 3              |
| Bombastus       | Cooling cream DAB      | 18005207     | 9              |
| Bombastus       | Cooling cream DAB      | 180052087    | 1              |
| Bombastus       | Cooling cream DAB      | 18005601     | 2              |
| Bombastus       | Cooling cream DAB      | 18005602     | 1              |
| Bombastus       | Cooling cream DAB      | 18005603     | 5              |
| Bombastus       | Cooling cream DAB      | 18005604     | 6              |
| Bombastus       | Cooling cream DAB      | 18005606     | 3              |
| Bombastus       | Cooling cream DAB      | 18005608     | 8              |
| Bombastus       | Cooling cream DAB      | 18005609     | 5              |
| Bombastus       | Cooling cream DAB      | 18006311     | 3              |
| Bombastus       | Cooling cream DAB      | 18006312     | 2              |
| Bombastus       | Cooling cream DAB      | 18006314     | 2              |
| Bombastus       | Cooling cream DAB      | 18006315     | 1              |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Bombastus       | Cooling cream DAB      | 18006317     | 5              |
| Bombastus       | Cooling cream DAB      | 18006318     | 2              |
| Bombastus       | Cooling cream DAB      | 18006319     | 3              |
| Bombastus       | Cooling cream DAB      | 18006320     | 2              |
| Bombastus       | Cooling cream DAB      | 18006321     | 8              |
| Bombastus       | Cooling cream DAB      | 18006322     | 4              |
| Bombastus       | Cooling cream DAB      | 18006323     | 4              |
| Bombastus       | Cooling cream DAB      | 18006324     | 2              |
| Bombastus       | Cooling cream DAB      | 18006325     | 3              |
| Bombastus       | Cooling cream DAB      | 1804429      | 1              |
| Bombastus       | Cooling cream DAB      | 188000325    | 1              |
| Bombastus       | Cooling cream DAB      | 190001420    | 1              |
| Bombastus       | Cooling cream DAB      | 19000322     | 1              |
| Bombastus       | Cooling cream DAB      | 19000323     | 4              |
| Bombastus       | Cooling cream DAB      | 19000325     | 1              |
| Bombastus       | Cooling cream DAB      | 19000326     | 2              |
| Bombastus       | Cooling cream DAB      | 19000327     | 1              |
| Bombastus       | Cooling cream DAB      | 19000328     | 1              |
| Bombastus       | Cooling cream DAB      | 19000329     | 1              |
| Bombastus       | Cooling cream DAB      | 19000331     | 6              |
| Bombastus       | Cooling cream DAB      | 19000332     | 3              |
| Bombastus       | Cooling cream DAB      | 19000333     | 2              |
| Bombastus       | Cooling cream DAB      | 19000334     | 3              |
| Bombastus       | Cooling cream DAB      | 19000335     | 6              |
| Bombastus       | Cooling cream DAB      | 19000336     | 6              |
| Bombastus       | Cooling cream DAB      | 19000753     | 1              |
| Bombastus       | Cooling cream DAB      | 19000754     | 1              |
| Bombastus       | Cooling cream DAB      | 19000756     | 1              |
| Bombastus       | Cooling cream DAB      | 19000757     | 1              |
| Bombastus       | Cooling cream DAB      | 19000759     | 6              |
| Bombastus       | Cooling cream DAB      | 19000760     | 2              |
| Bombastus       | Cooling cream DAB      | 19000761     | 1              |
| Bombastus       | Cooling cream DAB      | 19000762     | 8              |
| Bombastus       | Cooling cream DAB      | 19000763     | 5              |
| Bombastus       | Cooling cream DAB      | 19001395     | 1              |
| Bombastus       | Cooling cream DAB      | 19001396     | 2              |
| Bombastus       | Cooling cream DAB      | 19001397     | 1              |
| Bombastus       | Cooling cream DAB      | 19001398     | 2              |
| Bombastus       | Cooling ointment DAB 6 | 19001399     | 8              |
| Bombastus       | Cooling cream DAB      | 19001401     | 2              |
| Bombastus       | Cooling cream DAB      | 19001402     | 1              |
| Bombastus       | Cooling cream DAB      | 19001403     | 3              |
| Bombastus       | Cooling cream DAB      | 19001405     | 2              |
| Bombastus       | Cooling cream DAB      | 19001406     | 3              |
| Bombastus       | Cooling cream DAB      | 19001407     | 3              |
| Bombastus       | Cooling cream DAB      | 19001408     | 1              |
| Bombastus       | Cooling cream DAB      | 19001409     | 2              |
| Bombastus       | Cooling cream DAB      | 19001410     | 1              |
| Bombastus       | Cooling cream DAB      | 19001411     | 1              |
| Bombastus       | Cooling cream DAB      | 19001412     | 2              |
| Bombastus       | Cooling cream DAB      | 19001413     | 1              |
| Bombastus       | Cooling cream DAB      | 19001414     | 5              |
| Bombastus       | Cooling cream DAB      | 19001415     | 5              |
| Bombastus       | Cooling cream DAB      | 19001416     | 10             |
| Bombastus       | Cooling cream DAB      | 19001417     | 8              |
| Bombastus       | Cooling ointment DAB 6 | 19001418     | 6              |
| Bombastus       | Cooling cream DAB      | 19001419     | 4              |
| Bombastus       | Cooling cream DAB      | 19001420     | 13             |
| Bombastus       | Cooling cream DAB      | 19002509     | 1              |
| Bombastus       | Cooling cream DAB      | 19002510     | 1              |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Bombastus       | Cooling cream DAB      | 19002511     | 3              |
| Bombastus       | Cooling cream DAB      | 19002512     | 2              |
| Bombastus       | Cooling cream DAB      | 19002513     | 1              |
| Bombastus       | Cooling cream DAB      | 19002514     | 5              |
| Bombastus       | Cooling cream DAB      | 19002515     | 5              |
| Bombastus       | Cooling cream DAB      | 19002516     | 1              |
| Bombastus       | Cooling cream DAB      | 19002517     | 4              |
| Bombastus       | Cooling ointment DAB 6 | 19002518     | 2              |
| Bombastus       | Cooling cream DAB      | 19002519     | 7              |
| Bombastus       | Cooling cream DAB      | 19002520     | 2              |
| Bombastus       | Cooling cream DAB      | 19002521     | 6              |
| Bombastus       | Cooling ointment DAB 6 | 19002522     | 4              |
| Bombastus       | Cooling cream DAB      | 19003462     | 6              |
| Bombastus       | Cooling cream DAB      | 19003463     | 3              |
| Bombastus       | Cooling cream DAB      | 19003464     | 1              |
| Bombastus       | Cooling cream DAB      | 19003465     | 5              |
| Bombastus       | Cooling cream DAB      | 19003466     | 1              |
| Bombastus       | Cooling cream DAB      | 19003467     | 1              |
| Bombastus       | Cooling cream DAB      | 19003468     | 2              |
| Bombastus       | Cooling cream DAB      | 19003469     | 4              |
| Bombastus       | Cooling cream DAB      | 19003472     | 1              |
| Bombastus       | Cooling cream DAB      | 19003473     | 2              |
| Bombastus       | Cooling ointment DAB 6 | 19003475     | 7              |
| Bombastus       | Cooling cream DAB      | 19003476     | 2              |
| Bombastus       | Cooling cream DAB      | 19003477     | 12             |
| Bombastus       | Cooling cream DAB      | 19003478     | 5              |
| Bombastus       | Cooling cream DAB      | 19003479     | 9              |
| Bombastus       | Cooling ointment DAB 6 | 19004537     | 7              |
| Bombastus       | Cooling ointment DAB 6 | 19004538     | 1              |
| Bombastus       | Cooling cream DAB      | 19004539     | 2              |
| Bombastus       | Cooling cream DAB      | 19004540     | 1              |
| Bombastus       | Cooling cream DAB      | 19004544     | 2              |
| Bombastus       | Cooling cream DAB      | 19004546     | 3              |
| Bombastus       | Cooling cream DAB      | 19004547     | 2              |
| Bombastus       | Cooling cream DAB      | 19004548     | 1              |
| Bombastus       | Cooling cream DAB      | 19004549     | 1              |
| Bombastus       | Cooling cream DAB      | 19004550     | 4              |
| Bombastus       | Cooling cream DAB      | 19004551     | 1              |
| Bombastus       | Cooling cream DAB      | 19004553     | 5              |
| Bombastus       | Cooling cream DAB      | 19004556     | 5              |
| Bombastus       | Cooling cream DAB      | 19004557     | 2              |
| Bombastus       | Cooling cream DAB      | 19004558     | 1              |
| Bombastus       | Cooling cream DAB      | 19004559     | 2              |
| Bombastus       | Cooling cream DAB      | 19004560     | 3              |
| Bombastus       | Cooling cream DAB      | 19004561     | 8              |
| Bombastus       | Cooling cream DAB      | 19004562     | 4              |
| Bombastus       | Cooling cream DAB      | 19004563     | 7              |
| Bombastus       | Cooling cream DAB      | 19004564     | 4              |
| Bombastus       | Cooling cream DAB      | 19004565     | 3              |
| Bombastus       | Cooling cream DAB      | 19004566     | 5              |
| Bombastus       | Cooling cream DAB      | 19004567     | 4              |
| Bombastus       | Cooling ointment DAB 6 | 19004568     | 4              |
| Bombastus       | Cooling cream DAB      | 19004569     | 4              |
| Bombastus       | Cooling cream DAB      | 190114559    | 1              |
| Bombastus       | Cooling cream DAB      | 19032014A    | 1              |
| Bombastus       | Cooling cream DAB      | 19073701     | 2              |
| Bombastus       | Cooling cream DAB      | 19904547     | 1              |
| Bombastus       | Cooling ointment DAB 6 | 2/2018       | 1              |
| Bombastus       | Cooling cream DAB      | 200000222    | 1              |
| Bombastus       | Cooling cream DAB      | 200000249    | 1              |

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| Supplier  | Substance              | Batch     | Spectra |
|-----------|------------------------|-----------|---------|
| Bombastus | Cooling cream DAB      | 20000222  | 1       |
| Bombastus | Cooling cream DAB      | 20000223  | 1       |
| Bombastus | Cooling cream DAB      | 20000225  | 3       |
| Bombastus | Cooling cream DAB      | 20000226  | 1       |
| Bombastus | Cooling cream DAB      | 200002268 | 1       |
| Bombastus | Cooling cream DAB      | 20000228  | 2       |
| Bombastus | Cooling cream DAB      | 20000229  | 1       |
| Bombastus | Cooling cream DAB      | 20000230  | 4       |
| Bombastus | Cooling cream DAB      | 20000231  | 1       |
| Bombastus | Cooling ointment DAB 6 | 20000232  | 6       |
| Bombastus | Cooling ointment DAB 6 | 20000233  | 5       |
| Bombastus | Cooling cream DAB      | 20000234  | 1       |
| Bombastus | Cooling cream DAB      | 20000235  | 2       |
| Bombastus | Cooling ointment DAB 6 | 20000236  | 2       |
| Bombastus | Cooling ointment DAB 6 | 20000237  | 3       |
| Bombastus | Cooling cream DAB      | 20000238  | 2       |
| Bombastus | Cooling ointment DAB 6 | 20000239  | 2       |
| Bombastus | Cooling cream DAB      | 20000240  | 3       |
| Bombastus | Cooling cream DAB      | 20000241  | 1       |
| Bombastus | Cooling cream DAB      | 20000242  | 1       |
| Bombastus | Cooling cream DAB      | 20000243  | 9       |
| Bombastus | Cooling cream DAB      | 20000244  | 3       |
| Bombastus | Cooling cream DAB      | 20000245  | 1       |
| Bombastus | Cooling cream DAB      | 20000246  | 6       |
| Bombastus | Cooling cream DAB      | 20000247  | 12      |
| Bombastus | Cooling ointment DAB 6 | 20000248  | 4       |
| Bombastus | Cooling cream DAB      | 20000249  | 4       |
| Bombastus | Cooling cream DAB      | 20000250  | 1       |
| Bombastus | Cooling cream DAB      | 20000356  | 1       |
| Bombastus | Cooling cream DAB      | 20000535  | 3       |
| Bombastus | Cooling ointment DAB 6 | 20000536  | 1       |
| Bombastus | Cooling cream DAB      | 20001608  | 2       |
| Bombastus | Cooling cream DAB      | 20001610  | 1       |
| Bombastus | Cooling cream DAB      | 20001611  | 2       |
| Bombastus | Cooling ointment DAB 6 | 20001613  | 7       |
| Bombastus | Cooling ointment DAB 6 | 20001614  | 4       |
| Bombastus | Cooling cream DAB      | 20001615  | 5       |
| Bombastus | Cooling cream DAB      | 20001617  | 2       |
| Bombastus | Cooling cream DAB      | 20001619  | 1       |
| Bombastus | Cooling cream DAB      | 20001620  | 1       |
| Bombastus | Cooling ointment DAB 6 | 20001621  | 7       |
| Bombastus | Cooling cream DAB      | 20001622  | 5       |
| Bombastus | Cooling cream DAB      | 20001624  | 2       |
| Bombastus | Cooling cream DAB      | 20001625  | 3       |
| Bombastus | Cooling cream DAB      | 20001626  | 10      |
| Bombastus | Cooling ointment DAB 6 | 20002258  | 4       |
| Bombastus | Cooling cream DAB      | 20002260  | 1       |
| Bombastus | Cooling cream DAB      | 20002261  | 1       |
| Bombastus | Cooling cream DAB      | 20002264  | 1       |
| Bombastus | Cooling ointment DAB 6 | 20002265  | 1       |
| Bombastus | Cooling cream DAB      | 20002266  | 1       |
| Bombastus | Cooling cream DAB      | 20002268  | 5       |
| Bombastus | Cooling cream DAB      | 20002269  | 1       |
| Bombastus | Cooling cream DAB      | 20002270  | 4       |
| Bombastus | Cooling cream DAB      | 20002271  | 4       |
| Bombastus | Cooling cream DAB      | 20002272  | 5       |
| Bombastus | Cooling cream DAB      | 20002273  | 3       |
| Bombastus | Cooling ointment DAB 6 | 20003356  | 1       |
| Bombastus | Cooling cream DAB      | 20003358  | 2       |
| Bombastus | Cooling cream DAB      | 20003361  | 1       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Bombastus       | Cooling cream DAB      | 20003362     | 2              |
| Bombastus       | Cooling cream DAB      | 20003363     | 4              |
| Bombastus       | Cooling cream DAB      | 20003364     | 3              |
| Bombastus       | Cooling cream DAB      | 20003366     | 5              |
| Bombastus       | Cooling cream DAB      | 20003367     | 3              |
| Bombastus       | Cooling cream DAB      | 20003369     | 1              |
| Bombastus       | Cooling cream DAB      | 20003370     | 6              |
| Bombastus       | Cooling cream DAB      | 20003371     | 1              |
| Bombastus       | Cooling cream DAB      | 20004640     | 1              |
| Bombastus       | Cooling cream DAB      | 20004642     | 4              |
| Bombastus       | Cooling ointment DAB 6 | 20004643     | 1              |
| Bombastus       | Cooling cream DAB      | 20004644     | 4              |
| Bombastus       | Cooling cream DAB      | 20004645     | 1              |
| Bombastus       | Cooling cream DAB      | 20004646     | 2              |
| Bombastus       | Cooling cream DAB      | 20004647     | 1              |
| Bombastus       | Cooling cream DAB      | 20004649     | 1              |
| Bombastus       | Cooling cream DAB      | 20004650     | 2              |
| Bombastus       | Cooling cream DAB      | 20004651     | 1              |
| Bombastus       | Cooling cream DAB      | 20004653     | 1              |
| Bombastus       | Cooling ointment DAB 6 | 20004655     | 1              |
| Bombastus       | Cooling cream DAB      | 20004656     | 2              |
| Bombastus       | Cooling cream DAB      | 20004657     | 2              |
| Bombastus       | Cooling ointment DAB 6 | 20004658     | 4              |
| Bombastus       | Cooling cream DAB      | 20004659     | 3              |
| Bombastus       | Cooling cream DAB      | 20004660     | 1              |
| Bombastus       | Cooling ointment DAB 6 | 20004661     | 3              |
| Bombastus       | Cooling cream DAB      | 20005659     | 1              |
| Bombastus       | Cooling ointment DAB 6 | 20005661     | 3              |
| Bombastus       | Cooling ointment DAB 6 | 20005665     | 2              |
| Bombastus       | Cooling cream DAB      | 20005668     | 1              |
| Bombastus       | Cooling cream DAB      | 20005669     | 1              |
| Bombastus       | Cooling cream DAB      | 20005670     | 2              |
| Bombastus       | Cooling cream DAB      | 20005671     | 4              |
| Bombastus       | Cooling cream DAB      | 20005672     | 3              |
| Bombastus       | Cooling cream DAB      | 20005673     | 5              |
| Bombastus       | Cooling ointment DAB 6 | 20005674     | 4              |
| Bombastus       | Cooling cream DAB      | 20005675     | 1              |
| Bombastus       | Cooling cream DAB      | 2001619      | 1              |
| Bombastus       | Cooling cream DAB      | 2001621      | 1              |
| Bombastus       | Cooling cream DAB      | 2005672      | 1              |
| Bombastus       | Cooling ointment DAB 6 | 21000724     | 5              |
| Bombastus       | Cooling cream DAB      | 21000727     | 1              |
| Bombastus       | Cooling cream DAB      | 21000734     | 2              |
| Bombastus       | Cooling cream DAB      | 21000736     | 3              |
| Bombastus       | Cooling cream DAB      | 21000737     | 1              |
| Bombastus       | Cooling cream DAB      | 21000738     | 2              |
| Bombastus       | Cooling cream DAB      | 21000740     | 1              |
| Bombastus       | Cooling cream DAB      | 21000741     | 1              |
| Bombastus       | Cooling cream DAB      | 21000742     | 2              |
| Bombastus       | Cooling cream DAB      | 21001934     | 1              |
| Bombastus       | Cooling cream DAB      | 21001936     | 1              |
| Bombastus       | Cooling cream DAB      | 21001942     | 1              |
| Bombastus       | Cooling cream DAB      | 21001944     | 1              |
| Bombastus       | Cooling cream DAB      | 21001945     | 2              |
| Bombastus       | Cooling cream DAB      | 21001950     | 3              |
| Bombastus       | Cooling cream DAB      | 21001951     | 2              |
| Bombastus       | Cooling cream DAB      | 21003213     | 2              |
| Bombastus       | Cooling cream DAB      | 21003214     | 1              |
| Bombastus       | Cooling ointment DAB 6 | 21003216     | 1              |
| Bombastus       | Cooling cream DAB      | 21003218     | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Bombastus       | Cooling cream DAB | 21003220     | 1              |
| Bombastus       | Cooling cream DAB | 21003224     | 3              |
| Bombastus       | Cooling cream DAB | 21003227     | 2              |
| Bombastus       | Cooling cream DAB | 21003229     | 4              |
| Bombastus       | Cooling cream DAB | 21003231     | 4              |
| Bombastus       | Cooling cream DAB | 21003232     | 2              |
| Bombastus       | Cooling cream DAB | 21003233     | 1              |
| Bombastus       | Cooling cream DAB | 21003234     | 1              |
| Bombastus       | Cooling cream DAB | 21003235     | 1              |
| Bombastus       | Cooling cream DAB | 21004501     | 1              |
| Bombastus       | Cooling cream DAB | 21004508     | 2              |
| Bombastus       | Cooling cream DAB | 21004509     | 2              |
| Bombastus       | Cooling cream DAB | 21005106     | 1              |
| Bombastus       | Cooling cream DAB | 2112212541   | 1              |
| Bombastus       | Cooling cream DAB | 22487        | 1              |
| Bombastus       | Cooling cream DAB | 2405212541   | 1              |
| Bombastus       | Cooling cream DAB | 2413Q02541   | 1              |
| Bombastus       | Cooling cream DAB | 264601       | 1              |
| Bombastus       | Cooling cream DAB | 265548       | 1              |
| Bombastus       | Cooling cream DAB | 265549       | 1              |
| Bombastus       | Cooling cream DAB | 266717       | 1              |
| Bombastus       | Cooling cream DAB | 266941       | 1              |
| Bombastus       | Cooling cream DAB | 268073       | 3              |
| Bombastus       | Cooling cream DAB | 268194       | 1              |
| Bombastus       | Cooling cream DAB | 268981       | 1              |
| Bombastus       | Cooling cream DAB | 269088       | 1              |
| Bombastus       | Cooling cream DAB | 269092       | 1              |
| Bombastus       | Cooling cream DAB | 270309       | 1              |
| Bombastus       | Cooling cream DAB | 270310       | 1              |
| Bombastus       | Cooling cream DAB | 270315       | 1              |
| Bombastus       | Cooling cream DAB | 270381       | 1              |
| Bombastus       | Cooling cream DAB | 2713Q2541    | 1              |
| Bombastus       | Cooling cream DAB | 271541       | 1              |
| Bombastus       | Cooling cream DAB | 271623       | 1              |
| Bombastus       | Cooling cream DAB | 271624       | 1              |
| Bombastus       | Cooling cream DAB | 271627       | 1              |
| Bombastus       | Cooling cream DAB | 271726       | 1              |
| Bombastus       | Cooling cream DAB | 272349       | 1              |
| Bombastus       | Cooling cream DAB | 272353       | 1              |
| Bombastus       | Cooling cream DAB | 272480       | 1              |
| Bombastus       | Cooling cream DAB | 272482       | 1              |
| Bombastus       | Cooling cream DAB | 272485       | 1              |
| Bombastus       | Cooling cream DAB | 272564       | 2              |
| Bombastus       | Cooling cream DAB | 272571       | 1              |
| Bombastus       | Cooling cream DAB | 272573       | 2              |
| Bombastus       | Cooling cream DAB | 273443       | 1              |
| Bombastus       | Cooling cream DAB | 273444       | 1              |
| Bombastus       | Cooling cream DAB | 273499       | 1              |
| Bombastus       | Cooling cream DAB | 273501       | 1              |
| Bombastus       | Cooling cream DAB | 273503       | 1              |
| Bombastus       | Cooling cream DAB | 274042       | 1              |
| Bombastus       | Cooling cream DAB | 274044       | 2              |
| Bombastus       | Cooling cream DAB | 274077       | 1              |
| Bombastus       | Cooling cream DAB | 274079       | 1              |
| Bombastus       | Cooling cream DAB | 274080       | 2              |
| Bombastus       | Cooling cream DAB | 274083       | 2              |
| Bombastus       | Cooling cream DAB | 274783       | 1              |
| Bombastus       | Cooling cream DAB | 274785       | 1              |
| Bombastus       | Cooling cream DAB | 274791       | 2              |
| Bombastus       | Cooling cream DAB | 274914       | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Bombastus       | Cooling cream DAB | 275663       | 1              |
| Bombastus       | Cooling cream DAB | 275664       | 2              |
| Bombastus       | Cooling cream DAB | 275665       | 1              |
| Bombastus       | Cooling cream DAB | 275667       | 1              |
| Bombastus       | Cooling cream DAB | 275668       | 1              |
| Bombastus       | Cooling cream DAB | 275669       | 1              |
| Bombastus       | Cooling cream DAB | 275670       | 1              |
| Bombastus       | Cooling cream DAB | 276281       | 1              |
| Bombastus       | Cooling cream DAB | 276282       | 1              |
| Bombastus       | Cooling cream DAB | 276284       | 1              |
| Bombastus       | Cooling cream DAB | 276288       | 1              |
| Bombastus       | Cooling cream DAB | 276418       | 3              |
| Bombastus       | Cooling cream DAB | 276419       | 2              |
| Bombastus       | Cooling cream DAB | 276422       | 2              |
| Bombastus       | Cooling cream DAB | 277275       | 2              |
| Bombastus       | Cooling cream DAB | 277363       | 1              |
| Bombastus       | Cooling cream DAB | 277367       | 1              |
| Bombastus       | Cooling cream DAB | 277369       | 1              |
| Bombastus       | Cooling cream DAB | 277371       | 1              |
| Bombastus       | Cooling cream DAB | 277525       | 2              |
| Bombastus       | Cooling cream DAB | 277526       | 1              |
| Bombastus       | Cooling cream DAB | 277530       | 2              |
| Bombastus       | Cooling cream DAB | 277533       | 1              |
| Bombastus       | Cooling cream DAB | 277534       | 2              |
| Bombastus       | Cooling cream DAB | 278335       | 3              |
| Bombastus       | Cooling cream DAB | 278337       | 1              |
| Bombastus       | Cooling cream DAB | 278341       | 2              |
| Bombastus       | Cooling cream DAB | 278342       | 1              |
| Bombastus       | Cooling cream DAB | 278436       | 1              |
| Bombastus       | Cooling cream DAB | 278437       | 1              |
| Bombastus       | Cooling cream DAB | 278438       | 1              |
| Bombastus       | Cooling cream DAB | 278439       | 2              |
| Bombastus       | Cooling cream DAB | 278440       | 2              |
| Bombastus       | Cooling cream DAB | 278441       | 1              |
| Bombastus       | Cooling cream DAB | 278442       | 1              |
| Bombastus       | Cooling cream DAB | 278525       | 3              |
| Bombastus       | Cooling cream DAB | 278674       | 1              |
| Bombastus       | Cooling cream DAB | 279676       | 2              |
| Bombastus       | Cooling cream DAB | 279680       | 2              |
| Bombastus       | Cooling cream DAB | 279681       | 1              |
| Bombastus       | Cooling cream DAB | 279682       | 1              |
| Bombastus       | Cooling cream DAB | 279751       | 1              |
| Bombastus       | Cooling cream DAB | 279755       | 3              |
| Bombastus       | Cooling cream DAB | 279765       | 2              |
| Bombastus       | Cooling cream DAB | 281030       | 1              |
| Bombastus       | Cooling cream DAB | 281033       | 1              |
| Bombastus       | Cooling cream DAB | 281134       | 1              |
| Bombastus       | Cooling cream DAB | 281138       | 1              |
| Bombastus       | Cooling cream DAB | 281139       | 2              |
| Bombastus       | Cooling cream DAB | 281140       | 1              |
| Bombastus       | Cooling cream DAB | 281820       | 1              |
| Bombastus       | Cooling cream DAB | 281823       | 1              |
| Bombastus       | Cooling cream DAB | 281824       | 1              |
| Bombastus       | Cooling cream DAB | 281912       | 1              |
| Bombastus       | Cooling cream DAB | 281919       | 1              |
| Bombastus       | Cooling cream DAB | 282017       | 1              |
| Bombastus       | Cooling cream DAB | 282019       | 2              |
| Bombastus       | Cooling cream DAB | 282021       | 2              |
| Bombastus       | Cooling cream DAB | 283051       | 1              |
| Bombastus       | Cooling cream DAB | 283054       | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Bombastus       | Cooling cream DAB | 283056       | 1              |
| Bombastus       | Cooling cream DAB | 283057       | 1              |
| Bombastus       | Cooling cream DAB | 283058       | 1              |
| Bombastus       | Cooling cream DAB | 283116       | 1              |
| Bombastus       | Cooling cream DAB | 283117       | 1              |
| Bombastus       | Cooling cream DAB | 283118       | 1              |
| Bombastus       | Cooling cream DAB | 283119       | 1              |
| Bombastus       | Cooling cream DAB | 284263       | 1              |
| Bombastus       | Cooling cream DAB | 284264       | 2              |
| Bombastus       | Cooling cream DAB | 284265       | 1              |
| Bombastus       | Cooling cream DAB | 284298       | 1              |
| Bombastus       | Cooling cream DAB | 284299       | 2              |
| Bombastus       | Cooling cream DAB | 284300       | 3              |
| Bombastus       | Cooling cream DAB | 284302       | 2              |
| Bombastus       | Cooling cream DAB | 284303       | 3              |
| Bombastus       | Cooling cream DAB | 285063       | 1              |
| Bombastus       | Cooling cream DAB | 285065       | 1              |
| Bombastus       | Cooling cream DAB | 285068       | 2              |
| Bombastus       | Cooling cream DAB | 285069       | 3              |
| Bombastus       | Cooling cream DAB | 285070       | 1              |
| Bombastus       | Cooling cream DAB | 285499       | 2              |
| Bombastus       | Cooling cream DAB | 285502       | 2              |
| Bombastus       | Cooling cream DAB | 285503       | 1              |
| Bombastus       | Cooling cream DAB | 285634       | 2              |
| Bombastus       | Cooling cream DAB | 285635       | 2              |
| Bombastus       | Cooling cream DAB | 285637       | 1              |
| Bombastus       | Cooling cream DAB | 285638       | 2              |
| Bombastus       | Cooling cream DAB | 285639       | 1              |
| Bombastus       | Cooling cream DAB | 285644       | 1              |
| Bombastus       | Cooling cream DAB | 285645       | 2              |
| Bombastus       | Cooling cream DAB | 286562       | 1              |
| Bombastus       | Cooling cream DAB | 286564       | 3              |
| Bombastus       | Cooling cream DAB | 286567       | 1              |
| Bombastus       | Cooling cream DAB | 286648       | 4              |
| Bombastus       | Cooling cream DAB | 286650       | 1              |
| Bombastus       | Cooling cream DAB | 286652       | 1              |
| Bombastus       | Cooling cream DAB | 286653       | 2              |
| Bombastus       | Cooling cream DAB | 286654       | 2              |
| Bombastus       | Cooling cream DAB | 286661       | 1              |
| Bombastus       | Cooling cream DAB | 287483       | 1              |
| Bombastus       | Cooling cream DAB | 287485       | 2              |
| Bombastus       | Cooling cream DAB | 287539       | 1              |
| Bombastus       | Cooling cream DAB | 287542       | 1              |
| Bombastus       | Cooling cream DAB | 287543       | 1              |
| Bombastus       | Cooling cream DAB | 287544       | 2              |
| Bombastus       | Cooling cream DAB | 288107       | 1              |
| Bombastus       | Cooling cream DAB | 288109       | 2              |
| Bombastus       | Cooling cream DAB | 288110       | 1              |
| Bombastus       | Cooling cream DAB | 288112       | 2              |
| Bombastus       | Cooling cream DAB | 288113       | 1              |
| Bombastus       | Cooling cream DAB | 288152       | 3              |
| Bombastus       | Cooling cream DAB | 288158       | 1              |
| Bombastus       | Cooling cream DAB | 288159       | 1              |
| Bombastus       | Cooling cream DAB | 289187       | 1              |
| Bombastus       | Cooling cream DAB | 289188       | 1              |
| Bombastus       | Cooling cream DAB | 289189       | 1              |
| Bombastus       | Cooling cream DAB | 289191       | 3              |
| Bombastus       | Cooling cream DAB | 289193       | 1              |
| Bombastus       | Cooling cream DAB | 289251       | 1              |
| Bombastus       | Cooling cream DAB | 289253       | 1              |

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| Supplier  | Substance              | Batch     | Spectra |
|-----------|------------------------|-----------|---------|
| Bombastus | Cooling cream DAB      | 289256    | 1       |
| Bombastus | Cooling cream DAB      | 289258    | 1       |
| Bombastus | Cooling cream DAB      | 289260    | 4       |
| Bombastus | Cooling cream DAB      | 289265    | 1       |
| Bombastus | Cooling cream DAB      | 290380    | 5       |
| Bombastus | Cooling cream DAB      | 290382    | 1       |
| Bombastus | Cooling cream DAB      | 290483    | 2       |
| Bombastus | Cooling ointment DAB 6 | 290486    | 1       |
| Bombastus | Cooling cream DAB      | 290487    | 1       |
| Bombastus | Cooling cream DAB      | 290489    | 1       |
| Bombastus | Cooling cream DAB      | 290490    | 1       |
| Bombastus | Cooling cream DAB      | 29072015A | 1       |
| Bombastus | Cooling cream DAB      | 291552    | 1       |
| Bombastus | Cooling cream DAB      | 291555    | 1       |
| Bombastus | Cooling cream DAB      | 291618    | 1       |
| Bombastus | Cooling cream DAB      | 291619    | 1       |
| Bombastus | Cooling cream DAB      | 291620    | 2       |
| Bombastus | Cooling cream DAB      | 292101    | 4       |
| Bombastus | Cooling cream DAB      | 292103    | 1       |
| Bombastus | Cooling cream DAB      | 292106    | 3       |
| Bombastus | Cooling cream DAB      | 292107    | 1       |
| Bombastus | Cooling cream DAB      | 292199    | 2       |
| Bombastus | Cooling cream DAB      | 292202    | 1       |
| Bombastus | Cooling cream DAB      | 292280    | 1       |
| Bombastus | Cooling cream DAB      | 292281    | 1       |
| Bombastus | Cooling cream DAB      | 292930    | 2       |
| Bombastus | Cooling cream DAB      | 292931    | 2       |
| Bombastus | Cooling cream DAB      | 292932    | 1       |
| Bombastus | Cooling cream DAB      | 292934    | 4       |
| Bombastus | Cooling cream DAB      | 292936    | 1       |
| Bombastus | Cooling cream DAB      | 292997    | 4       |
| Bombastus | Cooling cream DAB      | 293616    | 2       |
| Bombastus | Cooling cream DAB      | 293620    | 1       |
| Bombastus | Cooling cream DAB      | 293621    | 4       |
| Bombastus | Cooling cream DAB      | 293622    | 2       |
| Bombastus | Cooling cream DAB      | 293747    | 3       |
| Bombastus | Cooling cream DAB      | 293749    | 1       |
| Bombastus | Cooling cream DAB      | 293750    | 1       |
| Bombastus | Cooling cream DAB      | 293751    | 1       |
| Bombastus | Cooling cream DAB      | 294121    | 1       |
| Bombastus | Cooling cream DAB      | 295019    | 3       |
| Bombastus | Cooling cream DAB      | 295021    | 1       |
| Bombastus | Cooling cream DAB      | 295022    | 1       |
| Bombastus | Cooling cream DAB      | 295120    | 1       |
| Bombastus | Cooling cream DAB      | 295122    | 1       |
| Bombastus | Cooling cream DAB      | 295124    | 1       |
| Bombastus | Cooling cream DAB      | 295183    | 1       |
| Bombastus | Cooling cream DAB      | 295184    | 2       |
| Bombastus | Cooling cream DAB      | 295185    | 1       |
| Bombastus | Cooling cream DAB      | 295188    | 3       |
| Bombastus | Cooling cream DAB      | 295189    | 1       |
| Bombastus | Cooling cream DAB      | 295190    | 1       |
| Bombastus | Cooling ointment DAB 6 | 295191    | 4       |
| Bombastus | Cooling cream DAB      | 295192    | 1       |
| Bombastus | Cooling cream DAB      | 295756    | 1       |
| Bombastus | Cooling cream DAB      | 295760    | 2       |
| Bombastus | Cooling cream DAB      | 295761    | 1       |
| Bombastus | Cooling cream DAB      | 295762    | 1       |
| Bombastus | Cooling cream DAB      | 295763    | 1       |
| Bombastus | Cooling cream DAB      | 296312    | 3       |

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| Supplier  | Substance              | Batch        | Spectra |
|-----------|------------------------|--------------|---------|
| Bombastus | Cooling cream DAB      | 296314       | 1       |
| Bombastus | Cooling ointment DAB 6 | 296315       | 8       |
| Bombastus | Cooling cream DAB      | 296316       | 1       |
| Bombastus | Cooling cream DAB      | 296317       | 1       |
| Bombastus | Cooling cream DAB      | 297097       | 2       |
| Bombastus | Cooling cream DAB      | 297099       | 1       |
| Bombastus | Cooling cream DAB      | 297102       | 3       |
| Bombastus | Cooling cream DAB      | 297103       | 1       |
| Bombastus | Cooling cream DAB      | 297104       | 1       |
| Bombastus | Cooling cream DAB      | 297202972505 | 1       |
| Bombastus | Cooling cream DAB      | 297205       | 2       |
| Bombastus | Cooling cream DAB      | 297206       | 1       |
| Bombastus | Cooling cream DAB      | 297209       | 1       |
| Bombastus | Cooling cream DAB      | 297210       | 2       |
| Bombastus | Cooling cream DAB      | 297211       | 2       |
| Bombastus | Cooling cream DAB      | 297213       | 1       |
| Bombastus | Cooling cream DAB      | 297214       | 2       |
| Bombastus | Cooling cream DAB      | 298111       | 1       |
| Bombastus | Cooling cream DAB      | 298113       | 3       |
| Bombastus | Cooling cream DAB      | 298117       | 4       |
| Bombastus | Cooling cream DAB      | 298118       | 1       |
| Bombastus | Cooling cream DAB      | 298119       | 2       |
| Bombastus | Cooling cream DAB      | 298120       | 1       |
| Bombastus | Cooling cream DAB      | 298121       | 3       |
| Bombastus | Cooling ointment DAB 6 | 298319       | 1       |
| Bombastus | Cooling cream DAB      | 298877       | 3       |
| Bombastus | Cooling cream DAB      | 298879       | 2       |
| Bombastus | Cooling cream DAB      | 298881       | 3       |
| Bombastus | Cooling cream DAB      | 298882       | 1       |
| Bombastus | Cooling cream DAB      | 299351       | 2       |
| Bombastus | Cooling cream DAB      | 299352       | 1       |
| Bombastus | Cooling cream DAB      | 299354       | 1       |
| Bombastus | Cooling cream DAB      | 299355       | 1       |
| Bombastus | Cooling cream DAB      | 299358       | 1       |
| Bombastus | Cooling cream DAB      | 299361       | 1       |
| Bombastus | Cooling cream DAB      | 299362       | 1       |
| Bombastus | Cooling cream DAB      | 299966       | 1       |
| Bombastus | Cooling cream DAB      | 299967       | 1       |
| Bombastus | Cooling cream DAB      | 299968       | 1       |
| Bombastus | Cooling cream DAB      | 299970       | 1       |
| Bombastus | Cooling cream DAB      | 299973       | 2       |
| Bombastus | Cooling cream DAB      | 299974       | 1       |
| Bombastus | Cooling cream DAB      | 299976       | 3       |
| Bombastus | Cooling cream DAB      | 299978       | 1       |
| Bombastus | Cooling cream DAB      | 299980       | 3       |
| Bombastus | Cooling cream DAB      | 299981       | 2       |
| Bombastus | Cooling cream DAB      | 300715       | 1       |
| Bombastus | Cooling cream DAB      | 300717       | 1       |
| Bombastus | Cooling cream DAB      | 300720       | 3       |
| Bombastus | Cooling cream DAB      | 300721       | 2       |
| Bombastus | Cooling cream DAB      | 300722       | 1       |
| Bombastus | Cooling cream DAB      | 300724       | 2       |
| Bombastus | Cooling cream DAB      | 300727       | 3       |
| Bombastus | Cooling cream DAB      | 300728       | 4       |
| Bombastus | Cooling cream DAB      | 300729       | 1       |
| Bombastus | Cooling cream DAB      | 300730       | 3       |
| Bombastus | Cooling cream DAB      | 300796       | 1       |
| Bombastus | Cooling cream DAB      | 301668       | 1       |
| Bombastus | Cooling cream DAB      | 301669       | 1       |
| Bombastus | Cooling cream DAB      | 301670       | 1       |

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| Supplier  | Substance              | Batch    | Spectra |
|-----------|------------------------|----------|---------|
| Bombastus | Cooling cream DAB      | 301672   | 2       |
| Bombastus | Cooling cream DAB      | 301673   | 1       |
| Bombastus | Cooling ointment DAB 6 | 301674   | 2       |
| Bombastus | Cooling cream DAB      | 301675   | 2       |
| Bombastus | Cooling cream DAB      | 301676   | 1       |
| Bombastus | Cooling cream DAB      | 301692   | 1       |
| Bombastus | Cooling cream DAB      | 301693   | 1       |
| Bombastus | Cooling cream DAB      | 301694   | 1       |
| Bombastus | Cooling cream DAB      | 301697   | 1       |
| Bombastus | Cooling cream DAB      | 301699   | 2       |
| Bombastus | Cooling cream DAB      | 301700   | 3       |
| Bombastus | Cooling cream DAB      | 301701   | 3       |
| Bombastus | Cooling cream DAB      | 301702   | 1       |
| Bombastus | Cooling cream DAB      | 3022015B | 1       |
| Bombastus | Cooling cream DAB      | 302370   | 2       |
| Bombastus | Cooling cream DAB      | 302371   | 1       |
| Bombastus | Cooling cream DAB      | 302372   | 2       |
| Bombastus | Cooling cream DAB      | 302373   | 2       |
| Bombastus | Cooling cream DAB      | 302374   | 2       |
| Bombastus | Cooling ointment DAB 6 | 302375   | 3       |
| Bombastus | Cooling cream DAB      | 302376   | 1       |
| Bombastus | Cooling cream DAB      | 302377   | 2       |
| Bombastus | Cooling cream DAB      | 302380   | 1       |
| Bombastus | Cooling cream DAB      | 302381   | 6       |
| Bombastus | Cooling cream DAB      | 302382   | 1       |
| Bombastus | Cooling cream DAB      | 302385   | 4       |
| Bombastus | Cooling cream DAB      | 303151   | 1       |
| Bombastus | Cooling cream DAB      | 303152   | 6       |
| Bombastus | Cooling cream DAB      | 303153   | 1       |
| Bombastus | Cooling cream DAB      | 303155   | 1       |
| Bombastus | Cooling cream DAB      | 303156   | 1       |
| Bombastus | Cooling cream DAB      | 303158   | 4       |
| Bombastus | Cooling cream DAB      | 303159   | 1       |
| Bombastus | Cooling cream DAB      | 303163   | 2       |
| Bombastus | Cooling cream DAB      | 303274   | 1       |
| Bombastus | Cooling cream DAB      | 303619   | 1       |
| Bombastus | Cooling ointment DAB 6 | 303620   | 3       |
| Bombastus | Cooling ointment DAB 6 | 303621   | 3       |
| Bombastus | Cooling cream DAB      | 303622   | 1       |
| Bombastus | Cooling cream DAB      | 303623   | 1       |
| Bombastus | Cooling cream DAB      | 303624   | 1       |
| Bombastus | Cooling cream DAB      | 303625   | 4       |
| Bombastus | Cooling cream DAB      | 303626   | 2       |
| Bombastus | Cooling cream DAB      | 304579   | 1       |
| Bombastus | Cooling cream DAB      | 304580   | 1       |
| Bombastus | Cooling cream DAB      | 304582   | 4       |
| Bombastus | Cooling cream DAB      | 304584   | 3       |
| Bombastus | Cooling ointment DAB 6 | 304585   | 2       |
| Bombastus | Cooling cream DAB      | 304591   | 1       |
| Bombastus | Cooling cream DAB      | 304592   | 1       |
| Bombastus | Cooling cream DAB      | 304593   | 4       |
| Bombastus | Cooling cream DAB      | 305017   | 2       |
| Bombastus | Cooling cream DAB      | 305020   | 1       |
| Bombastus | Cooling cream DAB      | 305021   | 3       |
| Bombastus | Cooling cream DAB      | 305022   | 2       |
| Bombastus | Cooling cream DAB      | 305129   | 3       |
| Bombastus | Cooling cream DAB      | 305131   | 3       |
| Bombastus | Cooling cream DAB      | 305949   | 2       |
| Bombastus | Cooling cream DAB      | 305950   | 2       |
| Bombastus | Cooling cream DAB      | 305952   | 2       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Bombastus       | Cooling ointment DAB 6 | 305953       | 7              |
| Bombastus       | Cooling cream DAB      | 305954       | 1              |
| Bombastus       | Cooling cream DAB      | 305955       | 1              |
| Bombastus       | Cooling cream DAB      | 305956       | 2              |
| Bombastus       | Cooling cream DAB      | 305957       | 3              |
| Bombastus       | Cooling cream DAB      | 305959       | 2              |
| Bombastus       | Cooling cream DAB      | 305960       | 2              |
| Bombastus       | Cooling cream DAB      | 305961       | 2              |
| Bombastus       | Cooling cream DAB      | 306528       | 1              |
| Bombastus       | Cooling cream DAB      | 306529       | 3              |
| Bombastus       | Cooling cream DAB      | 306530       | 2              |
| Bombastus       | Cooling cream DAB      | 306532       | 2              |
| Bombastus       | Cooling cream DAB      | 3066944      | 1              |
| Bombastus       | Cooling cream DAB      | 306930       | 3              |
| Bombastus       | Cooling cream DAB      | 306932       | 6              |
| Bombastus       | Cooling cream DAB      | 306934       | 2              |
| Bombastus       | Cooling cream DAB      | 306937       | 2              |
| Bombastus       | Cooling cream DAB      | 306939       | 1              |
| Bombastus       | Cooling cream DAB      | 306940       | 1              |
| Bombastus       | Cooling cream DAB      | 306941       | 1              |
| Bombastus       | Cooling cream DAB      | 306944       | 5              |
| Bombastus       | Cooling cream DAB      | 307348       | 1              |
| Bombastus       | Cooling cream DAB      | 307352       | 2              |
| Bombastus       | Cooling cream DAB      | 307353       | 2              |
| Bombastus       | Cooling cream DAB      | 307356       | 1              |
| Bombastus       | Cooling cream DAB      | 307357       | 1              |
| Bombastus       | Cooling cream DAB      | 307358       | 1              |
| Bombastus       | Cooling cream DAB      | 307914       | 1              |
| Bombastus       | Cooling cream DAB      | 307916       | 2              |
| Bombastus       | Cooling cream DAB      | 307917       | 1              |
| Bombastus       | Cooling cream DAB      | 307920       | 4              |
| Bombastus       | Cooling cream DAB      | 307923       | 1              |
| Bombastus       | Cooling cream DAB      | 307926       | 1              |
| Bombastus       | Cooling cream DAB      | 307927       | 1              |
| Bombastus       | Cooling cream DAB      | 307929       | 3              |
| Bombastus       | Cooling cream DAB      | 307930       | 1              |
| Bombastus       | Cooling cream DAB      | 307931       | 1              |
| Bombastus       | Cooling cream DAB      | 307932       | 5              |
| Bombastus       | Cooling cream DAB      | 307933       | 2              |
| Bombastus       | Cooling cream DAB      | 308489       | 3              |
| Bombastus       | Cooling cream DAB      | 308490       | 2              |
| Bombastus       | Cooling cream DAB      | 308491       | 2              |
| Bombastus       | Cooling cream DAB      | 308710       | 1              |
| Bombastus       | Cooling ointment DAB 6 | 308711       | 1              |
| Bombastus       | Cooling cream DAB      | 308713       | 1              |
| Bombastus       | Cooling cream DAB      | 308714       | 1              |
| Bombastus       | Cooling cream DAB      | 308715       | 1              |
| Bombastus       | Cooling cream DAB      | 308716       | 1              |
| Bombastus       | Cooling cream DAB      | 308717       | 6              |
| Bombastus       | Cooling cream DAB      | 308720       | 1              |
| Bombastus       | Cooling ointment DAB 6 | 308723       | 1              |
| Bombastus       | Cooling cream DAB      | 308724       | 5              |
| Bombastus       | Cooling cream DAB      | 308725       | 3              |
| Bombastus       | Cooling cream DAB      | 3092014A     | 1              |
| Bombastus       | Cooling cream DAB      | 309365       | 1              |
| Bombastus       | Cooling cream DAB      | 309366       | 2              |
| Bombastus       | Cooling cream DAB      | 309368       | 10             |
| Bombastus       | Cooling cream DAB      | 309369       | 3              |
| Bombastus       | Cooling cream DAB      | 309370       | 2              |
| Bombastus       | Cooling cream DAB      | 309371       | 8              |

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| Supplier           | Substance              | Batch       | Spectra |
|--------------------|------------------------|-------------|---------|
| Bombastus          | Cooling cream DAB      | 309995      | 1       |
| Bombastus          | Cooling cream DAB      | 309997      | 1       |
| Bombastus          | Cooling cream DAB      | 309999      | 6       |
| Bombastus          | Cooling cream DAB      | 310000      | 4       |
| Bombastus          | Cooling cream DAB      | 3100004     | 1       |
| Bombastus          | Cooling cream DAB      | 310002      | 2       |
| Bombastus          | Cooling cream DAB      | 310003      | 3       |
| Bombastus          | Cooling cream DAB      | 310004      | 1       |
| Bombastus          | Cooling cream DAB      | 310005      | 6       |
| Bombastus          | Cooling cream DAB      | 310006      | 4       |
| Bombastus          | Cooling cream DAB      | 310972      | 1       |
| Bombastus          | Cooling cream DAB      | 310973      | 1       |
| Bombastus          | Cooling cream DAB      | 310974      | 3       |
| Bombastus          | Cooling cream DAB      | 310975      | 1       |
| Bombastus          | Cooling ointment DAB 6 | 310976      | 2       |
| Bombastus          | Cooling cream DAB      | 310977      | 2       |
| Bombastus          | Cooling cream DAB      | 310979      | 2       |
| Bombastus          | Cooling cream DAB      | 310980      | 2       |
| Bombastus          | Cooling cream DAB      | 310982      | 7       |
| Bombastus          | Cooling cream DAB      | 310983      | 5       |
| Bombastus          | Cooling cream DAB      | 310984      | 1       |
| Bombastus          | Cooling cream DAB      | 310986      | 5       |
| Bombastus          | Cooling cream DAB      | 310987      | 4       |
| Bombastus          | Cooling cream DAB      | 310988      | 4       |
| Bombastus          | Cooling cream DAB      | 310989      | 4       |
| Bombastus          | Cooling cream DAB      | 4013Q2541   | 1       |
| Bombastus          | Cooling cream DAB      | 4032015B    | 1       |
| Bombastus          | Cooling cream DAB      | 4617M-02541 | 1       |
| Bombastus          | Cooling cream DAB      | 513A-02541  | 1       |
| Bombastus          | Cooling cream DAB      | 60082801    | 5       |
| Bombastus          | Cooling cream DAB      | 614U2541    | 1       |
| Bombastus          | Cooling cream DAB      | 618E-02541  | 1       |
| Bombastus          | Cooling cream DAB      | 6861938     | 1       |
| Bombastus          | Cooling cream DAB      | 6861944     | 2       |
| Bombastus          | Cooling cream DAB      | 7022014B    | 1       |
| Bombastus          | Cooling cream DAB      | 718A-02541  | 1       |
| Bombastus          | Cooling cream DAB      | 77309       | 1       |
| Bombastus          | Cooling cream DAB      | 8002875004  | 1       |
| Bombastus          | Cooling cream DAB      | 91709       | 1       |
| Bombastus          | Cooling cream DAB      | 92086       | 1       |
| Bombastuts/Gehe    | Cooling cream DAB      | 307350      | 1       |
| Bombastuts/Gehe    | Cooling cream DAB      | 307919      | 1       |
| Bombastuts/Gehe    | Cooling cream DAB      | 308712      | 1       |
| Bombastuts/Gehe    | Cooling cream DAB      | 60082802    | 1       |
| Bombastuts/Noweda  | Cooling cream DAB      | 300726      | 1       |
| Bombasus           | Cooling ointment DAB 6 | 21001934    | 1       |
| Bombstus           | Cooling ointment DAB 6 | 17000977    | 1       |
| Bombstus           | Cooling cream DAB      | 308711      | 1       |
| Bumbastus/Sanacorp | Cooling cream DAB      | 18006325    | 1       |
| Bumbastus          | Cooling cream DAB      | 297213      | 1       |
| Cae/Phönix         | Cooling cream DAB      | 15228601    | 1       |
| cael               | Cooling cream DAB      | 13004201    | 1       |
| Caeleo/ Krieger    | Cooling cream DAB      | 18272901    | 1       |
| Caeleo/ Krieger    | Cooling cream DAB      | 19000582001 | 1       |
| Caelo              | Cooling ointment DAB 6 |             | 12      |
| Caelo              | Cooling cream DAB      | 1000010941  | 1       |
| Caelo              | Cooling cream DAB      | 1000601     | 1       |
| Caelo              | Cooling cream DAB      | 10071705    | 1       |
| Caelo              | Cooling cream DAB      | 10081209    | 1       |
| Caelo              | Cooling cream DAB      | 10081210    | 1       |

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| Supplier | Substance              | Batch            | Spectra |
|----------|------------------------|------------------|---------|
| Caelo    | Cooling cream DAB      | 10091306         | 1       |
| Caelo    | Cooling cream DAB      | 1040917/17075201 | 1       |
| Caelo    | Cooling cream DAB      | 1041702          | 1       |
| Caelo    | Cooling cream DAB      | 1071407          | 1       |
| Caelo    | Cooling cream DAB      | 1097065          | 3       |
| Caelo    | Cooling cream DAB      | 1097071          | 2       |
| Caelo    | Cooling ointment DAB 6 | 1097214          | 1       |
| Caelo    | Cooling cream DAB      | 10974301         | 1       |
| Caelo    | Cooling cream DAB      | 1113Q-02541      | 1       |
| Caelo    | Cooling cream DAB      | 11268501         | 1       |
| Caelo    | Cooling cream DAB      | 11269101         | 1       |
| Caelo    | Cooling cream DAB      | 11322901         | 1       |
| Caelo    | Cooling cream DAB      | 11323101         | 2       |
| Caelo    | Cooling cream DAB      | 11323501         | 1       |
| Caelo    | Cooling cream DAB      | 118042701        | 1       |
| Caelo    | Cooling cream DAB      | 12001901         | 3       |
| Caelo    | Cooling cream DAB      | 12002401         | 1       |
| Caelo    | Cooling cream DAB      | 12002501         | 3       |
| Caelo    | Cooling cream DAB      | 12011402         | 1       |
| Caelo    | Cooling cream DAB      | 12045901         | 1       |
| Caelo    | Cooling cream DAB      | 12046101         | 1       |
| Caelo    | Cooling cream DAB      | 12046401         | 1       |
| Caelo    | Cooling cream DAB      | 12051401         | 1       |
| Caelo    | Cooling cream DAB      | 12051809         | 1       |
| Caelo    | Cooling cream DAB      | 12052001         | 1       |
| Caelo    | Cooling cream DAB      | 120601202        | 1       |
| Caelo    | Cooling cream DAB      | 12089201         | 1       |
| Caelo    | Cooling cream DAB      | 12089301         | 2       |
| Caelo    | Cooling cream DAB      | 12089402         | 2       |
| Caelo    | Cooling cream DAB      | 12089601         | 5       |
| Caelo    | Cooling cream DAB      | 12089701         | 1       |
| Caelo    | Cooling cream DAB      | 12089901         | 1       |
| Caelo    | Cooling cream DAB      | 12090201         | 2       |
| Caelo    | Cooling cream DAB      | 12090401         | 3       |
| Caelo    | Cooling cream DAB      | 12090501         | 2       |
| Caelo    | Cooling cream DAB      | 12090601         | 1       |
| Caelo    | Cooling cream DAB      | 1213M-02541      | 2       |
| Caelo    | Cooling cream DAB      | 12174301         | 2       |
| Caelo    | Cooling cream DAB      | 12174401         | 4       |
| Caelo    | Cooling cream DAB      | 12174501         | 1       |
| Caelo    | Cooling cream DAB      | 12174601         | 2       |
| Caelo    | Cooling cream DAB      | 12178801         | 2       |
| Caelo    | Cooling cream DAB      | 12178901         | 2       |
| Caelo    | Cooling cream DAB      | 12178902         | 3       |
| Caelo    | Cooling ointment DAB 6 | 12179001         | 4       |
| Caelo    | Cooling ointment DAB 6 | 12182701         | 7       |
| Caelo    | Cooling cream DAB      | 12182801         | 3       |
| Caelo    | Cooling ointment DAB 6 | 12187201         | 3       |
| Caelo    | Cooling cream DAB      | 12187301         | 4       |
| Caelo    | Cooling cream DAB      | 1218Q-02541      | 1       |
| Caelo    | Cooling cream DAB      | 12253001         | 1       |
| Caelo    | Cooling cream DAB      | 12253101         | 4       |
| Caelo    | Cooling cream DAB      | 12253201         | 2       |
| Caelo    | Cooling cream DAB      | 12253301         | 2       |
| Caelo    | Cooling cream DAB      | 12253401         | 2       |
| Caelo    | Cooling cream DAB      | 12290102         | 1       |
| Caelo    | Cooling cream DAB      | 12291301         | 1       |
| Caelo    | Cooling cream DAB      | 12291901         | 2       |
| Caelo    | Cooling cream DAB      | 12292102         | 12      |
| Caelo    | Cooling cream DAB      | 12292201         | 7       |

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| Supplier | Substance              | Batch    | Spectra |
|----------|------------------------|----------|---------|
| Caelo    | Cooling cream DAB      | 12292301 | 3       |
| Caelo    | Cooling cream DAB      | 12292401 | 4       |
| Caelo    | Cooling cream DAB      | 12312001 | 1       |
| Caelo    | Cooling cream DAB      | 12312101 | 2       |
| Caelo    | Cooling cream DAB      | 12312102 | 5       |
| Caelo    | Cooling cream DAB      | 12312201 | 4       |
| Caelo    | Cooling cream DAB      | 12312301 | 1       |
| Caelo    | Cooling ointment DAB 6 | 12312401 | 10      |
| Caelo    | Cooling ointment DAB 6 | 12312501 | 4       |
| Caelo    | Cooling cream DAB      | 12312601 | 3       |
| Caelo    | Cooling ointment DAB 6 | 12312701 | 4       |
| Caelo    | Cooling cream DAB      | 12312801 | 3       |
| Caelo    | Cooling cream DAB      | 1234     | 1       |
| Caelo    | Cooling cream DAB      | 123456   | 1       |
| Caelo    | Cooling cream DAB      | 12364601 | 13      |
| Caelo    | Cooling cream DAB      | 12364701 | 2       |
| Caelo    | Cooling ointment DAB 6 | 12364801 | 5       |
| Caelo    | Cooling ointment DAB 6 | 12364802 | 2       |
| Caelo    | Cooling cream DAB      | 123test  | 2       |
| Caelo    | Cooling cream DAB      | 123Test  | 1       |
| Caelo    | Cooling cream DAB      | 1256856  | 1       |
| Caelo    | Cooling cream DAB      | 1287201  | 1       |
| Caelo    | Cooling cream DAB      | 1289501  | 1       |
| Caelo    | Cooling cream DAB      | 1290301  | 1       |
| Caelo    | Cooling cream DAB      | 1291116  | 1       |
| Caelo    | Cooling cream DAB      | 13004101 | 5       |
| Caelo    | Cooling cream DAB      | 13004201 | 4       |
| Caelo    | Cooling cream DAB      | 13004301 | 3       |
| Caelo    | Cooling ointment DAB 6 | 13004401 | 4       |
| Caelo    | Cooling cream DAB      | 13004402 | 4       |
| Caelo    | Cooling cream DAB      | 13004501 | 7       |
| Caelo    | Cooling cream DAB      | 13004601 | 4       |
| Caelo    | Cooling ointment DAB 6 | 13047201 | 2       |
| Caelo    | Cooling ointment DAB 6 | 13051401 | 8       |
| Caelo    | Cooling ointment DAB 6 | 13051501 | 10      |
| Caelo    | Cooling ointment DAB 6 | 13051601 | 11      |
| Caelo    | Cooling cream DAB      | 13051602 | 3       |
| Caelo    | Cooling cream DAB      | 13059501 | 2       |
| Caelo    | Cooling cream DAB      | 13059601 | 7       |
| Caelo    | Cooling cream DAB      | 13059701 | 6       |
| Caelo    | Cooling ointment DAB 6 | 13059901 | 12      |
| Caelo    | Cooling cream DAB      | 13059902 | 4       |
| Caelo    | Cooling cream DAB      | 13068101 | 3       |
| Caelo    | Cooling ointment DAB 6 | 13120901 | 22      |
| Caelo    | Cooling cream DAB      | 1312091  | 1       |
| Caelo    | Cooling ointment DAB 6 | 13121001 | 9       |
| Caelo    | Cooling cream DAB      | 13121002 | 2       |
| Caelo    | Cooling ointment DAB 6 | 13121201 | 10      |
| Caelo    | Cooling cream DAB      | 13121301 | 5       |
| Caelo    | Cooling ointment DAB 6 | 13121401 | 9       |
| Caelo    | Cooling cream DAB      | 13121501 | 1       |
| Caelo    | Cooling cream DAB      | 13121503 | 1       |
| Caelo    | Cooling cream DAB      | 13121601 | 1       |
| Caelo    | Cooling ointment DAB 6 | 13121701 | 8       |
| Caelo    | Cooling ointment DAB 6 | 13121717 | 1       |
| Caelo    | Cooling cream DAB      | 1312601  | 1       |
| Caelo    | Cooling cream DAB      | 1315601  | 1       |
| Caelo    | Cooling ointment DAB 6 | 13174901 | 2       |
| Caelo    | Cooling cream DAB      | 13175001 | 2       |
| Caelo    | Cooling ointment DAB 6 | 13175101 | 8       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Caelo           | Cooling cream DAB      | 13175201     | 7              |
| Caelo           | Cooling ointment DAB 6 | 13175301     | 28             |
| Caelo           | Cooling cream DAB      | 13191301     | 2              |
| Caelo           | Cooling cream DAB      | 13191401     | 10             |
| Caelo           | Cooling ointment DAB 6 | 13191501     | 5              |
| Caelo           | Cooling cream DAB      | 13191601     | 6              |
| Caelo           | Cooling ointment DAB 6 | 13191701     | 9              |
| Caelo           | Cooling cream DAB      | 13191801     | 8              |
| Caelo           | Cooling ointment DAB 6 | 13191901     | 5              |
| Caelo           | Cooling cream DAB      | 13192001     | 8              |
| Caelo           | Cooling ointment DAB 6 | 13192101     | 13             |
| Caelo           | Cooling cream DAB      | 13192201     | 1              |
| Caelo           | Cooling cream DAB      | 13214010     | 1              |
| Caelo           | Cooling cream DAB      | 13225701     | 2              |
| Caelo           | Cooling cream DAB      | 13225801     | 1              |
| Caelo           | Cooling cream DAB      | 1322601      | 1              |
| Caelo           | Cooling cream DAB      | 13226301     | 5              |
| Caelo           | Cooling ointment DAB 6 | 13226302     | 7              |
| Caelo           | Cooling ointment DAB 6 | 13226501     | 9              |
| Caelo           | Cooling ointment DAB 6 | 13226601     | 28             |
| Caelo           | Cooling cream DAB      | 13226602     | 1              |
| Caelo           | Cooling cream DAB      | 13226701     | 4              |
| Caelo           | Cooling ointment DAB 6 | 13226801     | 21             |
| Caelo           | Cooling cream DAB      | 13226901     | 8              |
| Caelo           | Cooling cream DAB      | 13227001     | 3              |
| Caelo           | Cooling cream DAB      | 13227101     | 6              |
| Caelo           | Cooling cream DAB      | 13227201     | 7              |
| Caelo           | Cooling cream DAB      | 13227301     | 4              |
| Caelo           | Cooling cream DAB      | 13227401     | 10             |
| Caelo           | Cooling ointment DAB 6 | 1328702      | 1              |
| Caelo           | Cooling cream DAB      | 13315101     | 26             |
| Caelo           | Cooling cream DAB      | 13315102     | 3              |
| Caelo           | Cooling cream DAB      | 13315201     | 9              |
| Caelo           | Cooling cream DAB      | 13315401     | 1              |
| Caelo           | Cooling cream DAB      | 13315601     | 6              |
| Caelo           | Cooling cream DAB      | 13315701     | 3              |
| Caelo           | Cooling cream DAB      | 13315801     | 4              |
| Caelo           | Cooling cream DAB      | 13315901     | 1              |
| Caelo           | Cooling cream DAB      | 13316001     | 1              |
| Caelo           | Cooling cream DAB      | 133227401    | 1              |
| Caelo           | Cooling cream DAB      | 13327101     | 1              |
| Caelo           | Cooling cream DAB      | 13401801     | 29             |
| Caelo           | Cooling cream DAB      | 13401901     | 13             |
| Caelo           | Cooling cream DAB      | 13402001     | 5              |
| Caelo           | Cooling cream DAB      | 13402101     | 7              |
| Caelo           | Cooling cream DAB      | 13402201     | 16             |
| Caelo           | Cooling cream DAB      | 14000101     | 2              |
| Caelo           | Cooling cream DAB      | 14000201     | 7              |
| Caelo           | Cooling cream DAB      | 14000301     | 12             |
| Caelo           | Cooling cream DAB      | 14000401     | 2              |
| Caelo           | Cooling cream DAB      | 14000501     | 5              |
| Caelo           | Cooling cream DAB      | 14055301     | 7              |
| Caelo           | Cooling cream DAB      | 14055401     | 2              |
| Caelo           | Cooling cream DAB      | 14055501     | 3              |
| Caelo           | Cooling cream DAB      | 14055601     | 11             |
| Caelo           | Cooling cream DAB      | 14055702     | 11             |
| Caelo           | Cooling cream DAB      | 14055703     | 2              |
| Caelo           | Cooling cream DAB      | 14071204     | 1              |
| Caelo           | Cooling ointment DAB 6 | 14085901     | 17             |
| Caelo           | Cooling cream DAB      | 14085902     | 4              |

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| Supplier | Substance              | Batch     | Spectra |
|----------|------------------------|-----------|---------|
| Caelo    | Cooling cream DAB      | 14086001  | 5       |
| Caelo    | Cooling cream DAB      | 1408601   | 1       |
| Caelo    | Cooling cream DAB      | 14086101  | 3       |
| Caelo    | Cooling cream DAB      | 14086201  | 5       |
| Caelo    | Cooling ointment DAB 6 | 14086301  | 12      |
| Caelo    | Cooling cream DAB      | 1408631   | 1       |
| Caelo    | Cooling cream DAB      | 14086401  | 3       |
| Caelo    | Cooling cream DAB      | 14086501  | 1       |
| Caelo    | Cooling cream DAB      | 14086601  | 4       |
| Caelo    | Cooling cream DAB      | 14086801  | 8       |
| Caelo    | Cooling cream DAB      | 14097214  | 1       |
| Caelo    | Cooling cream DAB      | 14101401  | 1       |
| Caelo    | Cooling cream DAB      | 14101713  | 1       |
| Caelo    | Cooling ointment DAB 6 | 14118002  | 1       |
| Caelo    | Cooling cream DAB      | 1412801   | 1       |
| Caelo    | Cooling cream DAB      | 14129401  | 14      |
| Caelo    | Cooling cream DAB      | 14129402  | 2       |
| Caelo    | Cooling cream DAB      | 14129501  | 4       |
| Caelo    | Cooling cream DAB      | 14129701  | 1       |
| Caelo    | Cooling ointment DAB 6 | 14129801  | 23      |
| Caelo    | Cooling cream DAB      | 14132001  | 1       |
| Caelo    | Cooling cream DAB      | 14132201  | 6       |
| Caelo    | Cooling cream DAB      | 14132301  | 9       |
| Caelo    | Cooling cream DAB      | 14132401  | 12      |
| Caelo    | Cooling cream DAB      | 14143101  | 1       |
| Caelo    | Cooling ointment DAB 6 | 14145501  | 22      |
| Caelo    | Cooling cream DAB      | 14145602  | 2       |
| Caelo    | Cooling cream DAB      | 14145701  | 5       |
| Caelo    | Cooling cream DAB      | 14145801  | 2       |
| Caelo    | Cooling cream DAB      | 14145901  | 10      |
| Caelo    | Cooling cream DAB      | 1418401   | 2       |
| Caelo    | Cooling cream DAB      | 14184301  | 1       |
| Caelo    | Cooling ointment DAB 6 | 14184401  | 10      |
| Caelo    | Cooling cream DAB      | 14184402  | 3       |
| Caelo    | Cooling cream DAB      | 14184501  | 19      |
| Caelo    | Cooling ointment DAB 6 | 14184601  | 23      |
| Caelo    | Cooling cream DAB      | 14184701  | 7       |
| Caelo    | Cooling ointment DAB 6 | 14184801  | 6       |
| Caelo    | Cooling cream DAB      | 14184901  | 6       |
| Caelo    | Cooling cream DAB      | 14185001  | 9       |
| Caelo    | Cooling cream DAB      | 14185101  | 5       |
| Caelo    | Cooling cream DAB      | 14186601  | 1       |
| Caelo    | Cooling cream DAB      | 14200401  | 1       |
| Caelo    | Cooling cream DAB      | 14258301  | 1       |
| Caelo    | Cooling cream DAB      | 14268002  | 1       |
| Caelo    | Cooling ointment DAB 6 | 14268101  | 15      |
| Caelo    | Cooling cream DAB      | 142681012 | 1       |
| Caelo    | Cooling cream DAB      | 14268102  | 1       |
| Caelo    | Cooling cream DAB      | 14268201  | 4       |
| Caelo    | Cooling cream DAB      | 14268301  | 17      |
| Caelo    | Cooling cream DAB      | 14271101  | 4       |
| Caelo    | Cooling ointment DAB 6 | 14271201  | 4       |
| Caelo    | Cooling cream DAB      | 14271301  | 4       |
| Caelo    | Cooling ointment DAB 6 | 14271401  | 9       |
| Caelo    | Cooling cream DAB      | 14271501  | 3       |
| Caelo    | Cooling cream DAB      | 142728301 | 1       |
| Caelo    | Cooling cream DAB      | 1427801   | 1       |
| Caelo    | Cooling cream DAB      | 14278201  | 9       |
| Caelo    | Cooling ointment DAB 6 | 14278301  | 22      |
| Caelo    | Cooling ointment DAB 6 | 14278401  | 6       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Caelo           | Cooling cream DAB      | 14278502     | 7              |
| Caelo           | Cooling cream DAB      | 14278601     | 4              |
| Caelo           | Cooling ointment DAB 6 | 14288601     | 10             |
| Caelo           | Cooling cream DAB      | 14288701     | 5              |
| Caelo           | Cooling cream DAB      | 14328701     | 3              |
| Caelo           | Cooling ointment DAB 6 | 14328702     | 11             |
| Caelo           | Cooling ointment DAB 6 | 14328801     | 30             |
| Caelo           | Cooling cream DAB      | 14328901     | 3              |
| Caelo           | Cooling ointment DAB 6 | 14329001     | 5              |
| Caelo           | Cooling ointment DAB 6 | 14329201     | 5              |
| Caelo           | Cooling ointment DAB 6 | 14329301     | 13             |
| Caelo           | Cooling ointment DAB 6 | 14329401     | 12             |
| Caelo           | Cooling cream DAB      | 14329501     | 5              |
| Caelo           | Cooling ointment DAB 6 | 14329601     | 13             |
| Caelo           | Cooling cream DAB      | 1468201      | 1              |
| Caelo           | Cooling cream DAB      | 1484701      | 1              |
| Caelo           | Cooling cream DAB      | 15000501     | 1              |
| Caelo           | Cooling cream DAB      | 15008501     | 1              |
| Caelo           | Cooling cream DAB      | 15011304     | 1              |
| Caelo           | Cooling ointment DAB 6 | 15014701     | 1              |
| Caelo           | Cooling cream DAB      | 15017601     | 1              |
| Caelo           | Cooling cream DAB      | 1502801      | 1              |
| Caelo           | Cooling cream DAB      | 15048701     | 1              |
| Caelo           | Cooling ointment DAB 6 | 15049201     | 23             |
| Caelo           | Cooling ointment DAB 6 | 15049202     | 6              |
| Caelo           | Cooling ointment DAB 6 | 15052801     | 21             |
| Caelo           | Cooling cream DAB      | 15053001     | 3              |
| Caelo           | Cooling cream DAB      | 15058801     | 5              |
| Caelo           | Cooling cream DAB      | 15058901     | 3              |
| Caelo           | Cooling ointment DAB 6 | 15059001     | 6              |
| Caelo           | Cooling ointment DAB 6 | 15059201     | 36             |
| Caelo           | Cooling cream DAB      | 1506601      | 1              |
| Caelo           | Cooling cream DAB      | 15066501     | 2              |
| Caelo           | Cooling ointment DAB 6 | 15066601     | 23             |
| Caelo           | Cooling cream DAB      | 15066701     | 5              |
| Caelo           | Cooling cream DAB      | 15066801     | 8              |
| Caelo           | Cooling cream DAB      | 15066801test | 1              |
| Caelo           | Cooling cream DAB      | 15066901     | 4              |
| Caelo           | Cooling cream DAB      | 15069201     | 1              |
| Caelo           | Cooling cream DAB      | 1509201      | 1              |
| Caelo           | Cooling cream DAB      | 1513101      | 2              |
| Caelo           | Cooling cream DAB      | 1513201      | 2              |
| Caelo           | Cooling ointment DAB 6 | 15134404     | 1              |
| Caelo           | Cooling cream DAB      | 15152801     | 5              |
| Caelo           | Cooling cream DAB      | 15152901     | 4              |
| Caelo           | Cooling ointment DAB 6 | 15153001     | 6              |
| Caelo           | Cooling cream DAB      | 15153101     | 4              |
| Caelo           | Cooling ointment DAB 6 | 15153201     | 12             |
| Caelo           | Cooling ointment DAB 6 | 15153301     | 7              |
| Caelo           | Cooling cream DAB      | 15153401     | 1              |
| Caelo           | Cooling ointment DAB 6 | 15153501     | 25             |
| Caelo           | Cooling cream DAB      | 15153701     | 9              |
| Caelo           | Cooling ointment DAB 6 | 15228401     | 8              |
| Caelo           | Cooling ointment DAB 6 | 15228501     | 32             |
| Caelo           | Cooling ointment DAB 6 | 15228502     | 9              |
| Caelo           | Cooling ointment DAB 6 | 15228601     | 57             |
| Caelo           | Cooling cream DAB      | 15228701     | 10             |
| Caelo           | Cooling cream DAB      | 15228801     | 18             |
| Caelo           | Cooling ointment DAB 6 | 152327901    | 1              |
| Caelo           | Cooling cream DAB      | 1523609      | 1              |

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| Supplier | Substance              | Batch                | Spectra |
|----------|------------------------|----------------------|---------|
| Caelo    | Cooling cream DAB      | 15236701             | 1       |
| Caelo    | Cooling ointment DAB 6 | 15236801             | 7       |
| Caelo    | Cooling ointment DAB 6 | 15236901             | 27      |
| Caelo    | Cooling cream DAB      | 15236902             | 7       |
| Caelo    | Cooling ointment DAB 6 | 15237101             | 18      |
| Caelo    | Cooling ointment DAB 6 | 15302901             | 1       |
| Caelo    | Cooling ointment DAB 6 | 15327701             | 11      |
| Caelo    | Cooling ointment DAB 6 | 15327801             | 8       |
| Caelo    | Cooling ointment DAB 6 | 15327901             | 10      |
| Caelo    | Cooling ointment DAB 6 | 15328001             | 61      |
| Caelo    | Cooling cream DAB      | 15328101             | 3       |
| Caelo    | Cooling cream DAB      | 15338601             | 2       |
| Caelo    | Cooling cream DAB      | 1534501              | 1       |
| Caelo    | Cooling ointment DAB 6 | 15413501             | 6       |
| Caelo    | Cooling ointment DAB 6 | 15413601             | 8       |
| Caelo    | Cooling cream DAB      | 15413701             | 7       |
| Caelo    | Cooling ointment DAB 6 | 15413901             | 8       |
| Caelo    | Cooling cream DAB      | 15417201             | 8       |
| Caelo    | Cooling ointment DAB 6 | 15417301             | 6       |
| Caelo    | Cooling ointment DAB 6 | 15417401             | 8       |
| Caelo    | Cooling ointment DAB 6 | 15417501             | 16      |
| Caelo    | Cooling cream DAB      | 15417601             | 9       |
| Caelo    | Cooling ointment DAB 6 | 15434401             | 26      |
| Caelo    | Cooling cream DAB      | 15434401/20160309/1  | 1       |
| Caelo    | Cooling cream DAB      | 15434401/20160309/2  | 1       |
| Caelo    | Cooling cream DAB      | 15434401/201603093   | 1       |
| Caelo    | Cooling ointment DAB 6 | 15434402             | 25      |
| Caelo    | Cooling ointment DAB 6 | 15434501             | 32      |
| Caelo    | Cooling ointment DAB 6 | 15434502             | 22      |
| Caelo    | Cooling ointment DAB 6 | 15434503             | 6       |
| Caelo    | Cooling cream DAB      | 15434701             | 1       |
| Caelo    | Cooling cream DAB      | 1543501              | 1       |
| Caelo    | Cooling cream DAB      | 1543502              | 1       |
| Caelo    | Cooling ointment DAB 6 | 15435101             | 22      |
| Caelo    | Cooling ointment DAB 6 | 15435102             | 31      |
| Caelo    | Cooling cream DAB      | 1543512              | 1       |
| Caelo    | Cooling ointment DAB 6 | 1547501              | 2       |
| Caelo    | Cooling cream DAB      | 157301               | 1       |
| Caelo    | Cooling cream DAB      | 16/268/L             | 1       |
| Caelo    | Cooling ointment DAB 6 | 16000201             | 12      |
| Caelo    | Cooling cream DAB      | 16000401             | 2       |
| Caelo    | Cooling ointment DAB 6 | 16000501             | 11      |
| Caelo    | Cooling cream DAB      | 16000601             | 14      |
| Caelo    | Cooling cream DAB      | 16000801             | 7       |
| Caelo    | Cooling cream DAB      | 16031707             | 1       |
| Caelo    | Cooling cream DAB      | 1605801              | 1       |
| Caelo    | Cooling cream DAB      | 1605901              | 1       |
| Caelo    | Cooling cream DAB      | 16071505             | 1       |
| Caelo    | Cooling cream DAB      | 16071809             | 1       |
| Caelo    | Cooling cream DAB      | 16081303             | 1       |
| Caelo    | Cooling cream DAB      | 16081812             | 1       |
| Caelo    | Cooling cream DAB      | 16081813             | 1       |
| Caelo    | Cooling cream DAB      | 160850801            | 1       |
| Caelo    | Cooling ointment DAB 6 | 16085801             | 18      |
| Caelo    | Cooling cream DAB      | 160859               | 1       |
| Caelo    | Cooling ointment DAB 6 | 16085901             | 23      |
| Caelo    | Cooling cream DAB      | 16085902             | 10      |
| Caelo    | Cooling ointment DAB 6 | 16086001             | 9       |
| Caelo    | Cooling cream DAB      | 16086001-20160615Ma1 | 1       |
| Caelo    | Cooling ointment DAB 6 | 1608601              | 1       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------------|------------------|----------------|
| Caelo           | Cooling ointment DAB 6 | 16086101         | 19             |
| Caelo           | Cooling ointment DAB 6 | 16089702         | 1              |
| Caelo           | Cooling cream DAB      | 16101201         | 1              |
| Caelo           | Cooling cream DAB      | 16114625         | 1              |
| Caelo           | Cooling ointment DAB 6 | 16123501         | 1              |
| Caelo           | Cooling ointment DAB 6 | 16129401         | 12             |
| Caelo           | Cooling ointment DAB 6 | 16129501         | 16             |
| Caelo           | Cooling cream DAB      | 16129502         | 2              |
| Caelo           | Cooling cream DAB      | 16129601         | 4              |
| Caelo           | Cooling ointment DAB 6 | 16129701         | 6              |
| Caelo           | Cooling cream DAB      | 161333801        | 1              |
| Caelo           | Cooling cream DAB      | 16133801         | 5              |
| Caelo           | Cooling ointment DAB 6 | 16133901         | 5              |
| Caelo           | Cooling ointment DAB 6 | 16134001         | 9              |
| Caelo           | Cooling ointment DAB 6 | 16134101         | 10             |
| Caelo           | Cooling ointment DAB 6 | 16134201         | 48             |
| Caelo           | Cooling cream DAB      | 16134202         | 1              |
| Caelo           | Cooling ointment DAB 6 | 16171901         | 12             |
| Caelo           | Cooling ointment DAB 6 | 16172001         | 16             |
| Caelo           | Cooling ointment DAB 6 | 16172501         | 3              |
| Caelo           | Cooling ointment DAB 6 | 1617260          | 1              |
| Caelo           | Cooling ointment DAB 6 | 16172601         | 66             |
| Caelo           | Cooling ointment DAB 6 | 16172701         | 10             |
| Caelo           | Cooling ointment DAB 6 | 16172801         | 17             |
| Caelo           | Cooling ointment DAB 6 | 16172901         | 30             |
| Caelo           | Cooling ointment DAB 6 | 16172902         | 14             |
| Caelo           | Cooling cream DAB      | 16173001         | 1              |
| Caelo           | Cooling ointment DAB 6 | 16222401         | 1              |
| Caelo           | Cooling ointment DAB 6 | 16222402         | 1              |
| Caelo           | Cooling ointment DAB 6 | 16244601         | 16             |
| Caelo           | Cooling cream DAB      | 162446901        | 1              |
| Caelo           | Cooling ointment DAB 6 | 16244701         | 88             |
| Caelo           | Cooling ointment DAB 6 | 16245301         | 1              |
| Caelo           | Cooling ointment DAB 6 | 16246201         | 18             |
| Caelo           | Cooling ointment DAB 6 | 16246301         | 23             |
| Caelo           | Cooling cream DAB      | 1629401          | 1              |
| Caelo           | Cooling ointment DAB 6 | 16301702         | 6              |
| Caelo           | Cooling ointment DAB 6 | 16301801         | 43             |
| Caelo           | Cooling cream DAB      | 16301901         | 9              |
| Caelo           | Cooling cream DAB      | 163020001        | 1              |
| Caelo           | Cooling ointment DAB 6 | 16302001         | 7              |
| Caelo           | Cooling ointment DAB 6 | 16302101         | 13             |
| Caelo           | Cooling ointment DAB 6 | 1630210101097214 | 1              |
| Caelo           | Cooling ointment DAB 6 | 16311604         | 1              |
| Caelo           | Cooling cream DAB      | 163202001        | 1              |
| Caelo           | Cooling ointment DAB 6 | 1632101          | 1              |
| Caelo           | Cooling ointment DAB 6 | 16322901         | 7              |
| Caelo           | Cooling cream DAB      | 163230001        | 1              |
| Caelo           | Cooling cream DAB      | 16323001         | 10             |
| Caelo           | Cooling ointment DAB 6 | 16323101         | 5              |
| Caelo           | Cooling ointment DAB 6 | 16354401         | 38             |
| Caelo           | Cooling ointment DAB 6 | 16354402         | 11             |
| Caelo           | Cooling cream DAB      | 16434201         | 1              |
| Caelo           | Cooling cream DAB      | 1686101          | 1              |
| Caelo           | Cooling cream DAB      | 170000301        | 1              |
| Caelo           | Cooling cream DAB      | 17000218         | 1              |
| Caelo           | Cooling cream DAB      | 17000226         | 3              |
| Caelo           | Cooling ointment DAB 6 | 17000301         | 11             |
| Caelo           | Cooling ointment DAB 6 | 17000401         | 14             |
| Caelo           | Cooling ointment DAB 6 | 17000501         | 9              |

*continued on the next page*

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| Supplier | Substance              | Batch                | Spectra |
|----------|------------------------|----------------------|---------|
| Caelo    | Cooling ointment DAB 6 | 17000601             | 62      |
| Caelo    | Cooling cream DAB      | 17000977             | 1       |
| Caelo    | Cooling cream DAB      | 17000978             | 1       |
| Caelo    | Cooling cream DAB      | 17000983             | 1       |
| Caelo    | Cooling cream DAB      | 17000985             | 1       |
| Caelo    | Cooling cream DAB      | 17000986             | 1       |
| Caelo    | Cooling cream DAB      | 17001963             | 1       |
| Caelo    | Cooling cream DAB      | 17001967             | 1       |
| Caelo    | Cooling cream DAB      | 1700601              | 2       |
| Caelo    | Cooling cream DAB      | 170207UL/16323101    | 1       |
| Caelo    | Cooling ointment DAB 6 | 17033001             | 75      |
| Caelo    | Cooling cream DAB      | 17033011             | 2       |
| Caelo    | Cooling ointment DAB 6 | 17035301             | 22      |
| Caelo    | Cooling ointment DAB 6 | 17035401             | 14      |
| Caelo    | Cooling ointment DAB 6 | 17035501             | 13      |
| Caelo    | Cooling ointment DAB 6 | 17038501             | 15      |
| Caelo    | Cooling ointment DAB 6 | 17041301             | 4       |
| Caelo    | Cooling cream DAB      | 1705101              | 1       |
| Caelo    | Cooling ointment DAB 6 | 170522UL/16323101    | 1       |
| Caelo    | Cooling ointment DAB 6 | 1705401              | 1       |
| Caelo    | Cooling cream DAB      | 170614182            | 1       |
| Caelo    | Cooling cream DAB      | 17061702             | 1       |
| Caelo    | Cooling cream DAB      | 170728UL/17081801    | 1       |
| Caelo    | Cooling ointment DAB 6 | 17074801             | 13      |
| Caelo    | Cooling ointment DAB 6 | 17075001             | 17      |
| Caelo    | Cooling ointment DAB 6 | 17075002             | 3       |
| Caelo    | Cooling cream DAB      | 170750101            | 1       |
| Caelo    | Cooling ointment DAB 6 | 17075101             | 31      |
| Caelo    | Cooling ointment DAB 6 | 17075102             | 10      |
| Caelo    | Cooling cream DAB      | 17075105             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17075201             | 63      |
| Caelo    | Cooling ointment DAB 6 | 17075301             | 26      |
| Caelo    | Cooling ointment DAB 6 | 17075401             | 13      |
| Caelo    | Cooling cream DAB      | 170754015325         | 1       |
| Caelo    | Cooling ointment DAB 6 | 17081801             | 21      |
| Caelo    | Cooling cream DAB      | 17081801-20170818Ma8 | 1       |
| Caelo    | Cooling cream DAB      | 170926UL/17122701    | 1       |
| Caelo    | Cooling cream DAB      | 170975201            | 1       |
| Caelo    | Cooling ointment DAB 6 | 17115601             | 39      |
| Caelo    | Cooling ointment DAB 6 | 17115701             | 13      |
| Caelo    | Cooling ointment DAB 6 | 17115901             | 7       |
| Caelo    | Cooling ointment DAB 6 | 17116001             | 16      |
| Caelo    | Cooling ointment DAB 6 | 17117401             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17117402             | 5       |
| Caelo    | Cooling cream DAB      | 17121301             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17122701             | 22      |
| Caelo    | Cooling ointment DAB 6 | 17122801             | 19      |
| Caelo    | Cooling cream DAB      | 171229UL/17122801    | 1       |
| Caelo    | Cooling ointment DAB 6 | 17124801             | 5       |
| Caelo    | Cooling ointment DAB 6 | 17124802             | 4       |
| Caelo    | Cooling ointment DAB 6 | 17124901             | 23      |
| Caelo    | Cooling cream DAB      | 17124911             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17125002             | 17      |
| Caelo    | Cooling ointment DAB 6 | 17125101             | 22      |
| Caelo    | Cooling ointment DAB 6 | 1712901              | 1       |
| Caelo    | Cooling cream DAB      | 171298501            | 1       |
| Caelo    | Cooling ointment DAB 6 | 1715002              | 1       |
| Caelo    | Cooling cream DAB      | 17156702             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17156801             | 50      |
| Caelo    | Cooling ointment DAB 6 | 17156901             | 16      |

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| Supplier | Substance              | Batch                | Spectra |
|----------|------------------------|----------------------|---------|
| Caelo    | Cooling ointment DAB 6 | 17157001             | 22      |
| Caelo    | Cooling ointment DAB 6 | 17157002             | 12      |
| Caelo    | Cooling ointment DAB 6 | 17157101             | 17      |
| Caelo    | Cooling ointment DAB 6 | 17157201             | 6       |
| Caelo    | Cooling ointment DAB 6 | 17157301             | 17      |
| Caelo    | Cooling ointment DAB 6 | 17162001             | 1       |
| Caelo    | Cooling cream DAB      | 1718902              | 1       |
| Caelo    | Cooling ointment DAB 6 | 17189701             | 34      |
| Caelo    | Cooling ointment DAB 6 | 1718970101           | 1       |
| Caelo    | Cooling cream DAB      | 1718980              | 1       |
| Caelo    | Cooling ointment DAB 6 | 17189801             | 19      |
| Caelo    | Cooling ointment DAB 6 | 17189802             | 12      |
| Caelo    | Cooling ointment DAB 6 | 17199003             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17253801             | 2       |
| Caelo    | Cooling cream DAB      | 17254001             | 3       |
| Caelo    | Cooling ointment DAB 6 | 17254101             | 57      |
| Caelo    | Cooling ointment DAB 6 | 17254201             | 47      |
| Caelo    | Cooling cream DAB      | 1725421              | 1       |
| Caelo    | Cooling ointment DAB 6 | 17254301             | 8       |
| Caelo    | Cooling ointment DAB 6 | 17254301-20180206Ma1 | 1       |
| Caelo    | Cooling ointment DAB 6 | 17254401             | 13      |
| Caelo    | Cooling ointment DAB 6 | 17254501             | 20      |
| Caelo    | Cooling ointment DAB 6 | 172545015478         | 1       |
| Caelo    | Cooling ointment DAB 6 | 17254601             | 10      |
| Caelo    | Cooling ointment DAB 6 | 17254801             | 8       |
| Caelo    | Cooling ointment DAB 6 | 17254901             | 10      |
| Caelo    | Cooling ointment DAB 6 | 17255001             | 21      |
| Caelo    | Cooling ointment DAB 6 | 17255101             | 15      |
| Caelo    | Cooling cream DAB      | 17255901             | 2       |
| Caelo    | Cooling cream DAB      | 17296401             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17298001             | 34      |
| Caelo    | Cooling ointment DAB 6 | 17298002             | 10      |
| Caelo    | Cooling ointment DAB 6 | 17298101             | 14      |
| Caelo    | Cooling ointment DAB 6 | 17298201             | 14      |
| Caelo    | Cooling ointment DAB 6 | 17298301             | 10      |
| Caelo    | Cooling ointment DAB 6 | 172983010            | 1       |
| Caelo    | Cooling ointment DAB 6 | 172983015595         | 1       |
| Caelo    | Cooling ointment DAB 6 | 17298401             | 20      |
| Caelo    | Cooling cream DAB      | 17298501             | 11      |
| Caelo    | Cooling ointment DAB 6 | 17298701             | 18      |
| Caelo    | Cooling ointment DAB 6 | 17330801             | 24      |
| Caelo    | Cooling ointment DAB 6 | 17330802             | 67      |
| Caelo    | Cooling cream DAB      | 173308021            | 1       |
| Caelo    | Cooling cream DAB      | 17330803             | 1       |
| Caelo    | Cooling ointment DAB 6 | 17331001             | 29      |
| Caelo    | Cooling cream DAB      | 1733101              | 1       |
| Caelo    | Cooling ointment DAB 6 | 1733801              | 1       |
| Caelo    | Cooling cream DAB      | 17345103             | 1       |
| Caelo    | Cooling cream DAB      | 17517101             | 1       |
| Caelo    | Cooling cream DAB      | 1757101              | 1       |
| Caelo    | Cooling cream DAB      | 1798201              | 1       |
| Caelo    | Cooling cream DAB      | 17G03-B11-341399     | 1       |
| Caelo    | Cooling cream DAB      | 18000338             | 2       |
| Caelo    | Cooling cream DAB      | 18000339             | 1       |
| Caelo    | Cooling cream DAB      | 18001077             | 1       |
| Caelo    | Cooling cream DAB      | 18001080             | 2       |
| Caelo    | Cooling cream DAB      | 18001081             | 1       |
| Caelo    | Cooling cream DAB      | 18001082             | 3       |
| Caelo    | Cooling cream DAB      | 18001083             | 2       |
| Caelo    | Cooling cream DAB      | 18001084             | 1       |

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continued from previous page

| Supplier | Substance              | Batch        | Spectra |
|----------|------------------------|--------------|---------|
| Caelo    | Cooling cream DAB      | 18002087     | 1       |
| Caelo    | Cooling cream DAB      | 18002088     | 1       |
| Caelo    | Cooling cream DAB      | 18002092     | 1       |
| Caelo    | Cooling cream DAB      | 18002093     | 1       |
| Caelo    | Cooling cream DAB      | 18002094     | 1       |
| Caelo    | Cooling cream DAB      | 18002096     | 3       |
| Caelo    | Cooling cream DAB      | 18002243     | 3       |
| Caelo    | Cooling cream DAB      | 18002305     | 1       |
| Caelo    | Cooling cream DAB      | 18002309     | 2       |
| Caelo    | Cooling ointment DAB 6 | 18002802     | 1       |
| Caelo    | Cooling cream DAB      | 18003752     | 1       |
| Caelo    | Cooling cream DAB      | 18004428     | 1       |
| Caelo    | Cooling cream DAB      | 18004431     | 1       |
| Caelo    | Cooling cream DAB      | 18004433     | 1       |
| Caelo    | Cooling cream DAB      | 18005202     | 1       |
| Caelo    | Cooling cream DAB      | 18005204     | 4       |
| Caelo    | Cooling cream DAB      | 18005205     | 3       |
| Caelo    | Cooling cream DAB      | 18005206     | 2       |
| Caelo    | Cooling cream DAB      | 18005207     | 4       |
| Caelo    | Cooling cream DAB      | 18006312     | 3       |
| Caelo    | Cooling cream DAB      | 18006325     | 1       |
| Caelo    | Cooling cream DAB      | 18012201     | 1       |
| Caelo    | Cooling ointment DAB 6 | 18021803     | 1       |
| Caelo    | Cooling cream DAB      | 180420402    | 1       |
| Caelo    | Cooling ointment DAB 6 | 18042401     | 55      |
| Caelo    | Cooling ointment DAB 6 | 18042402     | 12      |
| Caelo    | Cooling ointment DAB 6 | 18042403     | 11      |
| Caelo    | Cooling cream DAB      | 18042601     | 3       |
| Caelo    | Cooling ointment DAB 6 | 18042701     | 29      |
| Caelo    | Cooling ointment DAB 6 | 18042801     | 32      |
| Caelo    | Cooling ointment DAB 6 | 181016186    | 2       |
| Caelo    | Cooling ointment DAB 6 | 18104501     | 28      |
| Caelo    | Cooling ointment DAB 6 | 181046       | 2       |
| Caelo    | Cooling ointment DAB 6 | 18104601     | 25      |
| Caelo    | Cooling ointment DAB 6 | 18106401     | 4       |
| Caelo    | Cooling cream DAB      | 18121205     | 1       |
| Caelo    | Cooling ointment DAB 6 | 1812401      | 1       |
| Caelo    | Cooling cream DAB      | 18181201     | 1       |
| Caelo    | Cooling ointment DAB 6 | 18182301     | 50      |
| Caelo    | Cooling ointment DAB 6 | 18182401     | 68      |
| Caelo    | Cooling ointment DAB 6 | 18182501     | 50      |
| Caelo    | Cooling ointment DAB 6 | 18182601     | 35      |
| Caelo    | Cooling cream DAB      | 18182602     | 2       |
| Caelo    | Cooling ointment DAB 6 | 18182701     | 57      |
| Caelo    | Cooling ointment DAB 6 | 18182702     | 9       |
| Caelo    | Cooling cream DAB      | 18182801     | 2       |
| Caelo    | Cooling ointment DAB 6 | 18182901     | 20      |
| Caelo    | Cooling ointment DAB 6 | 181829015742 | 1       |
| Caelo    | Cooling ointment DAB 6 | 18183001     | 10      |
| Caelo    | Cooling ointment DAB 6 | 18183101     | 12      |
| Caelo    | Cooling ointment DAB 6 | 18183201     | 23      |
| Caelo    | Cooling ointment DAB 6 | 18183301     | 18      |
| Caelo    | Cooling ointment DAB 6 | 18183401     | 20      |
| Caelo    | Cooling cream DAB      | 181892701    | 1       |
| Caelo    | Cooling ointment DAB 6 | 18189701     | 1       |
| Caelo    | Cooling ointment DAB 6 | 18189702     | 1       |
| Caelo    | Cooling ointment DAB 6 | 18218301     | 25      |
| Caelo    | Cooling ointment DAB 6 | 18218302     | 53      |
| Caelo    | Cooling ointment DAB 6 | 18218401     | 2       |
| Caelo    | Cooling ointment DAB 6 | 18218502     | 1       |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Caelo           | Cooling ointment DAB 6 | 18218503     | 13             |
| Caelo           | Cooling ointment DAB 6 | 18218601     | 37             |
| Caelo           | Cooling ointment DAB 6 | 18218701     | 40             |
| Caelo           | Cooling ointment DAB 6 | 182188       | 1              |
| Caelo           | Cooling ointment DAB 6 | 18218801     | 18             |
| Caelo           | Cooling ointment DAB 6 | 18218901     | 33             |
| Caelo           | Cooling cream DAB      | 1821901      | 1              |
| Caelo           | Cooling ointment DAB 6 | 18219201     | 24             |
| Caelo           | Cooling ointment DAB 6 | 18219301     | 27             |
| Caelo           | Cooling ointment DAB 6 | 18219401     | 34             |
| Caelo           | Cooling cream DAB      | 182218901    | 1              |
| Caelo           | Cooling ointment DAB 6 | 18258401     | 1              |
| Caelo           | Cooling ointment DAB 6 | 18258402     | 1              |
| Caelo           | Cooling ointment DAB 6 | 1827201      | 2              |
| Caelo           | Cooling cream DAB      | 18272502     | 2              |
| Caelo           | Cooling ointment DAB 6 | 18272601     | 4              |
| Caelo           | Cooling ointment DAB 6 | 18272801     | 16             |
| Caelo           | Cooling ointment DAB 6 | 18272802     | 9              |
| Caelo           | Cooling ointment DAB 6 | 182729001    | 1              |
| Caelo           | Cooling ointment DAB 6 | 18272901     | 49             |
| Caelo           | Cooling cream DAB      | 18273001     | 8              |
| Caelo           | Cooling ointment DAB 6 | 18273101     | 21             |
| Caelo           | Cooling ointment DAB 6 | 182731016x   | 1              |
| Caelo           | Cooling ointment DAB 6 | 18273201     | 15             |
| Caelo           | Cooling cream DAB      | 1828801      | 1              |
| Caelo           | Cooling cream DAB      | 1845         | 1              |
| Caelo           | Cooling cream DAB      | 19000328     | 1              |
| Caelo           | Cooling cream DAB      | 19000333     | 2              |
| Caelo           | Cooling cream DAB      | 19000334     | 1              |
| Caelo           | Cooling cream DAB      | 19000575002  | 7              |
| Caelo           | Cooling ointment DAB 6 | 19000576001  | 17             |
| Caelo           | Cooling ointment DAB 6 | 19000579001  | 9              |
| Caelo           | Cooling ointment DAB 6 | 19000580001  | 9              |
| Caelo           | Cooling cream DAB      | 1900058001   | 1              |
| Caelo           | Cooling ointment DAB 6 | 19000581001  | 24             |
| Caelo           | Cooling ointment DAB 6 | 19000582001  | 25             |
| Caelo           | Cooling ointment DAB 6 | 19000582002  | 21             |
| Caelo           | Cooling ointment DAB 6 | 19000583001  | 41             |
| Caelo           | Cooling cream DAB      | 19000756     | 1              |
| Caelo           | Cooling cream DAB      | 19001101     | 4              |
| Caelo           | Cooling ointment DAB 6 | 19001103     | 2              |
| Caelo           | Cooling ointment DAB 6 | 19001201     | 20             |
| Caelo           | Cooling ointment DAB 6 | 19001301     | 19             |
| Caelo           | Cooling ointment DAB 6 | 19001401     | 18             |
| Caelo           | Cooling ointment DAB 6 | 19001402     | 61             |
| Caelo           | Cooling ointment DAB 6 | 19001403     | 5              |
| Caelo           | Cooling cream DAB      | 19001404     | 1              |
| Caelo           | Cooling ointment DAB 6 | 19001501     | 24             |
| Caelo           | Cooling cream DAB      | 19002511     | 1              |
| Caelo           | Cooling cream DAB      | 19004561     | 1              |
| Caelo           | Cooling ointment DAB 6 | 19006001     | 4              |
| Caelo           | Cooling ointment DAB 6 | 19006002     | 1              |
| Caelo           | Cooling cream DAB      | 190154901    | 1              |
| Caelo           | Cooling cream DAB      | 19033001     | 1              |
| Caelo           | Cooling cream DAB      | 190400404    | 1              |
| Caelo           | Cooling cream DAB      | 19043701     | 1              |
| Caelo           | Cooling ointment DAB 6 | 19047001     | 1              |
| Caelo           | Cooling ointment DAB 6 | 19047002     | 2              |
| Caelo           | Cooling cream DAB      | 19051505     | 1              |
| Caelo           | Cooling ointment DAB 6 | 1906003      | 1              |

*continued on the next page*

continued from previous page

| Supplier | Substance              | Batch                      | Spectra |
|----------|------------------------|----------------------------|---------|
| Caelo    | Cooling ointment DAB 6 | 19072501                   | 1       |
| Caelo    | Cooling ointment DAB 6 | 19073701                   | 74      |
| Caelo    | Cooling cream DAB      | 190737701                  | 1       |
| Caelo    | Cooling ointment DAB 6 | 19073801                   | 32      |
| Caelo    | Cooling ointment DAB 6 | 19073802                   | 51      |
| Caelo    | Cooling cream DAB      | 19073803                   | 2       |
| Caelo    | Cooling ointment DAB 6 | 19073901                   | 5       |
| Caelo    | Cooling cream DAB      | 19074001                   | 1       |
| Caelo    | Cooling ointment DAB 6 | 19074003                   | 4       |
| Caelo    | Cooling ointment DAB 6 | 19074101                   | 23      |
| Caelo    | Cooling ointment DAB 6 | 19074201                   | 26      |
| Caelo    | Cooling ointment DAB 6 | 19074301                   | 26      |
| Caelo    | Cooling ointment DAB 6 | 19074401                   | 40      |
| Caelo    | Cooling cream DAB      | 190744301                  | 1       |
| Caelo    | Cooling ointment DAB 6 | 19074501                   | 25      |
| Caelo    | Cooling cream DAB      | 191001402                  | 1       |
| Caelo    | Cooling ointment DAB 6 | 19115801                   | 1       |
| Caelo    | Cooling ointment DAB 6 | 19115803                   | 2       |
| Caelo    | Cooling cream DAB      | 19120101                   | 1       |
| Caelo    | Cooling ointment DAB 6 | 19150101                   | 43      |
| Caelo    | Cooling ointment DAB 6 | 19150102                   | 11      |
| Caelo    | Cooling cream DAB      | 19150102/19074401/19074501 | 1       |
| Caelo    | Cooling ointment DAB 6 | 19150201                   | 41      |
| Caelo    | Cooling cream DAB      | 1915021                    | 1       |
| Caelo    | Cooling ointment DAB 6 | 19153102                   | 6       |
| Caelo    | Cooling ointment DAB 6 | 19153201                   | 16      |
| Caelo    | Cooling ointment DAB 6 | 19154701                   | 15      |
| Caelo    | Cooling ointment DAB 6 | 19154801                   | 4       |
| Caelo    | Cooling ointment DAB 6 | 19154901                   | 20      |
| Caelo    | Cooling ointment DAB 6 | 19155001                   | 46      |
| Caelo    | Cooling ointment DAB 6 | 1915501                    | 4       |
| Caelo    | Cooling cream DAB      | 19155101                   | 10      |
| Caelo    | Cooling ointment DAB 6 | 19155201                   | 27      |
| Caelo    | Cooling ointment DAB 6 | 19155202                   | 10      |
| Caelo    | Cooling cream DAB      | 1915M-02541                | 1       |
| Caelo    | Cooling ointment DAB 6 | 19189803                   | 2       |
| Caelo    | Cooling cream DAB      | 19198501                   | 1       |
| Caelo    | Cooling cream DAB      | 192238001                  | 1       |
| Caelo    | Cooling cream DAB      | 192360901                  | 1       |
| Caelo    | Cooling cream DAB      | 19236701                   | 2       |
| Caelo    | Cooling cream DAB      | 19236710                   | 1       |
| Caelo    | Cooling ointment DAB 6 | 19236801                   | 3       |
| Caelo    | Cooling ointment DAB 6 | 19236901                   | 12      |
| Caelo    | Cooling ointment DAB 6 | 19237101                   | 17      |
| Caelo    | Cooling ointment DAB 6 | 19237201                   | 10      |
| Caelo    | Cooling ointment DAB 6 | 19237301                   | 9       |
| Caelo    | Cooling ointment DAB 6 | 19237401                   | 13      |
| Caelo    | Cooling ointment DAB 6 | 19237501                   | 15      |
| Caelo    | Cooling ointment DAB 6 | 19237601                   | 40      |
| Caelo    | Cooling ointment DAB 6 | 19237701                   | 15      |
| Caelo    | Cooling cream DAB      | 192377101                  | 1       |
| Caelo    | Cooling cream DAB      | 19237801                   | 13      |
| Caelo    | Cooling ointment DAB 6 | 19237901                   | 35      |
| Caelo    | Cooling ointment DAB 6 | 19238001                   | 14      |
| Caelo    | Cooling cream DAB      | 19258101                   | 1       |
| Caelo    | Cooling ointment DAB 6 | 19258102                   | 1       |
| Caelo    | Cooling cream DAB      | 19258105                   | 1       |
| Caelo    | Cooling ointment DAB 6 | 1927701                    | 1       |
| Caelo    | Cooling ointment DAB 6 | 19513102                   | 1       |
| Caelo    | Cooling cream DAB      | 2000001                    | 1       |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Caelo           | Cooling cream DAB      | 200000228001 | 1              |
| Caelo           | Cooling cream DAB      | 20000023001  | 2              |
| Caelo           | Cooling cream DAB      | 200000231001 | 1              |
| Caelo           | Cooling ointment DAB 6 | 200000335002 | 1              |
| Caelo           | Cooling cream DAB      | 200000336001 | 1              |
| Caelo           | Cooling cream DAB      | 200001262001 | 1              |
| Caelo           | Cooling cream DAB      | 200001721001 | 1              |
| Caelo           | Cooling ointment DAB 6 | 200001722001 | 1              |
| Caelo           | Cooling ointment DAB 6 | 200001722002 | 1              |
| Caelo           | Cooling cream DAB      | 200002074002 | 1              |
| Caelo           | Cooling cream DAB      | 20000224001  | 5              |
| Caelo           | Cooling cream DAB      | 20000225001  | 1              |
| Caelo           | Cooling cream DAB      | 20000226001  | 1              |
| Caelo           | Cooling ointment DAB 6 | 20000227001  | 9              |
| Caelo           | Cooling ointment DAB 6 | 20000228001  | 7              |
| Caelo           | Cooling ointment DAB 6 | 20000229001  | 15             |
| Caelo           | Cooling ointment DAB 6 | 20000230001  | 9              |
| Caelo           | Cooling ointment DAB 6 | 2000023001   | 2              |
| Caelo           | Cooling ointment DAB 6 | 20000231001  | 9              |
| Caelo           | Cooling ointment DAB 6 | 20000232001  | 4              |
| Caelo           | Cooling ointment DAB 6 | 20000248     | 1              |
| Caelo           | Cooling cream DAB      | 200003305001 | 1              |
| Caelo           | Cooling ointment DAB 6 | 20000331001  | 17             |
| Caelo           | Cooling cream DAB      | 2000033101x2 | 1              |
| Caelo           | Cooling cream DAB      | 20000332001  | 8              |
| Caelo           | Cooling ointment DAB 6 | 20000333001  | 11             |
| Caelo           | Cooling cream DAB      | 20000334001  | 4              |
| Caelo           | Cooling ointment DAB 6 | 20000335001  | 14             |
| Caelo           | Cooling ointment DAB 6 | 20000335002  | 26             |
| Caelo           | Cooling cream DAB      | 2000033502   | 1              |
| Caelo           | Cooling ointment DAB 6 | 20000336001  | 29             |
| Caelo           | Cooling cream DAB      | 2000035002   | 1              |
| Caelo           | Cooling ointment DAB 6 | 200004342001 | 1              |
| Caelo           | Cooling cream DAB      | 200004343001 | 1              |
| Caelo           | Cooling cream DAB      | 20000536     | 1              |
| Caelo           | Cooling cream DAB      | 2000125002   | 1              |
| Caelo           | Cooling cream DAB      | 200012508001 | 1              |
| Caelo           | Cooling cream DAB      | 20001257001  | 1              |
| Caelo           | Cooling ointment DAB 6 | 20001257002  | 16             |
| Caelo           | Cooling ointment DAB 6 | 20001258001  | 10             |
| Caelo           | Cooling cream DAB      | 200012590001 | 1              |
| Caelo           | Cooling ointment DAB 6 | 20001259001  | 18             |
| Caelo           | Cooling cream DAB      | 2000126001   | 3              |
| Caelo           | Cooling ointment DAB 6 | 20001261001  | 12             |
| Caelo           | Cooling ointment DAB 6 | 20001262001  | 43             |
| Caelo           | Cooling ointment DAB 6 | 200012621001 | 1              |
| Caelo           | Cooling ointment DAB 6 | 20001263001  | 18             |
| Caelo           | Cooling ointment DAB 6 | 20001263002  | 20             |
| Caelo           | Cooling ointment DAB 6 | 20001263003  | 3              |
| Caelo           | Cooling cream DAB      | 20001295001  | 1              |
| Caelo           | Cooling ointment DAB 6 | 20001346001  | 1              |
| Caelo           | Cooling cream DAB      | 20001676002  | 1              |
| Caelo           | Cooling ointment DAB 6 | 20001716001  | 2              |
| Caelo           | Cooling cream DAB      | 20001716002  | 6              |
| Caelo           | Cooling ointment DAB 6 | 20001717001  | 8              |
| Caelo           | Cooling ointment DAB 6 | 20001718001  | 10             |
| Caelo           | Cooling ointment DAB 6 | 20001719001  | 9              |
| Caelo           | Cooling ointment DAB 6 | 20001720001  | 15             |
| Caelo           | Cooling ointment DAB 6 | 20001721001  | 11             |
| Caelo           | Cooling ointment DAB 6 | 20001722001  | 14             |

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| Supplier | Substance              | Batch         | Spectra |
|----------|------------------------|---------------|---------|
| Caelo    | Cooling ointment DAB 6 | 20001722002   | 6       |
| Caelo    | Cooling cream DAB      | 2000172201    | 1       |
| Caelo    | Cooling cream DAB      | 20002072002   | 4       |
| Caelo    | Cooling ointment DAB 6 | 20002073001   | 11      |
| Caelo    | Cooling cream DAB      | 2000207301    | 1       |
| Caelo    | Cooling ointment DAB 6 | 20002074001   | 8       |
| Caelo    | Cooling ointment DAB 6 | 20002074002   | 8       |
| Caelo    | Cooling cream DAB      | 20002074701   | 1       |
| Caelo    | Cooling cream DAB      | 20002075001   | 2       |
| Caelo    | Cooling cream DAB      | 20002266      | 1       |
| Caelo    | Cooling cream DAB      | 20002267      | 1       |
| Caelo    | Cooling cream DAB      | 20002332001-3 | 1       |
| Caelo    | Cooling cream DAB      | 20002592002   | 1       |
| Caelo    | Cooling cream DAB      | 20002851001   | 1       |
| Caelo    | Cooling ointment DAB 6 | 20002950001   | 21      |
| Caelo    | Cooling cream DAB      | 2000295001    | 1       |
| Caelo    | Cooling cream DAB      | 2000295002    | 1       |
| Caelo    | Cooling ointment DAB 6 | 20002951001   | 10      |
| Caelo    | Cooling cream DAB      | 20002951002   | 2       |
| Caelo    | Cooling ointment DAB 6 | 20002951003   | 10      |
| Caelo    | Cooling cream DAB      | 20002952001   | 2       |
| Caelo    | Cooling cream DAB      | 20002952002   | 2       |
| Caelo    | Cooling ointment DAB 6 | 20002953001   | 16      |
| Caelo    | Cooling cream DAB      | 20002955001   | 9       |
| Caelo    | Cooling cream DAB      | 20002955001-3 | 1       |
| Caelo    | Cooling cream DAB      | 2000295501    | 3       |
| Caelo    | Cooling ointment DAB 6 | 20002956001   | 5       |
| Caelo    | Cooling cream DAB      | 20002960001   | 1       |
| Caelo    | Cooling cream DAB      | 20003302002   | 2       |
| Caelo    | Cooling ointment DAB 6 | 20003303001   | 10      |
| Caelo    | Cooling cream DAB      | 20003303001-1 | 1       |
| Caelo    | Cooling cream DAB      | 20003303001-2 | 1       |
| Caelo    | Cooling ointment DAB 6 | 20003304001   | 4       |
| Caelo    | Cooling cream DAB      | 20003305001   | 9       |
| Caelo    | Cooling ointment DAB 6 | 20003305002   | 8       |
| Caelo    | Cooling cream DAB      | 20003329001   | 1       |
| Caelo    | Cooling ointment DAB 6 | 2000335001    | 1       |
| Caelo    | Cooling ointment DAB 6 | 20003917001   | 1       |
| Caelo    | Cooling cream DAB      | 20004319001   | 1       |
| Caelo    | Cooling ointment DAB 6 | 20004341002   | 9       |
| Caelo    | Cooling ointment DAB 6 | 200043420001  | 1       |
| Caelo    | Cooling ointment DAB 6 | 20004342001   | 22      |
| Caelo    | Cooling ointment DAB 6 | 20004343001   | 12      |
| Caelo    | Cooling ointment DAB 6 | 20004344001   | 6       |
| Caelo    | Cooling cream DAB      | 20004345001   | 1       |
| Caelo    | Cooling ointment DAB 6 | 20004346001   | 4       |
| Caelo    | Cooling ointment DAB 6 | 20004347001   | 5       |
| Caelo    | Cooling ointment DAB 6 | 20004348001   | 5       |
| Caelo    | Cooling cream DAB      | 20004349001   | 4       |
| Caelo    | Cooling cream DAB      | 20004651      | 1       |
| Caelo    | Cooling cream DAB      | 20004849001   | 1       |
| Caelo    | Cooling cream DAB      | 2001262001    | 1       |
| Caelo    | Cooling ointment DAB 6 | 2001263002    | 1       |
| Caelo    | Cooling cream DAB      | 2002954001    | 1       |
| Caelo    | Cooling cream DAB      | 2002955001    | 1       |
| Caelo    | Cooling ointment DAB 6 | 20061802      | 1       |
| Caelo    | Cooling ointment DAB 6 | 20130912-3    | 1       |
| Caelo    | Cooling cream DAB      | 202223333001  | 1       |
| Caelo    | Cooling cream DAB      | 2073001       | 1       |
| Caelo    | Cooling cream DAB      | 2081201       | 1       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b>   | <b>Spectra</b> |
|-----------------|------------------------|----------------|----------------|
| Caelo           | Cooling cream DAB      | 2091404        | 1              |
| Caelo           | Cooling cream DAB      | 210002380002   | 1              |
| Caelo           | Cooling cream DAB      | 21000659001    | 4              |
| Caelo           | Cooling cream DAB      | 21000660001    | 1              |
| Caelo           | Cooling ointment DAB 6 | 21000660003    | 4              |
| Caelo           | Cooling cream DAB      | 21000661001    | 9              |
| Caelo           | Cooling cream DAB      | 21000662001    | 5              |
| Caelo           | Cooling ointment DAB 6 | 21000662002    | 4              |
| Caelo           | Cooling ointment DAB 6 | 21000663001    | 5              |
| Caelo           | Cooling cream DAB      | 21000664001    | 6              |
| Caelo           | Cooling ointment DAB 6 | 21000665001    | 7              |
| Caelo           | Cooling cream DAB      | 21000665001(2) | 1              |
| Caelo           | Cooling cream DAB      | 21000665001(3) | 1              |
| Caelo           | Cooling ointment DAB 6 | 21000666001    | 6              |
| Caelo           | Cooling ointment DAB 6 | 21000667001    | 2              |
| Caelo           | Cooling ointment DAB 6 | 21000668001    | 5              |
| Caelo           | Cooling ointment DAB 6 | 21001128001    | 1              |
| Caelo           | Cooling cream DAB      | 21001230002    | 3              |
| Caelo           | Cooling cream DAB      | 2100123001     | 2              |
| Caelo           | Cooling ointment DAB 6 | 21001231002    | 3              |
| Caelo           | Cooling ointment DAB 6 | 21001232001    | 14             |
| Caelo           | Cooling cream DAB      | 2100123201     | 1              |
| Caelo           | Cooling cream DAB      | 21001233001    | 3              |
| Caelo           | Cooling ointment DAB 6 | 21001233002    | 4              |
| Caelo           | Cooling cream DAB      | 21001234001    | 4              |
| Caelo           | Cooling cream DAB      | 210012378001   | 1              |
| Caelo           | Cooling ointment DAB 6 | 21001854001    | 5              |
| Caelo           | Cooling cream DAB      | 21001855001    | 4              |
| Caelo           | Cooling ointment DAB 6 | 21001855002    | 2              |
| Caelo           | Cooling cream DAB      | 21001856002    | 2              |
| Caelo           | Cooling ointment DAB 6 | 21001858001    | 2              |
| Caelo           | Cooling cream DAB      | 21001859001    | 2              |
| Caelo           | Cooling cream DAB      | 21001947       | 1              |
| Caelo           | Cooling cream DAB      | 21002360002    | 1              |
| Caelo           | Cooling ointment DAB 6 | 21002376002    | 4              |
| Caelo           | Cooling ointment DAB 6 | 21002378001    | 7              |
| Caelo           | Cooling cream DAB      | 21002379001    | 4              |
| Caelo           | Cooling ointment DAB 6 | 21002380001    | 3              |
| Caelo           | Cooling ointment DAB 6 | 21002380002    | 1              |
| Caelo           | Cooling cream DAB      | 2100238002     | 1              |
| Caelo           | Cooling cream DAB      | 21002381001    | 1              |
| Caelo           | Cooling cream DAB      | 21002382001    | 2              |
| Caelo           | Cooling ointment DAB 6 | 21002383001    | 9              |
| Caelo           | Cooling ointment DAB 6 | 21003382001    | 3              |
| Caelo           | Cooling cream DAB      | 21003383001    | 2              |
| Caelo           | Cooling cream DAB      | 21003386002    | 1              |
| Caelo           | Cooling ointment DAB 6 | 21003387001    | 1              |
| Caelo           | Cooling cream DAB      | 21003388001    | 1              |
| Caelo           | Cooling cream DAB      | 210033888001   | 1              |
| Caelo           | Cooling ointment DAB 6 | 21003389001    | 1              |
| Caelo           | Cooling cream DAB      | 21071401       | 1              |
| Caelo           | Cooling ointment DAB 6 | 2118U-02541    | 1              |
| Caelo           | Cooling ointment DAB 6 | 213E-02541     | 1              |
| Caelo           | Cooling cream DAB      | 214001859001   | 1              |
| Caelo           | Cooling cream DAB      | 22000024001    | 2              |
| Caelo           | Cooling cream DAB      | 22000026001    | 1              |
| Caelo           | Cooling cream DAB      | 22000027001    | 2              |
| Caelo           | Cooling ointment DAB 6 | 22000031001    | 3              |
| Caelo           | Cooling cream DAB      | 220000311001   | 1              |
| Caelo           | Cooling cream DAB      | 22021305       | 1              |

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| Supplier | Substance              | Batch       | Spectra |
|----------|------------------------|-------------|---------|
| Caelo    | Cooling cream DAB      | 220401UL    | 1       |
| Caelo    | Cooling cream DAB      | 22051307    | 1       |
| Caelo    | Cooling cream DAB      | 22061301    | 1       |
| Caelo    | Cooling ointment DAB 6 | 23051806    | 1       |
| Caelo    | Cooling ointment DAB 6 | 23051809    | 1       |
| Caelo    | Cooling cream DAB      | 23121412    | 1       |
| Caelo    | Cooling cream DAB      | 25021414    | 1       |
| Caelo    | Cooling cream DAB      | 25091308    | 1       |
| Caelo    | Cooling cream DAB      | 26071307    | 1       |
| Caelo    | Cooling cream DAB      | 2618M-02541 | 1       |
| Caelo    | Cooling cream DAB      | 27061201    | 1       |
| Caelo    | Cooling cream DAB      | 27111201    | 1       |
| Caelo    | Cooling cream DAB      | 271631      | 1       |
| Caelo    | Cooling cream DAB      | 272479      | 2       |
| Caelo    | Cooling cream DAB      | 273441      | 2       |
| Caelo    | Cooling cream DAB      | 275666      | 2       |
| Caelo    | Cooling cream DAB      | 2769        | 1       |
| Caelo    | Cooling cream DAB      | 279753      | 1       |
| Caelo    | Cooling cream DAB      | 28021306    | 1       |
| Caelo    | Cooling cream DAB      | 28101302    | 1       |
| Caelo    | Cooling cream DAB      | 281140      | 1       |
| Caelo    | Cooling cream DAB      | 28121203    | 1       |
| Caelo    | Cooling cream DAB      | 281822      | 2       |
| Caelo    | Cooling cream DAB      | 285504      | 2       |
| Caelo    | Cooling cream DAB      | 287481      | 1       |
| Caelo    | Cooling cream DAB      | 289265      | 1       |
| Caelo    | Cooling ointment DAB 6 | 29011801    | 1       |
| Caelo    | Cooling cream DAB      | 290386      | 2       |
| Caelo    | Cooling cream DAB      | 29081509    | 1       |
| Caelo    | Cooling cream DAB      | 293748      | 1       |
| Caelo    | Cooling cream DAB      | 295123      | 1       |
| Caelo    | Cooling cream DAB      | 295762      | 1       |
| Caelo    | Cooling cream DAB      | 298289      | 1       |
| Caelo    | Cooling cream DAB      | 299352      | 1       |
| Caelo    | Cooling cream DAB      | 299357      | 1       |
| Caelo    | Cooling cream DAB      | 299361      | 1       |
| Caelo    | Cooling cream DAB      | 2x16129501  | 1       |
| Caelo    | Cooling cream DAB      | 30011505    | 1       |
| Caelo    | Cooling cream DAB      | 30081302    | 1       |
| Caelo    | Cooling cream DAB      | 30091402    | 1       |
| Caelo    | Cooling cream DAB      | 3012M-02541 | 1       |
| Caelo    | Cooling cream DAB      | 301701      | 1       |
| Caelo    | Cooling cream DAB      | 302378      | 1       |
| Caelo    | Cooling cream DAB      | 304582      | 1       |
| Caelo    | Cooling cream DAB      | 304590      | 1       |
| Caelo    | Cooling cream DAB      | 304591      | 2       |
| Caelo    | Cooling cream DAB      | 305018      | 1       |
| Caelo    | Cooling cream DAB      | 305022      | 1       |
| Caelo    | Cooling cream DAB      | 305129      | 1       |
| Caelo    | Cooling cream DAB      | 305131      | 1       |
| Caelo    | Cooling cream DAB      | 306930      | 5       |
| Caelo    | Cooling cream DAB      | 306932      | 1       |
| Caelo    | Cooling cream DAB      | 306937      | 3       |
| Caelo    | Cooling cream DAB      | 306941      | 1       |
| Caelo    | Cooling cream DAB      | 306944      | 1       |
| Caelo    | Cooling cream DAB      | 307356      | 1       |
| Caelo    | Cooling cream DAB      | 307358      | 1       |
| Caelo    | Cooling cream DAB      | 307919      | 1       |
| Caelo    | Cooling cream DAB      | 307931      | 1       |
| Caelo    | Cooling cream DAB      | 308723      | 1       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|------------------------|---------------|----------------|
| Caelo           | Cooling cream DAB      | 309370        | 1              |
| Caelo           | Cooling cream DAB      | 310004        | 1              |
| Caelo           | Cooling cream DAB      | 310005        | 2              |
| Caelo           | Cooling cream DAB      | 31011301      | 1              |
| Caelo           | Cooling cream DAB      | 310988        | 2              |
| Caelo           | Cooling cream DAB      | 310989        | 1              |
| Caelo           | Cooling ointment DAB 6 | 311218182501  | 1              |
| Caelo           | Cooling cream DAB      | 3112200043431 | 1              |
| Caelo           | Cooling cream DAB      | 3144-17156801 | 1              |
| Caelo           | Cooling cream DAB      | 3217I-02541   | 1              |
| Caelo           | Cooling cream DAB      | 3287          | 1              |
| Caelo           | Cooling cream DAB      | 3413E-02541   | 1              |
| Caelo           | Cooling cream DAB      | 3963/V12/14   | 1              |
| Caelo           | Cooling cream DAB      | 3964/V01/15   | 1              |
| Caelo           | Cooling cream DAB      | 4051503       | 2              |
| Caelo           | Cooling cream DAB      | 4061203       | 1              |
| Caelo           | Cooling cream DAB      | 4061405       | 1              |
| Caelo           | Cooling cream DAB      | 41(17189701)  | 1              |
| Caelo           | Cooling cream DAB      | 42(17298002)  | 1              |
| Caelo           | Cooling cream DAB      | 43(18219201)  | 1              |
| Caelo           | Cooling cream DAB      | 4313I-02541   | 1              |
| Caelo           | Cooling cream DAB      | 4817A-02541   | 1              |
| Caelo           | Cooling ointment DAB 6 | 5011902       | 1              |
| Caelo           | Cooling cream DAB      | 5031509       | 1              |
| Caelo           | Cooling cream DAB      | 5132          | 1              |
| Caelo           | Cooling cream DAB      | 5215A-02541   | 1              |
| Caelo           | Cooling cream DAB      | 5321500       | 1              |
| Caelo           | Cooling ointment DAB 6 | 5328001       | 1              |
| Caelo           | Cooling cream DAB      | 5600300       | 1              |
| Caelo           | Cooling cream DAB      | 5735600       | 1              |
| Caelo           | Cooling cream DAB      | 6002062002    | 1              |
| Caelo           | Cooling cream DAB      | 6012127001    | 1              |
| Caelo           | Cooling ointment DAB 6 | 6012127002    | 3              |
| Caelo           | Cooling cream DAB      | 6051702       | 1              |
| Caelo           | Cooling cream DAB      | 6061303       | 1              |
| Caelo           | Cooling cream DAB      | 6111201       | 1              |
| Caelo           | Cooling cream DAB      | 6111202       | 1              |
| Caelo           | Cooling ointment DAB 6 | 6111802       | 1              |
| Caelo           | Cooling cream DAB      | 613I-02541    | 1              |
| Caelo           | Cooling cream DAB      | 6861944       | 1              |
| Caelo           | Cooling cream DAB      | 7021301       | 1              |
| Caelo           | Cooling cream DAB      | 7071203       | 1              |
| Caelo           | Cooling cream DAB      | 7091201       | 1              |
| Caelo           | Cooling cream DAB      | 719A-03978    | 1              |
| Caelo           | Cooling cream DAB      | 72/AD2        | 1              |
| Caelo           | Cooling cream DAB      | 73/AKD3       | 1              |
| Caelo           | Cooling cream DAB      | 8002320007    | 2              |
| Caelo           | Cooling cream DAB      | 80027600004   | 1              |
| Caelo           | Cooling cream DAB      | 8002875004    | 1              |
| Caelo           | Cooling cream DAB      | 8003158005    | 1              |
| Caelo           | Cooling cream DAB      | 8003478004    | 1              |
| Caelo           | Cooling ointment DAB 6 | 8003478005    | 1              |
| Caelo           | Cooling cream DAB      | 8003478006    | 2              |
| Caelo           | Cooling cream DAB      | 8003478007    | 1              |
| Caelo           | Cooling cream DAB      | 8003478008    | 2              |
| Caelo           | Cooling cream DAB      | 8041304       | 1              |
| Caelo           | Cooling cream DAB      | 8091807       | 1              |
| Caelo           | Cooling cream DAB      | 8111201       | 1              |
| Caelo           | Cooling cream DAB      | 8121403       | 1              |
| Caelo           | Cooling cream DAB      | 9000581001    | 1              |

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| Supplier                   | Substance              | Batch          | Spectra |
|----------------------------|------------------------|----------------|---------|
| Caelo                      | Cooling cream DAB      | 913022UL       | 1       |
| Caelo                      | Cooling cream DAB      | 913I-02541     | 1       |
| Caelo                      | Cooling cream DAB      | 9150301        | 1       |
| Caelo                      | Cooling cream DAB      | 92378011       | 1       |
| Caelo                      | Cooling ointment DAB 6 | Caelo          | 1       |
| Caelo                      | Cooling cream DAB      | CH-B17157201   | 1       |
| Caelo                      | Cooling cream DAB      | CH-B18219301   | 1       |
| Caelo                      | Cooling cream DAB      | CH-B19074301   | 1       |
| Caelo                      | Cooling cream DAB      | CHB19237201    | 1       |
| Caelo                      | Cooling cream DAB      | CHB20001259001 | 1       |
| Caelo                      | Cooling cream DAB      | P158/14        | 1       |
| Caeol/Noweda               | Cooling cream DAB      | 20002950001    | 2       |
| Caeolo/Ahd                 | Cooling cream DAB      | 18272802       | 1       |
| Caeolo/Noweda              | Cooling cream DAB      | 18219301       | 1       |
| Caeolo/Phönix              | Cooling cream DAB      | 16354401       | 1       |
| Caeolo/Sanacorp            | Cooling cream DAB      | 17330802       | 1       |
| Caesar & Loretz GmbH / ... | Cooling cream DAB      | 21000663001    | 1       |
| Caesar & Loretz GmbH / ... | Cooling cream DAB      | 19074501       | 1       |
| Caesar & Loretz GmbH / ... | Cooling cream DAB      | 19150102       | 1       |
| Caesar & Loretz GmbH / ... | Cooling cream DAB      | 19237701       | 2       |
| Caesar & Loretz GmbH /n... | Cooling cream DAB      | 20000335001    | 1       |
| Caesar & Loretz GmbH 40... | Cooling cream DAB      | 11299001       | 1       |
| Caesar & Loretz GmbH D-... | Cooling cream DAB      | 12253001       | 1       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 12046001       | 1       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 12046201       | 2       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 12174401       | 2       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 12182801       | 2       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 12292301       | 1       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 13059601       | 1       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 13121401       | 2       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 13121701       | 2       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 13175101       | 4       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 13192001       | 1       |
| Caesar & Loretz GmbH, 4... | Cooling cream DAB      | 13315601       | 1       |
| Caesar & Loretz GmbH, G... | Cooling cream DAB      | 21000664001    | 1       |
| Caesar & Loretz GmbH, P... | Cooling cream DAB      | 20001259001    | 1       |
| Caesar & Loretz GmbH, P... | Cooling cream DAB      | 20002951002    | 1       |
| Caesar & Loretz GmbH, P... | Cooling cream DAB      | 21001854001    | 1       |
| Caesar & Loretz GmbH/ K... | Cooling cream DAB      | 20002073001    | 1       |
| Caesar & Loretz GmbH/ S... | Cooling cream DAB      | 20001721001    | 1       |
| Caesar & Loretz GmbH//S... | Cooling cream DAB      | 20000229001    | 1       |
| Caesar & Loretz GmbH//S... | Cooling cream DAB      | 20000231001    | 1       |
| Caesar & Loretz GmbH/AEP   | Cooling cream DAB      | 19237201       | 1       |
| Caesar & Loretz GmbH/AEP   | Cooling cream DAB      | 20000331001    | 1       |
| Caesar & Loretz GmbH/AHD   | Cooling cream DAB      | 19237101       | 2       |
| Caesar & Loretz GmbH/AHD   | Cooling cream DAB      | 20000230001    | 1       |
| Caesar & Loretz GmbH/Al... | Cooling cream DAB      | 1900057001     | 1       |
| Caesar & Loretz GmbH/Al... | Cooling ointment DAB 6 | 19000580001    | 2       |
| Caesar & Loretz GmbH/Al... | Cooling ointment DAB 6 | 19000582002    | 1       |
| Caesar & Loretz GmbH/An... | Cooling cream DAB      | 19074101       | 1       |
| Caesar & Loretz GmbH/An... | Cooling cream DAB      | 19237101       | 1       |
| Caesar & Loretz GmbH/Eb... | Cooling cream DAB      | 20001262001    | 2       |
| Caesar & Loretz GmbH/Fi... | Cooling cream DAB      | 19001201       | 2       |
| Caesar & Loretz GmbH/Fi... | Cooling cream DAB      | 19155001       | 2       |
| Caesar & Loretz GmbH/Fi... | Cooling cream DAB      | 19237601       | 1       |
| Caesar & Loretz GmbH/Fi... | Cooling cream DAB      | 20002075001    | 1       |
| Caesar & Loretz GmbH/Fi... | Cooling cream DAB      | 20002954001    | 1       |
| Caesar & Loretz GmbH/Gehe  | Cooling cream DAB      | 19000583001    | 2       |
| Caesar & Loretz GmbH/GEHE  | Cooling cream DAB      | 19073801       | 1       |
| Caesar & Loretz GmbH/Gehe  | Cooling cream DAB      | 19073802       | 2       |

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| Supplier                   | Substance              | Batch        | Spectra |
|----------------------------|------------------------|--------------|---------|
| Caesar & Loretz GmbH/GEHE  | Cooling ointment DAB 6 | 19150101     | 1       |
| Caesar & Loretz GmbH/GEHE  | Cooling cream DAB      | 200002073001 | 1       |
| Caesar & Loretz GmbH/GEHE  | Cooling cream DAB      | 20000335001  | 1       |
| Caesar & Loretz GmbH/GEHE  | Cooling ointment DAB 6 | 20000335002  | 1       |
| Caesar & Loretz GmbH/GEHE  | Cooling ointment DAB 6 | 20001262001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Cooling cream DAB      | 20001263001  | 1       |
| Caesar & Loretz GmbH/GEHE  | Cooling ointment DAB 6 | 21000661001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Cooling cream DAB      | 22000031001  | 1       |
| Caesar & Loretz GmbH/Je... | Cooling cream DAB      | 19074501     | 1       |
| Caesar & Loretz GmbH/Je... | Cooling cream DAB      | 19150101     | 1       |
| Caesar & Loretz GmbH/Je... | Cooling cream DAB      | 19154701     | 1       |
| Caesar & Loretz GmbH/Je... | Cooling cream DAB      | 19237301     | 1       |
| Caesar & Loretz GmbH/Je... | Cooling cream DAB      | 20000228001  | 1       |
| Caesar & Loretz GmbH/Je... | Cooling cream DAB      | 20000230001  | 1       |
| Caesar & Loretz GmbH/Je... | Cooling cream DAB      | 20000335001  | 1       |
| Caesar & Loretz GmbH/Je... | Cooling ointment DAB 6 | 20002951002  | 1       |
| Caesar & Loretz GmbH/Je... | Cooling ointment DAB 6 | 20002953001  | 1       |
| Caesar & Loretz GmbH/Kehr  | Cooling cream DAB      | 19001401     | 1       |
| Caesar & Loretz GmbH/Kehr  | Cooling cream DAB      | 19073802     | 1       |
| Caesar & Loretz GmbH/No... | Cooling cream DAB      | 18218901     | 1       |
| Caesar & Loretz GmbH/No... | Cooling cream DAB      | 19150201     | 1       |
| Caesar & Loretz GmbH/No... | Cooling cream DAB      | 19155101     | 1       |
| Caesar & Loretz GmbH/Ph... | Cooling cream DAB      | 20000227001  | 1       |
| Caesar & Loretz GmbH/Ph... | Cooling cream DAB      | 20002951001  | 1       |
| Caesar & Loretz GmbH/Ph... | Cooling cream DAB      | 21000665001  | 2       |
| Caesar & Loretz GmbH/Ph... | Cooling cream DAB      | 20000228001  | 1       |
| Caesar & Loretz GmbH/ph... | Cooling cream DAB      | 20001262001  | 1       |
| Caesar & Loretz GmbH/Ph... | Cooling cream DAB      | 20001716002  | 1       |
| Caesar & Loretz GmbH/Ph... | Cooling cream DAB      | 20004347001  | 2       |
| Caesar & Loretz GmbH/Sa... | Cooling cream DAB      | 19074003     | 1       |
| Caesar & Loretz GmbH/Sa... | Cooling cream DAB      | 20001262001  | 2       |
| Caesar & Loretz GmbH/Sa... | Cooling cream DAB      | 20001719001  | 1       |
| Caesar & Loretz GmbH/Sa... | Cooling cream DAB      | 20001721001  | 1       |
| Caesar & Loretz GmbH/Sa... | Cooling cream DAB      | 20002073001  | 1       |
| Caesar & Loretz GmbH/Sa... | Cooling cream DAB      | 20002951002  | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 12178901     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 12306001     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 13315101     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 13315201     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 14085901     | 3       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 14184501     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 14278701     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 15228601     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 15434401     | 1       |
| Caesar & Loretz GmbH       | Cooling ointment DAB 6 | 16222401     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 17330802     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18005202     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18182301     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18182401     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18182501     | 4       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18182601     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18182701     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18182801     | 1       |
| Caesar & Loretz GmbH       | Cooling ointment DAB 6 | 18218302     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18218401     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18218502     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18218701     | 2       |
| Caesar & Loretz GmbH       | Cooling ointment DAB 6 | 18219201     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 18219301     | 2       |
| Caesar & Loretz GmbH       | Cooling ointment DAB 6 | 18219401     | 5       |

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| Supplier             | Substance              | Batch       | Spectra |
|----------------------|------------------------|-------------|---------|
| Caesar & Loretz GmbH | Cooling cream DAB      | 18272801    | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 18272802    | 5       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 18272901    | 18      |
| Caesar & Loretz GmbH | Cooling cream DAB      | 18273001    | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 18273101    | 4       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 18273201    | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19000576001 | 7       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19000579001 | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19000580001 | 4       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19000581001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19000582001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19000582002 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19000583001 | 4       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19001201    | 5       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19001301    | 10      |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19001401    | 3       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19001402    | 16      |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19001403    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19001419    | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19001501    | 5       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19006002    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19073701    | 15      |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19073801    | 12      |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19073802    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19073901    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19074003    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19074101    | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19074201    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19074301    | 4       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19074401    | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19074501    | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19150101    | 6       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19150102    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19150201    | 8       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19153102    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19153201    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19154701    | 3       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19154801    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19154901    | 4       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19155001    | 11      |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19155101    | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19155201    | 5       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19155202    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19236701    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19236801    | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19236901    | 4       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19237101    | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19237201    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19237301    | 4       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19237401    | 5       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19237501    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19237601    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19237701    | 4       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 19237801    | 5       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19237901    | 11      |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 19238001    | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20000224001 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20000226001 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20000227001 | 4       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20000228001 | 2       |

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| Supplier             | Substance              | Batch       | Spectra |
|----------------------|------------------------|-------------|---------|
| Caesar & Loretz GmbH | Cooling cream DAB      | 20000229001 | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20000230001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20000231001 | 6       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20000232001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20000331001 | 4       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20000332001 | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20000333001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20000335001 | 4       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20000335002 | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20000336001 | 8       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001257001 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20001257002 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20001259001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001261001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001262001 | 8       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001263001 | 7       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001263002 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001716002 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20001717001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001719001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001720001 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20001721001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001722001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20001722002 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20002073001 | 5       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20002074001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20002074002 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20002075001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20002950001 | 3       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20002951001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20002951002 | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20002951003 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20002953001 | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20002955001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20002956001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20003303001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20003304001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20003305001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20003305002 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20003305011 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20004341002 | 2       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20004342001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20004343001 | 5       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20004344001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20004345001 | 1       |
| Caesar & Loretz GmbH | Cooling ointment DAB 6 | 20004347001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 20004348001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21000661001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21000662002 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21000666001 | 3       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21000668001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21001232001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21001233001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21001233002 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21001234001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21001854001 | 2       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21001856002 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21001859001 | 1       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21002378001 | 5       |
| Caesar & Loretz GmbH | Cooling cream DAB      | 21002380001 | 1       |

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| Supplier                   | Substance              | Batch           | Spectra |
|----------------------------|------------------------|-----------------|---------|
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21002380002     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21002381001     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21002382001     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21002383001     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003381001     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003382001     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003383001     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003385001     | 2       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003386002     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003387001     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003389002     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 21003389003     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 22000028001     | 1       |
| Caesar & Loretz GmbH       | Cooling cream DAB      | 282019          | 1       |
| Caesar & Loretz/Geilenk... | Cooling cream DAB      | 19001402        | 1       |
| Caesar & Loretz/Geilenk... | Cooling cream DAB      | 19073701        | 2       |
| Caesar & Loretz/Noweda     | Cooling ointment DAB 6 | 15328001        | 1       |
| Caesar & Loretz/Noweda     | Cooling ointment DAB 6 | 16134201        | 1       |
| Caesar & Loretz/Noweda     | Cooling ointment DAB 6 | 16172601        | 1       |
| Caesar & Loretz            | Cooling cream DAB      | 16244701        | 2       |
| Caesar & Loretz            | Cooling cream DAB      | 17075101        | 1       |
| Caesar & Loretz            | Cooling cream DAB      | 17075201        | 1       |
| Caesar & Loretz            | Cooling cream DAB      | 17254201        | 1       |
| Caesar & Loretz            | Cooling ointment DAB 6 | 18042402        | 1       |
| Caesar & Loretz            | Cooling cream DAB      | 18182301        | 1       |
| Caesar & Loretz            | Cooling ointment DAB 6 | 18182401        | 1       |
| Caesar & Loretz            | Cooling cream DAB      | 18218302        | 2       |
| Caesar und Loretz GmbH     | Cooling cream DAB      | 17122801        | 1       |
| Caesar und Loretz GmbH     | Cooling ointment DAB 6 | 17157201        | 1       |
| Caesar&Loretz/Noweda       | Cooling cream DAB      | 15328001        | 1       |
| Caesar&Loretz              | Cooling cream DAB      | 15228501        | 2       |
| Caesar&Loretz              | Cooling cream DAB      | 16354401        | 2       |
| Caesar&Loretz              | Cooling ointment DAB 6 | 17298001        | 2       |
| Caesar&Loretz              | Cooling ointment DAB 6 | 19073802        | 1       |
| Caesar/Gehe                | Cooling cream DAB      | 19000582002     | 1       |
| Caesar/Lorenz              | Cooling cream DAB      | 13004401        | 1       |
| CaesaruLorenzIPhoenix      | Cooling cream DAB      | 15049201        | 1       |
| Caeser&Loretz GmbH         | Cooling cream DAB      |                 | 1       |
| Caeser&Loretz GmbH         | Cooling ointment DAB 6 | 20001263002     | 2       |
| Caeser&Loretz GmbH         | Cooling cream DAB      | 20001722001     | 1       |
| Caeser/Phönix              | Cooling cream DAB      | 4223719         | 1       |
| Caleo/ Ebert               | Cooling cream DAB      | 18104601        | 1       |
| Caleo/ Noweda              | Cooling ointment DAB 6 | 18182901        | 1       |
| Caleo/ Noweda              | Cooling cream DAB      | 18273001        | 1       |
| Caleo/Phönix               | Cooling cream DAB      | 14086501        | 1       |
| Caleo                      | Cooling cream DAB      | 16246201        | 1       |
| Calo, Hilden/ Phönix       | Cooling cream DAB      | 19155001        | 3       |
| Calo, Hilden/ Phönix       | Cooling cream DAB      | 19237901        | 4       |
| Calo/AHD                   | Cooling cream DAB      | 14328702        | 1       |
| CALO/Sanacorp 030918       | Cooling cream DAB      | 18183001        | 1       |
| CALO/Sanacorp 0409         | Cooling cream DAB      | 18182901        | 1       |
| calo                       | Cooling cream DAB      | 13004701        | 2       |
| Cealo/ Anzag               | Cooling cream DAB      | 307932          | 1       |
| Cealo/ Noweda              | Cooling cream DAB      | 14c06-t02010890 | 1       |
| Cealo/ Noweda              | Cooling cream DAB      | 15228501        | 1       |
| Cealo/AHD                  | Cooling cream DAB      | 15434402        | 1       |
| Cealo/AHD                  | Cooling ointment DAB 6 | 16011901        | 1       |
| Cealo/Gehe                 | Cooling cream DAB      | 12052002        | 2       |
| Cealo/Phönix               | Cooling cream DAB      | 17330802        | 2       |
| Cealo/Phönix               | Cooling ointment DAB 6 | 19001402        | 1       |

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| Supplier                | Substance              | Batch        | Spectra |
|-------------------------|------------------------|--------------|---------|
| Cealo/Sanacorp          | Cooling cream DAB      | 19073701     | 1       |
| Cealo                   | Cooling cream DAB      | 14086201     | 1       |
| Cealo                   | Cooling cream DAB      | 14288701     | 1       |
| cealo                   | Cooling cream DAB      | 15066901     | 1       |
| Cealo                   | Cooling cream DAB      | 17157001     | 1       |
| cealo                   | Cooling cream DAB      | 18182501     | 1       |
| Cealo                   | Cooling ointment DAB 6 | 18182701     | 1       |
| Cealo                   | Cooling cream DAB      | 19150201     | 1       |
| Cealo                   | Cooling cream DAB      | 20001717001  | 1       |
| Celo/ Kehr              | Cooling cream DAB      | 16172001     | 1       |
| chaelo/gehe             | Cooling cream DAB      | 17254101     | 2       |
| Chiesi                  | Cooling cream DAB      | 15228701     | 1       |
| Cordes/Gehe             | Cooling cream DAB      | 17255101     | 1       |
| Cordes/Phönix           | Cooling cream DAB      | 15434402     | 1       |
| DAB 2008                | Cooling cream DAB      | 12089601     | 1       |
| DAB 2010                | Cooling cream DAB      | 14269301     | 1       |
| Defektur                | Cooling cream DAB      | 160308004    | 1       |
| Delta Apotheke          | Cooling cream DAB      | 18182301     | 1       |
| Delta Apotheke          | Cooling cream DAB      | 18182501     | 2       |
| Delta                   | Cooling cream DAB      | 17330802     | 1       |
| Delta                   | Cooling cream DAB      | 18042401     | 1       |
| Devesa/S                | Cooling ointment DAB 6 | 20001262001  | 1       |
| Dr.August Wolff/Phönix  | Cooling cream DAB      | 16172701     | 1       |
| Dr.Wolff                | Cooling cream DAB      | 17001971     | 1       |
| E Plus                  | Cooling cream DAB      | 17001961     | 2       |
| E Plus                  | Cooling cream DAB      | 305957       | 1       |
| E Plus                  | Cooling cream DAB      | 307929       | 1       |
| E Plus                  | Cooling cream DAB      | 309999       | 1       |
| Ebert & Jacobi 02.08.16 | Cooling cream DAB      | 301701       | 1       |
| Ebert & Jacobi          | Cooling cream DAB      | 17298701     | 1       |
| Ebert/Lamotte           | Cooling cream DAB      | 8002696003   | 1       |
| Ebert                   | Cooling cream DAB      | 17075301     | 1       |
| EB-Ho                   | Cooling cream DAB      | 295184       | 1       |
| Euro OTC                | Cooling cream DAB      | 13227101     | 1       |
| Euro OTC                | Cooling ointment DAB 6 | 15435101     | 2       |
| Euro OTC                | Cooling cream DAB      | 16129501     | 1       |
| Euro OTC                | Cooling cream DAB      | 16129701     | 1       |
| Euro OTC                | Cooling cream DAB      | 16134001     | 1       |
| Euro OTC                | Cooling cream DAB      | 16134201     | 1       |
| Euro OTC                | Cooling cream DAB      | 16172001     | 1       |
| Euro OTC                | Cooling ointment DAB 6 | 16172801     | 1       |
| Euro OTC                | Cooling ointment DAB 6 | 16172901     | 1       |
| Euro OTC                | Cooling cream DAB      | 16354401     | 1       |
| Euro OTC                | Cooling cream DAB      | 17000973     | 2       |
| Euro OTC                | Cooling cream DAB      | 17001969     | 1       |
| Euro OTC                | Cooling cream DAB      | 17075201     | 1       |
| Euro OTC                | Cooling cream DAB      | 17157201     | 2       |
| Euro OTC                | Cooling cream DAB      | 18005202     | 3       |
| Euro OTC                | Cooling cream DAB      | 18218301     | 2       |
| Euro OTC                | Cooling ointment DAB 6 | 18218601     | 1       |
| Euro OTC                | Cooling cream DAB      | 18273001     | 1       |
| Euro OTC                | Cooling cream DAB      | 19000333     | 1       |
| Euro OTC                | Cooling cream DAB      | 19001402     | 1       |
| Euro OTC                | Cooling cream DAB      | 19237101     | 1       |
| Euro OTC                | Cooling cream DAB      | 286563       | 1       |
| Euro OTC                | Cooling cream DAB      | 299976       | 1       |
| Euro OTC                | Cooling cream DAB      | 306931       | 1       |
| Euro OTC                | Cooling cream DAB      | 307358       | 1       |
| Euro OTC                | Cooling cream DAB      | 308491       | 1       |
| Euro OTC                | Cooling cream DAB      | 311218182501 | 1       |

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| Supplier                   | Substance              | Batch            | Spectra |
|----------------------------|------------------------|------------------|---------|
| Euro OTC                   | Cooling cream DAB      | 8003478007       | 1       |
| Euro OTC                   | Cooling cream DAB      | caelo            | 1       |
| Euroct/Gehe                | Cooling ointment DAB 6 | 16089701         | 2       |
| Fagron                     | Cooling cream DAB      | 12G25-T02        | 2       |
| Fagron                     | Cooling cream DAB      | 13D19-T01-002941 | 1       |
| Fagron                     | Cooling cream DAB      | 13E10-T01-003539 | 2       |
| Fagron                     | Cooling cream DAB      | 14132001         | 1       |
| Fagron                     | Cooling cream DAB      | 14A20            | 1       |
| Fagron                     | Cooling cream DAB      | 15228601         | 1       |
| Fagron                     | Cooling cream DAB      | 15236801         | 1       |
| Fagron                     | Cooling cream DAB      | 15A30-T07-018974 | 2       |
| Fagron                     | Cooling cream DAB      | 15A30-T07-018975 | 1       |
| Fagron                     | Cooling cream DAB      | 15L03-T06-028365 | 2       |
| Fagron                     | Cooling cream DAB      | 16301801         | 1       |
| Fagron                     | Cooling ointment DAB 6 | 17000301         | 1       |
| Fagron                     | Cooling cream DAB      | 17075101         | 1       |
| Fagron                     | Cooling cream DAB      | 1707D001         | 1       |
| Fagron                     | Cooling cream DAB      | 17254101         | 1       |
| Fagron                     | Cooling ointment DAB 6 | 18/182/K         | 1       |
| Fagron                     | Cooling cream DAB      | 18002094         | 1       |
| Fagron                     | Cooling cream DAB      | 18002243         | 1       |
| Fagron                     | Cooling cream DAB      | 18002308         | 1       |
| Fagron                     | Cooling cream DAB      | 18004427         | 1       |
| Fagron                     | Cooling cream DAB      | 18005201         | 2       |
| Fagron                     | Cooling cream DAB      | 1802D001         | 1       |
| Fagron                     | Cooling cream DAB      | 1807d001         | 1       |
| Fagron                     | Cooling cream DAB      | 1807D001         | 1       |
| Fagron                     | Cooling ointment DAB 6 | 18106401         | 2       |
| Fagron                     | Cooling ointment DAB 6 | 18182301         | 2       |
| Fagron                     | Cooling cream DAB      | 18182401         | 1       |
| Fagron                     | Cooling cream DAB      | 18183101         | 1       |
| Fagron                     | Cooling cream DAB      | 18218601         | 1       |
| Fagron                     | Cooling cream DAB      | 18218801         | 1       |
| Fagron                     | Cooling cream DAB      | 18218901         | 1       |
| Fagron                     | Cooling cream DAB      | 18219201         | 1       |
| Fagron                     | Cooling cream DAB      | 18219301         | 1       |
| Fagron                     | Cooling cream DAB      | 1909d001         | 1       |
| Fagron                     | Cooling cream DAB      | 1909D001         | 1       |
| Fagron                     | Cooling cream DAB      | 20003355         | 1       |
| Fagron                     | Cooling cream DAB      | 20EAF/20         | 1       |
| Fagron                     | Cooling cream DAB      | 277533           | 1       |
| Fagron                     | Cooling cream DAB      | 289253           | 1       |
| Fagron                     | Cooling cream DAB      | 299973           | 1       |
| Fagron                     | Cooling cream DAB      | 304595           | 1       |
| Fagron                     | Cooling cream DAB      | 7070001          | 1       |
| Fagron                     | Cooling cream DAB      | 8003158004       | 1       |
| Fagron                     | Cooling cream DAB      | 8003478004       | 3       |
| Fagron                     | Cooling cream DAB      | B15A30T07018676  | 1       |
| Fer. Eimermacher GmbH &... | Cooling cream DAB      | 19074301         | 1       |
| Fiebig ek: 9.07EUR         | Cooling cream DAB      | 1204001          | 1       |
| Fiebig/Lamotte             | Cooling cream DAB      | 1000014594       | 1       |
| Fiebig/Lamotte             | Cooling cream DAB      | 8005213001       | 1       |
| Fiebig                     | Cooling ointment DAB 6 | 17075101         | 1       |
| Fiebig                     | Cooling cream DAB      | 17254601         | 1       |
| Fiebig                     | Cooling cream DAB      | 17254901         | 3       |
| Fiebig                     | Cooling cream DAB      | 17255101         | 2       |
| Fiebig                     | Cooling cream DAB      | 18003172         | 1       |
| Fiebig                     | Cooling cream DAB      | 18004427         | 1       |
| Fiebig                     | Cooling cream DAB      | 18005203         | 1       |
| Fiebig                     | Cooling cream DAB      | 18042801         | 1       |

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| Supplier               | Substance              | Batch       | Spectra |
|------------------------|------------------------|-------------|---------|
| Fiebig                 | Cooling ointment DAB 6 | 18182701    | 4       |
| Fiebig                 | Cooling cream DAB      | 18218301    | 2       |
| Fiebig                 | Cooling cream DAB      | 18218701    | 1       |
| Fiebig                 | Cooling cream DAB      | 18219401    | 1       |
| Fiebig                 | Cooling cream DAB      | 19000327    | 1       |
| Fiebig                 | Cooling cream DAB      | 19001301    | 1       |
| Fiebig                 | Cooling cream DAB      | 19001397    | 1       |
| Fiebig                 | Cooling cream DAB      | 19001501    | 1       |
| Fiebig                 | Cooling ointment DAB 6 | 19074301    | 1       |
| Fiebig                 | Cooling cream DAB      | 19237701    | 1       |
| Fiebig                 | Cooling cream DAB      | 20000333001 | 1       |
| Fiebig                 | Cooling cream DAB      | 20001261001 | 1       |
| Fiebig                 | Cooling cream DAB      | 6002062002  | 1       |
| Fiebig                 | Cooling cream DAB      | 8002320007  | 1       |
| Fiebig                 | Cooling cream DAB      | 8003478005  | 1       |
| Finteler Apotheke      | Cooling ointment DAB 6 | 16244701    | 1       |
| Finteler Apotheke      | Cooling ointment DAB 6 | 17000601    | 1       |
| Fontapharm/Phönix      | Cooling cream DAB      | 286565      | 1       |
| GAlderma/Phönix        | Cooling cream DAB      | 18004430    | 1       |
| GEHE 3.04.2014         | Cooling cream DAB      | 14055703    | 2       |
| gehe 7.12.13           | Cooling cream DAB      | 13226701    | 1       |
| Gehe am 03.02.2014     | Cooling cream DAB      | 1322701     | 1       |
| GEHE Kassel 25.01.2019 | Cooling cream DAB      | 18006322    | 1       |
| Gehe/L10               | Cooling cream DAB      | 18273101    | 1       |
| Gehe                   | Cooling cream DAB      | 12292401    | 1       |
| Gehe                   | Cooling ointment DAB 6 | 12312601    | 1       |
| Gehe                   | Cooling cream DAB      | 12312801    | 1       |
| Gehe                   | Cooling cream DAB      | 12364601    | 1       |
| GEHE                   | Cooling cream DAB      | 12364801    | 1       |
| Gehe                   | Cooling cream DAB      | 13004701    | 1       |
| Gehe                   | Cooling cream DAB      | 13191501    | 1       |
| gehe                   | Cooling cream DAB      | 13315102    | 1       |
| Gehe                   | Cooling cream DAB      | 13315201    | 1       |
| Gehe                   | Cooling cream DAB      | 14129402    | 1       |
| Gehe                   | Cooling ointment DAB 6 | 14184501    | 1       |
| Gehe                   | Cooling ointment DAB 6 | 14268301    | 1       |
| Gehe                   | Cooling cream DAB      | 14329201    | 1       |
| Gehe                   | Cooling cream DAB      | 14329301    | 1       |
| Gehe                   | Cooling cream DAB      | 14329501    | 1       |
| Gehe                   | Cooling cream DAB      | 15228502    | 1       |
| gehe                   | Cooling ointment DAB 6 | 15228601    | 1       |
| Gehe                   | Cooling cream DAB      | 15228801    | 1       |
| Gehe                   | Cooling ointment DAB 6 | 15413601    | 1       |
| Gehe                   | Cooling cream DAB      | 15417201    | 2       |
| Gehe                   | Cooling cream DAB      | 15434402    | 1       |
| Gehe                   | Cooling cream DAB      | 16085801    | 1       |
| Gehe                   | Cooling cream DAB      | 16172601    | 2       |
| Gehe                   | Cooling cream DAB      | 16244601    | 1       |
| Gehe                   | Cooling cream DAB      | 16246201    | 1       |
| Gehe                   | Cooling ointment DAB 6 | 16301901    | 1       |
| Gehe                   | Cooling ointment DAB 6 | 16302001    | 1       |
| Gehe                   | Cooling cream DAB      | 16354401    | 3       |
| Gehe                   | Cooling cream DAB      | 17000223    | 1       |
| Gehe                   | Cooling cream DAB      | 17002971    | 1       |
| Gehe                   | Cooling ointment DAB 6 | 17035501    | 1       |
| Gehe                   | Cooling cream DAB      | 17075101    | 1       |
| Gehe                   | Cooling cream DAB      | 17075201    | 1       |
| Gehe                   | Cooling cream DAB      | 171115601   | 1       |
| gehe                   | Cooling cream DAB      | 17189701    | 1       |
| Gehe                   | Cooling cream DAB      | 17254101    | 1       |

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| Supplier | Substance              | Batch       | Spectra |
|----------|------------------------|-------------|---------|
| GEHE     | Cooling cream DAB      | 17254101    | 1       |
| Gehe     | Cooling ointment DAB 6 | 17254201    | 2       |
| Gehe     | Cooling cream DAB      | 17254401    | 1       |
| Gehe     | Cooling cream DAB      | 17298501    | 1       |
| Gehe     | Cooling cream DAB      | 18003174    | 1       |
| Gehe     | Cooling cream DAB      | 18005206    | 1       |
| Gehe     | Cooling cream DAB      | 18005606    | 1       |
| Gehe     | Cooling cream DAB      | 18042401    | 1       |
| GEHE     | Cooling cream DAB      | 18042801    | 1       |
| Gehe     | Cooling cream DAB      | 18182301    | 4       |
| Gehe     | Cooling cream DAB      | 18182601    | 1       |
| GEHE     | Cooling cream DAB      | 18182702    | 1       |
| GEHE     | Cooling cream DAB      | 18183301    | 1       |
| GEHE     | Cooling cream DAB      | 18218701    | 1       |
| Gehe     | Cooling cream DAB      | 18218901    | 1       |
| Gehe     | Cooling cream DAB      | 19000331    | 1       |
| GEHE     | Cooling cream DAB      | 19000334    | 1       |
| Gehe     | Cooling cream DAB      | 19001402    | 2       |
| Gehe     | Cooling cream DAB      | 19002522    | 1       |
| Gehe     | Cooling cream DAB      | 19004562    | 1       |
| Gehe     | Cooling ointment DAB 6 | 19073701    | 3       |
| Gehe     | Cooling cream DAB      | 19073801    | 1       |
| GEHE     | Cooling cream DAB      | 19074401    | 1       |
| GEHE     | Cooling cream DAB      | 19074501    | 1       |
| GEHE     | Cooling cream DAB      | 19154701    | 1       |
| Gehe     | Cooling cream DAB      | 192376001   | 1       |
| Gehe     | Cooling cream DAB      | 20001719001 | 1       |
| Gehe     | Cooling cream DAB      | 20001721001 | 1       |
| Gehe     | Cooling cream DAB      | 20002268    | 2       |
| Gehe     | Cooling cream DAB      | 20002955001 | 1       |
| Gehe     | Cooling cream DAB      | 20004342001 | 1       |
| Gehe     | Cooling cream DAB      | 21000664001 | 1       |
| Gehe     | Cooling cream DAB      | 21001948    | 1       |
| Gehe     | Cooling cream DAB      | 266839      | 2       |
| Gehe     | Cooling cream DAB      | 269093      | 2       |
| Gehe     | Cooling cream DAB      | 269098      | 3       |
| Gehe     | Cooling cream DAB      | 270314      | 1       |
| Gehe     | Cooling cream DAB      | 271535      | 1       |
| Gehe     | Cooling cream DAB      | 274044      | 2       |
| Gehe     | Cooling cream DAB      | 274909      | 2       |
| Gehe     | Cooling cream DAB      | 276283      | 3       |
| Gehe     | Cooling cream DAB      | 278518      | 1       |
| Gehe     | Cooling cream DAB      | 279681      | 2       |
| Gehe     | Cooling cream DAB      | 281036      | 1       |
| Gehe     | Cooling cream DAB      | 282020      | 1       |
| Gehe     | Cooling cream DAB      | 282022      | 1       |
| Gehe     | Cooling cream DAB      | 283053      | 1       |
| Gehe     | Cooling cream DAB      | 283114      | 1       |
| Gehe     | Cooling cream DAB      | 284300      | 1       |
| Gehe     | Cooling cream DAB      | 285066      | 1       |
| Gehe     | Cooling cream DAB      | 286565      | 1       |
| Gehe     | Cooling cream DAB      | 286650      | 1       |
| Gehe     | Cooling cream DAB      | 290485      | 2       |
| Gehe     | Cooling cream DAB      | 292278      | 1       |
| Gehe     | Cooling cream DAB      | 293618      | 1       |
| Gehe     | Cooling cream DAB      | 293677      | 1       |
| Gehe     | Cooling cream DAB      | 293678      | 1       |
| Gehe     | Cooling cream DAB      | 294121      | 1       |
| Gehe     | Cooling cream DAB      | 295023      | 1       |
| Gehe     | Cooling cream DAB      | 295123      | 1       |

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| Supplier                   | Substance              | Batch       | Spectra |
|----------------------------|------------------------|-------------|---------|
| GEHE                       | Cooling cream DAB      | 304594      | 1       |
| GEHE                       | Cooling cream DAB      | 305953      | 1       |
| Gehe                       | Cooling cream DAB      | 305961      | 1       |
| GEHE                       | Cooling cream DAB      | 307933      | 1       |
| Gehe                       | Cooling cream DAB      | 308723      | 5       |
| GEHE                       | Cooling cream DAB      | 308725      | 1       |
| GEHE                       | Cooling cream DAB      | 309370      | 1       |
| Gehe                       | Cooling cream DAB      | 310986      | 1       |
| Gehe                       | Cooling cream DAB      | 6001092001  | 3       |
| Gehe                       | Cooling cream DAB      | 6001092002  | 1       |
| Gehe                       | Cooling cream DAB      | 8002320007  | 1       |
| Gehe                       | Cooling cream DAB      | 8002320008  | 1       |
| Geibo/Lamotte 23.09.2021   | Cooling cream DAB      | 1000015312  | 1       |
| Geibo/Noweda               | Cooling cream DAB      | 17298101    | 1       |
| Gepepharm/ Gehe            | Cooling ointment DAB 6 | 161/2601    | 1       |
| GUMO                       | Cooling cream DAB      | 20005668    | 1       |
| Gutenberg-Apotheke         | Cooling cream DAB      | 84187       | 1       |
| H. Lamotte                 | Cooling cream DAB      | 1000015312  | 2       |
| Hedinger/Gehe              | Cooling cream DAB      | 16134201    | 1       |
| Hedinger                   | Cooling cream DAB      | 18218503    | 2       |
| Hedinger                   | Cooling cream DAB      | 19001301    | 1       |
| Henry L/Spangro            | Cooling cream DAB      | 80026960003 | 1       |
| Henry L/Spangro            | Cooling cream DAB      | 8003158005  | 4       |
| Henry L/Spangro            | Cooling cream DAB      | 8003478005  | 6       |
| Henry Lamortte             | Cooling cream DAB      | 8005213002  | 1       |
| Henry Lamotte / AHD        | Cooling cream DAB      | 1000011853  | 1       |
| Henry lamotte / Noweda     | Cooling cream DAB      | 1000012828  | 1       |
| Henry Lamotte Oils / Al... | Cooling cream DAB      | 6012127001  | 1       |
| Henry Lamotte Oils / Gehe  | Cooling cream DAB      | 8002875004  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 8003478005  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 8003478008  | 2       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 8003478004  | 1       |
| Henry Lamotte oils GmbH... | Cooling cream DAB      | 8002320008  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 1000012827  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 6002062002  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 8002320007  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 8003478006  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 8004538001  | 1       |
| Henry Lamotte Oils GmbH... | Cooling cream DAB      | 8005213002  | 1       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 10000010942 | 1       |
| HENRY LAMOTTE OILS GmbH    | Cooling cream DAB      | 1000010941  | 1       |
| Henry Lamotte Oils GmbH    | Cooling ointment DAB 6 | 1000011853  | 2       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 1000011854  | 2       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 12292301    | 3       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 17001970    | 2       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 6012127001  | 2       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 8003158004  | 1       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 8003478004  | 1       |
| HENRY LAMOTTE OILS GmbH    | Cooling cream DAB      | 8003478004  | 1       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 8003478005  | 2       |
| HENRY LAMOTTE OILS GmbH    | Cooling cream DAB      | 8003478006  | 1       |
| henry Lamotte Oils GmbH    | Cooling cream DAB      | 8003478007  | 1       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 8003478010  | 1       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 8004538001  | 1       |
| Henry Lamotte Oils GmbH    | Cooling ointment DAB 6 | 8005213002  | 3       |
| Henry Lamotte Oils/ Gehe   | Cooling cream DAB      | 8003158004  | 2       |
| Henry Lamotte Oils/GEHE    | Cooling cream DAB      | 5407600     | 1       |
| Henry Lamotte Oils/GEHE    | Cooling cream DAB      | 5496200     | 1       |
| Henry Lamotte Oils/GEHE    | Cooling cream DAB      | 5600300     | 1       |
| Henry Lamotte Oils/GEHE    | Cooling cream DAB      | 5691200     | 1       |

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| Supplier                   | Substance              | Batch      | Spectra |
|----------------------------|------------------------|------------|---------|
| Henry Lamotte Oils/GEHE    | Cooling cream DAB      | 5735600    | 1       |
| Henry Lamotte Oils/Gehe    | Cooling cream DAB      | 8004538001 | 1       |
| Henry Lamotte Oils         | Cooling cream DAB      | 6001092001 | 1       |
| Henry Lamotte Oils         | Cooling cream DAB      | 6003682010 | 1       |
| Henry Lamotte Oils         | Cooling ointment DAB 6 | 8005213002 | 1       |
| Henry Lamotte Olis GmbH... | Cooling cream DAB      | 1000011853 | 2       |
| Henry Lamotte Olis GmbH... | Cooling cream DAB      | 1000012827 | 1       |
| Henry Lamotte Olis GmbH... | Cooling cream DAB      | 5600300    | 2       |
| Henry Lamotte Olis GmbH    | Cooling cream DAB      | 5735600    | 1       |
| Henry lamotte/ Alliance    | Cooling cream DAB      | 1000010942 | 1       |
| Henry Lamotte/ Anzag       | Cooling cream DAB      | 8002875004 | 1       |
| Henry Lamotte/ Gehe        | Cooling cream DAB      | 1000010941 | 1       |
| Henry Lamotte/ Gehe        | Cooling cream DAB      | 1000011853 | 3       |
| Henry Lamotte/ Henry La... | Cooling ointment DAB 6 | 16171901   | 1       |
| Henry Lamotte/Alliance     | Cooling cream DAB      | 1000015312 | 1       |
| Henry Lamotte/Anzag        | Cooling cream DAB      | 8002320007 | 1       |
| Henry Lamotte/GEHE         | Cooling cream DAB      | 5163700    | 1       |
| Henry Lamotte/GEHE         | Cooling cream DAB      | 5316800    | 1       |
| Henry Lamotte/GEHE         | Cooling cream DAB      | 5321500    | 1       |
| Henry Lamotte/GEHE         | Cooling cream DAB      | 5407300    | 1       |
| Henry Lamotte/Geilenkir... | Cooling cream DAB      | 8003478010 | 2       |
| Henry Lamotte/N/19.11.12   | Cooling cream DAB      | 5253700    | 1       |
| Henry Lamotte/Now          | Cooling cream DAB      | 8003158004 | 2       |
| Henry Lamotte/Noweda       | Cooling cream DAB      | 8003478005 | 1       |
| Henry Lamotte/Noweda       | Cooling cream DAB      | 8003478006 | 1       |
| Henry Lamotte/Noweda       | Cooling cream DAB      | 8005213002 | 2       |
| Henry Lamotte/Phoenix      | Cooling cream DAB      | 1000014594 | 1       |
| Henry Lamotte/Phoenix      | Cooling cream DAB      | 8005213002 | 1       |
| Henry Lamotte/Phönix       | Cooling cream DAB      | 1000015312 | 1       |
| HENRY LAMOTTE/Phönix       | Cooling cream DAB      | 6001092002 | 1       |
| Henry Lamotte/Spangro      | Cooling cream DAB      | 8002320007 | 1       |
| Henry Lamotte              | Cooling ointment DAB 6 | 1000010941 | 1       |
| Henry Lamotte              | Cooling cream DAB      | 1000010942 | 3       |
| Henry Lamotte              | Cooling cream DAB      | 1000011853 | 2       |
| Henry Lamotte              | Cooling cream DAB      | 1000012827 | 2       |
| Henry Lamotte              | Cooling cream DAB      | 14328702   | 1       |
| Henry Lamotte              | Cooling cream DAB      | 5407300    | 1       |
| Henry Lamotte              | Cooling cream DAB      | 5496300    | 1       |
| Henry Lamotte              | Cooling cream DAB      | 5691200    | 1       |
| Henry Lamotte              | Cooling cream DAB      | 5861000    | 1       |
| Henry Lamotte              | Cooling cream DAB      | 6000083005 | 2       |
| Henry Lamotte              | Cooling cream DAB      | 6001092001 | 2       |
| Henry Lamotte              | Cooling cream DAB      | 6003682010 | 1       |
| Henry Lamotte              | Cooling cream DAB      | 6012127001 | 2       |
| Henry Lamotte              | Cooling cream DAB      | 8002320007 | 1       |
| Henry Lamotte              | Cooling cream DAB      | 8002875004 | 1       |
| Henry Lamotte              | Cooling cream DAB      | 8003158004 | 3       |
| Henry Lamotte              | Cooling cream DAB      | 8003478006 | 2       |
| Henry Lamotte              | Cooling cream DAB      | 8005213001 | 5       |
| Henry LamotteAlliance H... | Cooling cream DAB      | 1000014594 | 1       |
| Henry LamotteAlliance H... | Cooling cream DAB      | 1000015312 | 1       |
| Henry Lamotte Oils GmbH    | Cooling cream DAB      | 6002062002 | 1       |
| HenryFiebig                | Cooling cream DAB      | 8003478007 | 1       |
| HenryL/Spangro             | Cooling cream DAB      | 61360      | 1       |
| Hepart                     | Cooling cream DAB      | 16244701   | 2       |
| Hepart                     | Cooling cream DAB      | 18042402   | 1       |
| Herbasinica                | Cooling cream DAB      | 14085901   | 1       |
| hochhaus-Apotheke          | Cooling ointment DAB 6 | 17033001   | 1       |
| Hubert Müller              | Cooling cream DAB      | 15417501   | 1       |
| Hubertus Apotheke          | Cooling ointment DAB 6 | 15236901   | 1       |

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| Supplier                      | Substance              | Batch       | Spectra |
|-------------------------------|------------------------|-------------|---------|
| Ichthyol Gesellschaft         | Cooling cream DAB      | 17254501    | 1       |
| Ichthyol Gesellschaft Co. ... | Cooling cream DAB      | 15327901    | 1       |
| ichthyol/AHD                  | Cooling cream DAB      | 281921      | 2       |
| Ichthyol/Phönix               | Cooling ointment DAB 6 | 16172601    | 1       |
| Ichthyol                      | Cooling cream DAB      | 16000801    | 1       |
| Ichthyol                      | Cooling cream DAB      | 19000762    | 1       |
| Ichthyol-Gesellschaft, ...    | Cooling cream DAB      | 3036532     | 1       |
| Ichthyol-Gesellschaft         | Cooling cream DAB      | 16172601    | 1       |
| Jenne/Bomba/17.03.20          | Cooling cream DAB      | 19004561    | 1       |
| Jenne                         | Cooling cream DAB      | 17298301    | 1       |
| Jenne                         | Cooling ointment DAB 6 | 19073701    | 1       |
| Jenne                         | Cooling cream DAB      | 20000244    | 1       |
| Jenne                         | Cooling ointment DAB 6 | 20001621    | 1       |
| Kehr.09.07.2020               | Cooling cream DAB      | 20000243    | 1       |
| Kehr.29.01.2020               | Cooling cream DAB      | 19004568    | 1       |
| Kehr/Henry Lamotte            | Cooling cream DAB      | 1000010941  | 1       |
| Kehr/Henry Lamotte            | Cooling ointment DAB 6 | 1000012827  | 1       |
| Kehr                          | Cooling cream DAB      | 17000986    | 1       |
| Kehr                          | Cooling cream DAB      | 18182701    | 1       |
| Kehr                          | Cooling cream DAB      | 301702      | 1       |
| Kehr                          | Cooling cream DAB      | 8002875004  | 1       |
| Klenk                         | Cooling cream DAB      | 13226801    | 1       |
| Klenk                         | Cooling cream DAB      | 17033001    | 3       |
| Klenk                         | Cooling cream DAB      | 17298301    | 1       |
| Kremer/Phönix                 | Cooling cream DAB      | 15/158/K    | 1       |
| Krieger am 23.05.2019         | Cooling cream DAB      | 19001403    | 1       |
| Krieger/Lamotte               | Cooling cream DAB      | 6002062002  | 1       |
| Krieger                       | Cooling cream DAB      | 1000015312  | 1       |
| Krieger                       | Cooling cream DAB      | 20000335002 | 1       |
| L12                           | Cooling cream DAB      | 16301801    | 4       |
| L12                           | Cooling ointment DAB 6 | 17000601    | 2       |
| L12                           | Cooling ointment DAB 6 | 17330802    | 1       |
| L12                           | Cooling ointment DAB 6 | 18182501    | 1       |
| Lamotte / AHC                 | Cooling ointment DAB 6 | 1000010942  | 1       |
| Lamotte / AHC                 | Cooling cream DAB      | 8005213001  | 5       |
| Lamotte / AHD                 | Cooling cream DAB      | 8003478004  | 1       |
| Lamotte / Phoenix             | Cooling cream DAB      | 1000016401  | 4       |
| Lamotte / Phönix              | Cooling cream DAB      | 6012127002  | 3       |
| Lamotte Sanacorp              | Cooling cream DAB      | 5496200     | 3       |
| Lamotte Sanacorp              | Cooling cream DAB      | 5600300     | 1       |
| Lamotte/ Gehe                 | Cooling cream DAB      | 1000011853  | 1       |
| Lamotte/ Gehe                 | Cooling cream DAB      | 1000012827  | 1       |
| Lamotte/ Phönix               | Cooling cream DAB      | 1000010942  | 1       |
| Lamotte/ Phönix               | Cooling cream DAB      | 1000011854  | 2       |
| Lamotte/ Phönix               | Cooling cream DAB      | 1000014595  | 4       |
| Lamotte/ Phönix               | Cooling cream DAB      | 5600300     | 1       |
| Lamotte/AHC                   | Cooling cream DAB      | 1000012828  | 7       |
| Lamotte/AHC                   | Cooling cream DAB      | 8002696003  | 1       |
| Lamotte/AHD 27.03.17          | Cooling cream DAB      | 8002320007  | 1       |
| Lamotte/AHD                   | Cooling cream DAB      | 5600300     | 2       |
| Lamotte/AHD                   | Cooling cream DAB      | 6000744001  | 2       |
| Lamotte/AHD                   | Cooling cream DAB      | 6001092001  | 1       |
| Lamotte/AHD                   | Cooling cream DAB      | 6012127002  | 1       |
| Lamotte/AHD                   | Cooling cream DAB      | 8002696003  | 3       |
| Lamotte/AHD                   | Cooling cream DAB      | 8002875004  | 2       |
| Lamotte/AHD                   | Cooling cream DAB      | 8003478005  | 2       |
| Lamotte/AHD                   | Cooling cream DAB      | 8003478007  | 2       |
| Lamotte/AHD                   | Cooling cream DAB      | 8003478008  | 1       |
| Lamotte/AHD                   | Cooling cream DAB      | 8003478009  | 1       |
| Lamotte/AHD                   | Cooling cream DAB      | 8005213001  | 3       |

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| Supplier         | Substance              | Batch        | Spectra |
|------------------|------------------------|--------------|---------|
| Lamotte/Alliance | Cooling cream DAB      | 15417201     | 1       |
| Lamotte/Anzag    | Cooling cream DAB      | 5496200      | 2       |
| Lamotte/Anzag    | Cooling cream DAB      | 6002062002   | 1       |
| Lamotte/Anzag    | Cooling cream DAB      | 6002062003   | 1       |
| lamotte/anzag    | Cooling cream DAB      | 8002112004   | 1       |
| lamotte/anzag    | Cooling cream DAB      | 8002320008   | 1       |
| Lamotte/Ebert    | Cooling cream DAB      | 6003682010   | 1       |
| LAmotte/Gehe     | Cooling cream DAB      | 1000010941   | 1       |
| LAmotte/Gehe     | Cooling cream DAB      | 20000244     | 1       |
| LAmotte/Gehe     | Cooling cream DAB      | 8005213002   | 3       |
| Lamotte/Krieger  | Cooling cream DAB      | 18006324     | 1       |
| Lamotte/Krieger  | Cooling cream DAB      | 8002875004   | 1       |
| lamotte/Novatis  | Cooling cream DAB      | 1000014594   | 1       |
| Lamotte/Noweda   | Cooling cream DAB      | 10000853     | 1       |
| Lamotte/Noweda   | Cooling cream DAB      | 6002062003   | 1       |
| Lamotte/Noweda   | Cooling ointment DAB 6 | 8002112004   | 1       |
| Lamotte/Noweda   | Cooling cream DAB      | 8002320008   | 1       |
| Lamotte/Noweda   | Cooling cream DAB      | 8004538001   | 2       |
| Lamotte/Phoenix  | Cooling cream DAB      | 1000010941   | 1       |
| Lamotte/Phoenix  | Cooling cream DAB      | 19238001     | 1       |
| Lamotte/Phoenix  | Cooling cream DAB      | 6012127001   | 1       |
| Lamotte/Phoenix  | Cooling cream DAB      | 8003478007   | 4       |
| Lamotte/Phoenix  | Cooling cream DAB      | 8003478008   | 7       |
| Lamotte/Phoenix  | Cooling cream DAB      | 8004538001   | 1       |
| Lamotte/Phönix   | Cooling ointment DAB 6 | 1000014595   | 1       |
| Lamotte/Phönix   | Cooling cream DAB      | 1000016941   | 3       |
| Lamotte/Phönix   | Cooling cream DAB      | 8002760004   | 1       |
| Lamotte/Sana     | Cooling cream DAB      | 10000153122  | 1       |
| lamotte/sanacorb | Cooling cream DAB      | 5496200      | 1       |
| Lamotte/Spangro  | Cooling cream DAB      | 5735700      | 1       |
| Lamotte/Spangro  | Cooling cream DAB      | 5861100      | 12      |
| Lamotte/Spangro  | Cooling cream DAB      | 6001092002   | 8       |
| Lamotte/Spangro  | Cooling ointment DAB 6 | 6012127002   | 8       |
| Lamotte/Spangro  | Cooling ointment DAB 6 | 8002112004   | 11      |
| Lamotte/Spangro  | Cooling cream DAB      | 8002320008   | 2       |
| Lamotte/Spangro  | Cooling cream DAB      | 8002696003   | 8       |
| LaMotte/Spangro  | Cooling cream DAB      | 8002875004   | 2       |
| Lamotte/Spangro  | Cooling ointment DAB 6 | 8003478009   | 7       |
| Lamotte/Spangroh | Cooling cream DAB      | 6000744001   | 3       |
| Lamotte          | Cooling cream DAB      | 1000010941   | 1       |
| Lamotte          | Cooling cream DAB      | 1000011853   | 1       |
| Lamotte          | Cooling cream DAB      | 13226601     | 1       |
| Lamotte          | Cooling cream DAB      | 19237101     | 1       |
| Lamotte          | Cooling cream DAB      | 5861000      | 1       |
| Lamotte          | Cooling cream DAB      | 600008306    | 1       |
| Lamotte          | Cooling cream DAB      | 6000744001   | 1       |
| lamotte          | Cooling cream DAB      | 8003158004   | 1       |
| Lamotte          | Cooling cream DAB      | 8003478007   | 2       |
| Lamotte          | Cooling cream DAB      | 8005213002   | 1       |
| Lamotte          | Cooling cream DAB      | CH8003478005 | 1       |
| Lanotte          | Cooling cream DAB      | 1000010941   | 1       |
| Maros/Phoenix    | Cooling cream DAB      | 13191901     | 1       |
| Midas            | Cooling cream DAB      | 16244701     | 1       |
| Midas            | Cooling cream DAB      | 17000220     | 1       |
| Midas            | Cooling cream DAB      | 17000227     | 1       |
| Midas            | Cooling cream DAB      | 17033001     | 6       |
| Midas            | Cooling ointment DAB 6 | 17189701     | 4       |
| Midas            | Cooling ointment DAB 6 | 17254101     | 3       |
| Midas            | Cooling cream DAB      | 17254201     | 1       |
| Midas            | Cooling cream DAB      | 18002090     | 2       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------|--------------|----------------|
| Midas           | Cooling cream DAB      | 18004426     | 2              |
| Midas           | Cooling cream DAB      | 18042401     | 1              |
| Midas           | Cooling cream DAB      | 18182401     | 1              |
| Midas           | Cooling ointment DAB 6 | 18182601     | 1              |
| Midas           | Cooling ointment DAB 6 | 19001402     | 1              |
| Midas           | Cooling cream DAB      | 306938       | 1              |
| Midas           | Cooling cream DAB      | 308717       | 1              |
| Midas           | Cooling cream DAB      | 3100001      | 1              |
| Nachprüfung     | Cooling cream DAB      | 123456       | 1              |
| Nachprüfung     | Cooling ointment DAB 6 | 19000581001  | 1              |
| Nachprüfung     | Cooling cream DAB      | AP220105-04  | 1              |
| Noweda/Henry    | Cooling cream DAB      | 8003478007   | 1              |
| Noweda          | Cooling cream DAB      | 1000010941   | 1              |
| Noweda          | Cooling cream DAB      | 12992301     | 1              |
| Noweda          | Cooling ointment DAB 6 | 13026301     | 1              |
| Noweda          | Cooling cream DAB      | 13121002     | 1              |
| Noweda          | Cooling cream DAB      | 13315101     | 1              |
| Noweda          | Cooling cream DAB      | 14085901     | 1              |
| Noweda          | Cooling cream DAB      | 14129801     | 2              |
| Noweda          | Cooling cream DAB      | 15066601     | 1              |
| Noweda          | Cooling cream DAB      | 15417201     | 1              |
| Noweda          | Cooling cream DAB      | 16000801     | 1              |
| Noweda          | Cooling cream DAB      | 16323101     | 1              |
| Noweda          | Cooling cream DAB      | 17000601     | 1              |
| Noweda          | Cooling cream DAB      | 17001967     | 1              |
| Noweda          | Cooling cream DAB      | 17075101     | 1              |
| Noweda          | Cooling ointment DAB 6 | 17075102     | 1              |
| Noweda          | Cooling ointment DAB 6 | 17081801     | 1              |
| Noweda          | Cooling ointment DAB 6 | 17122801     | 6              |
| Noweda          | Cooling cream DAB      | 17124901     | 2              |
| Noweda          | Cooling cream DAB      | 17157201     | 1              |
| Noweda          | Cooling cream DAB      | 17189701     | 1              |
| Noweda          | Cooling ointment DAB 6 | 17254101     | 1              |
| Noweda          | Cooling cream DAB      | 17254301     | 2              |
| Noweda          | Cooling cream DAB      | 17298101     | 1              |
| Noweda          | Cooling ointment DAB 6 | 17298701     | 1              |
| Noweda          | Cooling cream DAB      | 17330802     | 1              |
| Noweda          | Cooling cream DAB      | 18000339     | 2              |
| Noweda          | Cooling cream DAB      | 18001082     | 1              |
| Noweda          | Cooling cream DAB      | 18001085     | 1              |
| Noweda          | Cooling cream DAB      | 18002309     | 1              |
| Noweda          | Cooling cream DAB      | 18003753     | 1              |
| Noweda          | Cooling cream DAB      | 18005207     | 2              |
| Noweda          | Cooling cream DAB      | 18006322     | 1              |
| Noweda          | Cooling cream DAB      | 18042401     | 2              |
| Noweda          | Cooling ointment DAB 6 | 18042403     | 1              |
| Noweda          | Cooling cream DAB      | 18182501     | 1              |
| Noweda          | Cooling ointment DAB 6 | 18183201     | 1              |
| Noweda          | Cooling ointment DAB 6 | 18218302     | 3              |
| Noweda          | Cooling cream DAB      | 18218801     | 1              |
| Noweda          | Cooling cream DAB      | 18272901     | 1              |
| Noweda          | Cooling cream DAB      | 19000335     | 1              |
| Noweda          | Cooling cream DAB      | 19001301     | 1              |
| Noweda          | Cooling cream DAB      | 19001419     | 2              |
| Noweda          | Cooling cream DAB      | 19001420     | 1              |
| Noweda          | Cooling cream DAB      | 19003475     | 1              |
| Noweda          | Cooling cream DAB      | 19003477     | 1              |
| Noweda          | Cooling cream DAB      | 19004566     | 1              |
| Noweda          | Cooling cream DAB      | 19004569     | 1              |
| Noweda          | Cooling cream DAB      | 19073701     | 1              |

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| Supplier           | Substance              | Batch       | Spectra |
|--------------------|------------------------|-------------|---------|
| Noweda             | Cooling ointment DAB 6 | 19073801    | 2       |
| Noweda             | Cooling cream DAB      | 19150201    | 2       |
| Noweda             | Cooling ointment DAB 6 | 19155001    | 5       |
| Noweda             | Cooling ointment DAB 6 | 19155101    | 1       |
| Noweda             | Cooling cream DAB      | 20000248    | 3       |
| Noweda             | Cooling cream DAB      | 20000336001 | 1       |
| Noweda             | Cooling cream DAB      | 20000536    | 1       |
| noweda             | Cooling cream DAB      | 20001262001 | 2       |
| Noweda             | Cooling ointment DAB 6 | 20001262001 | 4       |
| Noweda             | Cooling ointment DAB 6 | 20001263001 | 1       |
| Noweda             | Cooling cream DAB      | 20001621    | 1       |
| Noweda             | Cooling cream DAB      | 20001721001 | 2       |
| Noweda             | Cooling cream DAB      | 20002073001 | 2       |
| Noweda             | Cooling cream DAB      | 20002074001 | 1       |
| Noweda             | Cooling cream DAB      | 20002950001 | 1       |
| Noweda             | Cooling cream DAB      | 200172201   | 1       |
| Noweda             | Cooling cream DAB      | 274043      | 1       |
| Noweda             | Cooling cream DAB      | 276284      | 1       |
| Noweda             | Cooling cream DAB      | 306943      | 1       |
| Noweda             | Cooling cream DAB      | 8003478005  | 1       |
| Noweda             | Cooling cream DAB      | 8005213002  | 1       |
| Otto Geilenkirchen | Cooling cream DAB      | 21000662001 | 1       |
| Otto Geilenkirchen | Cooling cream DAB      | 21002378001 | 2       |
| Pala               | Cooling cream DAB      | 17298501    | 1       |
| Pala               | Cooling cream DAB      | 18042701    | 1       |
| Pala               | Cooling ointment DAB 6 | 18219201    | 1       |
| Pala               | Cooling cream DAB      | 18273101    | 1       |
| Pala               | Cooling cream DAB      | 19074201    | 1       |
| Pala               | Cooling ointment DAB 6 | 19150102    | 3       |
| Pala               | Cooling ointment DAB 6 | 19238001    | 2       |
| Pharmachem/AHD     | Cooling cream DAB      | 279680      | 1       |
| Phoenix 07.12.18   | Cooling cream DAB      | 18218601    | 1       |
| Phoenix 20.06.2014 | Cooling cream DAB      | 14086001    | 1       |
| Phoenix            | Cooling ointment DAB 6 | 16000501    | 2       |
| Phoenix            | Cooling cream DAB      | 16085801    | 1       |
| Phoenix            | Cooling cream DAB      | 16086001    | 1       |
| Phoenix            | Cooling cream DAB      | 16134001    | 1       |
| Phoenix            | Cooling cream DAB      | 16172001    | 1       |
| Phoenix            | Cooling cream DAB      | 16172701    | 1       |
| Phoenix            | Cooling cream DAB      | 17038501    | 1       |
| Phoenix            | Cooling cream DAB      | 17075401    | 1       |
| Phoenix            | Cooling ointment DAB 6 | 17122701    | 1       |
| Phoenix            | Cooling ointment DAB 6 | 17157201    | 1       |
| Phoenix            | Cooling cream DAB      | 17189801    | 1       |
| Phoenix            | Cooling cream DAB      | 17254201    | 1       |
| Phoenix            | Cooling cream DAB      | 18000332    | 1       |
| Phoenix            | Cooling cream DAB      | 18002090    | 1       |
| Phoenix            | Cooling cream DAB      | 18005197    | 2       |
| Phoenix            | Cooling cream DAB      | 18042402    | 1       |
| Phoenix            | Cooling cream DAB      | 18104601    | 1       |
| Phoenix            | Cooling ointment DAB 6 | 18182301    | 2       |
| Phoenix            | Cooling cream DAB      | 18182701    | 1       |
| Phoenix            | Cooling cream DAB      | 18218301    | 1       |
| Phoenix            | Cooling cream DAB      | 18218901    | 1       |
| Phoenix            | Cooling cream DAB      | 19000575002 | 1       |
| Phoenix            | Cooling cream DAB      | 19001201    | 1       |
| Phoenix            | Cooling cream DAB      | 19001402    | 1       |
| Phoenix            | Cooling cream DAB      | 19001414    | 1       |
| Phoenix            | Cooling cream DAB      | 19003476    | 1       |
| Phoenix            | Cooling ointment DAB 6 | 19073701    | 2       |

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| Supplier          | Substance              | Batch       | Spectra |
|-------------------|------------------------|-------------|---------|
| Phoenix           | Cooling cream DAB      | 19074003    | 1       |
| phoenix           | Cooling cream DAB      | 19153201    | 1       |
| Phoenix           | Cooling cream DAB      | 19237701    | 2       |
| Phoenix           | Cooling cream DAB      | 19238001    | 1       |
| Phoenix           | Cooling cream DAB      | 20000227001 | 1       |
| Phoenix           | Cooling cream DAB      | 20000249    | 1       |
| Phoenix           | Cooling cream DAB      | 20000333001 | 1       |
| Phoenix           | Cooling cream DAB      | 21001855002 | 1       |
| Phoenix           | Cooling cream DAB      | 21003233    | 1       |
| Phoenix           | Cooling cream DAB      | 269094      | 1       |
| Phoenix           | Cooling ointment DAB 6 | 3042        | 1       |
| Phoenix           | Cooling cream DAB      | 3055        | 1       |
| Phoenix           | Cooling cream DAB      | 3059        | 1       |
| Phoenix           | Cooling cream DAB      | 306932      | 1       |
| phoenix           | Cooling cream DAB      | 308717      | 1       |
| Phoenix           | Cooling cream DAB      | 3120        | 1       |
| Phoenix           | Cooling cream DAB      | 3125        | 1       |
| Phoenix           | Cooling cream DAB      | 3374        | 1       |
| Phoenix           | Cooling cream DAB      | Bombastus   | 1       |
| Phönix 15.10.2019 | Cooling cream DAB      | 19074201    | 1       |
| Phönix 26.10.12   | Cooling cream DAB      | 12187301    | 1       |
| Phönix Gotha      | Cooling cream DAB      | 12089501    | 1       |
| Phönix Gotha      | Cooling cream DAB      | 19004567    | 1       |
| Phönix Gotha      | Cooling cream DAB      | SRTM1104    | 1       |
| Phönix/Hedinger   | Cooling ointment DAB 6 | 17254101    | 1       |
| Phönix/Lamotte    | Cooling cream DAB      | 6003682010  | 2       |
| phönix            | Cooling cream DAB      | 12292201    | 1       |
| Phönix            | Cooling cream DAB      | 12312101    | 2       |
| phönix            | Cooling cream DAB      | 12312102    | 1       |
| Phönix            | Cooling cream DAB      | 13051602    | 1       |
| Phönix            | Cooling cream DAB      | 13059501    | 1       |
| Phönix            | Cooling cream DAB      | 13059901    | 1       |
| Phönix            | Cooling cream DAB      | 13121701    | 1       |
| Phönix            | Cooling cream DAB      | 13191801    | 1       |
| Phönix            | Cooling cream DAB      | 13192101    | 1       |
| Phönix            | Cooling cream DAB      | 13226302    | 1       |
| Phönix            | Cooling cream DAB      | 13227401    | 1       |
| Phönix            | Cooling cream DAB      | 14055401    | 2       |
| Phönix            | Cooling cream DAB      | 14328801    | 1       |
| phönix            | Cooling ointment DAB 6 | 14329501    | 1       |
| Phönix            | Cooling cream DAB      | 14850901    | 1       |
| Phönix            | Cooling cream DAB      | 15434401    | 1       |
| Phönix            | Cooling ointment DAB 6 | 15434502    | 1       |
| phönix            | Cooling cream DAB      | 15435101    | 1       |
| Phönix            | Cooling cream DAB      | 17000501    | 1       |
| phönix            | Cooling cream DAB      | 17033001    | 1       |
| Phönix            | Cooling cream DAB      | 17033001    | 2       |
| Phönix            | Cooling ointment DAB 6 | 17075101    | 1       |
| phönix            | Cooling ointment DAB 6 | 17075201    | 1       |
| phönix            | Cooling ointment DAB 6 | 17156801    | 1       |
| PHÖNIX            | Cooling cream DAB      | 17254301    | 1       |
| PHÖNIX            | Cooling cream DAB      | 17254901    | 1       |
| Phönix            | Cooling ointment DAB 6 | 18104601    | 1       |
| Phönix            | Cooling cream DAB      | 18182401    | 1       |
| Phönix            | Cooling cream DAB      | 18182601    | 1       |
| Phönix            | Cooling ointment DAB 6 | 18218301    | 1       |
| Phönix            | Cooling cream DAB      | 18218601    | 1       |
| Phönix            | Cooling cream DAB      | 18272901    | 1       |
| Phönix            | Cooling cream DAB      | 19001501    | 1       |
| Phönix            | Cooling cream DAB      | 19004564    | 1       |

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| Supplier                     | Substance              | Batch       | Spectra |
|------------------------------|------------------------|-------------|---------|
| Phönix                       | Cooling ointment DAB 6 | 19155001    | 2       |
| Phönix                       | Cooling ointment DAB 6 | 19155202    | 1       |
| Phönix                       | Cooling cream DAB      | 20000333001 | 1       |
| Phönix                       | Cooling ointment DAB 6 | 20001258001 | 1       |
| PHÖNIX                       | Cooling ointment DAB 6 | 20001263002 | 1       |
| Phönix                       | Cooling cream DAB      | 20001719001 | 2       |
| PHÖNIX                       | Cooling cream DAB      | 20002273    | 1       |
| Phönix                       | Cooling ointment DAB 6 | 20002953001 | 1       |
| Phönix                       | Cooling ointment DAB 6 | 20003305002 | 1       |
| Phönix                       | Cooling cream DAB      | 268978      | 1       |
| Phönix                       | Cooling cream DAB      | 271541      | 1       |
| Phönix                       | Cooling cream DAB      | 278516      | 2       |
| Phönix                       | Cooling cream DAB      | 287486      | 1       |
| Phönix                       | Cooling cream DAB      | 289188      | 1       |
| Phönix                       | Cooling cream DAB      | 3178        | 1       |
| Phönix                       | Cooling cream DAB      | 6012127001  | 2       |
| Phönix                       | Cooling cream DAB      | 8003478006  | 1       |
| Phönix                       | Cooling cream DAB      | 8003478007  | 4       |
| PKH Halle/Noweda             | Cooling cream DAB      | 4B221019    | 1       |
| Puren / Phönix               | Cooling cream DAB      | 19074201    | 1       |
| Römerapo.                    | Cooling cream DAB      | 15328001    | 1       |
| Römerapo.                    | Cooling cream DAB      | 18272801    | 1       |
| Rondell Apotheke             | Cooling cream DAB      | 15228601    | 1       |
| Sana 29.12.14 EK 5,59        | Cooling cream DAB      | 14268301    | 1       |
| Sanacorp / Gehe              | Cooling cream DAB      | 17001965    | 1       |
| Sanacorp 08.03.2017 EK:...   | Cooling cream DAB      | 16301801    | 1       |
| Sanacorp W.E: 06.02.18 ...   | Cooling ointment DAB 6 | 17157001    | 2       |
| sanacorp, 9,51EUR, 27.09.... | Cooling cream DAB      | 16172001    | 1       |
| Sanacorp/Ebert               | Cooling cream DAB      | 17156901    | 1       |
| Sanacorp/Henry Lamotte ...   | Cooling cream DAB      | 6002062002  | 1       |
| Sanacorp/Henry Lamotte       | Cooling cream DAB      | 6000083005  | 1       |
| Sanacorp/Henry Lamotte       | Cooling cream DAB      | 6003682010  | 3       |
| sanacorp/ichthyol            | Cooling cream DAB      | 16086001    | 1       |
| sanacorp/Lamotte             | Cooling cream DAB      | 5735600     | 1       |
| Sanacorp                     | Cooling cream DAB      |             | 1       |
| sanacorp                     | Cooling cream DAB      | 1000010941  | 1       |
| sanacorp                     | Cooling cream DAB      | 1000011853  | 1       |
| Sanacorp                     | Cooling cream DAB      | 12187201    | 1       |
| Sanacorp                     | Cooling cream DAB      | 12187301    | 1       |
| Sanacorp                     | Cooling cream DAB      | 12312401    | 1       |
| Sanacorp                     | Cooling cream DAB      | 12312801    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13004401    | 2       |
| Sanacorp                     | Cooling cream DAB      | 13059601    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13121001    | 1       |
| Sanacorp                     | Cooling ointment DAB 6 | 13121601    | 1       |
| Sanacorp                     | Cooling ointment DAB 6 | 13191301    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13192101    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13226501    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13226701    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13227001    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13401801    | 1       |
| Sanacorp                     | Cooling cream DAB      | 13402001    | 1       |
| Sanacorp                     | Cooling cream DAB      | 14129402    | 1       |
| Sanacorp                     | Cooling cream DAB      | 14145501    | 1       |
| Sanacorp                     | Cooling cream DAB      | 14268101    | 1       |
| Sanacorp                     | Cooling cream DAB      | 14268102    | 1       |
| Sanacorp                     | Cooling cream DAB      | 14328801    | 2       |
| Sanacorp                     | Cooling cream DAB      | 15049202    | 1       |
| Sanacorp                     | Cooling ointment DAB 6 | 15066601    | 3       |
| sanacorp                     | Cooling cream DAB      | 15228601    | 1       |

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| Supplier                   | Substance              | Batch       | Spectra |
|----------------------------|------------------------|-------------|---------|
| Sanacorp                   | Cooling cream DAB      | 15236902    | 1       |
| Sanacorp                   | Cooling cream DAB      | 15413901    | 1       |
| Sanacorp                   | Cooling cream DAB      | 16000201    | 1       |
| Sanacorp                   | Cooling cream DAB      | 16085801    | 1       |
| Sanacorp                   | Cooling cream DAB      | 16301801    | 1       |
| Sanacorp                   | Cooling cream DAB      | 17000228    | 4       |
| Sanacorp                   | Cooling cream DAB      | 17000984    | 1       |
| Sanacorp                   | Cooling cream DAB      | 17001970    | 1       |
| Sanacorp                   | Cooling cream DAB      | 17075101    | 1       |
| Sanacorp                   | Cooling cream DAB      | 17157001    | 2       |
| Sanacorp                   | Cooling cream DAB      | 17157301    | 1       |
| Sanacorp                   | Cooling cream DAB      | 17189701    | 1       |
| Sanacorp                   | Cooling cream DAB      | 17254501    | 1       |
| Sanacorp                   | Cooling cream DAB      | 18000337    | 1       |
| Sanacorp                   | Cooling cream DAB      | 18001077    | 1       |
| Sanacorp                   | Cooling cream DAB      | 18002239    | 1       |
| Sanacorp                   | Cooling cream DAB      | 18005199    | 1       |
| sanacorp                   | Cooling cream DAB      | 18042401    | 1       |
| Sanacorp                   | Cooling cream DAB      | 1812501     | 1       |
| Sanacorp                   | Cooling ointment DAB 6 | 18182601    | 1       |
| Sanacorp                   | Cooling ointment DAB 6 | 18218302    | 2       |
| Sanacorp                   | Cooling cream DAB      | 18218503    | 1       |
| Sanacorp                   | Cooling cream DAB      | 18218801    | 1       |
| Sanacorp                   | Cooling ointment DAB 6 | 18272901    | 1       |
| Sanacorp                   | Cooling cream DAB      | 182772901   | 1       |
| Sanacorp                   | Cooling cream DAB      | 19000330    | 1       |
| Sanacorp                   | Cooling cream DAB      | 19000582001 | 1       |
| Sanacorp                   | Cooling cream DAB      | 19000583001 | 1       |
| Sanacorp                   | Cooling ointment DAB 6 | 19001402    | 4       |
| Sanacorp                   | Cooling cream DAB      | 19001501    | 1       |
| Sanacorp                   | Cooling cream DAB      | 19002518    | 1       |
| Sanacorp                   | Cooling cream DAB      | 19073701    | 1       |
| Sanacorp                   | Cooling cream DAB      | 20000331001 | 1       |
| Sanacorp                   | Cooling ointment DAB 6 | 20000333001 | 1       |
| Sanacorp                   | Cooling cream DAB      | 20000334001 | 2       |
| sanacorp                   | Cooling cream DAB      | 20001261001 | 1       |
| Sanacorp                   | Cooling cream DAB      | 20002950001 | 1       |
| Sanacorp                   | Cooling cream DAB      | 20004655    | 1       |
| Sanacorp                   | Cooling cream DAB      | 274077      | 1       |
| Sanacorp                   | Cooling cream DAB      | 281037      | 1       |
| Sanacorp                   | Cooling cream DAB      | 307932      | 1       |
| Sanacorp                   | Cooling cream DAB      | 6002062002  | 6       |
| Sanacorp                   | Cooling cream DAB      | 6003682010  | 4       |
| Sanacorp                   | Cooling cream DAB      | 73AKD4      | 1       |
| Sanacorp                   | Cooling cream DAB      | 76/AKD3     | 1       |
| Sanacorp                   | Cooling cream DAB      | 77/AKD10    | 1       |
| Sanacorp                   | Cooling cream DAB      | 77/AKD6     | 1       |
| Sonnen-Apotheke Wefensl... | Cooling cream DAB      | 17000971    | 2       |
| Th. Geyer                  | Cooling cream DAB      | 18218901    | 1       |
| VDL                        | Cooling cream DAB      | 12090501    | 1       |
| WEPA Apothekenbedarf       | Cooling cream DAB      | 18000336    | 1       |

- 277 584 spectra from 1293 *Apo-Ident* customers from a total of 49 929 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cooling cream / Cooling cream with rose oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cooling cream / Cooling cream with rose oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 1200          | 0              | 65 959        |
| <b>Type B</b> | 0              | 4891          | 39             | 102 433       |
| <b>Type C</b> | 0              | 10 944        | 181            | 277 584       |

The substance/substance group *Cooling cream / Cooling cream with rose oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.5000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 99.2089 % (> 99.1481 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.3730 % (> 98.3461 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cooling cream / Cooling cream with rose oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                               | Distance in main model | Distance in second-stage model |
|-----------------------------------------|------------------------|--------------------------------|
| Lanolin DAB                             | 26.72                  | —                              |
| Basis Cordes <sup>®</sup> RK            | 35.27                  | —                              |
| Clotrimazole 10% Cordes <sup>®</sup> RK | 43.19                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cooling cream / Cooling cream with rose oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30889     | 31992               | 8.52                         | 41.10                           |
| 30890     | 32293               | 7.63                         | 53.40                           |
| 30921     | 31249               | 5.08                         | 48.03                           |
| 31052     | 31922               | 7.40                         | 44.83                           |
| 31224     | 31992               | 6.38                         | 45.33                           |
| 31249     | 31249               | 0.00                         | 49.71                           |
| 31922     | 31922               | 0.00                         | 48.84                           |
| 31992     | 31992               | 0.00                         | 46.46                           |
| 32293     | 32293               | 0.00                         | 49.59                           |
| 32294     | 32294               | 0.00                         | 42.31                           |
| 32506     | 32506               | 0.00                         | 51.44                           |
| 32507     | 32507               | 0.00                         | 51.66                           |
| 33180     | 33180               | 0.00                         | 53.43                           |
| 33779     | 33779               | 0.00                         | 42.41                           |
| 34499     | 31992               | 20.89                        | 45.21                           |
| 34500     | 31992               | 14.16                        | 45.62                           |
| 34501     | 31249               | 9.99                         | 51.99                           |
| 34502     | 33779               | 24.93                        | 44.16                           |
| 34973     | 34973               | 0.00                         | 47.20                           |
| 35230     | 35230               | 0.00                         | 44.41                           |
| 35231     | 35231               | 0.00                         | 45.91                           |
| 35233     | 35233               | 0.00                         | 48.07                           |
| 35234     | 35234               | 0.00                         | 51.68                           |
| 35235     | 35235               | 0.00                         | 45.98                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | Cordes® base solution                                            |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 10004543-2022-09-10                                              |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Cordes® base solution

### Special notes

When selecting the *Cordes® base solution* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Cordes® base solution     | 2      | 1      | 0      |



## Second-stage model

For differentiation of the substance/substance group *Cordes<sup>®</sup> base solution* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Cordes<sup>®</sup> base solution*:

| Supplier | Substance                         | Batch   | Sample ID | Spectra | Certificate |
|----------|-----------------------------------|---------|-----------|---------|-------------|
| Ichthyol | Cordes <sup>®</sup> base sol. ... | 19B006  | 35072     | 40      | 20190819    |
| Ichthyol | Cordes <sup>®</sup> base sol. ... | 21B0004 | 35754     | 50      | 2202344     |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 90 spectra of 2 reference samples from the substance/substance group *Cordes<sup>®</sup> base solution*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 069 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Cordes<sup>®</sup> base solution*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                         | Batch   | Sample ID | Spectra |
|----------|-----------------------------------|---------|-----------|---------|
| Ichthyol | Cordes <sup>®</sup> base solution | 20B0004 | 35106     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 0 spectra from 0 *Apo-Ident* customers from 0 batches from the substance/substance group *Cordes® base solution*.
- Among them are spectra of independent samples from 0 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.
- 288 709 spectra from 1294 *Apo-Ident* customers from a total of 51 888 batches from a further 344 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Cordes® base solution* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Cordes® base solution* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 90            | 0              | 67 069        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 0             | 0              | 288 709       |

The substance/substance group *Cordes® base solution* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9807 %) | 100.0000 % (> 93.3333 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6894 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Cordes® base solution* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance   | Distance in<br>main model | Distance in<br>second-stage model |
|-------------|---------------------------|-----------------------------------|
| Ethanol 90% | 83.44                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Cordes® base solution* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 35072     | 35754                  | 31.77                           | 116.06                             |
| 35754     | 35754                  | 0.00                            | 96.56                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Coriander oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31192-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Coriander oil; Coriandri aetheroleum

### Special notes

When selecting the *Coriander oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Coriander oil             | 4      | 3      | 74     |

## Second-stage model

For differentiation of the substance/substance group *Coriander oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Coriander oil*:

| Supplier | Substance     | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------|----------|-----------|---------|-------------|
| Caelo    | Coriander oil | 12228509 | 31192     | 40      | 1407274     |
| Caelo    | Coriander oil | 13288109 | 31407     | 40      | 20130903    |
| Caelo    | Coriander oil | 170504   | 33913     | 40      | 20170228*   |
| Caelo    | Coriander oil | 190810   | 34648     | 40      | 20190510*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 160 spectra of 4 reference samples from the substance/substance group *Coriander oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 999 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Coriander oil*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance     | Batch    | Sample ID | Spectra |
|----------|---------------|----------|-----------|---------|
| Caelo    | Coriander oil | 16140410 | 33253     | 40      |
| Caelo    | Coriander oil | 181257   | 34056     | 40      |
| Caelo    | Coriander oil | 192413   | 34994     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 346 spectra from 128 *Apo-Ident* customers from 76 batches from the substance/substance group *Coriander oil*.
- Among them are spectra of independent samples from 74 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance     | Batch             | Spectra |
|---------------------|---------------|-------------------|---------|
| AHD, 05.11.2013     | Coriander oil | 12228510          | 1       |
| AHD, 19.07.2013     | Coriander oil | 12228507          | 1       |
| AHD, 26.09.2013     | Coriander oil | 12228509          | 2       |
| Alliance Healthcare | Coriander oil | 17364701          | 1       |
| Alliance            | Coriander oil | 192413001         | 2       |
| Bauer/Noweda        | Coriander oil | 8008-52-4         | 1       |
| Bauer/Noweda        | Coriander oil | 84775-50-8        | 1       |
| Bombastus           | Coriander oil | 17050408          | 1       |
| Bombastus           | Coriander oil | 18125703          | 2       |
| Caelo               | Coriander oil | 10293307          | 1       |
| Caelo               | Coriander oil | 11324002          | 1       |
| Caelo               | Coriander oil | 11324003          | 1       |
| Caelo               | Coriander oil | 11324004          | 1       |
| Caelo               | Coriander oil | 11324005          | 4       |
| Caelo               | Coriander oil | 12061413          | 1       |
| Caelo               | Coriander oil | 12228501          | 1       |
| Caelo               | Coriander oil | 12228503          | 2       |
| Caelo               | Coriander oil | 12228509          | 1       |
| Caelo               | Coriander oil | 13288109          | 4       |
| Caelo               | Coriander oil | 13288112          | 4       |
| Caelo               | Coriander oil | 13288113          | 1       |
| Caelo               | Coriander oil | 14011403          | 1       |
| Caelo               | Coriander oil | 14319902          | 3       |
| Caelo               | Coriander oil | 14319904          | 4       |
| Caelo               | Coriander oil | 152229601         | 1       |
| Caelo               | Coriander oil | 15229601          | 7       |
| Caelo               | Coriander oil | 15229605          | 3       |
| Caelo               | Coriander oil | 15229607          | 3       |
| Caelo               | Coriander oil | 15229608          | 2       |
| Caelo               | Coriander oil | 15229610          | 3       |
| Caelo               | Coriander oil | 15229613          | 3       |
| Caelo               | Coriander oil | 1612210C/16140401 | 1       |
| Caelo               | Coriander oil | 16140401          | 5       |
| Caelo               | Coriander oil | 16140402          | 1       |
| Caelo               | Coriander oil | 16140403          | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|----------------------------|------------------|--------------------|----------------|
| Caelo                      | Coriander oil    | 16140405           | 8              |
| Caelo                      | Coriander oil    | 16140406           | 2              |
| Caelo                      | Coriander oil    | 16140409           | 2              |
| Caelo                      | Coriander oil    | 16140410           | 6              |
| Caelo                      | Coriander oil    | 17050403           | 6              |
| Caelo                      | Coriander oil    | 17050404           | 1              |
| Caelo                      | Coriander oil    | 17050408           | 16             |
| Caelo                      | Coriander oil    | 17050409           | 9              |
| Caelo                      | Coriander oil    | 1711200C/17050403  | 1              |
| Caelo                      | Coriander oil    | 17364701           | 11             |
| Caelo                      | Coriander oil    | 17364702           | 9              |
| Caelo                      | Coriander oil    | 18061201           | 1              |
| Caelo                      | Coriander oil    | 18125703           | 18             |
| Caelo                      | Coriander oil    | 18125704           | 5              |
| Caelo                      | Coriander oil    | 18125705           | 8              |
| Caelo                      | Coriander oil    | 18125708           | 9              |
| Caelo                      | Coriander oil    | 18125709           | 3              |
| Caelo                      | Coriander oil    | 19031022           | 1              |
| Caelo                      | Coriander oil    | 190390404          | 1              |
| Caelo                      | Coriander oil    | 190810001          | 4              |
| Caelo                      | Coriander oil    | 19081002           | 26             |
| Caelo                      | Coriander oil    | 19081002P-191022-2 | 1              |
| Caelo                      | Coriander oil    | 19081003           | 20             |
| Caelo                      | Coriander oil    | 190811003          | 1              |
| Caelo                      | Coriander oil    | 192413001          | 9              |
| Caelo                      | Coriander oil    | 192413002          | 14             |
| Caelo                      | Coriander oil    | 192413004          | 3              |
| Caelo                      | Coriander oil    | 192413005          | 6              |
| Caelo                      | Coriander oil    | 192413006          | 5              |
| Caelo                      | Coriander oil    | 19243002           | 1              |
| Caelo                      | Coriander oil    | 20004199002        | 2              |
| Caelo                      | Coriander oil    | 20004201001        | 3              |
| Caelo                      | Coriander oil    | 20004201004        | 2              |
| Caelo                      | Coriander oil    | 20004201005        | 6              |
| Caelo                      | Coriander oil    | 20004201008        | 1              |
| Caelo                      | Coriander oil    | 20004201009        | 1              |
| Caelo                      | Coriander oil    | 2081306            | 1              |
| Caelo                      | Coriander oil    | 31081203           | 1              |
| Caelo                      | Coriander oil    | 7021303            | 1              |
| Caesar & Loretz GmbH/AHD   | Coriander oil    | 20004199002        | 1              |
| Caesar & Loretz GmbH/AHD   | Coriander oil    | 20004201001        | 1              |
| Caesar & Loretz GmbH/Ph... | Coriander oil    | 20004201001        | 1              |
| Caesar & Loretz GmbH/Ph... | Coriander oil    | 2281523            | 1              |
| Caesar & Loretz GmbH/sp... | Coriander oil    | 18125708           | 1              |
| Caesar & Loretz GmbH       | Coriander oil    | 18125703           | 1              |
| Caesar & Loretz GmbH       | Coriander oil    | 18125708           | 2              |
| Caesar & Loretz GmbH       | Coriander oil    | 18125709           | 2              |
| Caesar & Loretz GmbH       | Coriander oil    | 18125711           | 1              |
| Caesar & Loretz GmbH       | Coriander oil    | 190810001          | 1              |
| Caesar & Loretz GmbH       | Coriander oil    | 19081002           | 12             |
| Caesar & Loretz GmbH       | Coriander oil    | 19081003           | 2              |
| Caesar & Loretz GmbH       | Coriander oil    | 192413001          | 2              |
| Caesar & Loretz GmbH       | Coriander oil    | 192413002          | 1              |
| Caesar & Loretz GmbH       | Coriander oil    | 192413004          | 1              |
| Caesar & Loretz GmbH       | Coriander oil    | 192413005          | 2              |
| Caesar & Loretz GmbH       | Coriander oil    | 20004199002        | 1              |
| Cealo/Sanacorp             | Coriander oil    | 17364701           | 1              |
| Coelo                      | Coriander oil    | 18125704           | 3              |
| EuRho                      | Coriander oil    | 18125708           | 1              |
| GEHE                       | Coriander oil    | 16140405           | 1              |

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| Supplier | Substance     | Batch         | Spectra |
|----------|---------------|---------------|---------|
| Kaders   | Coriander oil | 131528        | 1       |
| Noweda   | Coriander oil | 11324005      | 1       |
| Phoenix  | Coriander oil | 192413002     | 1       |
| Phönix   | Coriander oil | 20004201009   | 1       |
| Sanacorp | Coriander oil | 16140406      | 1       |
| Taoasis  | Coriander oil | 104709-125892 | 1       |
| Taoasis  | Coriander oil | 31920-1111173 | 1       |
| Taoasis  | Coriander oil | 32040-108625  | 1       |
| Taoasis  | Coriander oil | 33485-112618  | 1       |
| VDI      | Coriander oil | 14319902      | 1       |

- 288 363 spectra from 1294 *Apo-Ident* customers from a total of 51 812 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Coriander oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Coriander oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 160           | 0              | 66 999        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 344           | 2              | 288 363       |

The substance/substance group *Coriander oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.2500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.4220 % (> 98.5549 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Coriander oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance    | Distance in<br>main model | Distance in<br>second-stage model |
|--------------|---------------------------|-----------------------------------|
| Lavender oil | 46.14                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Coriander oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31192     | 31192                  | 0.00                            | 72.22                              |
| 31407     | 33913                  | 5.07                            | 65.00                              |
| 33913     | 33913                  | 0.00                            | 64.75                              |
| 34648     | 34648                  | 0.00                            | 66.31                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Dexpanthenol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30884-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Dexpanthenol; Dexpanthenolum

### Special notes

When selecting the *Dexpanthenol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Dexpanthenol              | 10     | 16     | 762    |

## Second-stage model

For differentiation of the substance/substance group *Dexpanthenol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Dexpanthenol*:

| Supplier | Substance    | Batch            | Sample ID | Spectra | Certificate        |
|----------|--------------|------------------|-----------|---------|--------------------|
| Caelo    | Dexpanthenol | 12018707         | 30884     | 40      | 20120207           |
| Caelo    | Dexpanthenol | 14051903         | 31317     | 40      | 20140319           |
| Caelo    | Dexpanthenol | 171721           | 33716     | 40      | 20170711*          |
| Caelo    | Dexpanthenol | 172877           | 33903     | 40      | 20171109*          |
| Caelo    | Dexpanthenol | 191068           | 34637     | 40      | 20190424*          |
| Caelo    | Dexpanthenol | 190888           | 34639     | 40      | 20190410*          |
| Euro OTC | Dexpanthenol | 1309030-03       | 31532     | 60      | AR-15-FG-005869-01 |
| Euro OTC | Dexpanthenol | 1510008          | 31769     | 57      | 20151102*          |
| Fagron   | Dexpanthenol | 17B06-B04-332078 | 33239     | 40      | 20170315           |
| Fagron   | Dexpanthenol | 19F10-B08-191442 | 34596     | 40      | 20190619           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 437 spectra of 10 reference samples from the substance/substance group *Dexpanthenol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 10 different batches.
- 66 722 spectra from a total of 1369 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- 640 spectra of 16 reference samples from the substance/substance group *Dexpanthenol*.
- Among them are spectra of independent samples from 16 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance    | Batch      | Sample ID | Spectra |
|----------|--------------|------------|-----------|---------|
| Caelo    | Dexpanthenol | 190087     | 34337     | 40      |
| Caelo    | Dexpanthenol | 190101     | 34479     | 40      |
| Caelo    | Dexpanthenol | 191070     | 34638     | 40      |
| Caelo    | Dexpanthenol | 20004104   | 35298     | 40      |
| Euro OTC | Dexpanthenol | 1606015    | 32465     | 40      |
| Euro OTC | Dexpanthenol | 1607027    | 32467     | 40      |
| Euro OTC | Dexpanthenol | 1610041    | 32829     | 40      |
| Euro OTC | Dexpanthenol | 1703029    | 33238     | 40      |
| Euro OTC | Dexpanthenol | 1708013    | 33664     | 40      |
| Euro OTC | Dexpanthenol | 1801011    | 33929     | 40      |
| Euro OTC | Dexpanthenol | 1803008    | 34090     | 40      |
| Euro OTC | Dexpanthenol | 1806019-01 | 34210     | 40      |
| Euro OTC | Dexpanthenol | 1808007    | 34217     | 40      |
| Euro OTC | Dexpanthenol | 2001014    | 34814     | 40      |
| Euro OTC | Dexpanthenol | 2001015    | 34815     | 40      |
| Euro OTC | Dexpanthenol | 2201030    | 36043     | 40      |

- 106 723 spectra from a total of 2485 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 4782 spectra from 974 *Apo-Ident* customers from 790 batches from the substance/substance group *Dexpanthenol*.
- Among them are spectra of independent samples from 760 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance    | Batch            | Spectra |
|----------------------------|--------------|------------------|---------|
|                            | Dexpanthenol | 13J29B05287527   | 1       |
|                            | Dexpanthenol | 13J29-B05-287527 | 6       |
|                            | Dexpanthenol | 1407039-02       | 2       |
|                            | Dexpanthenol | 17287705         | 1       |
| 14356201                   | Dexpanthenol | 14356201         | 1       |
| A.H.D.                     | Dexpanthenol | 13D22-N12        | 1       |
| A.H.D.                     | Dexpanthenol | 14E01-B11-300068 | 1       |
| ACM                        | Dexpanthenol | KNC0684J15       | 1       |
| ACM                        | Dexpanthenol | KNC1152J15       | 1       |
| AEP                        | Dexpanthenol | 20004104005      | 1       |
| AHC                        | Dexpanthenol | 20004231003      | 1       |
| AHD                        | Dexpanthenol | 191835010        | 1       |
| ALH                        | Dexpanthenol | 1510008-02       | 1       |
| Alliance H.                | Dexpanthenol | 15260905         | 1       |
| Alliance Health 03.12.2... | Dexpanthenol | 1309030-03       | 1       |

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| Supplier                   | Substance    | Batch            | Spectra |
|----------------------------|--------------|------------------|---------|
| Alliance Health 27.03.2... | Dexpanthenol | 1407039-02       | 1       |
| Alliance health            | Dexpanthenol | 1204010-01       | 1       |
| Alliance                   | Dexpanthenol | 1301009-01       | 1       |
| Alliance                   | Dexpanthenol | 15F26-B01-317520 | 2       |
| Alliance                   | Dexpanthenol | 15F26-B01-319991 | 1       |
| Alliance                   | Dexpanthenol | 16D07-B04-323097 | 1       |
| Allianz                    | Dexpanthenol | 1801011-01       | 2       |
| Anzag                      | Dexpanthenol | 12126705         | 2       |
| Anzag                      | Dexpanthenol | 12E11-N02        | 3       |
| Anzag                      | Dexpanthenol | 12H28-N07        | 1       |
| Anzag                      | Dexpanthenol | 12J30-B03-287502 | 1       |
| Anzag                      | Dexpanthenol | 12K27-N04        | 1       |
| Anzag                      | Dexpanthenol | 13/04-N04        | 1       |
| Anzag                      | Dexpanthenol | 13j29-B05-287527 | 1       |
| anzag                      | Dexpanthenol | 14E01-B11-293624 | 7       |
| Anzag                      | Dexpanthenol | 14E01-B11-295534 | 3       |
| Anzag                      | Dexpanthenol | 14H05-B02-300067 | 1       |
| Anzag                      | Dexpanthenol | 14H05-B02-305656 | 3       |
| Anzag                      | Dexpanthenol | 1610041-02       | 1       |
| Anzag                      | Dexpanthenol | 1703029          | 1       |
| Anzag                      | Dexpanthenol | 1708013-01       | 1       |
| Anzag                      | Dexpanthenol | 17335104         | 1       |
| Anzag                      | Dexpanthenol | 18197204         | 1       |
| Anzag                      | Dexpanthenol | 64778675L0       | 1       |
| apo ident                  | Dexpanthenol | 1703029-01       | 1       |
| Apo Ident                  | Dexpanthenol | 180300801        | 1       |
| apomix                     | Dexpanthenol | 14H05-B02-300066 | 1       |
| apomix                     | Dexpanthenol | 16D07-B04-323096 | 2       |
| apomix                     | Dexpanthenol | 180619-01        | 1       |
| Bären Apotheke             | Dexpanthenol | 1703020-01       | 1       |
| BASF AG/Noweda             | Dexpanthenol | 1510008-01       | 1       |
| BASF AG/Noweda             | Dexpanthenol | 1607027-01       | 1       |
| BASF AG/PHOENIX            | Dexpanthenol | 140703902        | 1       |
| BASF AG                    | Dexpanthenol | 1309030-01       | 1       |
| BASF AG                    | Dexpanthenol | 94515888Q0       | 1       |
| BASF/ Phönix               | Dexpanthenol | 1502019-02       | 2       |
| BASF/Noweda                | Dexpanthenol | 5116I-01082      | 1       |
| BASF                       | Dexpanthenol | 1407039-01       | 1       |
| BASF                       | Dexpanthenol | 2181             | 1       |
| beyvers                    | Dexpanthenol | 1703029-01       | 1       |
| Bombastus                  | Dexpanthenol | 13342605         | 1       |
| Bombastus                  | Dexpanthenol | 1502019-02       | 2       |
| Bombastus                  | Dexpanthenol | 16043506         | 2       |
| Bombastus                  | Dexpanthenol | 1803008-01       | 1       |
| Bombastus                  | Dexpanthenol | 1808007-01       | 1       |
| Caelo                      | Dexpanthenol |                  | 4       |
| Caelo                      | Dexpanthenol | 10869002         | 1       |
| Caelo                      | Dexpanthenol | 11293501         | 2       |
| Caelo                      | Dexpanthenol | 11293503         | 1       |
| Caelo                      | Dexpanthenol | 11293506         | 3       |
| Caelo                      | Dexpanthenol | 11293507         | 4       |
| Caelo                      | Dexpanthenol | 117M-01082       | 1       |
| Caelo                      | Dexpanthenol | 1193507          | 1       |
| Caelo                      | Dexpanthenol | 12018702         | 1       |
| Caelo                      | Dexpanthenol | 12018703         | 8       |
| Caelo                      | Dexpanthenol | 12018706         | 2       |
| Caelo                      | Dexpanthenol | 12018707         | 4       |
| Caelo                      | Dexpanthenol | 12018713         | 4       |
| Caelo                      | Dexpanthenol | 12018715         | 1       |
| Caelo                      | Dexpanthenol | 12031602         | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Dexpanthenol     | 12126702         | 13             |
| Caelo           | Dexpanthenol     | 12126704         | 5              |
| Caelo           | Dexpanthenol     | 12126705         | 11             |
| Caelo           | Dexpanthenol     | 12126706         | 1              |
| Caelo           | Dexpanthenol     | 12126707         | 2              |
| Caelo           | Dexpanthenol     | 1213A-01082      | 1              |
| Caelo           | Dexpanthenol     | 12285201         | 6              |
| Caelo           | Dexpanthenol     | 12285202         | 7              |
| Caelo           | Dexpanthenol     | 12285203         | 4              |
| Caelo           | Dexpanthenol     | 12285204         | 4              |
| Caelo           | Dexpanthenol     | 12285205         | 1              |
| Caelo           | Dexpanthenol     | 12285211         | 7              |
| Caelo           | Dexpanthenol     | 12285212         | 3              |
| Caelo           | Dexpanthenol     | 12285214         | 6              |
| Caelo           | Dexpanthenol     | 122852211        | 1              |
| Caelo           | Dexpanthenol     | 1235899          | 1              |
| Caelo           | Dexpanthenol     | 12E11-N02        | 1              |
| Caelo           | Dexpanthenol     | 12L28-N03        | 1              |
| Caelo           | Dexpanthenol     | 1301009-02       | 1              |
| Caelo           | Dexpanthenol     | 1302009          | 1              |
| Caelo           | Dexpanthenol     | 13021305         | 1              |
| Caelo           | Dexpanthenol     | 13022-N12        | 1              |
| Caelo           | Dexpanthenol     | 1304023          | 1              |
| Caelo           | Dexpanthenol     | 13084702         | 15             |
| Caelo           | Dexpanthenol     | 13084703         | 7              |
| Caelo           | Dexpanthenol     | 13084704         | 6              |
| Caelo           | Dexpanthenol     | 13084705         | 3              |
| Caelo           | Dexpanthenol     | 13084706         | 6              |
| Caelo           | Dexpanthenol     | 13084707         | 2              |
| Caelo           | Dexpanthenol     | 13084709         | 5              |
| Caelo           | Dexpanthenol     | 13084711         | 1              |
| Caelo           | Dexpanthenol     | 1309030-03       | 1              |
| Caelo           | Dexpanthenol     | 13091309         | 1              |
| Caelo           | Dexpanthenol     | 13189502         | 3              |
| Caelo           | Dexpanthenol     | 13189503         | 14             |
| Caelo           | Dexpanthenol     | 13189504         | 2              |
| Caelo           | Dexpanthenol     | 13189506         | 8              |
| Caelo           | Dexpanthenol     | 13342601         | 5              |
| Caelo           | Dexpanthenol     | 13342602         | 4              |
| Caelo           | Dexpanthenol     | 13342603         | 2              |
| Caelo           | Dexpanthenol     | 13342605         | 10             |
| Caelo           | Dexpanthenol     | 13342606         | 15             |
| Caelo           | Dexpanthenol     | 13342608         | 1              |
| Caelo           | Dexpanthenol     | 13342610         | 6              |
| Caelo           | Dexpanthenol     | 13342611         | 4              |
| Caelo           | Dexpanthenol     | 13J29-B05-287526 | 1              |
| Caelo           | Dexpanthenol     | 13J29B05-287528  | 1              |
| Caelo           | Dexpanthenol     | 14031410         | 1              |
| Caelo           | Dexpanthenol     | 14051901         | 1              |
| Caelo           | Dexpanthenol     | 14051903         | 5              |
| Caelo           | Dexpanthenol     | 14051904         | 7              |
| Caelo           | Dexpanthenol     | 14051905         | 7              |
| Caelo           | Dexpanthenol     | 14051908         | 1              |
| Caelo           | Dexpanthenol     | 14051909         | 2              |
| Caelo           | Dexpanthenol     | 14051913         | 1              |
| Caelo           | Dexpanthenol     | 1407039-01       | 2              |
| Caelo           | Dexpanthenol     | 142141508        | 1              |
| Caelo           | Dexpanthenol     | 14214501         | 3              |
| Caelo           | Dexpanthenol     | 14214502         | 6              |
| Caelo           | Dexpanthenol     | 14214504         | 6              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Caelo           | Dexpanthenol     | 14214505          | 5              |
| Caelo           | Dexpanthenol     | 14214507          | 4              |
| Caelo           | Dexpanthenol     | 14214508          | 2              |
| Caelo           | Dexpanthenol     | 14214510          | 3              |
| Caelo           | Dexpanthenol     | 14214511          | 5              |
| Caelo           | Dexpanthenol     | 14214512          | 7              |
| Caelo           | Dexpanthenol     | 1421508           | 1              |
| Caelo           | Dexpanthenol     | 1435210           | 1              |
| Caelo           | Dexpanthenol     | 14356201          | 10             |
| Caelo           | Dexpanthenol     | 14356203          | 2              |
| Caelo           | Dexpanthenol     | 14356204          | 5              |
| Caelo           | Dexpanthenol     | 14356210          | 6              |
| Caelo           | Dexpanthenol     | 1457005           | 1              |
| Caelo           | Dexpanthenol     | 14E01-B11         | 1              |
| Caelo           | Dexpanthenol     | 14E01-B11-300068  | 3              |
| Caelo           | Dexpanthenol     | 14H05_B02_300069  | 1              |
| Caelo           | Dexpanthenol     | 14H05-B02-3000066 | 1              |
| Caelo           | Dexpanthenol     | 14H05-B02-300069  | 1              |
| Caelo           | Dexpanthenol     | 14H05-B02-305656  | 1              |
| Caelo           | Dexpanthenol     | 14I21-B01-340267  | 1              |
| Caelo           | Dexpanthenol     | 1502019           | 1              |
| Caelo           | Dexpanthenol     | 1502019-01        | 2              |
| Caelo           | Dexpanthenol     | 15071304          | 1              |
| Caelo           | Dexpanthenol     | 15097701          | 8              |
| Caelo           | Dexpanthenol     | 15097703          | 10             |
| Caelo           | Dexpanthenol     | 15097704          | 10             |
| Caelo           | Dexpanthenol     | 15097705          | 5              |
| Caelo           | Dexpanthenol     | 15097708          | 14             |
| Caelo           | Dexpanthenol     | 15097709          | 6              |
| Caelo           | Dexpanthenol     | 15097710          | 9              |
| Caelo           | Dexpanthenol     | 15097711          | 15             |
| Caelo           | Dexpanthenol     | 15097712          | 3              |
| Caelo           | Dexpanthenol     | 15097713          | 10             |
| Caelo           | Dexpanthenol     | 15097714          | 25             |
| Caelo           | Dexpanthenol     | 15097716          | 1              |
| Caelo           | Dexpanthenol     | 1510008-01        | 3              |
| Caelo           | Dexpanthenol     | 1513F-01082       | 1              |
| Caelo           | Dexpanthenol     | 15260901          | 2              |
| Caelo           | Dexpanthenol     | 15260905          | 10             |
| Caelo           | Dexpanthenol     | 15260906          | 13             |
| Caelo           | Dexpanthenol     | 15260907          | 9              |
| Caelo           | Dexpanthenol     | 15260908          | 1              |
| Caelo           | Dexpanthenol     | 15395502          | 12             |
| Caelo           | Dexpanthenol     | 15395504          | 9              |
| Caelo           | Dexpanthenol     | 15395506          | 3              |
| Caelo           | Dexpanthenol     | 15395507          | 5              |
| Caelo           | Dexpanthenol     | 15395508          | 10             |
| Caelo           | Dexpanthenol     | 1560907           | 1              |
| Caelo           | Dexpanthenol     | 15F26-B01-317520  | 1              |
| Caelo           | Dexpanthenol     | 16021307          | 1              |
| Caelo           | Dexpanthenol     | 1604305           | 1              |
| Caelo           | Dexpanthenol     | 16043502          | 12             |
| Caelo           | Dexpanthenol     | 16043503          | 11             |
| Caelo           | Dexpanthenol     | 16043504          | 4              |
| Caelo           | Dexpanthenol     | 16043505          | 10             |
| Caelo           | Dexpanthenol     | 16043506          | 10             |
| Caelo           | Dexpanthenol     | 16043510          | 16             |
| Caelo           | Dexpanthenol     | 16043511          | 14             |
| Caelo           | Dexpanthenol     | 16043512          | 13             |
| Caelo           | Dexpanthenol     | 1606015-01        | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Caelo           | Dexpanthenol     | 1610041-01         | 4              |
| Caelo           | Dexpanthenol     | 16101305           | 1              |
| Caelo           | Dexpanthenol     | 16164802           | 3              |
| Caelo           | Dexpanthenol     | 16164808           | 11             |
| Caelo           | Dexpanthenol     | 16164809           | 10             |
| Caelo           | Dexpanthenol     | 16164810           | 12             |
| Caelo           | Dexpanthenol     | 16164811           | 4              |
| Caelo           | Dexpanthenol     | 16164813           | 17             |
| Caelo           | Dexpanthenol     | 16164816           | 2              |
| Caelo           | Dexpanthenol     | 1616488            | 1              |
| Caelo           | Dexpanthenol     | 16311603           | 12             |
| Caelo           | Dexpanthenol     | 16311604           | 14             |
| Caelo           | Dexpanthenol     | 16311605           | 21             |
| Caelo           | Dexpanthenol     | 16311606           | 5              |
| Caelo           | Dexpanthenol     | 16311608           | 2              |
| Caelo           | Dexpanthenol     | 16311610           | 10             |
| Caelo           | Dexpanthenol     | 16311611           | 2              |
| Caelo           | Dexpanthenol     | 16D07-804-322508   | 1              |
| Caelo           | Dexpanthenol     | 16D07-B04-322110   | 1              |
| Caelo           | Dexpanthenol     | 16D07-B04-323096   | 1              |
| Caelo           | Dexpanthenol     | 1703029-01         | 2              |
| Caelo           | Dexpanthenol     | 17065403           | 6              |
| Caelo           | Dexpanthenol     | 17065404           | 15             |
| Caelo           | Dexpanthenol     | 17065405           | 7              |
| Caelo           | Dexpanthenol     | 17065406           | 15             |
| Caelo           | Dexpanthenol     | 170654060          | 1              |
| Caelo           | Dexpanthenol     | 17065407           | 5              |
| Caelo           | Dexpanthenol     | 17065410           | 2              |
| Caelo           | Dexpanthenol     | 17065411           | 19             |
| Caelo           | Dexpanthenol     | 17065412           | 20             |
| Caelo           | Dexpanthenol     | 17065413           | 3              |
| Caelo           | Dexpanthenol     | 1708013-01         | 1              |
| Caelo           | Dexpanthenol     | 171172107          | 1              |
| Caelo           | Dexpanthenol     | 1717203            | 1              |
| Caelo           | Dexpanthenol     | 17172102           | 2              |
| Caelo           | Dexpanthenol     | 17172103           | 22             |
| Caelo           | Dexpanthenol     | 17172105           | 13             |
| Caelo           | Dexpanthenol     | 17172106           | 24             |
| Caelo           | Dexpanthenol     | 17172107           | 17             |
| Caelo           | Dexpanthenol     | 17172110           | 5              |
| Caelo           | Dexpanthenol     | 17172111           | 14             |
| Caelo           | Dexpanthenol     | 17172112           | 10             |
| Caelo           | Dexpanthenol     | 17172113           | 11             |
| Caelo           | Dexpanthenol     | 172587709          | 1              |
| Caelo           | Dexpanthenol     | 17287701           | 4              |
| Caelo           | Dexpanthenol     | 17287702           | 5              |
| Caelo           | Dexpanthenol     | 17287703           | 1              |
| Caelo           | Dexpanthenol     | 17287704           | 24             |
| Caelo           | Dexpanthenol     | 17287705           | 23             |
| Caelo           | Dexpanthenol     | 17287707           | 16             |
| Caelo           | Dexpanthenol     | 17287708           | 12             |
| Caelo           | Dexpanthenol     | 17287709           | 5              |
| Caelo           | Dexpanthenol     | 17335101           | 4              |
| Caelo           | Dexpanthenol     | 17335102           | 3              |
| Caelo           | Dexpanthenol     | 17335103           | 17             |
| Caelo           | Dexpanthenol     | 17335104           | 15             |
| Caelo           | Dexpanthenol     | 17335105           | 27             |
| Caelo           | Dexpanthenol     | 17335106           | 34             |
| Caelo           | Dexpanthenol     | 17335106P-180827-8 | 1              |
| Caelo           | Dexpanthenol     | 17335107           | 6              |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Caelo           | Dexpanthenol     | 17335108           | 39             |
| Caelo           | Dexpanthenol     | 17335110           | 2              |
| Caelo           | Dexpanthenol     | 17335114           | 1              |
| Caelo           | Dexpanthenol     | 17336104           | 1              |
| Caelo           | Dexpanthenol     | 17339106           | 1              |
| Caelo           | Dexpanthenol     | 1735105            | 1              |
| Caelo           | Dexpanthenol     | 17355108           | 1              |
| Caelo           | Dexpanthenol     | 17B06-B04-332076   | 1              |
| Caelo           | Dexpanthenol     | 17B06-B04-332078   | 2              |
| Caelo           | Dexpanthenol     | 17K30-B01-343821   | 2              |
| Caelo           | Dexpanthenol     | 17121-B01-340264   | 1              |
| Caelo           | Dexpanthenol     | 17121-b01-340266   | 1              |
| Caelo           | Dexpanthenol     | 18009109           | 1              |
| Caelo           | Dexpanthenol     | 1801011-01         | 5              |
| Caelo           | Dexpanthenol     | 18011303           | 1              |
| Caelo           | Dexpanthenol     | 1806001            | 1              |
| Caelo           | Dexpanthenol     | 1806019-01         | 1              |
| Caelo           | Dexpanthenol     | 1806103            | 1              |
| Caelo           | Dexpanthenol     | 180669107          | 1              |
| Caelo           | Dexpanthenol     | 18069001           | 36             |
| Caelo           | Dexpanthenol     | 18069002           | 19             |
| Caelo           | Dexpanthenol     | 18069003           | 1              |
| Caelo           | Dexpanthenol     | 18069101           | 1              |
| Caelo           | Dexpanthenol     | 18069103           | 4              |
| Caelo           | Dexpanthenol     | 18069107           | 18             |
| Caelo           | Dexpanthenol     | 18069110           | 18             |
| Caelo           | Dexpanthenol     | 18069110P-181228-3 | 1              |
| Caelo           | Dexpanthenol     | 18069110P-190226-7 | 1              |
| Caelo           | Dexpanthenol     | 1808007-01         | 2              |
| Caelo           | Dexpanthenol     | 18111306           | 1              |
| Caelo           | Dexpanthenol     | 18176602           | 3              |
| Caelo           | Dexpanthenol     | 18176603           | 2              |
| Caelo           | Dexpanthenol     | 18176605           | 9              |
| Caelo           | Dexpanthenol     | 181835012          | 1              |
| Caelo           | Dexpanthenol     | 181972004          | 1              |
| Caelo           | Dexpanthenol     | 18197201           | 4              |
| Caelo           | Dexpanthenol     | 18197202           | 33             |
| Caelo           | Dexpanthenol     | 18197202P-181107-1 | 1              |
| Caelo           | Dexpanthenol     | 18197203           | 29             |
| Caelo           | Dexpanthenol     | 18197204           | 43             |
| Caelo           | Dexpanthenol     | 1897203            | 1              |
| Caelo           | Dexpanthenol     | 18c20-b07-349242   | 1              |
| Caelo           | Dexpanthenol     | 18C20-B07-350625   | 1              |
| Caelo           | Dexpanthenol     | 18C20-B07-351396   | 1              |
| Caelo           | Dexpanthenol     | 18C20-B07-353895   | 1              |
| Caelo           | Dexpanthenol     | 18c20-b07-353896   | 1              |
| Caelo           | Dexpanthenol     | 18C20-B07-50625    | 1              |
| Caelo           | Dexpanthenol     | 18L25-B04-357388   | 1              |
| Caelo           | Dexpanthenol     | 190000651001       | 1              |
| Caelo           | Dexpanthenol     | 190006480003       | 1              |
| Caelo           | Dexpanthenol     | 19000648003        | 17             |
| Caelo           | Dexpanthenol     | 19000648004        | 17             |
| Caelo           | Dexpanthenol     | 19000648005        | 10             |
| Caelo           | Dexpanthenol     | 19006705           | 1              |
| Caelo           | Dexpanthenol     | 190067067          | 1              |
| Caelo           | Dexpanthenol     | 19008701           | 2              |
| Caelo           | Dexpanthenol     | 19008703           | 11             |
| Caelo           | Dexpanthenol     | 19008704           | 8              |
| Caelo           | Dexpanthenol     | 19008705           | 8              |
| Caelo           | Dexpanthenol     | 19008706           | 12             |

*continued on the next page*

continued from previous page

| Supplier | Substance    | Batch              | Spectra |
|----------|--------------|--------------------|---------|
| Caelo    | Dexpanthenol | 19008707           | 13      |
| Caelo    | Dexpanthenol | 19008707P-190325-5 | 1       |
| Caelo    | Dexpanthenol | 19008708           | 11      |
| Caelo    | Dexpanthenol | 19016808           | 1       |
| Caelo    | Dexpanthenol | 19045002           | 1       |
| Caelo    | Dexpanthenol | 19045004           | 10      |
| Caelo    | Dexpanthenol | 19045005           | 7       |
| Caelo    | Dexpanthenol | 19045006           | 5       |
| Caelo    | Dexpanthenol | 19045007           | 9       |
| Caelo    | Dexpanthenol | 19045008           | 5       |
| Caelo    | Dexpanthenol | 190621             | 2       |
| Caelo    | Dexpanthenol | 19062101           | 2       |
| Caelo    | Dexpanthenol | 19062102           | 17      |
| Caelo    | Dexpanthenol | 19062102P-190516-3 | 1       |
| Caelo    | Dexpanthenol | 19062103           | 17      |
| Caelo    | Dexpanthenol | 190621206          | 1       |
| Caelo    | Dexpanthenol | 19065801           | 7       |
| Caelo    | Dexpanthenol | 19065801P-190516-4 | 1       |
| Caelo    | Dexpanthenol | 19065802           | 5       |
| Caelo    | Dexpanthenol | 19065804           | 13      |
| Caelo    | Dexpanthenol | 1906807            | 1       |
| Caelo    | Dexpanthenol | 1908708            | 1       |
| Caelo    | Dexpanthenol | 19088801           | 34      |
| Caelo    | Dexpanthenol | 19088802           | 5       |
| Caelo    | Dexpanthenol | 19088803           | 4       |
| Caelo    | Dexpanthenol | 1910606810         | 1       |
| Caelo    | Dexpanthenol | 19106802           | 8       |
| Caelo    | Dexpanthenol | 19106803           | 36      |
| Caelo    | Dexpanthenol | 19106804           | 12      |
| Caelo    | Dexpanthenol | 19106805           | 26      |
| Caelo    | Dexpanthenol | 19106806           | 20      |
| Caelo    | Dexpanthenol | 19106807           | 15      |
| Caelo    | Dexpanthenol | 19106808           | 25      |
| Caelo    | Dexpanthenol | 19106809           | 17      |
| Caelo    | Dexpanthenol | 19106810           | 9       |
| Caelo    | Dexpanthenol | 1910684            | 1       |
| Caelo    | Dexpanthenol | 19106901           | 13      |
| Caelo    | Dexpanthenol | 191069010          | 1       |
| Caelo    | Dexpanthenol | 19106902           | 21      |
| Caelo    | Dexpanthenol | 191070002          | 1       |
| Caelo    | Dexpanthenol | 19107001           | 19      |
| Caelo    | Dexpanthenol | 19107002           | 22      |
| Caelo    | Dexpanthenol | 19107003           | 1       |
| Caelo    | Dexpanthenol | 19107004           | 10      |
| Caelo    | Dexpanthenol | 19121204           | 1       |
| Caelo    | Dexpanthenol | 19121205           | 1       |
| Caelo    | Dexpanthenol | 191344             | 2       |
| Caelo    | Dexpanthenol | 191344001          | 5       |
| Caelo    | Dexpanthenol | 19134401           | 10      |
| Caelo    | Dexpanthenol | 19134402           | 1       |
| Caelo    | Dexpanthenol | 19134404           | 3       |
| Caelo    | Dexpanthenol | 19134405           | 9       |
| Caelo    | Dexpanthenol | 19134406           | 25      |
| Caelo    | Dexpanthenol | 1914406            | 1       |
| Caelo    | Dexpanthenol | 19166805           | 1       |
| Caelo    | Dexpanthenol | 1917001            | 1       |
| Caelo    | Dexpanthenol | 191835             | 1       |
| Caelo    | Dexpanthenol | 191835001          | 3       |
| Caelo    | Dexpanthenol | 191835002          | 1       |
| Caelo    | Dexpanthenol | 191835003          | 26      |

continued on the next page

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|-----------------|------------------|---------------------|----------------|
| Caelo           | Dexpanthenol     | 191835004           | 24             |
| Caelo           | Dexpanthenol     | 191835005           | 18             |
| Caelo           | Dexpanthenol     | 191835007           | 2              |
| Caelo           | Dexpanthenol     | 191835008           | 13             |
| Caelo           | Dexpanthenol     | 191835008P-200514-4 | 1              |
| Caelo           | Dexpanthenol     | 191835009           | 12             |
| Caelo           | Dexpanthenol     | 19183501            | 15             |
| Caelo           | Dexpanthenol     | 191835010           | 24             |
| Caelo           | Dexpanthenol     | 191835011           | 17             |
| Caelo           | Dexpanthenol     | 191835012           | 21             |
| Caelo           | Dexpanthenol     | 191835013           | 17             |
| Caelo           | Dexpanthenol     | 19183502            | 24             |
| Caelo           | Dexpanthenol     | 19183502P-200206-6  | 1              |
| Caelo           | Dexpanthenol     | 19183503            | 1              |
| Caelo           | Dexpanthenol     | 19183504            | 1              |
| Caelo           | Dexpanthenol     | 19197203            | 1              |
| Caelo           | Dexpanthenol     | 19835008            | 1              |
| Caelo           | Dexpanthenol     | 19H20-B06-194493    | 2              |
| Caelo           | Dexpanthenol     | 200001457004        | 1              |
| Caelo           | Dexpanthenol     | 20001457001         | 1              |
| Caelo           | Dexpanthenol     | 20001457002         | 1              |
| Caelo           | Dexpanthenol     | 20001457003         | 2              |
| Caelo           | Dexpanthenol     | 20001457004         | 13             |
| Caelo           | Dexpanthenol     | 20001457005         | 13             |
| Caelo           | Dexpanthenol     | 20001457006         | 13             |
| Caelo           | Dexpanthenol     | 20001457008         | 19             |
| Caelo           | Dexpanthenol     | 20002329003         | 1              |
| Caelo           | Dexpanthenol     | 200041004010        | 1              |
| Caelo           | Dexpanthenol     | 200041005           | 1              |
| Caelo           | Dexpanthenol     | 20004104001         | 1              |
| Caelo           | Dexpanthenol     | 20004104002         | 2              |
| Caelo           | Dexpanthenol     | 20004104004         | 6              |
| Caelo           | Dexpanthenol     | 20004104005         | 26             |
| Caelo           | Dexpanthenol     | 20004104006         | 20             |
| Caelo           | Dexpanthenol     | 20004104007         | 10             |
| Caelo           | Dexpanthenol     | 20004104010         | 6              |
| Caelo           | Dexpanthenol     | 20004104012         | 1              |
| Caelo           | Dexpanthenol     | 20004104013         | 11             |
| Caelo           | Dexpanthenol     | 20004104014         | 20             |
| Caelo           | Dexpanthenol     | 20004104015         | 4              |
| Caelo           | Dexpanthenol     | 20004231001         | 9              |
| Caelo           | Dexpanthenol     | 20004231003         | 15             |
| Caelo           | Dexpanthenol     | 20004231007         | 18             |
| Caelo           | Dexpanthenol     | 200101501           | 1              |
| Caelo           | Dexpanthenol     | 2001015-01          | 2              |
| Caelo           | Dexpanthenol     | 2001457004          | 2              |
| Caelo           | Dexpanthenol     | 2001457008          | 2              |
| Caelo           | Dexpanthenol     | 2004104005          | 1              |
| Caelo           | Dexpanthenol     | 2004231001          | 1              |
| Caelo           | Dexpanthenol     | 2004231007          | 1              |
| Caelo           | Dexpanthenol     | 20061203            | 1              |
| Caelo           | Dexpanthenol     | 20071205            | 1              |
| Caelo           | Dexpanthenol     | 200773107           | 1              |
| Caelo           | Dexpanthenol     | 20121301            | 1              |
| Caelo           | Dexpanthenol     | 20261012-1          | 1              |
| Caelo           | Dexpanthenol     | 20D16-T16-080048    | 6              |
| Caelo           | Dexpanthenol     | 21002144002         | 2              |
| Caelo           | Dexpanthenol     | 21002144005         | 1              |
| Caelo           | Dexpanthenol     | 21002144008         | 7              |
| Caelo           | Dexpanthenol     | 2101303             | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|----------------------------|------------------|---------------|----------------|
| Caelo                      | Dexpanthenol     | 2187          | 1              |
| Caelo                      | Dexpanthenol     | 22011511      | 1              |
| Caelo                      | Dexpanthenol     | 22021304      | 1              |
| Caelo                      | Dexpanthenol     | 23041401      | 1              |
| Caelo                      | Dexpanthenol     | 23081602      | 1              |
| Caelo                      | Dexpanthenol     | 23081603      | 1              |
| Caelo                      | Dexpanthenol     | 24111201      | 1              |
| Caelo                      | Dexpanthenol     | 25021405      | 1              |
| Caelo                      | Dexpanthenol     | 25031305      | 1              |
| Caelo                      | Dexpanthenol     | 25101203      | 1              |
| Caelo                      | Dexpanthenol     | 26081401      | 1              |
| Caelo                      | Dexpanthenol     | 2614E-01082   | 1              |
| Caelo                      | Dexpanthenol     | 27041801      | 1              |
| Caelo                      | Dexpanthenol     | 27335103      | 1              |
| Caelo                      | Dexpanthenol     | 30041803      | 1              |
| Caelo                      | Dexpanthenol     | 3051305       | 1              |
| Caelo                      | Dexpanthenol     | 3101202       | 1              |
| Caelo                      | Dexpanthenol     | 3121303       | 1              |
| Caelo                      | Dexpanthenol     | 3280          | 1              |
| Caelo                      | Dexpanthenol     | 3383488Q0     | 1              |
| Caelo                      | Dexpanthenol     | 3432          | 1              |
| Caelo                      | Dexpanthenol     | 3713A-01082   | 1              |
| Caelo                      | Dexpanthenol     | 3815464       | 1              |
| Caelo                      | Dexpanthenol     | 4031502       | 1              |
| Caelo                      | Dexpanthenol     | 4082001       | 1              |
| Caelo                      | Dexpanthenol     | 4121701       | 1              |
| Caelo                      | Dexpanthenol     | 4128200041045 | 1              |
| Caelo                      | Dexpanthenol     | 5061306       | 1              |
| Caelo                      | Dexpanthenol     | 8069002       | 1              |
| Caelo                      | Dexpanthenol     | 82729498      | 1              |
| Caelo                      | Dexpanthenol     | 90006480031   | 1              |
| Caelo                      | Dexpanthenol     | 9008707       | 1              |
| Caelo                      | Dexpanthenol     | 9081206       | 1              |
| Caelo                      | Dexpanthenol     | 91(18197202)  | 1              |
| Caelo                      | Dexpanthenol     | B191835003    | 1              |
| Caelo                      | Dexpanthenol     | B191835005    | 1              |
| Caelo                      | Dexpanthenol     | TL01110076    | 1              |
| Caelo                      | Dexpanthenol     | TL01503022    | 1              |
| Caelo                      | Dexpanthenol     | TL01508051    | 1              |
| Caelo                      | Dexpanthenol     | TL01808073    | 1              |
| Caerol/Phönix              | Dexpanthenol     | 17287704      | 3              |
| Caerol/Sanacorp            | Dexpanthenol     | 20004104005   | 4              |
| Caesar & Lorenz GmbH       | Dexpanthenol     | 19000648003   | 1              |
| Caesar & Lorenz GmbH       | Dexpanthenol     | 19106807      | 1              |
| Caesar & Lorenz GmbH       | Dexpanthenol     | 19107002      | 1              |
| Caesar & Lorenz GmbH       | Dexpanthenol     | 19183501      | 1              |
| Caesar & Lorenz GmbH       | Dexpanthenol     | 19183502      | 1              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 19045004      | 1              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 191835003     | 1              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 19000651001   | 2              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 19088801      | 2              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 19106804      | 1              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 191835004     | 1              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 19107002      | 1              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 18069107      | 1              |
| Caesar & Loretz GmbH / ... | Dexpanthenol     | 19107001      | 1              |
| Caesar & Loretz GmbH Hi... | Dexpanthenol     | 15097714      | 2              |
| Caesar & Loretz GmbH Sa... | Dexpanthenol     | 20001457006   | 1              |
| Caesar & Loretz GmbH, P... | Dexpanthenol     | 19106806      | 1              |
| Caesar & Loretz GmbH/ G... | Dexpanthenol     | 20001457008   | 1              |

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| Supplier                   | Substance    | Batch            | Spectra |
|----------------------------|--------------|------------------|---------|
| Caesar & Loretz GmbH/ G... | Dexpanthenol | 20004104014      | 2       |
| Caesar & Loretz GmbH/ J... | Dexpanthenol | 19000648003      | 1       |
| Caesar & Loretz GmbH/ J... | Dexpanthenol | 20001457005      | 1       |
| Caesar & Loretz GmbH/ J... | Dexpanthenol | 21002144003      | 2       |
| Caesar & Loretz GmbH/ K... | Dexpanthenol | 19000648005      | 1       |
| Caesar & Loretz GmbH/ K... | Dexpanthenol | 19106807         | 2       |
| Caesar & Loretz GmbH/AEP   | Dexpanthenol | 21002144008      | 1       |
| Caesar & Loretz GmbH/AHD   | Dexpanthenol | 19106807         | 1       |
| Caesar & Loretz GmbH/AHD   | Dexpanthenol | 20001457005      | 1       |
| Caesar & Loretz GmbH/AHD   | Dexpanthenol | 20001457008      | 1       |
| Caesar & Loretz GmbH/AHD   | Dexpanthenol | 20016-T16-080049 | 1       |
| Caesar & Loretz GmbH/AHD   | Dexpanthenol | T16-0800409      | 2       |
| Caesar & Loretz GmbH/An... | Dexpanthenol | 19106804         | 1       |
| Caesar & Loretz GmbH/AN... | Dexpanthenol | 19106804         | 1       |
| Caesar & Loretz GmbH/E     | Dexpanthenol | 19106807         | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 19000648003      | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 19008707         | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 19106902         | 1       |
| Caesar & Loretz GmbH/GEHE  | Dexpanthenol | 19106902         | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 19107002         | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 191835004        | 1       |
| Caesar & Loretz GmbH/GEHE  | Dexpanthenol | 191835009        | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 191835013        | 2       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 20004104013      | 2       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 20004231003      | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol | 21002144007      | 1       |
| Caesar & Loretz GmbH/Je... | Dexpanthenol | 19134404         | 1       |
| Caesar & Loretz GmbH/Je... | Dexpanthenol | 191835008        | 2       |
| Caesar & Loretz GmbH/Je... | Dexpanthenol | 20004231007      | 1       |
| Caesar & Loretz GmbH/Kehr  | Dexpanthenol | 19106901         | 1       |
| Caesar & Loretz GmbH/Kehr  | Dexpanthenol | 191835009        | 1       |
| Caesar & Loretz GmbH/Kehr  | Dexpanthenol | 19183501         | 4       |
| Caesar & Loretz GmbH/Kr... | Dexpanthenol | 19106901         | 1       |
| Caesar & Loretz GmbH/Kr... | Dexpanthenol | 19107002         | 1       |
| Caesar & Loretz GmbH/Kr... | Dexpanthenol | 20004104006      | 1       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 19000648004      | 2       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 19106805         | 1       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 19106806         | 1       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 19106808         | 1       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 19107001         | 1       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 19183502         | 4       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 20004104007      | 1       |
| Caesar & Loretz GmbH/No... | Dexpanthenol | 20004104010      | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol | 19106806         | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol | 190000648005     | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol | 19106806         | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol | 19134401         | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol | 19183501         | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol | 191835010        | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol | 20004231003      | 1       |
| Caesar & Loretz GmbH/Sana  | Dexpanthenol | 191835010        | 1       |
| Caesar & Loretz GmbH/Sa... | Dexpanthenol | 19106803         | 1       |
| Caesar & Loretz GmbH/Sa... | Dexpanthenol | 19106901         | 1       |
| Caesar & Loretz GmbH/Sa... | Dexpanthenol | 1918350005       | 1       |
| Caesar & Loretz GmbH/Sa... | Dexpanthenol | 20001457004      | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol | 18069001         | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol | 18069002         | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol | 18069110         | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol | 18197204         | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol | 18J25-B04-357387 | 1       |

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| <b>Supplier</b>      | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH | Dexpanthenol     | 19000648003  | 8              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19000648004  | 9              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19000651001  | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19008703     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19008704     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19008705     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19008706     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19008708     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19045004     | 3              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19045005     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19045006     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19045007     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19045008     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19062102     | 6              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19062103     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19065802     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19065804     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19088801     | 4              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19088802     | 3              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106803     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106804     | 5              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106805     | 6              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106806     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106807     | 8              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106808     | 3              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106809     | 3              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106810     | 3              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106901     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19106902     | 4              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19107001     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19107002     | 4              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19107004     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19134401     | 6              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19134404     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19134405     | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19134406     | 6              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835001    | 4              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835003    | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835004    | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835005    | 4              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835007    | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835008    | 5              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835009    | 4              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19183501     | 8              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835010    | 6              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835011    | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835012    | 5              |
| Caesar & Loretz GmbH | Dexpanthenol     | 191835013    | 3              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19183502     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19183503     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 19H20-B06    | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20001457     | 2              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20001457004  | 5              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20001457005  | 3              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20001457006  | 8              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20001457008  | 6              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20004104001  | 1              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20004104005  | 4              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20004104006  | 7              |
| Caesar & Loretz GmbH | Dexpanthenol     | 20004104010  | 3              |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------------------|------------------|------------------|----------------|
| Caesar & Loretz GmbH        | Dexpanthenol     | 20004104012      | 1              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 20004104013      | 3              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 20004104014      | 5              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 20004104015      | 1              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 20004231001      | 1              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 20004231003      | 2              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 20004231007      | 7              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 21002144002      | 3              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 21002144003      | 1              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 21002144005      | 2              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 21002144007      | 4              |
| Caesar & Loretz GmbH        | Dexpanthenol     | 21002144008      | 1              |
| Caesar & Loretz GmbH        | Dexpanthenol     | B06-1944904      | 1              |
| Caesar & Loretz Hilden/...  | Dexpanthenol     | 19045005         | 1              |
| Caesar & Loretz Hilden      | Dexpanthenol     | 19062102         | 1              |
| Caesar & Loretz Hilden      | Dexpanthenol     | 19088801         | 1              |
| Caesar & Loretz Hilden      | Dexpanthenol     | 20001457008      | 1              |
| Caesar & Loretz/Geilenk...  | Dexpanthenol     | 19106808         | 1              |
| Caesar & Loretz/Geilenk...  | Dexpanthenol     | 191835010        | 1              |
| Caesar & Loretz/Noweda      | Dexpanthenol     | 19134406         | 1              |
| Caesar und Loretz           | Dexpanthenol     | 19106806         | 3              |
| Caesar&Lorenz / Gehe        | Dexpanthenol     | 19106810         | 1              |
| Caesar&Lorenz               | Dexpanthenol     | 20004104013      | 1              |
| Caesar&Loretz GmbH/Fiebig   | Dexpanthenol     | 17172105         | 1              |
| Caesar&lorenz,Phoenix       | Dexpanthenol     | 12285201         | 1              |
| Caesar&Loretz               | Dexpanthenol     | 19106810         | 1              |
| Caesar/Gehe                 | Dexpanthenol     | 19088801         | 1              |
| Caesar/Noweda               | Dexpanthenol     | 13084709         | 2              |
| Caesar/Noweda               | Dexpanthenol     | 4811A-01082      | 1              |
| caesar                      | Dexpanthenol     | 16043512         | 1              |
| Caesar                      | Dexpanthenol     | 18197204         | 1              |
| Caleo/Gehe                  | Dexpanthenol     | 19107001         | 1              |
| Caleo                       | Dexpanthenol     | 15097710         | 1              |
| Calo                        | Dexpanthenol     | 19008707         | 1              |
| Caolo                       | Dexpanthenol     | 15395506         | 1              |
| Cealo/Sanacorp              | Dexpanthenol     | 15395506         | 1              |
| Cealo                       | Dexpanthenol     | 17335106         | 1              |
| Cealo                       | Dexpanthenol     | 19065802         | 1              |
| Cealo                       | Dexpanthenol     | 19088801         | 1              |
| cesar&lorenz/Phönix         | Dexpanthenol     | 12285203         | 1              |
| Daiichi Fine Chemicals      | Dexpanthenol     | 1301009-01       | 1              |
| DSM / Noweda                | Dexpanthenol     | 191835013        | 1              |
| DSM / Sanacorp              | Dexpanthenol     | 20001457005      | 1              |
| DSM Nutritional Products UK | Dexpanthenol     | 15F26-B01-314370 | 1              |
| DSM Nutritional Prod./...   | Dexpanthenol     | 16043505         | 1              |
| DSM Nutritional Prod./...   | Dexpanthenol     | 16311610         | 1              |
| DSM Nutritional Prod./...   | Dexpanthenol     | 17065412         | 1              |
| DSM Nutritional Prod./...   | Dexpanthenol     | TL01212052       | 1              |
| DSM Nutritional Product...  | Dexpanthenol     | 20D16-T16-080047 | 1              |
| DSM Nutritional Product...  | Dexpanthenol     | 19106804         | 1              |
| DSM Nutritional Product...  | Dexpanthenol     | 19134401         | 1              |
| DSM Nutritional Product...  | Dexpanthenol     | 19H20-B06-194494 | 1              |
| DSM Nutritional Products    | Dexpanthenol     | 191835009        | 1              |
| DSM Nutritional products    | Dexpanthenol     | 19F10-B08-191445 | 1              |
| DSM/Noweda                  | Dexpanthenol     | 2001015-01       | 1              |
| DSM/Noweda                  | Dexpanthenol     | TL019003036      | 1              |
| DSM/Noweda                  | Dexpanthenol     | TL01903036       | 2              |
| DSM/Noweda                  | Dexpanthenol     | TL02007076       | 1              |
| DSM/Phoenix                 | Dexpanthenol     | TL01907089       | 2              |
| DSM                         | Dexpanthenol     | 19106901         | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| EuRho/ Phönix   | Dexpanthenol     | 1801011-01       | 1              |
| EuRho/Noweda    | Dexpanthenol     | 1407039-02       | 1              |
| EuRho/Noweda    | Dexpanthenol     | 1801011-01       | 2              |
| EuRho/Phönix    | Dexpanthenol     | 1801011-01       | 1              |
| EuRho/Phönix    | Dexpanthenol     | 1808007-01       | 1              |
| EuRho/Phönix    | Dexpanthenol     | 4485006D0        | 1              |
| EuRho           | Dexpanthenol     | 1107023-01       | 1              |
| EuRho           | Dexpanthenol     | 1110032-01       | 1              |
| EuRho           | Dexpanthenol     | 1204010-02       | 1              |
| EuRho           | Dexpanthenol     | 1301009-01       | 4              |
| EuRho           | Dexpanthenol     | 1309030-01       | 1              |
| Eurho           | Dexpanthenol     | 1610041-01       | 1              |
| Eurho           | Dexpanthenol     | 170302901        | 1              |
| Eurho           | Dexpanthenol     | 1801011-01       | 3              |
| EuRho           | Dexpanthenol     | 1801011-01       | 1              |
| EuRho           | Dexpanthenol     | 23223009T0       | 1              |
| Euro Gehe       | Dexpanthenol     | 1801011-01       | 1              |
| Euro OTC        | Dexpanthenol     |                  | 2              |
| Euro OTC        | Dexpanthenol     | 10061508         | 1              |
| Euro OTC        | Dexpanthenol     | 11021503         | 1              |
| Euro OTC        | Dexpanthenol     | 1111406          | 1              |
| Euro OTC        | Dexpanthenol     | 1204010-01       | 10             |
| Euro OTC        | Dexpanthenol     | 1204010-02       | 12             |
| Euro OTC        | Dexpanthenol     | 12091801         | 1              |
| Euro OTC        | Dexpanthenol     | 129401002        | 1              |
| Euro OTC        | Dexpanthenol     | 1301009          | 1              |
| Euro OTC        | Dexpanthenol     | 1301009-001      | 1              |
| Euro OTC        | Dexpanthenol     | 130100901        | 2              |
| Euro OTC        | Dexpanthenol     | 1301009-01       | 18             |
| Euro OTC        | Dexpanthenol     | 130100902        | 2              |
| Euro OTC        | Dexpanthenol     | 1301009-02       | 17             |
| Euro OTC        | Dexpanthenol     | 13011809         | 1              |
| Euro OTC        | Dexpanthenol     | 130903001        | 2              |
| Euro OTC        | Dexpanthenol     | 1309030-01       | 10             |
| Euro OTC        | Dexpanthenol     | 130903002        | 1              |
| Euro OTC        | Dexpanthenol     | 1309030-02       | 9              |
| Euro OTC        | Dexpanthenol     | 1309030-03       | 3              |
| Euro OTC        | Dexpanthenol     | 14070390         | 1              |
| Euro OTC        | Dexpanthenol     | 140703901        | 3              |
| Euro OTC        | Dexpanthenol     | 1407039-01       | 10             |
| Euro OTC        | Dexpanthenol     | 140703902        | 1              |
| Euro OTC        | Dexpanthenol     | 1407039-02       | 7              |
| Euro OTC        | Dexpanthenol     | 1407039-1        | 1              |
| Euro OTC        | Dexpanthenol     | 14070399-01      | 1              |
| Euro OTC        | Dexpanthenol     | 14071702         | 1              |
| Euro OTC        | Dexpanthenol     | 140739           | 1              |
| Euro OTC        | Dexpanthenol     | 14703029-01      | 1              |
| Euro OTC        | Dexpanthenol     | 14H05-B02-300069 | 2              |
| Euro OTC        | Dexpanthenol     | 1502010-01       | 1              |
| Euro OTC        | Dexpanthenol     | 1502010-02       | 1              |
| Euro OTC        | Dexpanthenol     | 150201901        | 1              |
| Euro OTC        | Dexpanthenol     | 1502019-01       | 25             |
| Euro OTC        | Dexpanthenol     | 150201902        | 2              |
| Euro OTC        | Dexpanthenol     | 1502019-02       | 17             |
| Euro OTC        | Dexpanthenol     | 150219-02        | 1              |
| Euro OTC        | Dexpanthenol     | 15100008-01      | 1              |
| Euro OTC        | Dexpanthenol     | 15100008-02      | 2              |
| Euro OTC        | Dexpanthenol     | 151000801        | 2              |
| Euro OTC        | Dexpanthenol     | 1510008-01       | 40             |
| Euro OTC        | Dexpanthenol     | 151000802        | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Euro OTC        | Dexpanthenol     | 1510008-02         | 22             |
| Euro OTC        | Dexpanthenol     | 151008-01          | 2              |
| Euro OTC        | Dexpanthenol     | 15260908           | 1              |
| Euro OTC        | Dexpanthenol     | 15F26-B01-314370   | 1              |
| Euro OTC        | Dexpanthenol     | 160041-01          | 1              |
| Euro OTC        | Dexpanthenol     | 160601501          | 2              |
| Euro OTC        | Dexpanthenol     | 1606015-01         | 32             |
| Euro OTC        | Dexpanthenol     | 160702701          | 4              |
| Euro OTC        | Dexpanthenol     | 1607027-01         | 17             |
| Euro OTC        | Dexpanthenol     | 161004101          | 3              |
| Euro OTC        | Dexpanthenol     | 1610041-01         | 43             |
| Euro OTC        | Dexpanthenol     | 1610041-02         | 17             |
| Euro OTC        | Dexpanthenol     | 161220D/1606015-01 | 1              |
| Euro OTC        | Dexpanthenol     | 16311610           | 1              |
| Euro OTC        | Dexpanthenol     | 170302901          | 1              |
| Euro OTC        | Dexpanthenol     | 1703029-01         | 43             |
| Euro OTC        | Dexpanthenol     | 1703029-02         | 5              |
| Euro OTC        | Dexpanthenol     | 17041503           | 1              |
| Euro OTC        | Dexpanthenol     | 1708013-01         | 23             |
| Euro OTC        | Dexpanthenol     | 17091401           | 1              |
| Euro OTC        | Dexpanthenol     | 171106D/1703029-01 | 1              |
| Euro OTC        | Dexpanthenol     | 17335105           | 1              |
| Euro OTC        | Dexpanthenol     | 17335108           | 1              |
| Euro OTC        | Dexpanthenol     | 17B06-B04-332077   | 2              |
| Euro OTC        | Dexpanthenol     | 1801011            | 1              |
| Euro OTC        | Dexpanthenol     | 180101101          | 1              |
| Euro OTC        | Dexpanthenol     | 1801011-01         | 64             |
| Euro OTC        | Dexpanthenol     | 1801011-11         | 1              |
| Euro OTC        | Dexpanthenol     | 1803008-01         | 16             |
| Euro OTC        | Dexpanthenol     | 180300802          | 1              |
| Euro OTC        | Dexpanthenol     | 1803008-02         | 19             |
| Euro OTC        | Dexpanthenol     | 1806019-01         | 25             |
| Euro OTC        | Dexpanthenol     | 180619-01          | 1              |
| Euro OTC        | Dexpanthenol     | 1808001-01         | 1              |
| Euro OTC        | Dexpanthenol     | 1808007-01         | 15             |
| Euro OTC        | Dexpanthenol     | 18C20-B07-350624   | 1              |
| Euro OTC        | Dexpanthenol     | 19062103           | 1              |
| Euro OTC        | Dexpanthenol     | 19H20-B06-194494   | 1              |
| Euro OTC        | Dexpanthenol     | 20001457005        | 1              |
| Euro OTC        | Dexpanthenol     | 20001457008        | 1              |
| Euro OTC        | Dexpanthenol     | 2001014-01         | 1              |
| Euro OTC        | Dexpanthenol     | 2001014-02         | 1              |
| Euro OTC        | Dexpanthenol     | 200101501          | 4              |
| Euro OTC        | Dexpanthenol     | 2001015-01         | 32             |
| Euro OTC        | Dexpanthenol     | 2077006D0          | 1              |
| Euro OTC        | Dexpanthenol     | 2081403            | 1              |
| Euro OTC        | Dexpanthenol     | 23101409           | 1              |
| Euro OTC        | Dexpanthenol     | 23223009T0         | 4              |
| Euro OTC        | Dexpanthenol     | 27031503           | 1              |
| Euro OTC        | Dexpanthenol     | 28031801           | 1              |
| Euro OTC        | Dexpanthenol     | 28041729           | 1              |
| Euro OTC        | Dexpanthenol     | 28071501           | 1              |
| Euro OTC        | Dexpanthenol     | 28111404           | 1              |
| Euro OTC        | Dexpanthenol     | 309030-03          | 1              |
| Euro OTC        | Dexpanthenol     | 31071501           | 1              |
| Euro OTC        | Dexpanthenol     | 4091514            | 1              |
| Euro OTC        | Dexpanthenol     | 4485006D0          | 1              |
| Euro OTC        | Dexpanthenol     | 4717Q-01082        | 1              |
| Euro OTC        | Dexpanthenol     | 5051504            | 1              |
| Euro OTC        | Dexpanthenol     | 5121806            | 1              |

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continued from previous page

| Supplier            | Substance    | Batch              | Spectra |
|---------------------|--------------|--------------------|---------|
| Euro OTC            | Dexpanthenol | 5121807            | 1       |
| Euro OTC            | Dexpanthenol | 57545077L0         | 2       |
| Euro OTC            | Dexpanthenol | 64778675L0         | 1       |
| Euro OTC            | Dexpanthenol | 7011503            | 1       |
| Euro OTC            | Dexpanthenol | 73709736W0         | 1       |
| Euro OTC            | Dexpanthenol | 86539509T0         | 1       |
| Euro OTC            | Dexpanthenol | 9031703            | 1       |
| Euro OTC            | Dexpanthenol | 95700556P0         | 2       |
| Euro OTC            | Dexpanthenol | E0EIE22902         | 1       |
| Euro OTC            | Dexpanthenol | E0EJD41902         | 1       |
| Euro OTC            | Dexpanthenol | TL01903036         | 3       |
| Euro/ Phönix        | Dexpanthenol | 5117E-01082        | 1       |
| EUro/AHD            | Dexpanthenol | 1301009-01         | 2       |
| Euro/Noweda         | Dexpanthenol | 1610041-01         | 3       |
| Euro/Noweda         | Dexpanthenol | 180300802          | 1       |
| Euro/Noweda30.01.17 | Dexpanthenol | 1606015-01         | 1       |
| Euro                | Dexpanthenol | 2091710            | 1       |
| Euroo/Ebert         | Dexpanthenol | 3813E-01082        | 1       |
| Europ Ots Pharma    | Dexpanthenol | 13084705           | 1       |
| europharm/gehe      | Dexpanthenol | 1610041-01         | 1       |
| europharm/gehe      | Dexpanthenol | 1801011-01         | 2       |
| Fagon / Gehe        | Dexpanthenol | 18J25-B04-3575388  | 1       |
| Fagron              | Dexpanthenol |                    | 1       |
| Fagron              | Dexpanthenol | 1-06263006         | 1       |
| Fagron              | Dexpanthenol | 11B21-N01          | 1       |
| Fagron              | Dexpanthenol | 11B21-N01          | 1       |
| Fagron              | Dexpanthenol | 11h26-n03          | 1       |
| Fagron              | Dexpanthenol | 11H26-N03          | 4       |
| Fagron              | Dexpanthenol | 12B13-N07          | 2       |
| Fagron              | Dexpanthenol | 12E11-N02          | 22      |
| Fagron              | Dexpanthenol | 12e11-no2          | 1       |
| Fagron              | Dexpanthenol | 12e11-N02          | 1       |
| Fagron              | Dexpanthenol | 12E11-No2          | 1       |
| Fagron              | Dexpanthenol | 12E11-N02          | 1       |
| Fagron              | Dexpanthenol | 12H28-N07          | 5       |
| Fagron              | Dexpanthenol | 12I04-N04          | 1       |
| Fagron              | Dexpanthenol | 12J30-B03-287502   | 1       |
| Fagron              | Dexpanthenol | 12K27-N04          | 6       |
| Fagron              | Dexpanthenol | 12K27-N04          | 1       |
| Fagron              | Dexpanthenol | 12L28-N02          | 1       |
| Fagron              | Dexpanthenol | 12L28-N03          | 6       |
| Fagron              | Dexpanthenol | 12L28-No3          | 1       |
| Fagron              | Dexpanthenol | 12L28-N03          | 1       |
| Fagron              | Dexpanthenol | 13/04-N04          | 3       |
| Fagron              | Dexpanthenol | 13/29-B05-287528   | 1       |
| Fagron              | Dexpanthenol | 1309030-02         | 1       |
| Fagron              | Dexpanthenol | 13D11-N12          | 1       |
| Fagron              | Dexpanthenol | 13D22-N12          | 14      |
| Fagron              | Dexpanthenol | 13i04-n04          | 1       |
| Fagron              | Dexpanthenol | 13I04-N04          | 16      |
| Fagron              | Dexpanthenol | 13J04-N04          | 2       |
| Fagron              | Dexpanthenol | 13J2029-B05-287528 | 1       |
| Fagron              | Dexpanthenol | 13J29-B05          | 9       |
| Fagron              | Dexpanthenol | 13j29-B05-287525   | 1       |
| Fagron              | Dexpanthenol | 13J29-B05-287525   | 1       |
| Fagron              | Dexpanthenol | 13J29-b05-287526   | 1       |
| Fagron              | Dexpanthenol | 13J29B05287526     | 1       |
| Fagron              | Dexpanthenol | 13J29-B05-287526   | 8       |
| Fagron              | Dexpanthenol | 13J29-B05-287527   | 2       |
| Fagron              | Dexpanthenol | 13J29-B05-287528   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance    | Batch              | Spectra |
|----------|--------------|--------------------|---------|
| Fagron   | Dexpanthenol | 13L02-B04          | 2       |
| Fagron   | Dexpanthenol | 13L02-B04-292067   | 2       |
| Fagron   | Dexpanthenol | 13L02B04292068     | 1       |
| Fagron   | Dexpanthenol | 13L02-B04-292068   | 8       |
| Fagron   | Dexpanthenol | 13L02-BB04-292067  | 1       |
| Fagron   | Dexpanthenol | 14051908           | 2       |
| Fagron   | Dexpanthenol | 14214510           | 1       |
| Fagron   | Dexpanthenol | 14E01-811-295577   | 1       |
| Fagron   | Dexpanthenol | 14e01-811-300068   | 1       |
| Fagron   | Dexpanthenol | 14E01-B11          | 8       |
| Fagron   | Dexpanthenol | 14e01-b11-293623   | 1       |
| Fagron   | Dexpanthenol | 14E01B11293623     | 1       |
| Fagron   | Dexpanthenol | 14E01-B11-293623   | 1       |
| Fagron   | Dexpanthenol | 14E01-B11-293624   | 2       |
| Fagron   | Dexpanthenol | 14E01-B11-295533   | 1       |
| Fagron   | Dexpanthenol | 14E01-B11-295534   | 1       |
| Fagron   | Dexpanthenol | 14E01-b11-295544   | 1       |
| Fagron   | Dexpanthenol | 14E01-B11-295544   | 3       |
| Fagron   | Dexpanthenol | 14E01-B11-295577   | 5       |
| Fagron   | Dexpanthenol | 14E01-B11-295578   | 12      |
| Fagron   | Dexpanthenol | 14E01-B11-3000068  | 1       |
| Fagron   | Dexpanthenol | 14E01-B11-300065   | 2       |
| Fagron   | Dexpanthenol | 14E01-B11-300068   | 12      |
| Fagron   | Dexpanthenol | 14E01-B11-300068   | 1       |
| Fagron   | Dexpanthenol | 14H05-B02          | 2       |
| Fagron   | Dexpanthenol | 14H05-B02_300069   | 1       |
| Fagron   | Dexpanthenol | 14H05-B02-0001     | 1       |
| Fagron   | Dexpanthenol | 14H05-B02-300066   | 2       |
| Fagron   | Dexpanthenol | 14H05-B02-300069   | 13      |
| Fagron   | Dexpanthenol | 14H05-B02-305656   | 2       |
| Fagron   | Dexpanthenol | 15097709           | 1       |
| Fagron   | Dexpanthenol | 15395502           | 3       |
| Fagron   | Dexpanthenol | 15A30-B08-306695   | 3       |
| Fagron   | Dexpanthenol | 15F26-B01          | 1       |
| Fagron   | Dexpanthenol | 15f26b01_319991    | 1       |
| Fagron   | Dexpanthenol | 15F26-B01-314370   | 13      |
| Fagron   | Dexpanthenol | 15F26-B01-317519   | 2       |
| Fagron   | Dexpanthenol | 15F26-B01-317520   | 1       |
| Fagron   | Dexpanthenol | 15F26-B01-319991   | 8       |
| Fagron   | Dexpanthenol | 16007-804-322508   | 1       |
| Fagron   | Dexpanthenol | 16d07-b04          | 1       |
| Fagron   | Dexpanthenol | 16D07-B04          | 1       |
| Fagron   | Dexpanthenol | 16D07-B04-322110   | 7       |
| Fagron   | Dexpanthenol | 16D07-B04322508    | 1       |
| Fagron   | Dexpanthenol | 16D07-B04-322508   | 13      |
| Fagron   | Dexpanthenol | 16D07-B04-323096   | 5       |
| Fagron   | Dexpanthenol | 16D07-B04-323097   | 2       |
| Fagron   | Dexpanthenol | 16D07-B04-327322   | 7       |
| Fagron   | Dexpanthenol | 17/21-B01-340264   | 3       |
| Fagron   | Dexpanthenol | 17/21-B01-340265   | 1       |
| Fagron   | Dexpanthenol | 17/21-B01-340266   | 2       |
| Fagron   | Dexpanthenol | 1703029-01         | 1       |
| Fagron   | Dexpanthenol | 171120D/TL01601003 | 1       |
| Fagron   | Dexpanthenol | 17121-B01          | 1       |
| Fagron   | Dexpanthenol | 1721-B01-340264    | 1       |
| Fagron   | Dexpanthenol | 1721-B01-340266    | 1       |
| Fagron   | Dexpanthenol | 17B06_B04          | 1       |
| Fagron   | Dexpanthenol | 17B06_B04_332076   | 1       |
| Fagron   | Dexpanthenol | 17B0619            | 1       |
| Fagron   | Dexpanthenol | 17B0619-0003       | 1       |

continued on the next page



continued from previous page

| Supplier | Substance    | Batch             | Spectra |
|----------|--------------|-------------------|---------|
| Fagron   | Dexpanthenol | 17B06-B04         | 7       |
| Fagron   | Dexpanthenol | 17B06-B04-332075  | 12      |
| Fagron   | Dexpanthenol | 17b06-b04-332076  | 2       |
| Fagron   | Dexpanthenol | 17B06-B04-332076  | 1       |
| Fagron   | Dexpanthenol | 17B06-B04-332077  | 3       |
| Fagron   | Dexpanthenol | 17B06-B04-332078  | 6       |
| Fagron   | Dexpanthenol | 17B06-B04-3322078 | 1       |
| Fagron   | Dexpanthenol | 17B06-B04-332612  | 1       |
| Fagron   | Dexpanthenol | 17I21-B01         | 4       |
| Fagron   | Dexpanthenol | 17I21-B01-340264  | 6       |
| Fagron   | Dexpanthenol | 17i21-B01-340265  | 1       |
| Fagron   | Dexpanthenol | 17I21-B01-340265  | 4       |
| Fagron   | Dexpanthenol | 17I21B01-340266   | 1       |
| Fagron   | Dexpanthenol | 17I21-B01-340266  | 2       |
| Fagron   | Dexpanthenol | 17I21B01340267    | 1       |
| Fagron   | Dexpanthenol | 17I21-B01-340267  | 5       |
| Fagron   | Dexpanthenol | 17I21-B01-340268  | 2       |
| Fagron   | Dexpanthenol | 17I21-B01-340269  | 3       |
| Fagron   | Dexpanthenol | 17I21-B01-340274  | 1       |
| Fagron   | Dexpanthenol | 17I21-B01-343249  | 1       |
| Fagron   | Dexpanthenol | 17J21-B01-340267  | 1       |
| Fagron   | Dexpanthenol | 17K30-B01         | 1       |
| Fagron   | Dexpanthenol | 17k30-b01-343821  | 1       |
| Fagron   | Dexpanthenol | 17k30-B01-343821  | 1       |
| Fagron   | Dexpanthenol | 17K30-B01-343821  | 11      |
| Fagron   | Dexpanthenol | 17K30-B01-343822  | 4       |
| Fagron   | Dexpanthenol | 17K30-B01-344320  | 3       |
| Fagron   | Dexpanthenol | 17I21-B01-340264  | 2       |
| Fagron   | Dexpanthenol | 1801011-01        | 3       |
| Fagron   | Dexpanthenol | 1803008-02        | 1       |
| Fagron   | Dexpanthenol | 18069103          | 1       |
| Fagron   | Dexpanthenol | 1808007-01        | 1       |
| Fagron   | Dexpanthenol | 18176605          | 1       |
| Fagron   | Dexpanthenol | 18C20_B07_349243  | 1       |
| Fagron   | Dexpanthenol | 18C20-B07         | 6       |
| Fagron   | Dexpanthenol | 18C20-B07         | 1       |
| Fagron   | Dexpanthenol | 18C20-B07-248242  | 1       |
| Fagron   | Dexpanthenol | 18C20-B07-348241  | 11      |
| Fagron   | Dexpanthenol | 18C20-B07-348242  | 9       |
| Fagron   | Dexpanthenol | 18C20-B07-349242  | 16      |
| Fagron   | Dexpanthenol | 18C20-B07-349243  | 5       |
| Fagron   | Dexpanthenol | 18C20-B07-349943  | 2       |
| Fagron   | Dexpanthenol | 18C20-B07-349944  | 9       |
| Fagron   | Dexpanthenol | 18C20-B07-350623  | 1       |
| Fagron   | Dexpanthenol | 18C20-B07-350624  | 6       |
| Fagron   | Dexpanthenol | 18C20-B07-350625  | 3       |
| Fagron   | Dexpanthenol | 18C20-B07-351396  | 7       |
| Fagron   | Dexpanthenol | 18c20-B07-353894  | 1       |
| Fagron   | Dexpanthenol | 18C20-B07-353894  | 11      |
| Fagron   | Dexpanthenol | 18C20-B07-353895  | 2       |
| Fagron   | Dexpanthenol | 18C20-B07-353896  | 2       |
| Fagron   | Dexpanthenol | 18C20-B07-355377  | 3       |
| Fagron   | Dexpanthenol | 18C20-B07-356956  | 4       |
| Fagron   | Dexpanthenol | 18J25-B04-357387  | 7       |
| Fagron   | Dexpanthenol | 18J25-B04-357388  | 3       |
| Fagron   | Dexpanthenol | 18J25-B04-357388  | 1       |
| Fagron   | Dexpanthenol | 190820508         | 1       |
| Fagron   | Dexpanthenol | 19088801          | 1       |
| Fagron   | Dexpanthenol | 191090810         | 1       |
| Fagron   | Dexpanthenol | 194494            | 2       |

continued on the next page



continued from previous page

| Supplier | Substance    | Batch             | Spectra |
|----------|--------------|-------------------|---------|
| Fagron   | Dexpanthenol | 194496            | 1       |
| Fagron   | Dexpanthenol | 19B26-B01-361217  | 7       |
| Fagron   | Dexpanthenol | 19B26-B01-361218  | 5       |
| Fagron   | Dexpanthenol | 19B26-B01-361221  | 1       |
| Fagron   | Dexpanthenol | 19F-10_B08-191444 | 1       |
| Fagron   | Dexpanthenol | 19F10-B08-191422  | 1       |
| Fagron   | Dexpanthenol | 19F10-B08-191442  | 7       |
| Fagron   | Dexpanthenol | 19F10-B08-191443  | 1       |
| Fagron   | Dexpanthenol | 19F10-B08-191444  | 2       |
| Fagron   | Dexpanthenol | 19F10B08191445    | 1       |
| Fagron   | Dexpanthenol | 19F20-B08-191442  | 1       |
| Fagron   | Dexpanthenol | 19G019-0004       | 1       |
| Fagron   | Dexpanthenol | 19G02-B16-194495  | 12      |
| Fagron   | Dexpanthenol | 19G04-B04-193080  | 2       |
| Fagron   | Dexpanthenol | 19H20-806-194496  | 2       |
| Fagron   | Dexpanthenol | 19H20-B06         | 1       |
| Fagron   | Dexpanthenol | 19H20-B06-1944904 | 1       |
| Fagron   | Dexpanthenol | 19H20-B06194493   | 1       |
| Fagron   | Dexpanthenol | 19H20-B06-194493  | 32      |
| Fagron   | Dexpanthenol | 19H20-b06-194494  | 1       |
| Fagron   | Dexpanthenol | 19H20-B06-194494  | 18      |
| Fagron   | Dexpanthenol | 19H20-B06-194496  | 18      |
| Fagron   | Dexpanthenol | 19H20-B6-194493   | 1       |
| Fagron   | Dexpanthenol | 19H20-B06-194496  | 2       |
| Fagron   | Dexpanthenol | 19H20-B06-194496  | 1       |
| Fagron   | Dexpanthenol | 1KC20-B07-348242  | 1       |
| Fagron   | Dexpanthenol | 200116-T16-060048 | 1       |
| Fagron   | Dexpanthenol | 20016-T16-080047  | 3       |
| Fagron   | Dexpanthenol | 20016-T16-080048  | 1       |
| Fagron   | Dexpanthenol | 20812-T14-079950  | 1       |
| Fagron   | Dexpanthenol | 20B12-T14-0003    | 1       |
| Fagron   | Dexpanthenol | 20B12-T14-079950  | 1       |
| Fagron   | Dexpanthenol | 20D16-T16         | 1       |
| Fagron   | Dexpanthenol | 20D16-T16-079844  | 7       |
| Fagron   | Dexpanthenol | 20D16-T16-0800407 | 1       |
| Fagron   | Dexpanthenol | 20D16-T16-0800408 | 1       |
| Fagron   | Dexpanthenol | 20D16-T16080047   | 1       |
| Fagron   | Dexpanthenol | 20D16-T16-080047  | 11      |
| Fagron   | Dexpanthenol | 20D16-T16-080048  | 8       |
| Fagron   | Dexpanthenol | 20D16-T16-080049  | 9       |
| Fagron   | Dexpanthenol | 20F24-T01-061118  | 2       |
| Fagron   | Dexpanthenol | 20F24-T01-081118  | 9       |
| Fagron   | Dexpanthenol | 20F24T01081119    | 1       |
| Fagron   | Dexpanthenol | 20F24-T01-081119  | 2       |
| Fagron   | Dexpanthenol | 20F24-T01-082636  | 2       |
| Fagron   | Dexpanthenol | 246019-0001       | 1       |
| Fagron   | Dexpanthenol | 2803              | 1       |
| Fagron   | Dexpanthenol | 2914E-01082       | 1       |
| Fagron   | Dexpanthenol | 295544            | 1       |
| Fagron   | Dexpanthenol | 20D16-T16-080048  | 1       |
| Fagron   | Dexpanthenol | 20D16-T16-080049  | 2       |
| Fagron   | Dexpanthenol | 20F24-T01-079846  | 1       |
| Fagron   | Dexpanthenol | 20F24-T01-081118  | 4       |
| Fagron   | Dexpanthenol | 5021904           | 1       |
| Fagron   | Dexpanthenol | 7/21-B01-3402651  | 1       |
| Fagron   | Dexpanthenol | 81-13-0           | 1       |
| Fagron   | Dexpanthenol | 8572983           | 1       |
| Fagron   | Dexpanthenol | B06-1944903       | 4       |
| Fagron   | Dexpanthenol | B06-1944906       | 1       |
| Fagron   | Dexpanthenol | B16-1944905       | 1       |

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| <b>Supplier</b>    | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|--------------------|------------------|------------------|----------------|
| Fagron             | Dexpanthenol     | T01-0811108      | 3              |
| Fagron             | Dexpanthenol     | T01-0832207      | 1              |
| Fagron             | Dexpanthenol     | T01-0895000      | 1              |
| Fagron             | Dexpanthenol     | T01-0811108      | 1              |
| Fagron             | Dexpanthenol     | T16-0800407      | 2              |
| Fagron             | Dexpanthenol     | T16-0800408      | 2              |
| Fagron             | Dexpanthenol     | TL01110074       | 4              |
| Fagron             | Dexpanthenol     | TL01203018       | 3              |
| Fagron             | Dexpanthenol     | TL01212052       | 1              |
| Fagron             | Dexpanthenol     | TL01305030       | 8              |
| Fagron             | Dexpanthenol     | TL01312070       | 1              |
| Fagron             | Dexpanthenol     | TL01408058       | 1              |
| Fagron             | Dexpanthenol     | TL01503022       | 4              |
| Fagron             | Dexpanthenol     | TL01601003       | 1              |
| Fagron             | Dexpanthenol     | TL01611112       | 1              |
| Fagron             | Dexpanthenol     | TL017006056      | 1              |
| Fagron             | Dexpanthenol     | TL01706056       | 4              |
| Fagron             | Dexpanthenol     | TL01801002       | 3              |
| Fagron             | Dexpanthenol     | TL01812120       | 1              |
| Fagron             | Dexpanthenol     | TL019004049      | 1              |
| Fagron             | Dexpanthenol     | TL01904049       | 5              |
| Fagron             | Dexpanthenol     | TL02001009       | 3              |
| Fagron             | Dexpanthenol     | TL02003035       | 2              |
| Fagron             | Dexpanthenol     | TL01110074       | 1              |
| Fagron             | Dexpanthenol     | TL01212052       | 1              |
| Fagron             | Dexpanthenol     | TL01904049       | 1              |
| Fagron             | Dexpanthenol     | T01-0811108      | 1              |
| Fargon/AHD         | Dexpanthenol     | 18C20-B07        | 1              |
| Fargon/Alliance HC | Dexpanthenol     | 14E01-B11295578  | 1              |
| Fargon/Gehe        | Dexpanthenol     | 19H20-B06-194496 | 1              |
| fargon/Sanacorp    | Dexpanthenol     | 12E11-N02        | 1              |
| Fargon             | Dexpanthenol     | 17K30-B01-344320 | 1              |
| Fargon             | Dexpanthenol     | 18C20-B07-348241 | 1              |
| Fargon             | Dexpanthenol     | 19H20-B06-194494 | 1              |
| fargon             | Dexpanthenol     | 19H20B06194496   | 1              |
| Fargron            | Dexpanthenol     | 9L10/N01         | 1              |
| Fiebig/ BASF AG    | Dexpanthenol     | 1803008-02       | 1              |
| Fiebig             | Dexpanthenol     | 19008708         | 1              |
| Fiebig             | Dexpanthenol     | 19106804         | 1              |
| Fragron            | Dexpanthenol     | 12E11-N02        | 1              |
| Gatt-Koller        | Dexpanthenol     | 1900112          | 1              |
| GEHE 17.06.2014    | Dexpanthenol     | 13342610         | 1              |
| Gehe 29.5.18       | Dexpanthenol     | 17335108         | 1              |
| Gehe amax          | Dexpanthenol     | 19106805         | 1              |
| Gehe/ Euro         | Dexpanthenol     | 1510008-01       | 1              |
| Gehe/Euro 30.06.15 | Dexpanthenol     | 1502019-01       | 1              |
| Gehe               | Dexpanthenol     | 11293501         | 1              |
| Gehe               | Dexpanthenol     | 12285203         | 1              |
| Gehe               | Dexpanthenol     | 12E11-N02        | 2              |
| Gehe               | Dexpanthenol     | 15097704         | 1              |
| Gehe               | Dexpanthenol     | 15097705         | 1              |
| Gehe               | Dexpanthenol     | 15097709         | 1              |
| Gehe               | Dexpanthenol     | 15260901         | 1              |
| Gehe               | Dexpanthenol     | 16043504         | 1              |
| GEHE               | Dexpanthenol     | 1607027-01       | 1              |
| GEHE               | Dexpanthenol     | 161004101        | 1              |
| Gehe               | Dexpanthenol     | 1610041-02       | 1              |
| Gehe               | Dexpanthenol     | 16164809         | 1              |
| Gehe               | Dexpanthenol     | 17/21-B01-340266 | 1              |
| Gehe               | Dexpanthenol     | 170065407        | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Gehe                       | Dexpanthenol     | 1703029-01       | 1              |
| Gehe                       | Dexpanthenol     | 17065403         | 1              |
| Gehe                       | Dexpanthenol     | 17065405         | 1              |
| Gehe                       | Dexpanthenol     | 17065411         | 1              |
| GEHE                       | Dexpanthenol     | 17065413         | 1              |
| Gehe                       | Dexpanthenol     | 17287708         | 1              |
| Gehe                       | Dexpanthenol     | 17335103         | 1              |
| Gehe                       | Dexpanthenol     | 17335105         | 2              |
| Gehe                       | Dexpanthenol     | 17335106         | 2              |
| Gehe                       | Dexpanthenol     | 17B06-B04-332075 | 1              |
| Gehe                       | Dexpanthenol     | 17B06-B04-332077 | 1              |
| Gehe                       | Dexpanthenol     | 17I21-B01        | 1              |
| Gehe                       | Dexpanthenol     | 17I21-B01-340266 | 1              |
| Gehe                       | Dexpanthenol     | 17K30-B01-343822 | 2              |
| Gehe                       | Dexpanthenol     | 1801011-01       | 1              |
| Gehe                       | Dexpanthenol     | 18069002         | 1              |
| GEHE                       | Dexpanthenol     | 18069002         | 1              |
| Gehe                       | Dexpanthenol     | 18069110         | 2              |
| Gehe                       | Dexpanthenol     | 18197203         | 1              |
| Gehe                       | Dexpanthenol     | 18C20-B07        | 2              |
| Gehe                       | Dexpanthenol     | 18C20-B07-349944 | 1              |
| Gehe                       | Dexpanthenol     | 18C20-B07-351396 | 2              |
| Gehe                       | Dexpanthenol     | 19008707         | 1              |
| Gehe                       | Dexpanthenol     | 19065801         | 1              |
| Gehe                       | Dexpanthenol     | 19088801         | 1              |
| Gehe                       | Dexpanthenol     | 19106804         | 1              |
| Gehe                       | Dexpanthenol     | 19106810         | 1              |
| Gehe                       | Dexpanthenol     | 19106901         | 1              |
| Gehe                       | Dexpanthenol     | 191835009        | 1              |
| Gehe                       | Dexpanthenol     | 19F10-B08-191444 | 1              |
| Gehe                       | Dexpanthenol     | 95700556P0       | 1              |
| GUMO                       | Dexpanthenol     | 20001231007      | 1              |
| Hedinger/AHD               | Dexpanthenol     | 1301009-02       | 1              |
| Hedinger/Alliance Healt... | Dexpanthenol     | 1703029-02       | 1              |
| Hedinger                   | Dexpanthenol     | 16043505         | 1              |
| hochhaus-Apotheke          | Dexpanthenol     | 1610041-01       | 1              |
| Holdermann                 | Dexpanthenol     | 13/04-N04        | 1              |
| Ichtyol gesellschaft GmbH  | Dexpanthenol     | 16043511         | 1              |
| Jenne                      | Dexpanthenol     | 18176605         | 1              |
| Kehr/Fargon                | Dexpanthenol     | 18C20-B07-350625 | 1              |
| Kehr                       | Dexpanthenol     | 16D07-B04-327322 | 1              |
| Kehr                       | Dexpanthenol     | 17335106         | 1              |
| Kögl                       | Dexpanthenol     | 1701687          | 2              |
| Kögl                       | Dexpanthenol     | 1800586          | 2              |
| Kögl                       | Dexpanthenol     | 1802261          | 3              |
| Kögl                       | Dexpanthenol     | 20172407         | 2              |
| Kögl                       | Dexpanthenol     | 240707172717     | 1              |
| Kögl                       | Dexpanthenol     | 402211160217     | 1              |
| Kögl                       | Dexpanthenol     | 442812161017     | 1              |
| Kögl                       | Dexpanthenol     | 442812161517     | 2              |
| Kögl                       | Dexpanthenol     | KNC1672J16       | 1              |
| Krieger                    | Dexpanthenol     | 17172105         | 1              |
| Krieger                    | Dexpanthenol     | 17335108         | 2              |
| L10/apo-ident              | Dexpanthenol     | 1607027-01       | 2              |
| L12                        | Dexpanthenol     | 17287704         | 1              |
| L12                        | Dexpanthenol     | TL01706056       | 1              |
| Midas Göttingen            | Dexpanthenol     | 17335106         | 2              |
| MIDAS                      | Dexpanthenol     | 16164811         | 1              |
| Midas                      | Dexpanthenol     | 16311611         | 1              |
| Midas                      | Dexpanthenol     | 17287707         | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Midas                      | Dexpanthenol     | 17335105         | 2              |
| Midas                      | Dexpanthenol     | 17335107         | 1              |
| Midas                      | Dexpanthenol     | 17335108         | 1              |
| Midas                      | Dexpanthenol     | 18176605         | 1              |
| Midas                      | Dexpanthenol     | 18197204         | 1              |
| Nachprüfung                | Dexpanthenol     | 1407039-01       | 1              |
| Noweda/ Caesar&Lorenz G... | Dexpanthenol     | 19106901         | 1              |
| Noweda/EuRo                | Dexpanthenol     | 1610041-01       | 1              |
| Noweda                     | Dexpanthenol     | 11010703         | 1              |
| Noweda                     | Dexpanthenol     | 12285211         | 2              |
| Noweda                     | Dexpanthenol     | 12E11-N02        | 2              |
| Noweda                     | Dexpanthenol     | 13342601         | 1              |
| Noweda                     | Dexpanthenol     | 13342605         | 1              |
| Noweda                     | Dexpanthenol     | 13342606         | 1              |
| Noweda                     | Dexpanthenol     | 15097712         | 1              |
| Noweda                     | Dexpanthenol     | 1510008          | 1              |
| Noweda                     | Dexpanthenol     | 16043505         | 1              |
| Noweda                     | Dexpanthenol     | 16D07B04322508   | 1              |
| Noweda                     | Dexpanthenol     | 17/21-B01-340264 | 1              |
| Noweda                     | Dexpanthenol     | 17/21-B01-340269 | 1              |
| Noweda                     | Dexpanthenol     | 1708013-01       | 2              |
| Noweda                     | Dexpanthenol     | 17287701         | 1              |
| Noweda                     | Dexpanthenol     | 17335105         | 1              |
| Noweda                     | Dexpanthenol     | 17B06-B04-322078 | 1              |
| Noweda                     | Dexpanthenol     | 17B06-B04-332078 | 2              |
| Noweda                     | Dexpanthenol     | 17D07-B04-322508 | 1              |
| Noweda                     | Dexpanthenol     | 17I21-B01-340268 | 1              |
| Noweda                     | Dexpanthenol     | 17I21B01340269   | 1              |
| Noweda                     | Dexpanthenol     | 1801011-01       | 2              |
| Noweda                     | Dexpanthenol     | 18069001         | 1              |
| Noweda                     | Dexpanthenol     | 1808007-07       | 1              |
| Noweda                     | Dexpanthenol     | 18176603         | 1              |
| Noweda                     | Dexpanthenol     | 18197202         | 1              |
| Noweda                     | Dexpanthenol     | 18C20-B07-356956 | 1              |
| Noweda                     | Dexpanthenol     | 19000648004      | 1              |
| Noweda                     | Dexpanthenol     | 19000651001      | 1              |
| Noweda                     | Dexpanthenol     | 19008707         | 1              |
| Noweda                     | Dexpanthenol     | 19008708         | 1              |
| Noweda                     | Dexpanthenol     | 19065804         | 1              |
| Noweda                     | Dexpanthenol     | 19088801         | 1              |
| Noweda                     | Dexpanthenol     | 19106802         | 2              |
| Noweda                     | Dexpanthenol     | 19106806         | 1              |
| Noweda                     | Dexpanthenol     | 19106810         | 1              |
| Noweda                     | Dexpanthenol     | 19107004         | 1              |
| Noweda                     | Dexpanthenol     | 191344001        | 1              |
| Noweda                     | Dexpanthenol     | 19134404         | 1              |
| Noweda                     | Dexpanthenol     | 191835003        | 2              |
| Noweda                     | Dexpanthenol     | 191835005        | 1              |
| Noweda                     | Dexpanthenol     | 191835008        | 1              |
| Noweda                     | Dexpanthenol     | 19183503         | 1              |
| Noweda                     | Dexpanthenol     | 20001457004      | 1              |
| Noweda                     | Dexpanthenol     | 20001457005      | 1              |
| Noweda                     | Dexpanthenol     | 20004104         | 1              |
| Noweda                     | Dexpanthenol     | 20004104010      | 1              |
| Noweda                     | Dexpanthenol     | 20004104014      | 2              |
| Noweda                     | Dexpanthenol     | 2000414014       | 1              |
| Noweda                     | Dexpanthenol     | 2001015-01       | 1              |
| Pharmachem Pößneck/AHD     | Dexpanthenol     | 18C20-B07-351396 | 1              |
| Pharmachem/Phoenix         | Dexpanthenol     | 1803008-01       | 1              |
| Phoenix goettin            | Dexpanthenol     | 14214512         | 1              |

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| <b>Supplier</b>         | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-------------------------|------------------|------------------|----------------|
| Phoenix/Fragon          | Dexpanthenol     | 2001015-01       | 1              |
| Phoenix                 | Dexpanthenol     | 1510008-02       | 1              |
| Phoenix                 | Dexpanthenol     | 17065412         | 1              |
| Phoenix                 | Dexpanthenol     | 17335103         | 2              |
| Phoenix                 | Dexpanthenol     | 1801011-01       | 1              |
| Phoenix                 | Dexpanthenol     | 1806019-01       | 1              |
| phoenix                 | Dexpanthenol     | 18069002         | 1              |
| phoenix                 | Dexpanthenol     | 18C20-B07-348241 | 1              |
| Phoenix                 | Dexpanthenol     | 190000648004     | 1              |
| Phoenix                 | Dexpanthenol     | 19106807         | 1              |
| Phoenix                 | Dexpanthenol     | 200030901        | 1              |
| Phoenix                 | Dexpanthenol     | 2001015-01       | 1              |
| Phoenix                 | Dexpanthenol     | 200221902        | 1              |
| Phoenix                 | Dexpanthenol     | 200341604        | 1              |
| Phönix Gotha            | Dexpanthenol     | 1204010-01       | 1              |
| Phönix Gotha            | Dexpanthenol     | 1502019-01       | 1              |
| Phönix Gotha            | Dexpanthenol     | 1502019-02       | 1              |
| Phönix/Fagon            | Dexpanthenol     | 15F26-B01-317519 | 1              |
| Phönix                  | Dexpanthenol     | 12285204         | 1              |
| Phönix                  | Dexpanthenol     | 1301009-02       | 1              |
| Phönix                  | Dexpanthenol     | 1309030-01       | 1              |
| Phönix                  | Dexpanthenol     | 13J29-B05287525  | 1              |
| Phönix                  | Dexpanthenol     | 16311603         | 1              |
| phönix                  | Dexpanthenol     | 16D07-B04-322110 | 1              |
| Phönix                  | Dexpanthenol     | 1721b01-340264   | 1              |
| PHÖNIX                  | Dexpanthenol     | 1801011-01       | 2              |
| Phönix                  | Dexpanthenol     | 1803008-01       | 1              |
| Phönix                  | Dexpanthenol     | 19062102         | 1              |
| Phönix                  | Dexpanthenol     | 19106804         | 1              |
| Phönix                  | Dexpanthenol     | 19134401         | 1              |
| PHÖNIX                  | Dexpanthenol     | 191835011        | 1              |
| Phönix                  | Dexpanthenol     | 191835013        | 3              |
| Phönix                  | Dexpanthenol     | 20001457004      | 1              |
| Phönix                  | Dexpanthenol     | 20001457008      | 1              |
| Phönix                  | Dexpanthenol     | 3184             | 1              |
| Phönix                  | Dexpanthenol     | TL01706056       | 1              |
| Raben-Apotheke Mildenau | Dexpanthenol     | 1309030-03       | 1              |
| sanacorb                | Dexpanthenol     | 18176605         | 1              |
| Sanacorp/ euRho         | Dexpanthenol     | 1103053-01       | 1              |
| Sanacorp                | Dexpanthenol     |                  | 1              |
| Sanacorp                | Dexpanthenol     | 13342601         | 1              |
| Sanacorp                | Dexpanthenol     | 13342605         | 1              |
| Sanacorp                | Dexpanthenol     | 1407039-02       | 1              |
| Sanacorp                | Dexpanthenol     | 14E01-B11        | 1              |
| Sanacorp                | Dexpanthenol     | 15097714         | 1              |
| Sanacorp                | Dexpanthenol     | 160601501        | 1              |
| Sanacorp                | Dexpanthenol     | 1610041-02       | 1              |
| Sanacorp                | Dexpanthenol     | 16311605         | 1              |
| Sanacorp                | Dexpanthenol     | 1703029-01       | 1              |
| Sanacorp                | Dexpanthenol     | 17172106         | 1              |
| Sanacorp                | Dexpanthenol     | 17172107         | 1              |
| Sanacorp                | Dexpanthenol     | 1801011-01       | 1              |
| Sanacorp                | Dexpanthenol     | 19008707         | 1              |
| Sanacorp                | Dexpanthenol     | 19106901         | 1              |
| Sanacorp                | Dexpanthenol     | 191835003        | 1              |
| Sanacorp                | Dexpanthenol     | 19183501         | 2              |
| Sanacorp                | Dexpanthenol     | 19B26-B01-361218 | 1              |
| Sanacorp                | Dexpanthenol     | 2/AKD4           | 1              |
| Sanacorp                | Dexpanthenol     | 20001457004      | 1              |
| Sanacorp                | Dexpanthenol     | 36/AKD22         | 1              |

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| Supplier        | Substance    | Batch            | Spectra |
|-----------------|--------------|------------------|---------|
| sanaEuro        | Dexpanthenol | 311V-01082       | 1       |
| Sanaorp         | Dexpanthenol | 17B06-B04-332077 | 2       |
| siehe Protokoll | Dexpanthenol | 16043502         | 1       |
| Spinnrad        | Dexpanthenol | 18069107         | 1       |
| THC Pharm/Gehe  | Dexpanthenol | 19134406         | 1       |

- 283 927 spectra from 1294 *Apo-Ident* customers from a total of 51 110 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Dexpanthenol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Dexpanthenol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 437           | 0              | 66 722        |
| <b>Type B</b> | 0              | 640           | 0              | 106 723       |
| <b>Type C</b> | 0              | 4777          | 5              | 283 927       |

The substance/substance group *Dexpanthenol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.6270 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.0625 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.8954 % (> 99.8327 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Dexpanthenol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                    | Distance in<br>main model | Distance in<br>second-stage model |
|------------------------------|---------------------------|-----------------------------------|
| Dexpanthenol concentrate 50% | 84.64                     | –                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Dexpanthenol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30884     | 31769                  | 2.81                            | 126.04                             |
| 31317     | 31532                  | 1.62                            | 135.74                             |
| 31532     | 31532                  | 0.00                            | 139.74                             |
| 31769     | 31769                  | 0.00                            | 127.79                             |
| 33239     | 31532                  | 1.96                            | 135.47                             |
| 33716     | 33716                  | 0.00                            | 119.44                             |
| 33903     | 33903                  | 0.00                            | 124.34                             |
| 34596     | 31532                  | 2.58                            | 137.60                             |
| 34637     | 34637                  | 0.00                            | 100.80                             |
| 34639     | 34639                  | 0.00                            | 103.38                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Dexpanthenol concentrate 50%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30492-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Dexpanthenol concentrate 50%; Pantothenolum 50%

### Special notes

When selecting the *Dexpanthenol concentrate 50%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group    | Type A | Type B | Type C |
|------------------------------|--------|--------|--------|
| Dexpanthenol concentrate 50% | 8      | 15     | 175    |

## Second-stage model

For differentiation of the substance/substance group *Dexpanthenol concentrate 50%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Dexpanthenol concentrate 50%*:

| Supplier | Substance             | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------------------|----------|-----------|---------|-------------|
| Caelo    | Dexpanthenol con. . . | 12171803 | 30664     | 40      | 20120724    |
| Caelo    | Dexpanthenol con. . . | 15408002 | 31835     | 60      | 20151211    |
| Caelo    | Dexpanthenol con. . . | 153314   | 31879     | 60      | 20151014*   |
| Caelo    | Dexpanthenol con. . . | 162483   | 32579     | 40      | 20160901*   |
| Caelo    | Dexpanthenol con. . . | 173261   | 33974     | 40      | 20171207*   |
| Caelo    | Dexpanthenol con. . . | 172781   | 33975     | 40      | 20171114*   |
| Caelo    | Dexpanthenol con. . . | 18050802 | 34130     | 40      | 20180213    |
| Caelo    | Dexpanthenol con. . . | 190581   | 34533     | 40      | 20190319*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 360 spectra of 8 reference samples from the substance/substance group *Dexpanthenol concentrate 50%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 8 different batches.
- 66 799 spectra from a total of 1371 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 640 spectra of 15 reference samples from the substance/substance group *Dexpanthenol concentrate 50%*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 15 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                    | Batch    | Sample ID | Spectra |
|----------|------------------------------|----------|-----------|---------|
| Caelo    | Dexpanthenol concentrate 50% | 14116302 | 31461     | 60      |
| Caelo    | Dexpanthenol concentrate 50% | 163336   | 33161     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 192306   | 34773     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 20001532 | 34970     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 20003068 | 35161     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 20003069 | 35172     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 20004284 | 35318     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 20004286 | 35319     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 21001026 | 35554     | 50      |
| Caelo    | Dexpanthenol concentrate 50% | 21001588 | 35601     | 50      |
| Caelo    | Dexpanthenol concentrate 50% | 21001589 | 35602     | 50      |
| Caelo    | Dexpanthenol concentrate 50% | 21003118 | 35808     | 50      |
| Caelo    | Dexpanthenol concentrate 50% | 21003119 | 35809     | 50      |
| Caelo    | Dexpanthenol concentrate 50% | 21004203 | 36148     | 40      |
| Caelo    | Dexpanthenol concentrate 50% | 21004204 | 36149     | 10      |

- 106 723 spectra from a total of 2486 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1977 spectra from 445 *Apo-Ident* customers from 181 batches from the substance/substance group *Dexpanthenol concentrate 50%*.
- Among them are spectra of independent samples from 174 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance                    | Batch         | Spectra |
|---------------------|------------------------------|---------------|---------|
| AHD                 | Dexpanthenol concentrate 50% | 20004284001   | 1       |
| Alliance Health     | Dexpanthenol concentrate 50% | 13068003      | 1       |
| Alliance Healthcare | Dexpanthenol concentrate 50% | 12256001      | 1       |
| Alliance Healthcare | Dexpanthenol concentrate 50% | 13174703      | 1       |
| Alliance Healthcare | Dexpanthenol concentrate 50% | 16136503      | 2       |
| Alliance            | Dexpanthenol concentrate 50% | 17194601      | 1       |
| Allianz Healthcare  | Dexpanthenol concentrate 50% | 19140301      | 1       |
| Allianz Healthcare  | Dexpanthenol concentrate 50% | 19230702      | 1       |
| Anzag               | Dexpanthenol concentrate 50% | 14020803      | 2       |
| apomix              | Dexpanthenol concentrate 50% | 17059203      | 1       |
| Audor Pharma        | Dexpanthenol concentrate 50% | AP36716516K0P | 1       |
| Audor Pharma        | Dexpanthenol concentrate 50% | AP65524488Q0P | 2       |
| Audor Pharma        | Dexpanthenol concentrate 50% | AP83943088Q0P | 1       |
| Audor Pharma        | Dexpanthenol concentrate 50% | AP83943088Q0P | 1       |
| Bombastus           | Dexpanthenol concentrate 50% | 16025303      | 1       |
| Bombastus           | Dexpanthenol concentrate 50% | 17059202      | 1       |
| Bombastus           | Dexpanthenol concentrate 50% | 17135702      | 1       |
| Caelo               | Dexpanthenol concentrate 50% |               | 1       |

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| Supplier | Substance                    | Batch            | Spectra |
|----------|------------------------------|------------------|---------|
| Caelo    | Dexpanthenol concentrate 50% | 1021117/17059203 | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 11121706         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 11279703         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 11279704         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 11279706         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 11358201         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 11358202         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 12081406         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 12127003         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 12171803         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 1220218/17194603 | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 12256001         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 12256002         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 12340302         | 3       |
| Caelo    | Dexpanthenol concentrate 50% | 13019203         | 8       |
| Caelo    | Dexpanthenol concentrate 50% | 13019204         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 13068003         | 5       |
| Caelo    | Dexpanthenol concentrate 50% | 13068004         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 13100408         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 13174702         | 7       |
| Caelo    | Dexpanthenol concentrate 50% | 13174703         | 5       |
| Caelo    | Dexpanthenol concentrate 50% | 13305003         | 9       |
| Caelo    | Dexpanthenol concentrate 50% | 13305004         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 13382102         | 3       |
| Caelo    | Dexpanthenol concentrate 50% | 1402003          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 14020803         | 7       |
| Caelo    | Dexpanthenol concentrate 50% | 14020804         | 7       |
| Caelo    | Dexpanthenol concentrate 50% | 14116301         | 6       |
| Caelo    | Dexpanthenol concentrate 50% | 14116302         | 6       |
| Caelo    | Dexpanthenol concentrate 50% | 14198101         | 16      |
| Caelo    | Dexpanthenol concentrate 50% | 14198103         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 14199101         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 14275202         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 14275203         | 9       |
| Caelo    | Dexpanthenol concentrate 50% | 14275204         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 14275207         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 14373301         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 14373302         | 8       |
| Caelo    | Dexpanthenol concentrate 50% | 15050801         | 3       |
| Caelo    | Dexpanthenol concentrate 50% | 15050802         | 21      |
| Caelo    | Dexpanthenol concentrate 50% | 1508002          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 15142901         | 10      |
| Caelo    | Dexpanthenol concentrate 50% | 15142902         | 5       |
| Caelo    | Dexpanthenol concentrate 50% | 1514902          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 15196202         | 11      |
| Caelo    | Dexpanthenol concentrate 50% | 15196203         | 14      |
| Caelo    | Dexpanthenol concentrate 50% | 15331402         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 15331404         | 18      |
| Caelo    | Dexpanthenol concentrate 50% | 15408002         | 16      |
| Caelo    | Dexpanthenol concentrate 50% | 15408003         | 12      |
| Caelo    | Dexpanthenol concentrate 50% | 15408004         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 1602503          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 16025302         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 16025303         | 17      |
| Caelo    | Dexpanthenol concentrate 50% | 16136502         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 16136503         | 22      |
| Caelo    | Dexpanthenol concentrate 50% | 16136504         | 22      |
| Caelo    | Dexpanthenol concentrate 50% | 16136505         | 11      |
| Caelo    | Dexpanthenol concentrate 50% | 1624302          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 162483           | 1       |

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| Supplier | Substance                    | Batch            | Spectra |
|----------|------------------------------|------------------|---------|
| Caelo    | Dexpanthenol concentrate 50% | 16248301         | 43      |
| Caelo    | Dexpanthenol concentrate 50% | 16248301/1210217 | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 16248302         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 16248303         | 30      |
| Caelo    | Dexpanthenol concentrate 50% | 16251203         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 16315101         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 16315102         | 12      |
| Caelo    | Dexpanthenol concentrate 50% | 16333602         | 28      |
| Caelo    | Dexpanthenol concentrate 50% | 16333603         | 62      |
| Caelo    | Dexpanthenol concentrate 50% | 1633603          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 16336303         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 1703101          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 17031301         | 9       |
| Caelo    | Dexpanthenol concentrate 50% | 17031303         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 170313035279     | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 17059201         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 17059202         | 27      |
| Caelo    | Dexpanthenol concentrate 50% | 17059203         | 41      |
| Caelo    | Dexpanthenol concentrate 50% | 17059203/2230418 | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 17135701         | 12      |
| Caelo    | Dexpanthenol concentrate 50% | 17135702         | 23      |
| Caelo    | Dexpanthenol concentrate 50% | 171494601        | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 17194601         | 27      |
| Caelo    | Dexpanthenol concentrate 50% | 17194602         | 11      |
| Caelo    | Dexpanthenol concentrate 50% | 17194603         | 18      |
| Caelo    | Dexpanthenol concentrate 50% | 17194605         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 17278101         | 5       |
| Caelo    | Dexpanthenol concentrate 50% | 17278103         | 11      |
| Caelo    | Dexpanthenol concentrate 50% | 17326101         | 49      |
| Caelo    | Dexpanthenol concentrate 50% | 173261012x       | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 17326102         | 42      |
| Caelo    | Dexpanthenol concentrate 50% | 18028901         | 5       |
| Caelo    | Dexpanthenol concentrate 50% | 18050802         | 29      |
| Caelo    | Dexpanthenol concentrate 50% | 18050803         | 30      |
| Caelo    | Dexpanthenol concentrate 50% | 18050803(2)      | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 18050804         | 8       |
| Caelo    | Dexpanthenol concentrate 50% | 1805082          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 1813101          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 18131301         | 67      |
| Caelo    | Dexpanthenol concentrate 50% | 18131402         | 24      |
| Caelo    | Dexpanthenol concentrate 50% | 18131403         | 7       |
| Caelo    | Dexpanthenol concentrate 50% | 18204509         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 182048001        | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 18247901         | 34      |
| Caelo    | Dexpanthenol concentrate 50% | 18247902         | 7       |
| Caelo    | Dexpanthenol concentrate 50% | 18248001         | 52      |
| Caelo    | Dexpanthenol concentrate 50% | 19058101         | 4       |
| Caelo    | Dexpanthenol concentrate 50% | 19058102         | 29      |
| Caelo    | Dexpanthenol concentrate 50% | 19058103         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 1905812          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 1908102          | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 19106201         | 9       |
| Caelo    | Dexpanthenol concentrate 50% | 19106202         | 22      |
| Caelo    | Dexpanthenol concentrate 50% | 19106204         | 2       |
| Caelo    | Dexpanthenol concentrate 50% | 19131402         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 19140301         | 46      |
| Caelo    | Dexpanthenol concentrate 50% | 19140303         | 28      |
| Caelo    | Dexpanthenol concentrate 50% | 19140304         | 1       |
| Caelo    | Dexpanthenol concentrate 50% | 19158302         | 9       |
| Caelo    | Dexpanthenol concentrate 50% | 19230601         | 45      |

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| Supplier                    | Substance                    | Batch            | Spectra |
|-----------------------------|------------------------------|------------------|---------|
| Caelo                       | Dexpanthenol concentrate 50% | 19230701         | 30      |
| Caelo                       | Dexpanthenol concentrate 50% | 19230702         | 35      |
| Caelo                       | Dexpanthenol concentrate 50% | 19230801         | 8       |
| Caelo                       | Dexpanthenol concentrate 50% | 200000752001     | 2       |
| Caelo                       | Dexpanthenol concentrate 50% | 200000753001     | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 200001533003     | 2       |
| Caelo                       | Dexpanthenol concentrate 50% | 2000075001       | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 20000752001      | 50      |
| Caelo                       | Dexpanthenol concentrate 50% | 20000752011      | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 20000753001      | 25      |
| Caelo                       | Dexpanthenol concentrate 50% | 20000753002      | 4       |
| Caelo                       | Dexpanthenol concentrate 50% | 20001532001      | 15      |
| Caelo                       | Dexpanthenol concentrate 50% | 20001532002      | 3       |
| Caelo                       | Dexpanthenol concentrate 50% | 20001533001      | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 20001533002      | 29      |
| Caelo                       | Dexpanthenol concentrate 50% | 200015330025     | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 20001533003      | 11      |
| Caelo                       | Dexpanthenol concentrate 50% | 20003068001      | 34      |
| Caelo                       | Dexpanthenol concentrate 50% | 20003069002      | 10      |
| Caelo                       | Dexpanthenol concentrate 50% | 20003069003      | 3       |
| Caelo                       | Dexpanthenol concentrate 50% | 20004284001      | 25      |
| Caelo                       | Dexpanthenol concentrate 50% | 20004286002      | 3       |
| Caelo                       | Dexpanthenol concentrate 50% | 20004286003      | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 20004286004      | 5       |
| Caelo                       | Dexpanthenol concentrate 50% | 2000753001       | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 2000753081       | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 2004282001       | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 2004284001       | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 2004286004       | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 2090817/17135701 | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 21001026001      | 2       |
| Caelo                       | Dexpanthenol concentrate 50% | 21001588001      | 13      |
| Caelo                       | Dexpanthenol concentrate 50% | 21001588002      | 13      |
| Caelo                       | Dexpanthenol concentrate 50% | 2100158801       | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 21001589001      | 9       |
| Caelo                       | Dexpanthenol concentrate 50% | 21003118001      | 6       |
| Caelo                       | Dexpanthenol concentrate 50% | 21003119001      | 2       |
| Caelo                       | Dexpanthenol concentrate 50% | 2101404          | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 2x19140303       | 2       |
| Caelo                       | Dexpanthenol concentrate 50% | 3417Q-03868      | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 703291           | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 7051805          | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | 7194602          | 1       |
| Caelo                       | Dexpanthenol concentrate 50% | D-050413-2       | 1       |
| Caesar & Lorenz GmbH        | Dexpanthenol concentrate 50% | 17194601         | 2       |
| Caesar & Lorenz GmbH        | Dexpanthenol concentrate 50% | 17326102         | 1       |
| Caesar & Lorenz GmbH        | Dexpanthenol concentrate 50% | 19230601         | 1       |
| Caesar & Lorenz GmbH        | Dexpanthenol concentrate 50% | 19230701         | 1       |
| Caesar & Loretz GmbH / ...  | Dexpanthenol concentrate 50% | 15331402         | 1       |
| Caesar & Loretz GmbH / ...  | Dexpanthenol concentrate 50% | 19230601         | 1       |
| Caesar & Loretz GmbH / ...  | Dexpanthenol concentrate 50% | 19230701         | 1       |
| Caesar & Loretz GmbH / ...  | Dexpanthenol concentrate 50% | 20000752001      | 3       |
| Caesar & Loretz GmbH / ...  | Dexpanthenol concentrate 50% | 19158302         | 1       |
| Caesar & Loretz GmbH / n... | Dexpanthenol concentrate 50% | 19230701         | 1       |
| Caesar & Loretz GmbH Gehe   | Dexpanthenol concentrate 50% | 19230701         | 3       |
| Caesar & Loretz GmbH / A... | Dexpanthenol concentrate 50% | 20003068001      | 2       |
| Caesar & Loretz GmbH / G... | Dexpanthenol concentrate 50% | 20000753001      | 1       |
| Caesar & Loretz GmbH / G... | Dexpanthenol concentrate 50% | 20001533002      | 3       |
| Caesar & Loretz GmbH/AEP    | Dexpanthenol concentrate 50% | 21003118001      | 1       |
| Caesar & Loretz GmbH/Fi...  | Dexpanthenol concentrate 50% | 19230702         | 1       |

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| Supplier                   | Substance                    | Batch        | Spectra |
|----------------------------|------------------------------|--------------|---------|
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol concentrate 50% | 18248001     | 1       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol concentrate 50% | 19140301     | 2       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol concentrate 50% | 19140303     | 4       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol concentrate 50% | 19230601     | 2       |
| Caesar & Loretz GmbH/Gehe  | Dexpanthenol concentrate 50% | 20000752001  | 2       |
| Caesar & Loretz GmbH/Ge... | Dexpanthenol concentrate 50% | 20001533002  | 1       |
| Caesar & Loretz GmbH/Ge... | Dexpanthenol concentrate 50% | 20003068001  | 1       |
| Caesar & Loretz GmbH/Je... | Dexpanthenol concentrate 50% | 19058102     | 3       |
| Caesar & Loretz GmbH/Je... | Dexpanthenol concentrate 50% | 21001588001  | 1       |
| Caesar & Loretz GmbH/No... | Dexpanthenol concentrate 50% | 19230702     | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol concentrate 50% | 20004286002  | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol concentrate 50% | 20004286002  | 1       |
| Caesar & Loretz GmbH/Ph... | Dexpanthenol concentrate 50% | 21003118001  | 1       |
| Caesar & Loretz GmbH/Sa... | Dexpanthenol concentrate 50% | 20000752001  | 1       |
| Caesar & Loretz GmbH/Sa... | Dexpanthenol concentrate 50% | 20004286002  | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 16248301     | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 16248303     | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 16315102     | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 16333603     | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 17135701     | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 17135702     | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 18050803     | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 18131301     | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 18247901     | 4       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 18248001     | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19058102     | 4       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19106202     | 3       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19106204     | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19140301     | 9       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19140303     | 8       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19158302     | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19230301     | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19230601     | 11      |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19230701     | 4       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19230702     | 11      |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 19230801     | 5       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20000752001  | 9       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20000753001  | 4       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20000753002  | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20001532001  | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20001532002  | 3       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20001533003  | 3       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20003068001  | 3       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20003069002  | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 2000428001   | 1       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20004284001  | 15      |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20004286002  | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 20004286004  | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 21001588001  | 2       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 21001588002  | 6       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 21001589001  | 11      |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 21003118001  | 5       |
| Caesar & Loretz GmbH       | Dexpanthenol concentrate 50% | 21003119001  | 1       |
| Caesar & Loretz/ AHD       | Dexpanthenol concentrate 50% | 20001532001  | 2       |
| Caesar & Loretz/Noweda     | Dexpanthenol concentrate 50% | 20003068001  | 1       |
| Caesar & Loretz            | Dexpanthenol concentrate 50% | 18050803     | 1       |
| Caesar und Loretz GmbH     | Dexpanthenol concentrate 50% | 200001533993 | 1       |
| Caesar&Lorenz              | Dexpanthenol concentrate 50% | 20001533003  | 2       |
| Caesar&Lorenz              | Dexpanthenol concentrate 50% | 21001588001  | 3       |
| Caesar&Loretz GmbH,27.0... | Dexpanthenol concentrate 50% | 17059203     | 1       |

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| Supplier                   | Substance                    | Batch         | Spectra |
|----------------------------|------------------------------|---------------|---------|
| caesar&Loretz GmbH,AHC,... | Dexpanthenol concentrate 50% | 16248301      | 1       |
| Caesar&Loretz GmbH,Phön... | Dexpanthenol concentrate 50% | 15408002      | 1       |
| Caesar&Loretz GmbH         | Dexpanthenol concentrate 50% | 15408003      | 1       |
| Caesar&Loretz GmbH         | Dexpanthenol concentrate 50% | 20001533003   | 1       |
| Caesar&Loretz,Phoenix      | Dexpanthenol concentrate 50% | 14116302      | 2       |
| Caesar&Loretz              | Dexpanthenol concentrate 50% | 19140303      | 1       |
| Caeser&Loretz/Phönix       | Dexpanthenol concentrate 50% |               | 1       |
| Caleo                      | Dexpanthenol concentrate 50% | 16136503      | 1       |
| Caolo                      | Dexpanthenol concentrate 50% | 19230702      | 1       |
| Cealo                      | Dexpanthenol concentrate 50% | 17059203      | 1       |
| Cealo                      | Dexpanthenol concentrate 50% | 18248001      | 1       |
| Ebert & Jacobi 01.06. ...  | Dexpanthenol concentrate 50% | 16025303      | 1       |
| Euro OTC                   | Dexpanthenol concentrate 50% | 15142902      | 1       |
| Euro OTC                   | Dexpanthenol concentrate 50% | 15408003      | 2       |
| Euro OTC                   | Dexpanthenol concentrate 50% | 16333603      | 2       |
| Euro OTC                   | Dexpanthenol concentrate 50% | 17059203      | 1       |
| Euro OTC                   | Dexpanthenol concentrate 50% | 17326101      | 1       |
| Euro OTC                   | Dexpanthenol concentrate 50% | 18247901      | 1       |
| Fagron                     | Dexpanthenol concentrate 50% | 14198103      | 1       |
| Fagron                     | Dexpanthenol concentrate 50% | 16333603      | 1       |
| Fagron                     | Dexpanthenol concentrate 50% | 17059202      | 1       |
| Fagron                     | Dexpanthenol concentrate 50% | 17194601      | 1       |
| Fagron                     | Dexpanthenol concentrate 50% | 17194602      | 1       |
| Fagron                     | Dexpanthenol concentrate 50% | 18131402      | 1       |
| Fiebig                     | Dexpanthenol concentrate 50% | 2000306801    | 1       |
| Finteler Apotheke          | Dexpanthenol concentrate 50% | 17031303      | 1       |
| für Röntgen/Phönix         | Dexpanthenol concentrate 50% | 17194601      | 5       |
| Gehe 17.06.2014            | Dexpanthenol concentrate 50% | 13382102      | 1       |
| gehe 31.01.2014            | Dexpanthenol concentrate 50% | 13068004      | 1       |
| Gehe/Hedinger              | Dexpanthenol concentrate 50% | 18248001      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 11358204      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 13019203      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 13019204      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 14373302      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 15050802      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 16333602      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 17059203      | 1       |
| GEHE                       | Dexpanthenol concentrate 50% | 17326102      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 18050803      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 18131301      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 18248001      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 19058102      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 19106202      | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 20001533002   | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 20003068001   | 1       |
| Gehe                       | Dexpanthenol concentrate 50% | 20004286002   | 1       |
| Kehr                       | Dexpanthenol concentrate 50% | 18050803      | 3       |
| Lamotte/ Sanacorp          | Dexpanthenol concentrate 50% | 17326102      | 1       |
| Lamotte                    | Dexpanthenol concentrate 50% | AP83943088Q0P | 1       |
| Nachprüfung                | Dexpanthenol concentrate 50% | 13019203      | 1       |
| Nachprüfung                | Dexpanthenol concentrate 50% | 15142902      | 1       |
| Noweda 21.10.2019          | Dexpanthenol concentrate 50% | 19140303      | 1       |
| Noweda                     | Dexpanthenol concentrate 50% | 12171802      | 1       |
| Noweda                     | Dexpanthenol concentrate 50% | 12340302      | 1       |
| Noweda                     | Dexpanthenol concentrate 50% | 12340303      | 2       |
| Noweda                     | Dexpanthenol concentrate 50% | 15196202      | 1       |
| Noweda                     | Dexpanthenol concentrate 50% | 15408002      | 1       |
| Noweda                     | Dexpanthenol concentrate 50% | 18248001      | 1       |
| Noweda                     | Dexpanthenol concentrate 50% | 19106204      | 1       |
| Noweda                     | Dexpanthenol concentrate 50% | 19158302      | 1       |

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| Supplier                | Substance                    | Batch       | Spectra |
|-------------------------|------------------------------|-------------|---------|
| Noweda_01.08.2019       | Dexpanthenol concentrate 50% | 19106202    | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 18131402    | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 18247901    | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 19106201    | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 19230701    | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 20000752001 | 3       |
| Phoenix                 | Dexpanthenol concentrate 50% | 2000153002  | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 20003069002 | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 20004284001 | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 20004286002 | 1       |
| Phoenix                 | Dexpanthenol concentrate 50% | 21001588002 | 1       |
| Phönix                  | Dexpanthenol concentrate 50% | 16248301    | 1       |
| Phönix                  | Dexpanthenol concentrate 50% | 18050802    | 1       |
| Phönix                  | Dexpanthenol concentrate 50% | 19230701    | 3       |
| Raben-Apotheke Mildenau | Dexpanthenol concentrate 50% | 14116302    | 1       |
| Rondell Apotheke        | Dexpanthenol concentrate 50% | 15331404    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% |             | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 12340302    | 1       |
| sanacorp                | Dexpanthenol concentrate 50% | 14116301    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 14116302    | 1       |
| sanacorp                | Dexpanthenol concentrate 50% | 14198103    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 16136505    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 17326101    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 18050802    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 1805083     | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 18131301    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 19106201    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 19106202    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 19106204    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 19140303    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 19230601    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 19230702    | 1       |
| Sanacorp                | Dexpanthenol concentrate 50% | 21001588001 | 2       |
| Sanacorp                | Dexpanthenol concentrate 50% | AKD29       | 1       |
| Sanakop                 | Dexpanthenol concentrate 50% | 18050802    | 1       |
| Sonnenberg-Apotheke     | Dexpanthenol concentrate 50% | 13305004    | 1       |
| Taoasis                 | Dexpanthenol concentrate 50% | 18050804    | 1       |
| VDL                     | Dexpanthenol concentrate 50% | 14020804    | 1       |

- 286 732 spectra from 1294 *Apo-Ident* customers from a total of 51 713 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Dexpanthenol concentrate 50%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Dexpanthenol concentrate 50%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 360           | 0              | 66 799        |
| <b>Type B</b> | 0              | 640           | 0              | 106 723       |
| <b>Type C</b> | 0              | 1956          | 21             | 286 732       |

The substance/substance group *Dexpanthenol concentrate 50%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.3333 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.0625 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.9378 % (> 98.7860 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Dexpanthenol concentrate 50%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b> | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|------------------|-------------------------------|---------------------------------------|
| Dexpanthenol     | 21.64                         | –                                     |
| Propylene glycol | 33.70                         | –                                     |
| 1,3-butanediol   | 93.29                         | –                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Dexpanthenol concentrate 50%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 30664            | 34533                      | 15.11                               | 50.86                                  |
| 31835            | 32579                      | 2.77                                | 49.14                                  |
| 31879            | 31879                      | 0.00                                | 40.80                                  |
| 32579            | 32579                      | 0.00                                | 47.81                                  |
| 33974            | 33974                      | 0.00                                | 44.81                                  |
| 33975            | 33975                      | 0.00                                | 46.54                                  |
| 34130            | 31879                      | 2.31                                | 42.21                                  |
| 34533            | 34533                      | 0.00                                | 44.15                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Dextrorotary lactic acid 20%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30740-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Dextrorotary lactic acid 20%; Acidum L (+)-lacticum 20%

### Special notes

When selecting the *Dextrorotary lactic acid 20%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group    | Type A | Type B | Type C |
|------------------------------|--------|--------|--------|
| Dextrorotary lactic acid 20% | 5      | 3      | 14     |

## Second-stage model

For differentiation of the substance/substance group *Dextrorotary lactic acid 20%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Dextrorotary lactic acid 20%*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Dextrorotary lac... | 12105501 | 30740     | 40      | 1405101     |
| Caelo    | Dextrorotary lac... | 15113303 | 31720     | 60      | 20150622    |
| Caelo    | Dextrorotary lac... | 161639   | 32341     | 40      | 20160805*   |
| Caelo    | Dextrorotary lac... | 162572   | 33318     | 40      | 20170216*   |
| Caelo    | Dextrorotary lac... | 191837   | 34731     | 40      | 20191014*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Dextrorotary lactic acid 20%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Dextrorotary lactic acid 20%*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                    | Batch    | Sample ID | Spectra |
|----------|------------------------------|----------|-----------|---------|
| Caelo    | Dextrorotary lactic acid 20% | 172086   | 33711     | 40      |
| Caelo    | Dextrorotary lactic acid 20% | 181763   | 34343     | 40      |
| Caelo    | Dextrorotary lactic acid 20% | 20000754 | 35016     | 40      |
| Caelo    | Dextrorotary lactic acid 20% | 172086   | 34083     | 40      |

- 107 203 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 89 spectra from 13 *Apo-Ident* customers from 17 batches from the substance/substance group *Dextrorotary lactic acid 20%*.
- Among them are spectra of independent samples from 14 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance                    | Batch       | Spectra |
|----------------------|------------------------------|-------------|---------|
| Caelo                | Dextrorotary lactic acid 20% | 15113303    | 3       |
| Caelo                | Dextrorotary lactic acid 20% | 15334302    | 1       |
| Caelo                | Dextrorotary lactic acid 20% | 162572      | 6       |
| Caelo                | Dextrorotary lactic acid 20% | 16257201    | 2       |
| Caelo                | Dextrorotary lactic acid 20% | 16257206    | 3       |
| Caelo                | Dextrorotary lactic acid 20% | 172086      | 13      |
| Caelo                | Dextrorotary lactic acid 20% | 17208601    | 1       |
| Caelo                | Dextrorotary lactic acid 20% | 17208603    | 6       |
| Caelo                | Dextrorotary lactic acid 20% | 17208605    | 4       |
| Caelo                | Dextrorotary lactic acid 20% | 181763      | 31      |
| Caelo                | Dextrorotary lactic acid 20% | 18176303    | 4       |
| Caelo                | Dextrorotary lactic acid 20% | 18176304    | 1       |
| Caelo                | Dextrorotary lactic acid 20% | 18176308    | 1       |
| Caelo                | Dextrorotary lactic acid 20% | 191837      | 10      |
| Caelo                | Dextrorotary lactic acid 20% | 19183703    | 1       |
| Caelo                | Dextrorotary lactic acid 20% | 20000754001 | 1       |
| Caesar & Loretz GmbH | Dextrorotary lactic acid 20% | 18176302    | 1       |

- 288 620 spectra from 1294 *Apo-Ident* customers from a total of 51 871 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Dextrorotary lactic acid 20%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Dextrorotary lactic acid 20%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 220           | 0              | 66 939        |
| Type B | 0              | 160           | 0              | 107 203       |
| Type C | 0              | 86            | 3              | 288 620       |

The substance/substance group *Dextrorotary lactic acid 20%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| Type C | 100.0000 % (> 99.6872 %) | 96.6292 % (> 93.2584 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Dextrorotary lactic acid 20%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Aluminium acetotartrate solution          | 17.34                  | —                              |
| Chlorhexidine digluconate solution        | 22.71                  | —                              |
| Hydrophilic base emulsion (NRF p.25)      | 23.19                  | —                              |
| Water                                     | 33.93                  | —                              |
| Non-ionic hydrous liniment SR/DAC (NRF... | 34.58                  | —                              |
| Gel basis Audor <sup>®</sup>              | 35.73                  | —                              |
| Chest elixir                              | 36.26                  | —                              |
| Polyhexanide solution 20%                 | 36.93                  | —                              |
| Hydrated liniment SR/DAC (NRF p.40)       | 41.68                  | —                              |
| Oral suspension base                      | 42.07                  | —                              |
| Acetic acid 30%                           | 44.19                  | —                              |
| Hydrophilic cream, non-ionic SR (NRF p... | 44.52                  | —                              |
| Glycolic acid 70%                         | 45.90                  | —                              |
| Hydrophilic cream, non-ionic without p... | 48.53                  | —                              |
| Anionic hydrophilic cream SR (NRF p.27)   | 52.96                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Dextrorotary lactic acid 20%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30740     | 30740               | 0.00                         | 19.39                           |
| 31720     | 30740               | 3.63                         | 17.34                           |
| 32341     | 32341               | 0.00                         | 18.09                           |
| 33318     | 33318               | 0.00                         | 20.53                           |
| 34731     | 34731               | 0.00                         | 18.57                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Dimethyl sulfoxide**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31498-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Dimethyl sulfoxide; Dimethylis sulfoxidum

### Special notes

When selecting the *Dimethyl sulfoxide* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Dimethyl sulfoxide        | 9      | 25     | 260    |

## Second-stage model

For differentiation of the substance/substance group *Dimethyl sulfoxide* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Dimethyl sulfoxide*:

| Supplier | Substance          | Batch           | Sample ID | Spectra | Certificate        |
|----------|--------------------|-----------------|-----------|---------|--------------------|
| Caelo    | Dimethyl sulfoxide | 181976          | 34221     | 40      | 20180815*          |
| Caelo    | Dimethyl sulfoxide | 20003727003     | 35285     | 40      | 20201118           |
| Euro OTC | Dimethyl sulfoxide | 131000802       | 31498     | 60      | AR-15-FG-002774-01 |
| Euro OTC | Dimethyl sulfoxide | 1508018         | 31734     | 60      | 0000010817         |
| Euro OTC | Dimethyl sulfoxide | 1511013         | 31803     | 60      | 20151124*          |
| Euro OTC | Dimethyl sulfoxide | 1511028         | 31813     | 60      | 20151202*          |
| Euro OTC | Dimethyl sulfoxide | 1601048         | 31848     | 60      | 20160129*          |
| Euro OTC | Dimethyl sulfoxide | 1604010         | 32280     | 40      | 20160513*          |
| Fagron   | Dimethyl sulfoxide | 15A16-C01-16194 | 31732     | 60      | 20150130           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 480 spectra of 9 reference samples from the substance/substance group *Dimethyl sulfoxide*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 9 different batches.
- 66 679 spectra from a total of 1370 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 1030 spectra of 25 reference samples from the substance/substance group *Dimethyl sulfoxide*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 25 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance          | Batch    | Sample ID | Spectra |
|----------|--------------------|----------|-----------|---------|
| Caelo    | Dimethyl sulfoxide | 21001308 | 35551     | 60      |
| Euro OTC | Dimethyl sulfoxide | 1606007  | 32460     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1608009  | 32707     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1608029  | 32708     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1609006  | 32713     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1610015  | 32835     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1701006  | 33233     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1705025  | 33451     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1705005  | 33452     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1709010  | 33666     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1710001  | 33667     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1801008  | 33925     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1711020  | 33933     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1803015  | 34097     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1805002  | 34181     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1806021  | 34193     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1808012  | 34216     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1809024  | 34301     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1809025  | 34305     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1902028  | 34427     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1903021  | 34494     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1906016  | 34657     | 40      |
| Euro OTC | Dimethyl sulfoxide | 1908024  | 34698     | 40      |
| Euro OTC | Dimethyl sulfoxide | 2007016  | 35059     | 40      |
| Euro OTC | Dimethyl sulfoxide | 2108002  | 35901     | 50      |

- 106 333 spectra from a total of 2476 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 2451 spectra from 783 *Apo-Ident* customers from 266 batches from the substance/substance group *Dimethyl sulfoxide*.
- Among them are spectra of independent samples from 255 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                                                 | Substance          | Batch      | Spectra |
|----------------------------------------------------------|--------------------|------------|---------|
| AHC<br>AHD,17.10.13<br>AHD<br>AHD<br>Alliance Healthcare | Dimethyl sulfoxide | 1306010-02 | 1       |
|                                                          | Dimethyl sulfoxide | 1411039-02 | 1       |
|                                                          | Dimethyl sulfoxide | 1903021-02 | 1       |
|                                                          | Dimethyl sulfoxide | 1906016-01 | 1       |
|                                                          | Dimethyl sulfoxide | 1306010-02 | 1       |
|                                                          | Dimethyl sulfoxide | 151102801  | 1       |
|                                                          | Dimethyl sulfoxide | 1906016-02 | 1       |
|                                                          | Dimethyl sulfoxide | 1210059-01 | 1       |
|                                                          | Dimethyl sulfoxide | 1210059-01 | 1       |

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| <b>Supplier</b>     | <b>Substance</b>   | <b>Batch</b>  | <b>Spectra</b> |
|---------------------|--------------------|---------------|----------------|
| Alliance Healthcare | Dimethyl sulfoxide | 1604010-01    | 1              |
| Alliance Healthcare | Dimethyl sulfoxide | SYN190114     | 1              |
| Alliance            | Dimethyl sulfoxide | 1601048-02    | 1              |
| Alliance            | Dimethyl sulfoxide | 1606007-01    | 1              |
| Alliance            | Dimethyl sulfoxide | 1705025-01    | 1              |
| Alliance            | Dimethyl sulfoxide | SYN190325     | 1              |
| Allianz Healthcare  | Dimethyl sulfoxide | 1808012-01    | 1              |
| Alte Apotheke       | Dimethyl sulfoxide | 1606007-01    | 1              |
| Anzag               | Dimethyl sulfoxide | 1606007-01    | 2              |
| apo-ident           | Dimethyl sulfoxide | 1610015-01    | 1              |
| apo-ident/ AHD      | Dimethyl sulfoxide | 1808012-01    | 1              |
| apoident/AHD        | Dimethyl sulfoxide | 1906016-01    | 1              |
| Apo-ident/Alliance  | Dimethyl sulfoxide | 1906016-01    | 6              |
| apo-ident/Noweda    | Dimethyl sulfoxide | 1903021-01    | 1              |
| Apoident/Noweda     | Dimethyl sulfoxide | 2007016-02    | 1              |
| apo-ident           | Dimethyl sulfoxide | 1609006-01    | 1              |
| apo-ident           | Dimethyl sulfoxide | 1705025-01    | 1              |
| apo-ident           | Dimethyl sulfoxide | 1805002-02    | 2              |
| apoident            | Dimethyl sulfoxide | 1806021-01    | 1              |
| apo-ident           | Dimethyl sulfoxide | 1806021-01    | 1              |
| apotec              | Dimethyl sulfoxide | 1805002-01    | 1              |
| Audor Pharma        | Dimethyl sulfoxide | 1111059-01D   | 1              |
| Audor Pharma        | Dimethyl sulfoxide | 1306010-01D   | 1              |
| Audor Pharma        | Dimethyl sulfoxide | AP1210059-01D | 1              |
| Audor Pharma        | Dimethyl sulfoxide | AP1303010-01D | 1              |
| Audor Pharma        | Dimethyl sulfoxide | AP1306010-01D | 3              |
| Bombastus           | Dimethyl sulfoxide | 1601048-02    | 1              |
| Bombastus           | Dimethyl sulfoxide | 1606007-01    | 2              |
| Bombastus           | Dimethyl sulfoxide | 1705025-01    | 1              |
| Bombastus           | Dimethyl sulfoxide | 1710001-01    | 1              |
| Bombastus           | Dimethyl sulfoxide | 1805002       | 1              |
| Caelo               | Dimethyl sulfoxide | 106007-01     | 1              |
| Caelo               | Dimethyl sulfoxide | 1206010-01    | 1              |
| Caelo               | Dimethyl sulfoxide | 1210059-01    | 1              |
| Caelo               | Dimethyl sulfoxide | 129908003     | 1              |
| Caelo               | Dimethyl sulfoxide | 1306010-01    | 3              |
| Caelo               | Dimethyl sulfoxide | 130601002     | 1              |
| Caelo               | Dimethyl sulfoxide | 1306010-02    | 1              |
| Caelo               | Dimethyl sulfoxide | 131000801     | 1              |
| Caelo               | Dimethyl sulfoxide | 1310008-02    | 1              |
| Caelo               | Dimethyl sulfoxide | 140403101     | 1              |
| Caelo               | Dimethyl sulfoxide | 1404031-01    | 3              |
| Caelo               | Dimethyl sulfoxide | 1404031-02    | 1              |
| Caelo               | Dimethyl sulfoxide | 1411039-02    | 2              |
| Caelo               | Dimethyl sulfoxide | 1505021-01    | 1              |
| Caelo               | Dimethyl sulfoxide | 1508018-01    | 3              |
| Caelo               | Dimethyl sulfoxide | 1508018-02    | 5              |
| Caelo               | Dimethyl sulfoxide | 1511028-01    | 1              |
| Caelo               | Dimethyl sulfoxide | 160015-02     | 1              |
| Caelo               | Dimethyl sulfoxide | 1601048-01    | 1              |
| Caelo               | Dimethyl sulfoxide | 1601048-02    | 1              |
| Caelo               | Dimethyl sulfoxide | 1606007-01    | 3              |
| Caelo               | Dimethyl sulfoxide | 1609006-01    | 2              |
| Caelo               | Dimethyl sulfoxide | 1610015_02    | 1              |
| Caelo               | Dimethyl sulfoxide | 1610015-01    | 2              |
| Caelo               | Dimethyl sulfoxide | 161001502     | 2              |
| Caelo               | Dimethyl sulfoxide | 1610015-02    | 7              |
| Caelo               | Dimethyl sulfoxide | 1705025       | 2              |
| Caelo               | Dimethyl sulfoxide | 1705025-01    | 4              |
| Caelo               | Dimethyl sulfoxide | 17075702      | 1              |

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| Supplier                 | Substance          | Batch        | Spectra |
|--------------------------|--------------------|--------------|---------|
| Caelo                    | Dimethyl sulfoxide | 170901001    | 1       |
| Caelo                    | Dimethyl sulfoxide | 171000101    | 1       |
| Caelo                    | Dimethyl sulfoxide | 1710001-01   | 2       |
| Caelo                    | Dimethyl sulfoxide | 1711020-01   | 4       |
| Caelo                    | Dimethyl sulfoxide | 17111806     | 1       |
| Caelo                    | Dimethyl sulfoxide | 1805002-01   | 3       |
| Caelo                    | Dimethyl sulfoxide | 180500202    | 1       |
| Caelo                    | Dimethyl sulfoxide | 1806021-01   | 4       |
| Caelo                    | Dimethyl sulfoxide | 1808012-01   | 5       |
| Caelo                    | Dimethyl sulfoxide | 1809024-01   | 3       |
| Caelo                    | Dimethyl sulfoxide | 18197601     | 7       |
| Caelo                    | Dimethyl sulfoxide | 18197602     | 6       |
| Caelo                    | Dimethyl sulfoxide | 18197609     | 1       |
| Caelo                    | Dimethyl sulfoxide | 18197610     | 2       |
| Caelo                    | Dimethyl sulfoxide | 18197615     | 3       |
| Caelo                    | Dimethyl sulfoxide | 18197616     | 2       |
| Caelo                    | Dimethyl sulfoxide | 18197617     | 3       |
| Caelo                    | Dimethyl sulfoxide | 18197620     | 3       |
| Caelo                    | Dimethyl sulfoxide | 18197621     | 8       |
| Caelo                    | Dimethyl sulfoxide | 1903021-01   | 2       |
| Caelo                    | Dimethyl sulfoxide | 1903021-02   | 1       |
| Caelo                    | Dimethyl sulfoxide | 190616-01    | 1       |
| Caelo                    | Dimethyl sulfoxide | 192208002    | 10      |
| Caelo                    | Dimethyl sulfoxide | 192208003    | 11      |
| Caelo                    | Dimethyl sulfoxide | 192208004    | 1       |
| Caelo                    | Dimethyl sulfoxide | 192208005    | 9       |
| Caelo                    | Dimethyl sulfoxide | 192208006    | 2       |
| Caelo                    | Dimethyl sulfoxide | 19220801     | 2       |
| Caelo                    | Dimethyl sulfoxide | 19220802     | 4       |
| Caelo                    | Dimethyl sulfoxide | 19220803     | 2       |
| Caelo                    | Dimethyl sulfoxide | 19220804     | 2       |
| Caelo                    | Dimethyl sulfoxide | 200003727003 | 1       |
| Caelo                    | Dimethyl sulfoxide | 20001543010  | 1       |
| Caelo                    | Dimethyl sulfoxide | 20002329001  | 1       |
| Caelo                    | Dimethyl sulfoxide | 20002329003  | 8       |
| Caelo                    | Dimethyl sulfoxide | 20003727003  | 5       |
| Caelo                    | Dimethyl sulfoxide | 20003727004  | 3       |
| Caelo                    | Dimethyl sulfoxide | 200701601    | 1       |
| Caelo                    | Dimethyl sulfoxide | 21001308001  | 3       |
| Caelo                    | Dimethyl sulfoxide | 21001308002  | 2       |
| Caelo                    | Dimethyl sulfoxide | 2814         | 1       |
| Caelo                    | Dimethyl sulfoxide | 29081202     | 1       |
| Caelo                    | Dimethyl sulfoxide | 3256         | 1       |
| Caelo                    | Dimethyl sulfoxide | 3342         | 1       |
| Caelo                    | Dimethyl sulfoxide | 3343         | 1       |
| Caelo                    | Dimethyl sulfoxide | 7111807      | 1       |
| Caelo                    | Dimethyl sulfoxide | SYN140623    | 1       |
| Caelo                    | Dimethyl sulfoxide | SYN160215    | 1       |
| Caelo                    | Dimethyl sulfoxide | SYN170605    | 1       |
| Caelo                    | Dimethyl sulfoxide | SYN180319    | 1       |
| Caerol / Gehe            | Dimethyl sulfoxide | 1508018-01   | 1       |
| Caeröo                   | Dimethyl sulfoxide | 1310008-01   | 1       |
| Caesar & Loretz GmbH / G | Dimethyl sulfoxide | 18197621     | 1       |
| Caesar & Loretz GmbH/AHD | Dimethyl sulfoxide | 192208003    | 1       |
| Caesar & Loretz GmbH/AHD | Dimethyl sulfoxide | 19220802     | 2       |
| Caesar & Loretz GmbH     | Dimethyl sulfoxide | 1610015-02   | 1       |
| Caesar & Loretz GmbH     | Dimethyl sulfoxide | 18197602     | 2       |
| Caesar & Loretz GmbH     | Dimethyl sulfoxide | 18197610     | 1       |
| Caesar & Loretz GmbH     | Dimethyl sulfoxide | 18197612     | 2       |
| Caesar & Loretz GmbH     | Dimethyl sulfoxide | 18197613     | 1       |

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| Supplier                   | Substance          | Batch       | Spectra |
|----------------------------|--------------------|-------------|---------|
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 18197616    | 2       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 18197621    | 1       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 192208003   | 10      |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 192208005   | 14      |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 19220802    | 4       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 19220803    | 1       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 19220804    | 1       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 19220806    | 1       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 20002329002 | 1       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 20002329003 | 2       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 20003727003 | 1       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 20003727004 | 1       |
| Caesar & Loretz GmbH       | Dimethyl sulfoxide | 21001308001 | 3       |
| Caesar & Loretz Hilden/... | Dimethyl sulfoxide | 18197616    | 1       |
| Caesar & Loretz Hilden/... | Dimethyl sulfoxide | 192208003   | 1       |
| Caesar & Loretz Hilden/... | Dimethyl sulfoxide | 192208005   | 1       |
| Caesar & Loretz Hilden     | Dimethyl sulfoxide | 18197620    | 1       |
| Caesar & Loretz Hilden     | Dimethyl sulfoxide | 192208006   | 1       |
| Caesar & Loretz Hilden     | Dimethyl sulfoxide | 19220802    | 1       |
| Caesar & Loretz/AHD        | Dimethyl sulfoxide | 20002329002 | 2       |
| Caesar & Loretz/Noweda     | Dimethyl sulfoxide | 192208002   | 1       |
| Caesar & Loretz/Noweda     | Dimethyl sulfoxide | 20003727004 | 1       |
| CeloAnzag                  | Dimethyl sulfoxide | 18197602    | 1       |
| Chemical corp. / Noweda    | Dimethyl sulfoxide | 1306010-02  | 1       |
| Chemical Corp./Sanacorp    | Dimethyl sulfoxide | 1310008-02  | 1       |
| Chemical Corp.             | Dimethyl sulfoxide | 1404031-02  | 1       |
| Ebert 09.08.16 KKH         | Dimethyl sulfoxide | 1604010-01  | 1       |
| Ebert 12.08.16             | Dimethyl sulfoxide | 1604040-01  | 1       |
| Ebert KKH29.09.16          | Dimethyl sulfoxide | 16060074-01 | 1       |
| Eu Rho / Noweda            | Dimethyl sulfoxide | 2007016-01  | 2       |
| EuRho / Alliance Health... | Dimethyl sulfoxide | SYN160215   | 1       |
| EuRho AHC                  | Dimethyl sulfoxide | 1610015-02  | 1       |
| Eurho/ Phoenix             | Dimethyl sulfoxide | 2007016-01  | 2       |
| EuRho/ Phönix              | Dimethyl sulfoxide | 1903021-01  | 1       |
| EuRho/AHD                  | Dimethyl sulfoxide | 2007016-01  | 1       |
| EuRho/Fiebig               | Dimethyl sulfoxide | 1903021     | 1       |
| EuRho/Fiebig               | Dimethyl sulfoxide | SYN150525   | 1       |
| EuRho/Gehe                 | Dimethyl sulfoxide | 1805002-02  | 1       |
| EuRho/Now                  | Dimethyl sulfoxide | 1710001-01  | 2       |
| EuRho/Now                  | Dimethyl sulfoxide | 1903021-01  | 1       |
| EuRho/Noweda               | Dimethyl sulfoxide | 1601048-01  | 2       |
| EuRho/Noweda               | Dimethyl sulfoxide | 1610015-02  | 1       |
| EuRho/Noweda               | Dimethyl sulfoxide | 1903021-01  | 1       |
| EuRho/Phoenix              | Dimethyl sulfoxide | 1705025-01  | 4       |
| EuRho/Phoenix              | Dimethyl sulfoxide | 1711020-01  | 2       |
| Eurho/Phoenix              | Dimethyl sulfoxide | SYN180709   | 1       |
| EuRho/Phönix               | Dimethyl sulfoxide | 1310008-02  | 1       |
| EuRho/Sanacorp             | Dimethyl sulfoxide | 1610015-02  | 1       |
| EuRho/Sanacorp             | Dimethyl sulfoxide | 1805002-01  | 2       |
| Eurho/Sanacorp             | Dimethyl sulfoxide | 1805002-02  | 1       |
| Eurho/Sanacorp             | Dimethyl sulfoxide | 1808012-01  | 1       |
| Eurho/Sanacorp             | Dimethyl sulfoxide | 1906016-01  | 3       |
| EuRho/sanacorp             | Dimethyl sulfoxide | 1906016-01  | 1       |
| EuRho                      | Dimethyl sulfoxide | 1111059-02  | 1       |
| EuRho                      | Dimethyl sulfoxide | 1210059-01  | 1       |
| EuRho                      | Dimethyl sulfoxide | 1303010-01  | 1       |
| EuRho                      | Dimethyl sulfoxide | 1411039-02  | 1       |
| EuRho                      | Dimethyl sulfoxide | 1606007-01  | 2       |
| EuRho                      | Dimethyl sulfoxide | 1610015-02  | 1       |
| EuRho                      | Dimethyl sulfoxide | 1705025     | 1       |

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| Supplier       | Substance          | Batch          | Spectra |
|----------------|--------------------|----------------|---------|
| EuRho          | Dimethyl sulfoxide | 1709010-01     | 1       |
| eurho          | Dimethyl sulfoxide | 170901010-01   | 1       |
| EuRho          | Dimethyl sulfoxide | 1805002-02     | 1       |
| EuRho          | Dimethyl sulfoxide | 1809024-01     | 2       |
| EuRHo          | Dimethyl sulfoxide | 1809024-01     | 1       |
| EuRho          | Dimethyl sulfoxide | 1903021-01     | 1       |
| EuRho          | Dimethyl sulfoxide | 1906016-01     | 2       |
| EuRho          | Dimethyl sulfoxide | 1906016-02     | 1       |
| EuRho          | Dimethyl sulfoxide | 1908024-01     | 4       |
| EuRho          | Dimethyl sulfoxide | 2007016-01     | 2       |
| EuRho          | Dimethyl sulfoxide | SYN160216      | 1       |
| Euro OT/Phönix | Dimethyl sulfoxide | SYN1608022     | 1       |
| Euro OTC       | Dimethyl sulfoxide |                | 4       |
| Euro OTC       | Dimethyl sulfoxide | 1 (1806021-01) | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1004041-01     | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1017Q-01336    | 1       |
| Euro OTC       | Dimethyl sulfoxide | 110600601      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1106006-01     | 4       |
| Euro OTC       | Dimethyl sulfoxide | 1207008-01     | 2       |
| Euro OTC       | Dimethyl sulfoxide | 1207008-02     | 1       |
| Euro OTC       | Dimethyl sulfoxide | 121005901      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1210059-01     | 18      |
| Euro OTC       | Dimethyl sulfoxide | 12101202       | 1       |
| Euro OTC       | Dimethyl sulfoxide | 130008-01      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 13003010-01    | 1       |
| Euro OTC       | Dimethyl sulfoxide | 13011403       | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1303010-01     | 15      |
| Euro OTC       | Dimethyl sulfoxide | 130601001      | 2       |
| Euro OTC       | Dimethyl sulfoxide | 1306010-01     | 26      |
| Euro OTC       | Dimethyl sulfoxide | 1306010-02     | 21      |
| Euro OTC       | Dimethyl sulfoxide | 13063010-01    | 1       |
| Euro OTC       | Dimethyl sulfoxide | 131000801      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1310008-01     | 12      |
| Euro OTC       | Dimethyl sulfoxide | 1310008-02     | 8       |
| Euro OTC       | Dimethyl sulfoxide | 1404031        | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1404031-01     | 10      |
| Euro OTC       | Dimethyl sulfoxide | 140403102      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1404031-02     | 13      |
| Euro OTC       | Dimethyl sulfoxide | 14051404       | 1       |
| Euro OTC       | Dimethyl sulfoxide | 141039-02      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1411039_01     | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1411039-01     | 21      |
| Euro OTC       | Dimethyl sulfoxide | 141103902      | 2       |
| Euro OTC       | Dimethyl sulfoxide | 1411039-02     | 11      |
| Euro OTC       | Dimethyl sulfoxide | 1411039-2      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 14111039-01    | 1       |
| Euro OTC       | Dimethyl sulfoxide | 14H28-M01      | 2       |
| Euro OTC       | Dimethyl sulfoxide | 15011503       | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1505021        | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1505021-01     | 16      |
| Euro OTC       | Dimethyl sulfoxide | 1508012-02     | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1508013-01     | 1       |
| Euro OTC       | Dimethyl sulfoxide | 150801801      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1508018-01     | 32      |
| Euro OTC       | Dimethyl sulfoxide | 150801802      | 1       |
| Euro OTC       | Dimethyl sulfoxide | 1508018-02     | 28      |
| Euro OTC       | Dimethyl sulfoxide | 151102801      | 2       |
| Euro OTC       | Dimethyl sulfoxide | 1511028-01     | 6       |
| Euro OTC       | Dimethyl sulfoxide | 15111028-01    | 1       |
| Euro OTC       | Dimethyl sulfoxide | 160048-02      | 1       |

continued on the next page

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| <b>Supplier</b> | <b>Substance</b>   | <b>Batch</b>        | <b>Spectra</b> |
|-----------------|--------------------|---------------------|----------------|
| Euro OTC        | Dimethyl sulfoxide | 1601048             | 1              |
| Euro OTC        | Dimethyl sulfoxide | 160104801           | 2              |
| Euro OTC        | Dimethyl sulfoxide | 1601048-01          | 15             |
| Euro OTC        | Dimethyl sulfoxide | 1601048-02          | 11             |
| Euro OTC        | Dimethyl sulfoxide | 160401001           | 2              |
| Euro OTC        | Dimethyl sulfoxide | 1604010-01          | 29             |
| Euro OTC        | Dimethyl sulfoxide | 1606007             | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1606007-01          | 46             |
| Euro OTC        | Dimethyl sulfoxide | 1606016-01          | 1              |
| Euro OTC        | Dimethyl sulfoxide | 160900601           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1609006-01          | 27             |
| Euro OTC        | Dimethyl sulfoxide | 16099006-01         | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1610015-01          | 39             |
| Euro OTC        | Dimethyl sulfoxide | 161001502           | 2              |
| Euro OTC        | Dimethyl sulfoxide | 1610015-02          | 66             |
| Euro OTC        | Dimethyl sulfoxide | 161005-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 16110015-02         | 1              |
| Euro OTC        | Dimethyl sulfoxide | 169006-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 170001-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 17015025-01         | 1              |
| Euro OTC        | Dimethyl sulfoxide | 170502              | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1705025             | 3              |
| Euro OTC        | Dimethyl sulfoxide | 170502501           | 3              |
| Euro OTC        | Dimethyl sulfoxide | 1705025-01          | 62             |
| Euro OTC        | Dimethyl sulfoxide | 170505-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 170522DS/1610015-01 | 1              |
| Euro OTC        | Dimethyl sulfoxide | 170901001           | 3              |
| Euro OTC        | Dimethyl sulfoxide | 1709010-01          | 59             |
| Euro OTC        | Dimethyl sulfoxide | 1709010-010         | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1709090-01          | 1              |
| Euro OTC        | Dimethyl sulfoxide | 171000-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 17100001-01         | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1710001_01          | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1710001-01          | 59             |
| Euro OTC        | Dimethyl sulfoxide | 171001-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1711020             | 1              |
| Euro OTC        | Dimethyl sulfoxide | 171102001           | 3              |
| Euro OTC        | Dimethyl sulfoxide | 1711020-01          | 76             |
| Euro OTC        | Dimethyl sulfoxide | 175025-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 17525-01            | 1              |
| Euro OTC        | Dimethyl sulfoxide | 17F28-B04           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1804621-01          | 1              |
| Euro OTC        | Dimethyl sulfoxide | 180500-02           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1805002             | 1              |
| Euro OTC        | Dimethyl sulfoxide | 180500201           | 3              |
| Euro OTC        | Dimethyl sulfoxide | 1805002-01          | 58             |
| Euro OTC        | Dimethyl sulfoxide | 180500202           | 4              |
| Euro OTC        | Dimethyl sulfoxide | 1805002-02          | 52             |
| Euro OTC        | Dimethyl sulfoxide | 1806012-01          | 1              |
| Euro OTC        | Dimethyl sulfoxide | 180602-01           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 180602101           | 4              |
| Euro OTC        | Dimethyl sulfoxide | 1806021-01          | 62             |
| Euro OTC        | Dimethyl sulfoxide | 180801201           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1808012-01          | 58             |
| Euro OTC        | Dimethyl sulfoxide | 1809024             | 1              |
| Euro OTC        | Dimethyl sulfoxide | 180902401           | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1809024-01          | 63             |
| Euro OTC        | Dimethyl sulfoxide | 1809024-21          | 1              |
| Euro OTC        | Dimethyl sulfoxide | 1813A-01336         | 1              |
| Euro OTC        | Dimethyl sulfoxide | 189024-01           | 1              |

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continued from previous page

| Supplier      | Substance          | Batch                 | Spectra |
|---------------|--------------------|-----------------------|---------|
| Euro OTC      | Dimethyl sulfoxide | 190024-01             | 1       |
| Euro OTC      | Dimethyl sulfoxide | 19011906              | 1       |
| Euro OTC      | Dimethyl sulfoxide | 1903021               | 5       |
| Euro OTC      | Dimethyl sulfoxide | 190302101             | 1       |
| Euro OTC      | Dimethyl sulfoxide | 1903021-01            | 86      |
| Euro OTC      | Dimethyl sulfoxide | 190302102             | 2       |
| Euro OTC      | Dimethyl sulfoxide | 1903021-02            | 101     |
| Euro OTC      | Dimethyl sulfoxide | 1903021-21            | 1       |
| Euro OTC      | Dimethyl sulfoxide | 19030221-02           | 1       |
| Euro OTC      | Dimethyl sulfoxide | 1906016               | 3       |
| Euro OTC      | Dimethyl sulfoxide | 190601601             | 5       |
| Euro OTC      | Dimethyl sulfoxide | 1906016-01            | 134     |
| Euro OTC      | Dimethyl sulfoxide | 1906016-01/P04121922  | 1       |
| Euro OTC      | Dimethyl sulfoxide | 190601602             | 4       |
| Euro OTC      | Dimethyl sulfoxide | 1906016-02            | 111     |
| Euro OTC      | Dimethyl sulfoxide | 1906016-03            | 12      |
| Euro OTC      | Dimethyl sulfoxide | 1906016-1             | 1       |
| Euro OTC      | Dimethyl sulfoxide | 19060616-01           | 1       |
| Euro OTC      | Dimethyl sulfoxide | 190616-02             | 1       |
| Euro OTC      | Dimethyl sulfoxide | 190802401             | 1       |
| Euro OTC      | Dimethyl sulfoxide | 1908024-01            | 39      |
| Euro OTC      | Dimethyl sulfoxide | 1930321-02            | 1       |
| Euro OTC      | Dimethyl sulfoxide | 20070016-02           | 1       |
| Euro OTC      | Dimethyl sulfoxide | 200701601             | 2       |
| Euro OTC      | Dimethyl sulfoxide | 2007016-01            | 116     |
| Euro OTC      | Dimethyl sulfoxide | 2007016-02            | 7       |
| Euro OTC      | Dimethyl sulfoxide | 2071301               | 1       |
| Euro OTC      | Dimethyl sulfoxide | 210800201             | 1       |
| Euro OTC      | Dimethyl sulfoxide | 2108002-01            | 5       |
| Euro OTC      | Dimethyl sulfoxide | 2108002-02            | 2       |
| Euro OTC      | Dimethyl sulfoxide | 26011301              | 1       |
| Euro OTC      | Dimethyl sulfoxide | 29091809              | 1       |
| Euro OTC      | Dimethyl sulfoxide | 3457                  | 1       |
| Euro OTC      | Dimethyl sulfoxide | 4817A-01336           | 1       |
| Euro OTC      | Dimethyl sulfoxide | 5111303               | 1       |
| Euro OTC      | Dimethyl sulfoxide | 5121810               | 1       |
| Euro OTC      | Dimethyl sulfoxide | 6021902               | 1       |
| Euro OTC      | Dimethyl sulfoxide | 613A-01336            | 1       |
| Euro OTC      | Dimethyl sulfoxide | 700119                | 3       |
| Euro OTC      | Dimethyl sulfoxide | 7016-012              | 1       |
| Euro OTC      | Dimethyl sulfoxide | 815M-01336            | 1       |
| Euro OTC      | Dimethyl sulfoxide | 8597061               | 1       |
| Euro OTC      | Dimethyl sulfoxide | EuroOTCPharma         | 1       |
| Euro OTC      | Dimethyl sulfoxide | P-04121922/1906016-01 | 1       |
| Euro OTC      | Dimethyl sulfoxide | P14021926/1805002-01  | 1       |
| Euro OTC      | Dimethyl sulfoxide | PHS111205             | 1       |
| Euro OTC      | Dimethyl sulfoxide | SYN140623             | 1       |
| Euro OTC      | Dimethyl sulfoxide | SYN160201             | 1       |
| Euro OTC      | Dimethyl sulfoxide | SYN160215             | 3       |
| Euro OTC      | Dimethyl sulfoxide | SYN170605             | 2       |
| Euro OTC      | Dimethyl sulfoxide | SYN170717             | 3       |
| Euro OTC      | Dimethyl sulfoxide | SYN180319             | 5       |
| Euro OTC      | Dimethyl sulfoxide | SYN190114             | 3       |
| Euro OTC      | Dimethyl sulfoxide | SYN190325             | 2       |
| Euro OTC      | Dimethyl sulfoxide | SYN190715             | 1       |
| Euro OTC      | Dimethyl sulfoxide | SYN191125             | 3       |
| Euro OTC      | Dimethyl sulfoxide | SYN210524             | 1       |
| Euro OTG/ AHD | Dimethyl sulfoxide | 1411039-02            | 1       |
| Euro OTG/ AHD | Dimethyl sulfoxide | 1705025-01            | 3       |
| Euro OTG/ AHD | Dimethyl sulfoxide | 1711020-01            | 1       |

continued on the next page



*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b>   | <b>Batch</b>    | <b>Spectra</b> |
|----------------------------|--------------------|-----------------|----------------|
| Euro RHO/Jenne             | Dimethyl sulfoxide | 1906016-01      | 1              |
| Euro/ Fiebig               | Dimethyl sulfoxide | 1306010-02      | 1              |
| Euro/ Gehe                 | Dimethyl sulfoxide | 1404031-02      | 1              |
| Euro/ Phönix               | Dimethyl sulfoxide | 1711020-01      | 1              |
| euro//Noweda               | Dimethyl sulfoxide | 1705025-01      | 2              |
| Euro/Gehe                  | Dimethyl sulfoxide | 1601048-01      | 1              |
| Euro/Noweda                | Dimethyl sulfoxide | 1610015-01      | 1              |
| Euro/phö                   | Dimethyl sulfoxide | 1906016-02      | 1              |
| Euro/phönix                | Dimethyl sulfoxide | 1411039-01      | 1              |
| Euro/Phönix                | Dimethyl sulfoxide | 1711020-01      | 1              |
| Euro/Phönix                | Dimethyl sulfoxide | 1805002-01      | 1              |
| Euro/Phönix                | Dimethyl sulfoxide | 1903021-02      | 1              |
| EURO/Sana                  | Dimethyl sulfoxide | 1906016-01      | 1              |
| Euro/Sanacorp              | Dimethyl sulfoxide | 1906016-02      | 1              |
| Euro/Sanacorp              | Dimethyl sulfoxide | 2007016-01      | 1              |
| Euro                       | Dimethyl sulfoxide | 140403-01       | 1              |
| euro                       | Dimethyl sulfoxide | 1903021-02      | 1              |
| euro                       | Dimethyl sulfoxide | 1906016-03      | 1              |
| Euroct/Gehe                | Dimethyl sulfoxide | 1508018-02      | 1              |
| Euro-CTC/Phönix            | Dimethyl sulfoxide | 1705025-01      | 1              |
| Euro-CTC/Phönix            | Dimethyl sulfoxide | 1709010-01      | 3              |
| EuroOTV / Noweda           | Dimethyl sulfoxide | 1604010-01      | 1              |
| euopharm/gehe              | Dimethyl sulfoxide | 1610015-01      | 1              |
| EuRro/Anzag                | Dimethyl sulfoxide | 1710001-01      | 1              |
| Fagron                     | Dimethyl sulfoxide |                 | 1              |
| Fagron                     | Dimethyl sulfoxide | 11E03-M04       | 2              |
| Fagron                     | Dimethyl sulfoxide | 11G18-N15       | 1              |
| Fagron                     | Dimethyl sulfoxide | 11K29-N03       | 1              |
| Fagron                     | Dimethyl sulfoxide | 1306010-02      | 1              |
| Fagron                     | Dimethyl sulfoxide | 13071201        | 1              |
| Fagron                     | Dimethyl sulfoxide | 1310008-02      | 1              |
| Fagron                     | Dimethyl sulfoxide | 1404031-02      | 1              |
| Fagron                     | Dimethyl sulfoxide | 14H28-M01       | 2              |
| Fagron                     | Dimethyl sulfoxide | 14H28-M02       | 1              |
| Fagron                     | Dimethyl sulfoxide | 14H28-M03       | 1              |
| Fagron                     | Dimethyl sulfoxide | 15A16-C01-16194 | 2              |
| Fagron                     | Dimethyl sulfoxide | 15A16-C01-16195 | 2              |
| Fagron                     | Dimethyl sulfoxide | 161001502       | 1              |
| Fagron                     | Dimethyl sulfoxide | 1610015-02      | 1              |
| Fagron                     | Dimethyl sulfoxide | 1705025-01      | 2              |
| Fagron                     | Dimethyl sulfoxide | 1711020-01      | 1              |
| Fagron                     | Dimethyl sulfoxide | 20002329003     | 1              |
| Fagron                     | Dimethyl sulfoxide | 27061203        | 1              |
| Fagron                     | Dimethyl sulfoxide | Norpren         | 1              |
| Fiebig                     | Dimethyl sulfoxide | 1809024         | 1              |
| Fiebig                     | Dimethyl sulfoxide | 1906016-01      | 2              |
| FIEBIG                     | Dimethyl sulfoxide | 2007016-02      | 1              |
| Gatt-Koller                | Dimethyl sulfoxide | 1802552         | 4              |
| Gayford Chemical/Fiebig... | Dimethyl sulfoxide | 1906016-01      | 1              |
| Gayford Chemical/Gehe      | Dimethyl sulfoxide | 1805002-01      | 1              |
| Gayford Chemicals          | Dimethyl sulfoxide | 1903021-01      | 1              |
| Gaylord / Fiebig           | Dimethyl sulfoxide | 1505021-01      | 1              |
| Gaylord Ch./Fiebig 15.1... | Dimethyl sulfoxide | 2007016-02      | 1              |
| Gaylord Chem / Gehe        | Dimethyl sulfoxide | 1903021-01      | 2              |
| Gaylord Chem.co            | Dimethyl sulfoxide | 1609006-01      | 1              |
| gaylord chem.USA/Phoenix   | Dimethyl sulfoxide | 1806021-01      | 1              |
| Gaylord Chemica Co.        | Dimethyl sulfoxide | 1906016-01      | 1              |
| Gaylord Chemical / Gehe    | Dimethyl sulfoxide | 1805002-02      | 1              |
| Gaylord Chemical / Gehe    | Dimethyl sulfoxide | 190321-02       | 1              |
| Gaylord Chemical / Gehe    | Dimethyl sulfoxide | 1906016-01      | 1              |

*continued on the next page*



continued from previous page

| Supplier                   | Substance          | Batch        | Spectra |
|----------------------------|--------------------|--------------|---------|
| Gaylord Chemical /107      | Dimethyl sulfoxide | 1809024-01   | 1       |
| Gaylord Chemical /Phönix   | Dimethyl sulfoxide | 1908024-01   | 1       |
| Gaylord Chemical Co./ P... | Dimethyl sulfoxide | 1906016-02   | 1       |
| Gaylord Chemical CO.       | Dimethyl sulfoxide | 2007016-01   | 1       |
| Gaylord Chemical Corp./... | Dimethyl sulfoxide | 1508018-02   | 2       |
| Gaylord Chemical Corp./... | Dimethyl sulfoxide | 1508018-01   | 1       |
| Gaylord Chemical Corpor... | Dimethyl sulfoxide | 1610015-02   | 1       |
| Gaylord Chemical Corpor... | Dimethyl sulfoxide | 1808012-01   | 1       |
| gaylord chemical corpor... | Dimethyl sulfoxide | 1711020-01   | 2       |
| Gaylord Chemical Corpor... | Dimethyl sulfoxide | SYN180319    | 1       |
| Gaylord Chemical Corpor... | Dimethyl sulfoxide | 1805002-02   | 1       |
| Gaylord Chemical USA / ... | Dimethyl sulfoxide | 1906016-01   | 1       |
| Gaylord Chemical, Allia... | Dimethyl sulfoxide | 1906016-01   | 1       |
| GAYLORD CHEMICAL           | Dimethyl sulfoxide | 1903021-01   | 1       |
| Gaylord chemical           | Dimethyl sulfoxide | 1906016-01   | 1       |
| Gaylord Chemical           | Dimethyl sulfoxide | 1906016-01   | 1       |
| Gaylord CHEMICAL           | Dimethyl sulfoxide | 1906016-01   | 1       |
| GAYLORD CHEMICAL           | Dimethyl sulfoxide | 1906016-01   | 1       |
| Gaylord Chemical7 Anzag    | Dimethyl sulfoxide | 1906016-02   | 1       |
| Gaylord ChemicalCorp./ ... | Dimethyl sulfoxide | 1404031-02   | 1       |
| Gaylord/Phoenix            | Dimethyl sulfoxide | 1906016-01   | 1       |
| Gaylord/Phoenix            | Dimethyl sulfoxide | SYN190325    | 1       |
| Gaylord/Sanacorp 28.08.14  | Dimethyl sulfoxide | 1404031-01   | 1       |
| Gaylord/Sanacorp           | Dimethyl sulfoxide | 1306010-01   | 1       |
| gaylord                    | Dimethyl sulfoxide | 1210059-01   | 1       |
| Gaylord                    | Dimethyl sulfoxide | 1709010-01   | 1       |
| gehe 07.01.14              | Dimethyl sulfoxide | 1306010-02   | 2       |
| Gehe/EuRo                  | Dimethyl sulfoxide | 1609006-01   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1111059-01   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1111059-02   | 1       |
| Gehe                       | Dimethyl sulfoxide | 131000802    | 1       |
| Gehe                       | Dimethyl sulfoxide | 1411039-02   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1508018-02   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1604010-01   | 1       |
| Gehe                       | Dimethyl sulfoxide | 160600701    | 2       |
| Gehe                       | Dimethyl sulfoxide | 1606007-01   | 1       |
| GEHE                       | Dimethyl sulfoxide | 1610015-01   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1610015-1    | 1       |
| Gehe                       | Dimethyl sulfoxide | 1710000101   | 1       |
| GEHE                       | Dimethyl sulfoxide | 1805002-01   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1805002-02   | 2       |
| Gehe                       | Dimethyl sulfoxide | 1808012-01   | 1       |
| Gehe                       | Dimethyl sulfoxide | 180812-01    | 1       |
| Gehe                       | Dimethyl sulfoxide | 1903021-01   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1903021-02   | 2       |
| GEHE                       | Dimethyl sulfoxide | 1903021-02   | 1       |
| Gehe                       | Dimethyl sulfoxide | 1906016-01   | 3       |
| Gehe                       | Dimethyl sulfoxide | UPS140203    | 1       |
| Hänseler                   | Dimethyl sulfoxide |              | 1       |
| Hedinger/Noweda            | Dimethyl sulfoxide | 1006007-01   | 1       |
| Hedinger/Sanacorp          | Dimethyl sulfoxide | 1601048-01   | 2       |
| Hedinger                   | Dimethyl sulfoxide | 1609006-01   | 1       |
| Hedinger                   | Dimethyl sulfoxide | P2018/117    | 1       |
| Kehr                       | Dimethyl sulfoxide | 1711020-01   | 1       |
| Kögl                       | Dimethyl sulfoxide | 158305171917 | 1       |
| Kögl                       | Dimethyl sulfoxide | 1700333      | 2       |
| Kögl                       | Dimethyl sulfoxide | 259008160217 | 1       |
| Kögl                       | Dimethyl sulfoxide | 259008164116 | 1       |
| Kögl                       | Dimethyl sulfoxide | 259008164916 | 1       |
| L10                        | Dimethyl sulfoxide | 1709010-01   | 1       |

continued on the next page

*continued from previous page*

| Supplier                   | Substance          | Batch        | Spectra |
|----------------------------|--------------------|--------------|---------|
| L12                        | Dimethyl sulfoxide | 1610015-01   | 1       |
| L12                        | Dimethyl sulfoxide | 1808012-01   | 1       |
| L30                        | Dimethyl sulfoxide | 1711020-01   | 2       |
| Merck                      | Dimethyl sulfoxide | K47112150544 | 1       |
| noweda/anzag               | Dimethyl sulfoxide | 1809024-01   | 1       |
| Noweda                     | Dimethyl sulfoxide | 1111059-01   | 1       |
| Noweda                     | Dimethyl sulfoxide | 1111059-02   | 1       |
| Noweda                     | Dimethyl sulfoxide | 140403101    | 1       |
| Noweda                     | Dimethyl sulfoxide | 1404031-02   | 1       |
| Noweda                     | Dimethyl sulfoxide | 1609006-01   | 1       |
| Noweda                     | Dimethyl sulfoxide | 1610015-01   | 2       |
| Noweda                     | Dimethyl sulfoxide | 1610015-02   | 1       |
| Noweda                     | Dimethyl sulfoxide | 170001-01    | 1       |
| Noweda                     | Dimethyl sulfoxide | 170502501    | 1       |
| Noweda                     | Dimethyl sulfoxide | 1705025-01   | 1       |
| Noweda                     | Dimethyl sulfoxide | 1709010-01   | 2       |
| Noweda                     | Dimethyl sulfoxide | 1808012-01   | 1       |
| Noweda                     | Dimethyl sulfoxide | 18197616     | 2       |
| Noweda                     | Dimethyl sulfoxide | 1903021-02   | 2       |
| Noweda                     | Dimethyl sulfoxide | 1906016-01   | 2       |
| Noweda                     | Dimethyl sulfoxide | 1906016-02   | 2       |
| Noweda                     | Dimethyl sulfoxide | 192208003    | 1       |
| Noweda                     | Dimethyl sulfoxide | 2007016-01   | 1       |
| Noweda                     | Dimethyl sulfoxide | 7016-01      | 1       |
| Noweda                     | Dimethyl sulfoxide | SYN1608022   | 1       |
| Pala                       | Dimethyl sulfoxide | 1903021-01   | 1       |
| phoenix 06.03.14           | Dimethyl sulfoxide | 1306010-02   | 1       |
| PHOENIX 06.03.2014         | Dimethyl sulfoxide | 1306010-01   | 1       |
| phoenix 06.05.14           | Dimethyl sulfoxide | 1310008-01   | 1       |
| Phoenix 10.06.14           | Dimethyl sulfoxide | 131008-01    | 1       |
| Phoenix 19.05.2017 4,85EUR | Dimethyl sulfoxide | 1610015-01   | 1       |
| Phoenix WE08.04.17 -4,8... | Dimethyl sulfoxide | 1610015-01   | 2       |
| Phoenix/ EuRho             | Dimethyl sulfoxide | 2007016-01   | 1       |
| Phoenix/ EuRho             | Dimethyl sulfoxide | 1705020-01   | 1       |
| Phoenix                    | Dimethyl sulfoxide | 1601048-01   | 1       |
| Phoenix                    | Dimethyl sulfoxide | 1606007-01   | 1       |
| phoenix                    | Dimethyl sulfoxide | 1610015-01   | 1       |
| Phoenix                    | Dimethyl sulfoxide | 1711020-01   | 1       |
| Phoenix                    | Dimethyl sulfoxide | 1805002-01   | 1       |
| Phoenix                    | Dimethyl sulfoxide | 18197612     | 1       |
| Phoenix                    | Dimethyl sulfoxide | 1903021-01   | 2       |
| Phoenix                    | Dimethyl sulfoxide | 192208003    | 2       |
| Phoenix                    | Dimethyl sulfoxide | 3206         | 1       |
| Phoenix                    | Dimethyl sulfoxide | 3415         | 1       |
| Phönix 04.09.2019          | Dimethyl sulfoxide | 1903021-02   | 1       |
| Phönix Gotha               | Dimethyl sulfoxide | 1111059-02   | 1       |
| Phönix Gotha               | Dimethyl sulfoxide | 1404031-02   | 1       |
| Phönix Gotha               | Dimethyl sulfoxide | 1505021-01   | 1       |
| Phönix/apo ident           | Dimethyl sulfoxide | 1808012-01   | 1       |
| Phönix/ EuRho              | Dimethyl sulfoxide | 1207008-01   | 1       |
| Phönix/ Euro               | Dimethyl sulfoxide | 1610015-01   | 1       |
| Phönix/ Euro               | Dimethyl sulfoxide | 1610015-02   | 2       |
| Phönix/ Infectopharm       | Dimethyl sulfoxide | 1808012-01   | 1       |
| Phönix                     | Dimethyl sulfoxide | 1210059-01   | 1       |
| Phönix                     | Dimethyl sulfoxide | 1310008-01   | 1       |
| Phönix                     | Dimethyl sulfoxide | 1511028-01   | 1       |
| phönix                     | Dimethyl sulfoxide | 1606007-01   | 1       |
| Phönix                     | Dimethyl sulfoxide | 1606007-01   | 1       |
| Phönix                     | Dimethyl sulfoxide | 1610015-02   | 1       |
| Phönix                     | Dimethyl sulfoxide | 1705025-01   | 2       |

*continued on the next page*

continued from previous page

| Supplier                   | Substance          | Batch                | Spectra |
|----------------------------|--------------------|----------------------|---------|
| Phönix                     | Dimethyl sulfoxide | 1709010-01           | 1       |
| Phönix                     | Dimethyl sulfoxide | 171102001            | 1       |
| Phönix                     | Dimethyl sulfoxide | 1711020-01           | 1       |
| Phönix                     | Dimethyl sulfoxide | 1806021-01           | 1       |
| Phönix                     | Dimethyl sulfoxide | 2007016-01           | 1       |
| Phönix                     | Dimethyl sulfoxide | 3164                 | 1       |
| Phönix                     | Dimethyl sulfoxide | SYN180709            | 1       |
| PhytoComm                  | Dimethyl sulfoxide | 171102001            | 1       |
| Sanacorp W.E: 23.01.18 ... | Dimethyl sulfoxide | 1710001-01           | 1       |
| Sanacorp/ PZN08597061      | Dimethyl sulfoxide | 1306010-01-339413100 | 1       |
| Sanacorp/Euro              | Dimethyl sulfoxide | 1903021-01           | 1       |
| Sanacorp/Euro              | Dimethyl sulfoxide | 1906016-01           | 2       |
| Sanacorp/Euro              | Dimethyl sulfoxide | 1906016-03           | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 1207008-01           | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 1306010-02           | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 14H28-M01            | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 1508018-01           | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 160600701            | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 161001502            | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 171000101            | 2       |
| Sanacorp                   | Dimethyl sulfoxide | 1711020-01           | 3       |
| Sanacorp                   | Dimethyl sulfoxide | 1808012-01           | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 1809024              | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 1903021-01           | 1       |
| Sanacorp                   | Dimethyl sulfoxide | 1906016-01           | 2       |
| Sanacorp                   | Dimethyl sulfoxide | 1906016-02           | 2       |
| Synopharm                  | Dimethyl sulfoxide | 1705025-01           | 1       |
| vitalundfitmit100/ Sana... | Dimethyl sulfoxide |                      | 1       |

- 286 258 spectra from 1294 *Apo-Ident* customers from a total of 51 625 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Dimethyl sulfoxide* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Dimethyl sulfoxide* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 480           | 0              | 66 679        |
| <b>Type B</b> | 0              | 1030          | 0              | 106 333       |
| <b>Type C</b> | 0              | 2446          | 5              | 286 258       |

The substance/substance group *Dimethyl sulfoxide* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.7500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.4175 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.7960 % (> 99.6736 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Dimethyl sulfoxide* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance | Distance in<br>main model | Distance in<br>second-stage model |
|-----------|---------------------------|-----------------------------------|
| Acetone   | 80.86                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Dimethyl sulfoxide* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31498     | 31498                  | 0.00                            | 128.98                             |
| 31732     | 31848                  | 1.41                            | 132.63                             |
| 31734     | 31734                  | 0.00                            | 132.63                             |
| 31803     | 31803                  | 0.00                            | 133.47                             |
| 31813     | 31813                  | 0.00                            | 133.17                             |
| 31848     | 31848                  | 0.00                            | 132.61                             |
| 32280     | 32280                  | 0.00                            | 136.61                             |
| 34221     | 34221                  | 0.00                            | 158.67                             |
| 35285     | 31848                  | 3.91                            | 127.31                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Dimeticon 100 / 350 / 1000**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30660-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Dimeticon 100 / 350 / 1000; Dimeticone 100; Dimeticone 1000; Dimeticone 350; Dimeticonum 100; Dimeticonum 1000; Dimeticonum 350

### Special notes

When selecting the *Dimeticon 100 / 350 / 1000* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group  | Type A | Type B | Type C |
|----------------------------|--------|--------|--------|
| Dimeticon 100 / 350 / 1000 | 11     | 8      | 115    |

## Second-stage model

For differentiation of the substance/substance group *Dimeticon 100 / 350 / 1000* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Dimeticon 100 / 350 / 1000*:

| Supplier | Substance       | Batch            | Sample ID | Spectra | Certificate        |
|----------|-----------------|------------------|-----------|---------|--------------------|
| Caelo    | Dimeticone 100  | 12140101         | 30660     | 40      | 1403158            |
| Caelo    | Dimeticone 100  | 13049608         | 31333     | 40      | 20130301           |
| Caelo    | Dimeticone 100  | 172164           | 33918     | 40      | 20170809*          |
| Caelo    | Dimeticone 1000 | 161307           | 32169     | 60      | 20160427*          |
| Caelo    | Dimeticone 1000 | 15349907         | 32587     | 40      | 20151106           |
| Fagron   | Dimeticone 1000 | 14C20-B04-306781 | 32485     | 40      | 20140331           |
| Caelo    | Dimeticone 350  | 13236306         | 31334     | 40      | AR-15-FG-009277-01 |
| Euro OTC | Dimeticone 350  | 1702002          | 33234     | 40      | 20170302*          |
| Euro OTC | Dimeticone 350  | 1909012          | 34747     | 40      | 20191129*          |
| Fagron   | Dimeticone 350  | 14C20-B05-292285 | 31659     | 60      | 20140331           |
| Fagron   | Dimeticone 350  | 14D30-B07-330851 | 33278     | 40      | 20140513           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 480 spectra of 11 reference samples from the substance/substance group *Dimeticon 100 / 350 / 1000*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 11 different batches.
- 66 679 spectra from a total of 1368 batches from further 226 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- 340 spectra of 8 reference samples from the substance/substance group *Dimeticon 100 / 350 / 1000*.
- Among them are spectra of independent samples from 8 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch            | Sample ID | Spectra |
|----------|----------------|------------------|-----------|---------|
| Caelo    | Dimeticon 100  | 15199409         | 32304     | 40      |
| Caelo    | Dimeticon 100  | 15404609         | 33628     | 40      |
| Caelo    | Dimeticon 1000 | 16348504         | 33654     | 40      |
| Caelo    | Dimeticon 1000 | 171981           | 33919     | 40      |
| Caelo    | Dimeticon 1000 | 191128002        | 35844     | 50      |
| Caelo    | Dimeticon 350  | 160754           | 32208     | 40      |
| Caelo    | Dimeticon 350  | 20004132002      | 35738     | 50      |
| Fagron   | Dimeticon 350  | 19L30-T04-080455 | 35265     | 40      |

- 107023 spectra from a total of 2493 batches from further 348 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 356 spectra from 168 *Apo-Ident* customers from 118 batches from the substance/substance group *Dimeticon 100 / 350 / 1000*.
- Among them are spectra of independent samples from 112 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier         | Substance     | Batch      | Spectra |
|------------------|---------------|------------|---------|
| AHD, 07.11.13    | Dimeticon 350 | 13049804   | 1       |
| AHD              | Dimeticon 350 | 17090204   | 1       |
| Anzag 24.01.2013 | Dimeticon 350 | 12186301   | 1       |
| Beiersdorf Ag    | Dimeticon 350 | 1207015-02 | 1       |
| Bionorica        | Dimeticon 350 | 18211105   | 1       |
| cae              | Dimeticon 350 | 13236306   | 1       |
| Caelo            | Dimeticon 350 |            | 1       |
| Caelo            | Dimeticon 350 | 10111314   | 1       |
| Caelo            | Dimeticon 350 | 11042104   | 1       |
| Caelo            | Dimeticon 100 | 11215905   | 1       |
| Caelo            | Dimeticon 100 | 12140101   | 1       |
| Caelo            | Dimeticon 350 | 12186301   | 1       |
| Caelo            | Dimeticon 350 | 12193302   | 1       |
| Caelo            | Dimeticon 350 | 12193303   | 3       |
| Caelo            | Dimeticon 350 | 12193307   | 2       |
| Caelo            | Dimeticon 350 | 12193308   | 1       |
| Caelo            | Dimeticon 350 | 12193313   | 1       |
| Caelo            | Dimeticon 350 | 12193315   | 1       |
| Caelo            | Dimeticon 100 | 12310801   | 1       |
| Caelo            | Dimeticon 100 | 13049603   | 1       |
| Caelo            | Dimeticon 350 | 13049802   | 2       |
| Caelo            | Dimeticon 350 | 13049803   | 2       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Dimeticone 350   | 13049804         | 4              |
| Caelo           | Dimeticone 350   | 13049809         | 1              |
| Caelo           | Dimeticone 350   | 13049813         | 1              |
| Caelo           | Dimeticone 350   | 13236302         | 2              |
| Caelo           | Dimeticone 350   | 13236306         | 13             |
| Caelo           | Dimeticone 350   | 13236307         | 2              |
| Caelo           | Dimeticone 350   | 13236308         | 2              |
| Caelo           | Dimeticone 350   | 13236312         | 2              |
| Caelo           | Dimeticone 100   | 13362904         | 1              |
| Caelo           | Dimeticone 350   | 1407004-01       | 1              |
| Caelo           | Dimeticone 350   | 14074509         | 15             |
| Caelo           | Dimeticone 350   | 14074511         | 1              |
| Caelo           | Dimeticone 350   | 14074512         | 20             |
| Caelo           | Dimeticone 350   | 14074518         | 2              |
| Caelo           | Dimeticone 350   | 14336402         | 7              |
| Caelo           | Dimeticone 350   | 14336403         | 1              |
| Caelo           | Dimeticone 350   | 14704509         | 1              |
| Caelo           | Dimeticone 350   | 14C20-B05-292285 | 1              |
| Caelo           | Dimeticone 350   | 14D30-B07-300432 | 2              |
| Caelo           | Dimeticone 100   | 15059706         | 2              |
| Caelo           | Dimeticone 100   | 15199401         | 2              |
| Caelo           | Dimeticone 350   | 15239901         | 1              |
| Caelo           | Dimeticone 350   | 15349907         | 1              |
| Caelo           | Dimeticone 350   | 16075401         | 5              |
| Caelo           | Dimeticone 350   | 16075405         | 2              |
| Caelo           | Dimeticone 350   | 16075407         | 6              |
| Caelo           | Dimeticone 350   | 16075410         | 1              |
| Caelo           | Dimeticone 1000  | 16348503         | 2              |
| Caelo           | Dimeticone 350   | 16348504         | 2              |
| Caelo           | Dimeticone 350   | 17004502         | 2              |
| Caelo           | Dimeticone 350   | 17004506         | 1              |
| Caelo           | Dimeticone 350   | 17090201         | 16             |
| Caelo           | Dimeticone 350   | 17090203         | 23             |
| Caelo           | Dimeticone 350   | 17090204         | 3              |
| Caelo           | Dimeticone 100   | 17366802         | 1              |
| Caelo           | Dimeticone 100   | 17366809         | 1              |
| Caelo           | Dimeticone 350   | 173669           | 1              |
| Caelo           | Dimeticone 350   | 17366902         | 2              |
| Caelo           | Dimeticone 350   | 17366905         | 17             |
| Caelo           | Dimeticone 350   | 173669905        | 1              |
| Caelo           | Dimeticone 350   | 182111           | 1              |
| Caelo           | Dimeticone 350   | 18211102         | 1              |
| Caelo           | Dimeticone 350   | 18211105         | 6              |
| Caelo           | Dimeticone 350   | 18211106         | 1              |
| Caelo           | Dimeticone 350   | 18211109         | 5              |
| Caelo           | Dimeticone 350   | 18211110         | 3              |
| Caelo           | Dimeticone 350   | 18211113         | 4              |
| Caelo           | Dimeticone 350   | 18211116         | 2              |
| Caelo           | Dimeticone 350   | 18211117         | 16             |
| Caelo           | Dimeticone 350   | 18211118         | 1              |
| Caelo           | Dimeticone 100   | 19030902         | 2              |
| Caelo           | Dimeticone 350   | 190901201        | 1              |
| Caelo           | Dimeticone 350   | 191953001        | 6              |
| Caelo           | Dimeticone 350   | 191953007        | 1              |
| Caelo           | Dimeticone 350   | 19A09-B02-357845 | 1              |
| Caelo           | Dimeticone 350   | 20004132001      | 1              |
| Caelo           | Dimeticone 350   | 20004132002      | 1              |
| Caelo           | Dimeticone 350   | 20004133001      | 1              |
| Caelo           | Dimeticone 350   | 20004133004      | 1              |
| Caelo           | Dimeticone 350   | 2315274          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Caelo                      | Dimeticone 350   | 301115           | 1              |
| Caelo                      | Dimeticone 350   | 9371810          | 1              |
| Caeolo/Ahd                 | Dimeticone 350   | 18211106         | 1              |
| Caesar & Loretz GmbH /n... | Dimeticone 350   | 18211116         | 1              |
| Caesar & Loretz GmbH/Fi... | Dimeticone 350   | 191953001        | 1              |
| Caesar & Loretz GmbH/Je... | Dimeticone 350   | 18211117         | 2              |
| Caesar & Loretz GmbH/No... | Dimeticone 350   | 191953008        | 1              |
| Caesar & Loretz GmbH       | Dimeticone 1000  | 17367105         | 1              |
| Caesar & Loretz GmbH       | Dimeticone 1000  | 17367202         | 4              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 18211105         | 2              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 18211113         | 1              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 18211116         | 2              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 18211117         | 2              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 191953001        | 2              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 191953009        | 1              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 20004132001      | 1              |
| Caesar & Loretz GmbH       | Dimeticone 350   | 20004133001      | 1              |
| Caesar & Loretz Hilden/... | Dimeticone 350   | 18211117         | 2              |
| Caesar & Loretz Hilden/... | Dimeticone 350   | 18211105         | 2              |
| Caesar & Loretz Hilden     | Dimeticone 350   | 191953001        | 2              |
| Chiesi / Noweda / 27.09... | Dimeticone 350   | 18211117         | 1              |
| Euro OTC                   | Dimeticone 350   | 1207015-01       | 1              |
| Euro OTC                   | Dimeticone 350   | 1207015-02       | 1              |
| Euro OTC                   | Dimeticone 350   | 1407004-01       | 1              |
| Euro OTC                   | Dimeticone 350   | 14C20-B05-292285 | 1              |
| Euro OTC                   | Dimeticone 350   | 1702002-01       | 6              |
| EuRo/Phönix                | Dimeticone 350   | 1207015-01       | 1              |
| Fagron                     | Dimeticone 350   | 14030-807        | 1              |
| Fagron                     | Dimeticone 350   | 144D30-B07       | 1              |
| Fagron                     | Dimeticone 350   | 14C20-B05        | 1              |
| Fagron                     | Dimeticone 350   | 14C20-B05-292285 | 6              |
| Fagron                     | Dimeticone 350   | 14D30-B07        | 1              |
| Fagron                     | Dimeticone 350   | 14D30-B07-300432 | 2              |
| Fagron                     | Dimeticone 350   | 14D30-B07-328248 | 1              |
| Fagron                     | Dimeticone 350   | 14D30-B07-333434 | 2              |
| Fagron                     | Dimeticone 350   | 14D30-B07-334577 | 1              |
| Fagron                     | Dimeticone 350   | 14D30-B07-335878 | 2              |
| Fagron                     | Dimeticone 350   | 14D30-B07-343668 | 3              |
| Fagron                     | Dimeticone 350   | 14D30B07346200   | 1              |
| Fagron                     | Dimeticone 350   | 16075401         | 1              |
| Fagron                     | Dimeticone 350   | 17020002-01      | 1              |
| Fagron                     | Dimeticone 350   | 19A09-B02        | 1              |
| Fagron                     | Dimeticone 350   | 19A09B02-357845  | 1              |
| Fagron                     | Dimeticone 350   | 19L30-T04-080455 | 2              |
| Fagron                     | Dimeticone 350   | 19L30-T40-060455 | 1              |
| Fagron                     | Dimeticone 350   | 3111Q-02251      | 1              |
| Fagron                     | Dimeticone 350   | 7676459          | 1              |
| Fagron                     | Dimeticone 350   | 9B10             | 1              |
| Fagron                     | Dimeticone 350   | Caelo/Noweda     | 1              |
| Fargon                     | Dimeticone 350   | 14C20-B05_292282 | 1              |
| Gatt-Koller                | Dimeticone 350   | 190003           | 2              |
| Gehe                       | Dimeticone 350   | 1407004-01       | 1              |
| Gehe                       | Dimeticone 350   | 14D30-B07        | 2              |
| Gehe                       | Dimeticone 350   | 14d30b07-330851  | 1              |
| gehe                       | Dimeticone 350   | 14D30-B07-346200 | 1              |
| Jenne                      | Dimeticone 350   | 14074509         | 1              |
| Kögl                       | Dimeticone 350   | 124604160517     | 1              |
| Kögl                       | Dimeticone 350   | 124604161816     | 1              |
| Kögl                       | Dimeticone 350   | 1700492          | 1              |
| Kögl                       | Dimeticone 350   | 1801089          | 2              |

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| Supplier                 | Substance      | Batch            | Spectra |
|--------------------------|----------------|------------------|---------|
| Kögl                     | Dimeticone 350 | knc0320j16       | 1       |
| Kögl                     | Dimeticone 350 | KNC0320J16       | 1       |
| Lamotte/3                | Dimeticone 350 | 1407511          | 1       |
| Nachtestung-Verlängerung | Dimeticone 350 | 3/16             | 1       |
| Noweda                   | Dimeticone 100 | 12316701         | 1       |
| Noweda                   | Dimeticone 350 | 17090203         | 1       |
| Noweda                   | Dimeticone 350 | 17366905         | 2       |
| Noweda                   | Dimeticone 350 | 18211105         | 1       |
| Ph.Eur.8.0               | Dimeticone 350 | 14C20B05292285   | 1       |
| Phoenix                  | Dimeticone 350 | 14D30-B07-335878 | 1       |
| Sanacorp                 | Dimeticone 350 |                  | 1       |

- 288 353 spectra from 1294 *Apo-Ident* customers from a total of 51 773 batches from a further 341 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Dimeticone 100 / 350 / 1000* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Dimeticone 100 / 350 / 1000* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 480           | 0              | 66 679        |
| <b>Type B</b> | 0              | 340           | 0              | 107 023       |
| <b>Type C</b> | 0              | 356           | 0              | 288 353       |

The substance/substance group *Dimeticone 100 / 350 / 1000* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.7500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.2353 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 98.3146 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Dimeticone 100 / 350 / 1000* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance | Distance in<br>main model | Distance in<br>second-stage model |
|-----------|---------------------------|-----------------------------------|
| Cineole   | 288.27                    | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Dimeticon 100 / 350 / 1000* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30660     | 30660                  | 0.00                            | 337.27                             |
| 31333     | 33918                  | 1.94                            | 345.77                             |
| 31334     | 31334                  | 0.00                            | 347.85                             |
| 31659     | 33918                  | 2.39                            | 347.59                             |
| 32169     | 32169                  | 0.00                            | 353.99                             |
| 32485     | 33918                  | 4.45                            | 333.59                             |
| 32587     | 33234                  | 2.11                            | 332.43                             |
| 33234     | 33234                  | 0.00                            | 336.38                             |
| 33278     | 33234                  | 2.08                            | 332.15                             |
| 33918     | 33918                  | 0.00                            | 334.74                             |
| 34747     | 34747                  | 0.00                            | 348.96                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Dwarf pine oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30204-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Dwarf pine oil; Pini pumilionis aetherolum

### Special notes

When selecting the *Dwarf pine oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Dwarf pine oil            | 9      | 9      | 103    |

## Second-stage model

For differentiation of the substance/substance group *Dwarf pine oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Dwarf pine oil*:

| Supplier | Substance      | Batch            | Sample ID | Spectra | Certificate |
|----------|----------------|------------------|-----------|---------|-------------|
| Caelo    | Dwarf pine oil | 11375614         | 31189     | 40      | 20120102    |
| Caelo    | Dwarf pine oil | 16114705         | 33266     | 40      | 20160420    |
| Caelo    | Dwarf pine oil | 16114706         | 33282     | 40      | 20160420    |
| Caelo    | Dwarf pine oil | 172158           | 33679     | 40      | 20170807*   |
| Caelo    | Dwarf pine oil | 20002366         | 35022     | 40      | 20200728*   |
| Euro OTC | Dwarf pine oil | 1210024-02       | 31529     | 60      | 20140806    |
| Euro OTC | Dwarf pine oil | 1511014          | 31818     | 60      | 20151214*   |
| Fagron   | Dwarf pine oil | 12C29-N17        | 31184     | 40      | 1403167     |
| Fagron   | Dwarf pine oil | 15A05-B06-322743 | 33276     | 40      | 20150126    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 400 spectra of 9 reference samples from the substance/substance group *Dwarf pine oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 9 different batches.
- 66 759 spectra from a total of 1370 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 370 spectra of 9 reference samples from the substance/substance group *Dwarf pine oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



- Among them are spectra of independent samples from 9 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch    | Sample ID | Spectra |
|----------|----------------|----------|-----------|---------|
| Caelo    | Dwarf pine oil | 192716   | 34717     | 40      |
| Caelo    | Dwarf pine oil | 21004227 | 36174     | 40      |
| Euro OTC | Dwarf pine oil | 1606003  | 32470     | 40      |
| Euro OTC | Dwarf pine oil | 1703031  | 33235     | 40      |
| Euro OTC | Dwarf pine oil | 1801001  | 33931     | 40      |
| Euro OTC | Dwarf pine oil | 1807002  | 34194     | 40      |
| Euro OTC | Dwarf pine oil | 1905020  | 34491     | 40      |
| Euro OTC | Dwarf pine oil | 2004017  | 35065     | 40      |
| Euro OTC | Dwarf pine oil | 2109024  | 35903     | 50      |

- 106 993 spectra from a total of 2492 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 359 spectra from 170 *Apo-Ident* customers from 108 batches from the substance/substance group *Dwarf pine oil*.
- Among them are spectra of independent samples from 102 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance      | Batch      | Spectra |
|---------------------|----------------|------------|---------|
| AHD                 | Dwarf pine oil | 17364206   | 1       |
| Alliance Healthcare | Dwarf pine oil | 1215802    | 1       |
| Alliance            | Dwarf pine oil | 11375601   | 1       |
| Apo-Ident/Phoenix   | Dwarf pine oil | 17364201   | 1       |
| Caelo               | Dwarf pine oil | 11375601   | 9       |
| Caelo               | Dwarf pine oil | 11375608   | 1       |
| Caelo               | Dwarf pine oil | 11375613   | 3       |
| Caelo               | Dwarf pine oil | 11375614   | 3       |
| Caelo               | Dwarf pine oil | 1137575601 | 1       |
| Caelo               | Dwarf pine oil | 12239902   | 2       |
| Caelo               | Dwarf pine oil | 12239903   | 2       |
| Caelo               | Dwarf pine oil | 12239904   | 3       |
| Caelo               | Dwarf pine oil | 13084309   | 1       |
| Caelo               | Dwarf pine oil | 14083301   | 7       |
| Caelo               | Dwarf pine oil | 14083302   | 3       |
| Caelo               | Dwarf pine oil | 14083303   | 1       |
| Caelo               | Dwarf pine oil | 14083310   | 1       |
| Caelo               | Dwarf pine oil | 14083311   | 1       |
| Caelo               | Dwarf pine oil | 14083315   | 1       |
| Caelo               | Dwarf pine oil | 15239201   | 5       |
| Caelo               | Dwarf pine oil | 15239202   | 2       |
| Caelo               | Dwarf pine oil | 15239203   | 1       |
| Caelo               | Dwarf pine oil | 153239202  | 1       |
| Caelo               | Dwarf pine oil | 15375501   | 10      |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caelo                      | Dwarf pine oil   | 15375502     | 6              |
| Caelo                      | Dwarf pine oil   | 15375505     | 4              |
| Caelo                      | Dwarf pine oil   | 1606003-01   | 1              |
| Caelo                      | Dwarf pine oil   | 16114701     | 8              |
| Caelo                      | Dwarf pine oil   | 16114702     | 5              |
| Caelo                      | Dwarf pine oil   | 16114705     | 15             |
| Caelo                      | Dwarf pine oil   | 16114706     | 8              |
| Caelo                      | Dwarf pine oil   | 17012014     | 2              |
| Caelo                      | Dwarf pine oil   | 1703031-01   | 1              |
| Caelo                      | Dwarf pine oil   | 17215801     | 16             |
| Caelo                      | Dwarf pine oil   | 17215802     | 12             |
| Caelo                      | Dwarf pine oil   | 17215803     | 1              |
| Caelo                      | Dwarf pine oil   | 17219801     | 1              |
| Caelo                      | Dwarf pine oil   | 17364201     | 6              |
| Caelo                      | Dwarf pine oil   | 17364202     | 1              |
| Caelo                      | Dwarf pine oil   | 17364203     | 1              |
| Caelo                      | Dwarf pine oil   | 17364204     | 1              |
| Caelo                      | Dwarf pine oil   | 17364206     | 8              |
| Caelo                      | Dwarf pine oil   | 1792977      | 2              |
| Caelo                      | Dwarf pine oil   | 18309501     | 9              |
| Caelo                      | Dwarf pine oil   | 18309502     | 13             |
| Caelo                      | Dwarf pine oil   | 18309505     | 8              |
| Caelo                      | Dwarf pine oil   | 18309506     | 1              |
| Caelo                      | Dwarf pine oil   | 183096505    | 1              |
| Caelo                      | Dwarf pine oil   | 192716001    | 6              |
| Caelo                      | Dwarf pine oil   | 192716004    | 8              |
| Caelo                      | Dwarf pine oil   | 20001551003  | 1              |
| Caelo                      | Dwarf pine oil   | 20003807001  | 1              |
| Caelo                      | Dwarf pine oil   | 20004551003  | 1              |
| Caelo                      | Dwarf pine oil   | 21004227001  | 1              |
| Caelo                      | Dwarf pine oil   | 21051403     | 1              |
| Caelo                      | Dwarf pine oil   | 23021301     | 1              |
| Caelo                      | Dwarf pine oil   | 24061712     | 1              |
| Caelo                      | Dwarf pine oil   | 37(18309501) | 1              |
| Caelo                      | Dwarf pine oil   | 5011903      | 1              |
| Caelo                      | Dwarf pine oil   | 621H23       | 1              |
| Caesar & Loretz GmbH/ P... | Dwarf pine oil   | 192716004    | 1              |
| Caesar & Loretz GmbH/Al... | Dwarf pine oil   | 192716001    | 1              |
| Caesar & Loretz GmbH/Gehe  | Dwarf pine oil   | 192716001    | 1              |
| Caesar & Loretz GmbH/Je... | Dwarf pine oil   | 18309505     | 2              |
| Caesar & Loretz GmbH/No... | Dwarf pine oil   | 1801001-01   | 1              |
| Caesar & Loretz GmbH/No... | Dwarf pine oil   | 1905020-01   | 1              |
| Caesar & Loretz GmbH/Sa... | Dwarf pine oil   | 18309501     | 1              |
| Caesar & Loretz GmbH/Sa... | Dwarf pine oil   | 192716001    | 1              |
| Caesar & Loretz GmbH/Sa... | Dwarf pine oil   | 192716004    | 1              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 17364202     | 2              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 17364206     | 2              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 18309501     | 8              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 18309502     | 4              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 18309505     | 4              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 18309506     | 2              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 18309507     | 1              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 192716001    | 2              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 192716004    | 3              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 20003807001  | 3              |
| Caesar & Loretz GmbH       | Dwarf pine oil   | 20004551001  | 1              |
| Cealo/ Anzag               | Dwarf pine oil   | 16114706     | 1              |
| Cealo                      | Dwarf pine oil   | 18309502     | 1              |
| Euro OTC                   | Dwarf pine oil   | 1210024-02   | 1              |
| Euro OTC                   | Dwarf pine oil   | 1411021-01   | 5              |

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| Supplier                | Substance      | Batch              | Spectra |
|-------------------------|----------------|--------------------|---------|
| Euro OTC                | Dwarf pine oil | 1511014-01         | 4       |
| Euro OTC                | Dwarf pine oil | 1606003-01         | 1       |
| Euro OTC                | Dwarf pine oil | 1703031-01         | 1       |
| Euro OTC                | Dwarf pine oil | 1801001-01         | 1       |
| Euro OTC                | Dwarf pine oil | 98764              | 1       |
| Fagron                  | Dwarf pine oil | 11G18-N10          | 2       |
| Fagron                  | Dwarf pine oil | 12C29-N17          | 1       |
| Fagron                  | Dwarf pine oil | 12G12N11           | 1       |
| Fagron                  | Dwarf pine oil | 12G12-N11          | 2       |
| Fagron                  | Dwarf pine oil | 12K06-N06          | 1       |
| Fagron                  | Dwarf pine oil | 12-K06-N06         | 1       |
| Fagron                  | Dwarf pine oil | 13C04-N02          | 7       |
| Fagron                  | Dwarf pine oil | 13C04-N02          | 1       |
| Fagron                  | Dwarf pine oil | 13E06-N04          | 5       |
| Fagron                  | Dwarf pine oil | 13H28-N04          | 3       |
| Fagron                  | Dwarf pine oil | 13H28-N04-0008/370 | 1       |
| Fagron                  | Dwarf pine oil | 14D14-B01          | 5       |
| Fagron                  | Dwarf pine oil | 15051509           | 1       |
| Fagron                  | Dwarf pine oil | 15A05B06           | 1       |
| Fagron                  | Dwarf pine oil | 15A05-B06          | 5       |
| Fagron                  | Dwarf pine oil | 15A05-B06-305064   | 1       |
| Fagron                  | Dwarf pine oil | 15A05-B06-305065   | 1       |
| Fagron                  | Dwarf pine oil | 1606003-01         | 1       |
| Fagron                  | Dwarf pine oil | 27111207           | 1       |
| Fagron                  | Dwarf pine oil | 736339             | 3       |
| Fargo                   | Dwarf pine oil | 13C04-N02          | 1       |
| Fiebig                  | Dwarf pine oil | 18309502           | 3       |
| Franz GmbH/Phönix       | Dwarf pine oil | 12C29-N17          | 2       |
| Frey & Lau GmbH/Phoenix | Dwarf pine oil | 13C04-N020133/265  | 1       |
| Fritz Schiele           | Dwarf pine oil |                    | 1       |
| Gatt-Koller             | Dwarf pine oil | 1701129            | 1       |
| Hedinger/Phönix         | Dwarf pine oil | 1801001-01         | 1       |
| Ichthyol-Gesellschaft   | Dwarf pine oil | 1610280P/15375501  | 1       |
| Kögl                    | Dwarf pine oil | 37202163916        | 1       |
| Kögl                    | Dwarf pine oil | 484101170517       | 1       |
| Kögl                    | Dwarf pine oil | 484101172017       | 1       |
| Nachprüfung 19.9.17.    | Dwarf pine oil | 15A05-B06-322744   | 1       |
| Noweda/EuRoh            | Dwarf pine oil | 160600301          | 1       |
| Phoenix                 | Dwarf pine oil | 17364206           | 1       |
| Phoenix                 | Dwarf pine oil | 18309501           | 1       |
| Phönix 08.11.2019       | Dwarf pine oil | 18309502           | 1       |
| Phönix                  | Dwarf pine oil | 11/19-N12          | 1       |
| Phönix                  | Dwarf pine oil | 17215802           | 3       |
| primavera               | Dwarf pine oil | 149B26             | 1       |
| PVL                     | Dwarf pine oil | 1360313            | 1       |
| Taoasis GmbH            | Dwarf pine oil | 30985-110461       | 1       |
| Taoasis                 | Dwarf pine oil | 1148-148           | 1       |
| Taoasis                 | Dwarf pine oil | 25599-117839       | 1       |
| Taoasis                 | Dwarf pine oil | 25599-118829       | 1       |
| Taoasis                 | Dwarf pine oil | 2622-7697          | 1       |
| Taoasis                 | Dwarf pine oil | 2622-7698          | 1       |
| Taoasis                 | Dwarf pine oil | 30985-106654       | 1       |
| Taoasis                 | Dwarf pine oil | 30985-110461       | 1       |
| Taoasis                 | Dwarf pine oil | 30985-111105       | 2       |
| Taoasis                 | Dwarf pine oil | 33347-112503       | 1       |
| Taoasis                 | Dwarf pine oil | 586/116867         | 1       |
| Taoasis                 | Dwarf pine oil | 586-116867         | 1       |
| Taoasis                 | Dwarf pine oil | 8783-125163        | 1       |
| VDL; 7.50EUR; 28.9.2015 | Dwarf pine oil | 15239201           | 1       |

- 288 350 spectra from 1294 *Apo-Ident* customers from a total of 51 781 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Dwarf pine oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Dwarf pine oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 400           | 0              | 66 759        |
| <b>Type B</b> | 0              | 370           | 0              | 106 993       |
| <b>Type C</b> | 0              | 357           | 2              | 288 350       |

The substance/substance group *Dwarf pine oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.5000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.3784 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.4429 % (> 98.6072 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Dwarf pine oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance           | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------|---------------------------|-----------------------------------|
| Pine silvestris oil | 23.10                     | —                                 |
| Bergamot oil        | 25.01                     | —                                 |
| Juniper oil         | 25.64                     | —                                 |
| Bitter orange oil   | 26.24                     | —                                 |
| Angelica root oil   | 26.69                     | —                                 |
| Grapefruit oil      | 32.19                     | —                                 |
| Spearmint oil       | 32.64                     | —                                 |
| Caraway oil         | 32.78                     | —                                 |
| Citric oil          | 38.98                     | —                                 |
| Eucalyptus oil      | 46.63                     | —                                 |
| Cedar wood oil      | 52.57                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Dwarf pine oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31184     | 31184               | 0.00                         | 31.21                           |
| 31189     | 31184               | 4.52                         | 32.33                           |
| 31529     | 31818               | 1.89                         | 26.20                           |
| 31818     | 31818               | 0.00                         | 26.66                           |
| 33266     | 31818               | 5.44                         | 29.04                           |
| 33276     | 31184               | 7.37                         | 31.34                           |
| 33282     | 33679               | 5.83                         | 30.67                           |
| 33679     | 33679               | 0.00                         | 32.04                           |
| 35022     | 35022               | 0.00                         | 31.67                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Ethanol 90%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30379-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Ethanol 90%; Ethanolum 90% rein / vergällt

### Special notes

When selecting the *Ethanol 90%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Ethanol 90%               | 6      | 13     | 488    |



## Second-stage model

For differentiation of the substance/substance group *Ethanol 90%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Ethanol 90%*:

| Supplier | Substance   | Batch     | Sample ID | Spectra | Certificate |
|----------|-------------|-----------|-----------|---------|-------------|
| apomix   | Ethanol 90% | 25A040913 | 31056     | 40      | 1404654     |
| apomix   | Ethanol 90% | 03A290419 | 34512     | 40      | 20190429    |
| Caelo    | Ethanol 90% | 14052802  | 31392     | 40      | 20140225    |
| Caelo    | Ethanol 90% | 163144    | 33102     | 40      | 20161209*   |
| Caelo    | Ethanol 90% | 183064    | 34322     | 40      | 20181218*   |
| Caelo    | Ethanol 90% | 191965    | 34737     | 40      | 20190815*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 240 spectra of 6 reference samples from the substance/substance group *Ethanol 90%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 919 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 520 spectra of 13 reference samples from the substance/substance group *Ethanol 90%*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 13 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance   | Batch    | Sample ID | Spectra |
|----------|-------------|----------|-----------|---------|
| Caelo    | Ethanol 90% | 161944   | 32324     | 40      |
| Caelo    | Ethanol 90% | 163142   | 33103     | 40      |
| Caelo    | Ethanol 90% | 163143   | 33104     | 40      |
| Caelo    | Ethanol 90% | 171741   | 33714     | 40      |
| Caelo    | Ethanol 90% | 171739   | 33715     | 40      |
| Caelo    | Ethanol 90% | 190983   | 34628     | 40      |
| Caelo    | Ethanol 90% | 191966   | 34735     | 40      |
| Caelo    | Ethanol 90% | 191964   | 34736     | 40      |
| Caelo    | Ethanol 90% | 21003395 | 36062     | 40      |
| Caelo    | Ethanol 90% | 21003396 | 36063     | 40      |
| Caelo    | Ethanol 90% | 22000919 | 36302     | 40      |
| Caelo    | Ethanol 90% | 22001217 | 36303     | 40      |
| Caelo    | Ethanol 90% | 22000917 | 36304     | 40      |

- 106 843 spectra from a total of 2488 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1425 spectra from 504 *Apo-Ident* customers from 504 batches from the substance/substance group *Ethanol 90%*.
- Among them are spectra of independent samples from 488 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance   | Batch              | Spectra |
|----------------------------|-------------|--------------------|---------|
| — (Retest)                 | Ethanol 90% | H180620A           | 1       |
|                            | Ethanol 90% | Eth90-05           | 1       |
|                            | Ethanol 90% | Eth90-4            | 1       |
|                            | Ethanol 90% | Hergestelltt070514 | 1       |
| Adler                      | Ethanol 90% | 4618Q-03042        | 1       |
| Adler                      | Ethanol 90% | 5018E-03042        | 1       |
| AHD                        | Ethanol 90% | 16314401           | 1       |
| Alexandria Apotheke/ De... | Ethanol 90% |                    | 1       |
| Alliance Healthcare        | Ethanol 90% | 18089801           | 1       |
| Alliance Healthcare        | Ethanol 90% | 19043701           | 2       |
| Alliance Healthcare        | Ethanol 90% | 19196601           | 1       |
| Alliance Healthcare        | Ethanol 90% | 20A030717          | 1       |
| Alte Apo Defektur          | Ethanol 90% |                    | 1       |
| Alte Apo Defektur          | Ethanol 90% | 1120M-02303        | 1       |
| Alte Apo Defektur          | Ethanol 90% | 119M-02303         | 1       |
| Alte Apo Defektur          | Ethanol 90% | 3318M-03019        | 1       |
| Alte Apotheke              | Ethanol 90% | 4716E-03042        | 1       |
| Anzag 06.10.12             | Ethanol 90% | 25A290812          | 1       |
| Apo Ident/ Noweda          | Ethanol 90% | 18200201           | 1       |
| ApoAmKlini                 | Ethanol 90% | 918Q-02303         | 1       |
| apomix                     | Ethanol 90% |                    | 1       |
| apomix                     | Ethanol 90% | 11A150517          | 1       |
| apomix                     | Ethanol 90% | 11A300420          | 1       |
| apomix                     | Ethanol 90% | 12A150513          | 1       |
| apomix                     | Ethanol 90% | 12A150517          | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| apomix          | Ethanol 90%      | 13A170516    | 1              |
| apomix          | Ethanol 90%      | 14A120514    | 1              |
| apomix          | Ethanol 90%      | 15A090512    | 1              |
| apomix          | Ethanol 90%      | 16A210610    | 1              |
| apomix          | Ethanol 90%      | 173060003    | 1              |
| apomix          | Ethanol 90%      | 17A200616    | 1              |
| apomix          | Ethanol 90%      | 17A290517    | 1              |
| apomix          | Ethanol 90%      | 18A080615    | 1              |
| apomix          | Ethanol 90%      | 19A120617    | 1              |
| apomix          | Ethanol 90%      | 1A090320     | 1              |
| apomix          | Ethanol 90%      | 1a140119     | 1              |
| apomix          | Ethanol 90%      | 2040030717   | 1              |
| apomix          | Ethanol 90%      | 21A110416    | 1              |
| apomix          | Ethanol 90%      | 21A310713    | 1              |
| apomix          | Ethanol 90%      | 25A160817    | 1              |
| apomix          | Ethanol 90%      | 26A160817    | 1              |
| apomix          | Ethanol 90%      | 2A070518     | 2              |
| apomix          | Ethanol 90%      | 2A090320     | 6              |
| apomix          | Ethanol 90%      | 2A110319     | 3              |
| apomix          | Ethanol 90%      | 2A130114     | 1              |
| apomix          | Ethanol 90%      | 30A041017    | 1              |
| apomix          | Ethanol 90%      | 30A310815    | 1              |
| apomix          | Ethanol 90%      | 31a041017    | 1              |
| apomix          | Ethanol 90%      | 32A141211    | 1              |
| apomix          | Ethanol 90%      | 34A231017    | 1              |
| apomix          | Ethanol 90%      | 35A061117    | 1              |
| apomix          | Ethanol 90%      | 35A211112    | 1              |
| apomix          | Ethanol 90%      | 37A021214    | 1              |
| apomix          | Ethanol 90%      | 37A071116    | 1              |
| apomix          | Ethanol 90%      | 37A101212    | 1              |
| apomix          | Ethanol 90%      | 38A201117    | 2              |
| apomix          | Ethanol 90%      | 39A281116    | 2              |
| apomix          | Ethanol 90%      | 3A060618     | 1              |
| apomix          | Ethanol 90%      | 3a290419     | 1              |
| apomix          | Ethanol 90%      | 3A290419     | 3              |
| apomix          | Ethanol 90%      | 40A201117    | 1              |
| apomix          | Ethanol 90%      | 45A261015    | 1              |
| apomix          | Ethanol 90%      | 46A071215    | 1              |
| apomix          | Ethanol 90%      | 47A071215    | 1              |
| apomix          | Ethanol 90%      | 4A040619     | 1              |
| apomix          | Ethanol 90%      | 4A280618     | 2              |
| apomix          | Ethanol 90%      | 4A300320     | 1              |
| apomix          | Ethanol 90%      | 5A130214     | 1              |
| apomix          | Ethanol 90%      | 5A150216     | 1              |
| apomix          | Ethanol 90%      | 5A16018      | 1              |
| apomix          | Ethanol 90%      | 5A160718     | 2              |
| apomix          | Ethanol 90%      | 5A200217     | 1              |
| apomix          | Ethanol 90%      | 5A300320     | 2              |
| apomix          | Ethanol 90%      | 6A110919     | 1              |
| apomix          | Ethanol 90%      | 6A240420     | 1              |
| apomix          | Ethanol 90%      | 6a310718     | 1              |
| apomix          | Ethanol 90%      | 6A310718     | 3              |
| apomix          | Ethanol 90%      | 7A121119     | 3              |
| apomix          | Ethanol 90%      | 7A170215     | 1              |
| apomix          | Ethanol 90%      | 7A200317     | 1              |
| apomix          | Ethanol 90%      | 8A061118     | 3              |
| apomix          | Ethanol 90%      | 8A170215     | 1              |
| apomix          | Ethanol 90%      | 8A200317     | 2              |
| apomix          | Ethanol 90%      | 9A240417     | 1              |
| apomix          | Ethanol 90%      | 9A300420     | 2              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Apotärze/Zentrum       | Ethanol 90%      | 10092013-D   | 1              |
| Apotärze               | Ethanol 90%      | 4414E-03042  | 1              |
| Apotärze               | Ethanol 90%      | 4513M-02303  | 1              |
| Apotheke am Marktplatz | Ethanol 90%      | 4420-E02303  | 1              |
| Apotheke               | Ethanol 90%      |              | 1              |
| Apotheke               | Ethanol 90%      | 3116Q-03042  | 1              |
| Audor Pharma           | Ethanol 90%      | 1614E-03042  | 1              |
| Behlen/Phönix          | Ethanol 90%      | 1410T1300816 | 1              |
| Beiersdorf AG          | Ethanol 90%      | 18306202     | 1              |
| Beiersdorf/Phoenix     | Ethanol 90%      | 16314303     | 1              |
| Berkel AHK             | Ethanol 90%      |              | 1              |
| bison                  | Ethanol 90%      | 616H2        | 1              |
| Brinn- Holtz           | Ethanol 90%      | 1258-06/17   | 1              |
| Brinn-Holtz            | Ethanol 90%      | 190615       | 2              |
| Caelo                  | Ethanol 90%      |              | 3              |
| Caelo                  | Ethanol 90%      | 10250602     | 1              |
| Caelo                  | Ethanol 90%      | 10329402     | 1              |
| Caelo                  | Ethanol 90%      | 11329304     | 1              |
| Caelo                  | Ethanol 90%      | 11329402     | 1              |
| Caelo                  | Ethanol 90%      | 12068202     | 1              |
| Caelo                  | Ethanol 90%      | 12068301     | 1              |
| Caelo                  | Ethanol 90%      | 12275301     | 1              |
| Caelo                  | Ethanol 90%      | 12275402     | 1              |
| Caelo                  | Ethanol 90%      | 12275403     | 1              |
| Caelo                  | Ethanol 90%      | 12275501     | 2              |
| Caelo                  | Ethanol 90%      | 12355401     | 3              |
| Caelo                  | Ethanol 90%      | 12355501     | 2              |
| Caelo                  | Ethanol 90%      | 12355601     | 4              |
| Caelo                  | Ethanol 90%      | 1260117      | 1              |
| Caelo                  | Ethanol 90%      | 12A250315    | 1              |
| Caelo                  | Ethanol 90%      | 13019601     | 1              |
| Caelo                  | Ethanol 90%      | 13019602     | 2              |
| Caelo                  | Ethanol 90%      | 13019701     | 2              |
| Caelo                  | Ethanol 90%      | 13019703     | 1              |
| Caelo                  | Ethanol 90%      | 13085801     | 1              |
| Caelo                  | Ethanol 90%      | 13085901     | 4              |
| Caelo                  | Ethanol 90%      | 13086001     | 4              |
| Caelo                  | Ethanol 90%      | 13086002     | 1              |
| Caelo                  | Ethanol 90%      | 13160501     | 2              |
| Caelo                  | Ethanol 90%      | 13160601     | 4              |
| Caelo                  | Ethanol 90%      | 13160701     | 3              |
| Caelo                  | Ethanol 90%      | 13160703     | 2              |
| Caelo                  | Ethanol 90%      | 13290201     | 4              |
| Caelo                  | Ethanol 90%      | 13290202     | 2              |
| Caelo                  | Ethanol 90%      | 13290203     | 1              |
| Caelo                  | Ethanol 90%      | 13290301     | 3              |
| Caelo                  | Ethanol 90%      | 13290401     | 2              |
| Caelo                  | Ethanol 90%      | 13290402     | 3              |
| Caelo                  | Ethanol 90%      | 13399601     | 1              |
| Caelo                  | Ethanol 90%      | 13399604     | 1              |
| Caelo                  | Ethanol 90%      | 13399605     | 4              |
| Caelo                  | Ethanol 90%      | 13399606     | 2              |
| Caelo                  | Ethanol 90%      | 13399701     | 2              |
| Caelo                  | Ethanol 90%      | 13399801     | 1              |
| Caelo                  | Ethanol 90%      | 13399802     | 1              |
| Caelo                  | Ethanol 90%      | 13399803     | 2              |
| Caelo                  | Ethanol 90%      | 14027301     | 1              |
| Caelo                  | Ethanol 90%      | 14027302     | 1              |
| Caelo                  | Ethanol 90%      | 14027303     | 2              |
| Caelo                  | Ethanol 90%      | 14027305     | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Ethanol 90%      | 14027401     | 4              |
| Caelo           | Ethanol 90%      | 14027402     | 1              |
| Caelo           | Ethanol 90%      | 14027501     | 2              |
| Caelo           | Ethanol 90%      | 14027502     | 1              |
| Caelo           | Ethanol 90%      | 14052601     | 4              |
| Caelo           | Ethanol 90%      | 14052701     | 2              |
| Caelo           | Ethanol 90%      | 14052801     | 3              |
| Caelo           | Ethanol 90%      | 14052802     | 2              |
| Caelo           | Ethanol 90%      | 14060201     | 7              |
| Caelo           | Ethanol 90%      | 14060301     | 3              |
| Caelo           | Ethanol 90%      | 14060302     | 1              |
| Caelo           | Ethanol 90%      | 14122101     | 2              |
| Caelo           | Ethanol 90%      | 14122201     | 5              |
| Caelo           | Ethanol 90%      | 14122202     | 1              |
| Caelo           | Ethanol 90%      | 14122302     | 4              |
| Caelo           | Ethanol 90%      | 14122303     | 1              |
| Caelo           | Ethanol 90%      | 14122401     | 4              |
| Caelo           | Ethanol 90%      | 14208702     | 2              |
| Caelo           | Ethanol 90%      | 14208801     | 5              |
| Caelo           | Ethanol 90%      | 14208802     | 4              |
| Caelo           | Ethanol 90%      | 14208901     | 3              |
| Caelo           | Ethanol 90%      | 15010501     | 3              |
| Caelo           | Ethanol 90%      | 15010502     | 1              |
| Caelo           | Ethanol 90%      | 15010503     | 1              |
| Caelo           | Ethanol 90%      | 15010504     | 1              |
| Caelo           | Ethanol 90%      | 15010601     | 1              |
| Caelo           | Ethanol 90%      | 15010602     | 6              |
| Caelo           | Ethanol 90%      | 15014001     | 1              |
| Caelo           | Ethanol 90%      | 15014002     | 9              |
| Caelo           | Ethanol 90%      | 15073201     | 3              |
| Caelo           | Ethanol 90%      | 15073202     | 2              |
| Caelo           | Ethanol 90%      | 15073203     | 2              |
| Caelo           | Ethanol 90%      | 15080201     | 1              |
| Caelo           | Ethanol 90%      | 15080301     | 5              |
| Caelo           | Ethanol 90%      | 15150701     | 7              |
| Caelo           | Ethanol 90%      | 15150704     | 4              |
| Caelo           | Ethanol 90%      | 15150705     | 2              |
| Caelo           | Ethanol 90%      | 15219302     | 5              |
| Caelo           | Ethanol 90%      | 15219501     | 3              |
| Caelo           | Ethanol 90%      | 15328201     | 8              |
| Caelo           | Ethanol 90%      | 15328202     | 2              |
| Caelo           | Ethanol 90%      | 15328301     | 15             |
| Caelo           | Ethanol 90%      | 15328401     | 3              |
| Caelo           | Ethanol 90%      | 15442502     | 2              |
| Caelo           | Ethanol 90%      | 15442601     | 4              |
| Caelo           | Ethanol 90%      | 15442602     | 3              |
| Caelo           | Ethanol 90%      | 15442603     | 2              |
| Caelo           | Ethanol 90%      | 15442701     | 2              |
| Caelo           | Ethanol 90%      | 15442702     | 9              |
| Caelo           | Ethanol 90%      | 15442703     | 3              |
| Caelo           | Ethanol 90%      | 15442704     | 2              |
| Caelo           | Ethanol 90%      | 15442801     | 5              |
| Caelo           | Ethanol 90%      | 15442802     | 1              |
| Caelo           | Ethanol 90%      | 16092001     | 1              |
| Caelo           | Ethanol 90%      | 16106801     | 6              |
| Caelo           | Ethanol 90%      | 16106802     | 5              |
| Caelo           | Ethanol 90%      | 16106803     | 4              |
| Caelo           | Ethanol 90%      | 16106804     | 1              |
| Caelo           | Ethanol 90%      | 16106902     | 1              |
| Caelo           | Ethanol 90%      | 16107002     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Ethanol 90%      | 16107003     | 4              |
| Caelo           | Ethanol 90%      | 1616902      | 1              |
| Caelo           | Ethanol 90%      | 16194401     | 2              |
| Caelo           | Ethanol 90%      | 16194402     | 2              |
| Caelo           | Ethanol 90%      | 16194403     | 8              |
| Caelo           | Ethanol 90%      | 16194501     | 6              |
| Caelo           | Ethanol 90%      | 16194601     | 5              |
| Caelo           | Ethanol 90%      | 16194701     | 6              |
| Caelo           | Ethanol 90%      | 16194702     | 10             |
| Caelo           | Ethanol 90%      | 16314201     | 4              |
| Caelo           | Ethanol 90%      | 16314202     | 2              |
| Caelo           | Ethanol 90%      | 16314301     | 7              |
| Caelo           | Ethanol 90%      | 16314302     | 10             |
| Caelo           | Ethanol 90%      | 16314303     | 2              |
| Caelo           | Ethanol 90%      | 16314401     | 3              |
| Caelo           | Ethanol 90%      | 16314403     | 1              |
| Caelo           | Ethanol 90%      | 17047802     | 4              |
| Caelo           | Ethanol 90%      | 17047803     | 5              |
| Caelo           | Ethanol 90%      | 17047804     | 2              |
| Caelo           | Ethanol 90%      | 17047901     | 8              |
| Caelo           | Ethanol 90%      | 17047902     | 4              |
| Caelo           | Ethanol 90%      | 17048001     | 8              |
| Caelo           | Ethanol 90%      | 17048002     | 6              |
| Caelo           | Ethanol 90%      | 17048003     | 2              |
| Caelo           | Ethanol 90%      | 17048004     | 3              |
| Caelo           | Ethanol 90%      | 1714102      | 2              |
| Caelo           | Ethanol 90%      | 17173901     | 1              |
| Caelo           | Ethanol 90%      | 17173902     | 1              |
| Caelo           | Ethanol 90%      | 17173903     | 5              |
| Caelo           | Ethanol 90%      | 17174001     | 1              |
| Caelo           | Ethanol 90%      | 17174002     | 4              |
| Caelo           | Ethanol 90%      | 17174101     | 6              |
| Caelo           | Ethanol 90%      | 17174102     | 10             |
| Caelo           | Ethanol 90%      | 17174103     | 4              |
| Caelo           | Ethanol 90%      | 17206401     | 6              |
| Caelo           | Ethanol 90%      | 17306001     | 6              |
| Caelo           | Ethanol 90%      | 17306002     | 6              |
| Caelo           | Ethanol 90%      | 17306003     | 9              |
| Caelo           | Ethanol 90%      | 17306004     | 2              |
| Caelo           | Ethanol 90%      | 17306101     | 8              |
| Caelo           | Ethanol 90%      | 17306202     | 7              |
| Caelo           | Ethanol 90%      | 17306203     | 2              |
| Caelo           | Ethanol 90%      | 17306205     | 8              |
| Caelo           | Ethanol 90%      | 17306301     | 16             |
| Caelo           | Ethanol 90%      | 17306302     | 11             |
| Caelo           | Ethanol 90%      | 1736101      | 1              |
| Caelo           | Ethanol 90%      | 1806301      | 1              |
| Caelo           | Ethanol 90%      | 18089801     | 5              |
| Caelo           | Ethanol 90%      | 18089901     | 9              |
| Caelo           | Ethanol 90%      | 18089902     | 21             |
| Caelo           | Ethanol 90%      | 18090001     | 19             |
| Caelo           | Ethanol 90%      | 18200101     | 6              |
| Caelo           | Ethanol 90%      | 18200201     | 12             |
| Caelo           | Ethanol 90%      | 18200202     | 12             |
| Caelo           | Ethanol 90%      | 18200203     | 15             |
| Caelo           | Ethanol 90%      | 18306201     | 10             |
| Caelo           | Ethanol 90%      | 18306202     | 7              |
| Caelo           | Ethanol 90%      | 18306203     | 5              |
| Caelo           | Ethanol 90%      | 18306301     | 9              |
| Caelo           | Ethanol 90%      | 18306302     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Ethanol 90%      | 18306401     | 10             |
| Caelo           | Ethanol 90%      | 18306402     | 23             |
| Caelo           | Ethanol 90%      | 190433801    | 1              |
| Caelo           | Ethanol 90%      | 19043701     | 3              |
| Caelo           | Ethanol 90%      | 19043801     | 2              |
| Caelo           | Ethanol 90%      | 19043802     | 7              |
| Caelo           | Ethanol 90%      | 1908202      | 1              |
| Caelo           | Ethanol 90%      | 19096202     | 1              |
| Caelo           | Ethanol 90%      | 19098201     | 5              |
| Caelo           | Ethanol 90%      | 19098202     | 29             |
| Caelo           | Ethanol 90%      | 190982022    | 1              |
| Caelo           | Ethanol 90%      | 19098301     | 5              |
| Caelo           | Ethanol 90%      | 19098401     | 15             |
| Caelo           | Ethanol 90%      | 1915L-02303  | 1              |
| Caelo           | Ethanol 90%      | 1916402      | 1              |
| Caelo           | Ethanol 90%      | 1919640      | 1              |
| Caelo           | Ethanol 90%      | 19196401     | 24             |
| Caelo           | Ethanol 90%      | 19196402     | 4              |
| Caelo           | Ethanol 90%      | 1919641      | 1              |
| Caelo           | Ethanol 90%      | 19196501     | 11             |
| Caelo           | Ethanol 90%      | 19196601     | 3              |
| Caelo           | Ethanol 90%      | 200000564001 | 1              |
| Caelo           | Ethanol 90%      | 200002786002 | 1              |
| Caelo           | Ethanol 90%      | 200004033002 | 1              |
| Caelo           | Ethanol 90%      | 20000563001  | 14             |
| Caelo           | Ethanol 90%      | 20000563002  | 11             |
| Caelo           | Ethanol 90%      | 20000564001  | 20             |
| Caelo           | Ethanol 90%      | 20000564002  | 8              |
| Caelo           | Ethanol 90%      | 20000567001  | 4              |
| Caelo           | Ethanol 90%      | 20000569001  | 10             |
| Caelo           | Ethanol 90%      | 20000569002  | 1              |
| Caelo           | Ethanol 90%      | 20002784001  | 6              |
| Caelo           | Ethanol 90%      | 20002785001  | 4              |
| Caelo           | Ethanol 90%      | 20002786001  | 5              |
| Caelo           | Ethanol 90%      | 20002786002  | 11             |
| Caelo           | Ethanol 90%      | 20002787002  | 1              |
| Caelo           | Ethanol 90%      | 20004033001  | 2              |
| Caelo           | Ethanol 90%      | 20004033002  | 2              |
| Caelo           | Ethanol 90%      | 2000403301   | 1              |
| Caelo           | Ethanol 90%      | 20004034001  | 4              |
| Caelo           | Ethanol 90%      | 20004034002  | 3              |
| Caelo           | Ethanol 90%      | 20004036001  | 4              |
| Caelo           | Ethanol 90%      | 20004036002  | 3              |
| Caelo           | Ethanol 90%      | 20004036003  | 5              |
| Caelo           | Ethanol 90%      | 21003395001  | 1              |
| Caelo           | Ethanol 90%      | 21003396002  | 1              |
| Caelo           | Ethanol 90%      | 21105102     | 1              |
| Caelo           | Ethanol 90%      | 23051805     | 1              |
| Caelo           | Ethanol 90%      | 24000863     | 1              |
| Caelo           | Ethanol 90%      | 2413Q-03042  | 1              |
| Caelo           | Ethanol 90%      | 2515A-03042  | 1              |
| Caelo           | Ethanol 90%      | 42A151216    | 1              |
| Caelo           | Ethanol 90%      | 4717Q-02303  | 1              |
| Caelo           | Ethanol 90%      | 5119E02303   | 1              |
| Caelo           | Ethanol 90%      | 5209A-02303  | 1              |
| Caelo           | Ethanol 90%      | 5214E-02303  | 1              |
| Caelo           | Ethanol 90%      | 5A130214     | 1              |
| Caelo           | Ethanol 90%      | 713E-02303   | 1              |
| Caelo           | Ethanol 90%      | 806890       | 1              |
| Caelo           | Ethanol 90%      | 80933148     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>    | <b>Spectra</b> |
|----------------------------|------------------|-----------------|----------------|
| Caelo                      | Ethanol 90%      | 812201517047901 | 1              |
| Caelo                      | Ethanol 90%      | 814E-02303      | 1              |
| Caelo                      | Ethanol 90%      | 814E-03042      | 1              |
| Caelo                      | Ethanol 90%      | 915Q-02303      | 1              |
| Caelo                      | Ethanol 90%      | 9A270416        | 1              |
| Caelo                      | Ethanol 90%      | AKD6            | 1              |
| Caelo                      | Ethanol 90%      | Defektur        | 1              |
| Caesar & Loretz /Phönix    | Ethanol 90%      | 20004033002     | 1              |
| Caesar & Loretz GmbH / ... | Ethanol 90%      | 14208801        | 1              |
| Caesar & Loretz GmbH / ... | Ethanol 90%      | 15014002        | 1              |
| Caesar & Loretz GmbH / ... | Ethanol 90%      | 18200201        | 1              |
| Caesar & Loretz GmbH / ... | Ethanol 90%      | 19196401        | 1              |
| Caesar & Loretz GmbH, 4... | Ethanol 90%      | 12068301        | 1              |
| Caesar & Loretz GmbH, 4... | Ethanol 90%      | 12275402        | 1              |
| Caesar & Loretz GmbH, 4... | Ethanol 90%      | 13290202        | 1              |
| Caesar & Loretz GmbH/ G... | Ethanol 90%      | 20000563001     | 1              |
| Caesar & Loretz GmbH/Gehe  | Ethanol 90%      | 20000569001     | 1              |
| Caesar & Loretz GmbH/Je... | Ethanol 90%      | 20002786002     | 1              |
| Caesar & Loretz GmbH'/P... | Ethanol 90%      | 18306201        | 1              |
| Caesar & Loretz GmbH/Ph... | Ethanol 90%      | 20000563001     | 1              |
| Caesar & Loretz GmbH/Ph... | Ethanol 90%      | 20000569001     | 1              |
| Caesar & Loretz GmbH/Ph... | Ethanol 90%      | 20002784001     | 1              |
| Caesar & Loretz GmbH/Sa... | Ethanol 90%      | 20002787002     | 1              |
| Caesar & Loretz GmbH/Sa... | Ethanol 90%      | AP210205-04     | 1              |
| Caesar & Loretz GmbH'      | Ethanol 90%      | 17306203        | 1              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 18089901        | 1              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 18090001        | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 18306202        | 1              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 18306301        | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 18306401        | 6              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19043701        | 3              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19043801        | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19043802        | 3              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19098201        | 5              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19098301        | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19098401        | 9              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19196401        | 1              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19196402        | 1              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19196501        | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 19196601        | 3              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20000563001     | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20000563003     | 1              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20000564001     | 4              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20000567001     | 3              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20000569001     | 6              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20000569002     | 4              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20002784001     | 5              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20002785001     | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20002786001     | 4              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20002787001     | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20002787002     | 3              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20004033001     | 2              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20004035001     | 3              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20004036001     | 3              |
| Caesar & Loretz GmbH       | Ethanol 90%      | 20004036003     | 1              |
| Caesar & Loretz Hilden     | Ethanol 90%      | 18200203        | 1              |
| Caesar & Loretz Hilden     | Ethanol 90%      | 19098202        | 1              |
| Caesar & Loretz            | Ethanol 90%      | 16194501        | 1              |
| Cealo                      | Ethanol 90%      | 18306301        | 1              |
| Ceasar & Loretz GmbH / ... | Ethanol 90%      | 18200203        | 1              |

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| <b>Supplier</b>              | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|------------------------------|------------------|---------------|----------------|
| DEFEKTUR Schwanen-Apoth. ... | Ethanol 90%      | 170620-1      | 1              |
| Defektur/Wolf Apotheke       | Ethanol 90%      | 4521M-02303   | 1              |
| Defektur                     | Ethanol 90%      | 100420210315  | 1              |
| Defektur                     | Ethanol 90%      | 101820211021  | 1              |
| Defektur                     | Ethanol 90%      | 102320211122  | 1              |
| Defektur                     | Ethanol 90%      | 102420211130  | 1              |
| Defektur                     | Ethanol 90%      | 1715I-02303   | 1              |
| Defektur                     | Ethanol 90%      | 1816A-03042   | 1              |
| Defektur                     | Ethanol 90%      | 1LP20190710   | 1              |
| Defektur                     | Ethanol 90%      | 2115A-03042   | 1              |
| Defektur                     | Ethanol 90%      | 26112012D01   | 1              |
| Defektur                     | Ethanol 90%      | 3015M-03042   | 1              |
| Defektur                     | Ethanol 90%      | 3216N-03042   | 1              |
| Defektur                     | Ethanol 90%      | 3517A-03042   | 1              |
| Defektur                     | Ethanol 90%      | 4714E-03042   | 1              |
| Defektur                     | Ethanol 90%      | 4916E-03042   | 1              |
| Defektur                     | Ethanol 90%      | 5015I-03042   | 1              |
| Defektur                     | Ethanol 90%      | 60616/50Hk    | 1              |
| Defektur                     | Ethanol 90%      | 995201204     | 1              |
| Defektur                     | Ethanol 90%      | 998210106     | 1              |
| Defektur                     | Ethanol 90%      | 99920210113   | 1              |
| Defektur                     | Ethanol 90%      | H1917I03042   | 1              |
| Delta                        | Ethanol 90%      | 17048003      | 1              |
| Destillerie Kammer-Kirs. ... | Ethanol 90%      |               | 5              |
| Doppeleiche Apotheke         | Ethanol 90%      | 190411003     | 1              |
| Doppeleiche Apotheke         | Ethanol 90%      | 190415002     | 1              |
| Doppeleiche Apotheke         | Ethanol 90%      | 190729007     | 1              |
| Duburg- Apotheke             | Ethanol 90%      | 1121A-02303   | 1              |
| Ebert & Jacobi               | Ethanol 90%      | 17047902      | 1              |
| Eigen Apotheke               | Ethanol 90%      | 3417E-03042   | 1              |
| Eigen/Apotärze               | Ethanol 90%      | 4818Q-02303   | 1              |
| Eigen/Neue Apotheke          | Ethanol 90%      | 4315I-02303   | 2              |
| eigen                        | Ethanol 90%      | 20200326-JS   | 1              |
| Eigen                        | Ethanol 90%      | 2220A-02303   | 1              |
| eigen                        | Ethanol 90%      | 3119I-03042   | 1              |
| EIGEN                        | Ethanol 90%      | 4220E-02303   | 1              |
| Eigen                        | Ethanol 90%      | 4617E         | 1              |
| Eigen                        | Ethanol 90%      | 817Q-03042    | 1              |
| Eigen                        | Ethanol 90%      | A041301       | 1              |
| eigene Herstellung           | Ethanol 90%      | 1721A-02303   | 2              |
| eigene Herstellung           | Ethanol 90%      | 2412E02303    | 1              |
| Eigene Herstellung           | Ethanol 90%      | 4317A-02303   | 1              |
| eigene Herstellung           | Ethanol 90%      | SP9025        | 1              |
| Eigene Herstellung           | Ethanol 90%      | SP9090        | 1              |
| Eigene Herstellung           | Ethanol 90%      | SPV9024       | 1              |
| eigene                       | Ethanol 90%      | 120Q-02303    | 1              |
| eigene                       | Ethanol 90%      | 1419A-02303   | 1              |
| eigene                       | Ethanol 90%      | 2720I-02303   | 1              |
| eigene                       | Ethanol 90%      | 4219M-02303   | 1              |
| eigene                       | Ethanol 90%      | 4319A-02303   | 1              |
| eigene                       | Ethanol 90%      | 4918A-02303   | 1              |
| eigene                       | Ethanol 90%      | 518U-02303    | 1              |
| eigene                       | Ethanol 90%      | 5218Q-02302   | 1              |
| Eigene                       | Ethanol 90%      | 821I02303     | 1              |
| Eigenherstellung Hubert. ... | Ethanol 90%      | 2014072222DF  | 1              |
| Eigenherstellung             | Ethanol 90%      | 1119E-02303   | 1              |
| Eigenherstellung             | Ethanol 90%      | 115Q-07057    | 1              |
| Eigenherstellung             | Ethanol 90%      | 1312I-07057   | 1              |
| Eigenherstellung             | Ethanol 90%      | 14032019-0190 | 1              |
| Eigenherstellung             | Ethanol 90%      | 1515I-02303   | 1              |

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| <b>Supplier</b>      | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------|------------------|--------------|----------------|
| Eigenherstellung     | Ethanol 90%      | 1613A-07057  | 1              |
| Eigenherstellung     | Ethanol 90%      | 1620I-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 1716Q-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 1919Q-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 217I-02303   | 1              |
| Eigenherstellung     | Ethanol 90%      | 2614I-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 3416E-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 3416E-07057  | 1              |
| Eigenherstellung     | Ethanol 90%      | 3917E-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 4161112      | 1              |
| Eigenherstellung     | Ethanol 90%      | 416A-02303   | 1              |
| Eigenherstellung     | Ethanol 90%      | 4211215      | 1              |
| Eigenherstellung     | Ethanol 90%      | 4313Q-07057  | 1              |
| Eigenherstellung     | Ethanol 90%      | 4320M-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 4414A-07057  | 1              |
| Eigenherstellung     | Ethanol 90%      | 4713Q-07057  | 1              |
| Eigenherstellung     | Ethanol 90%      | 4718Q-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 4733         | 1              |
| Eigenherstellung     | Ethanol 90%      | 4819E-02303  | 1              |
| Eigenherstellung     | Ethanol 90%      | 514E-07057   | 1              |
| Eigenherstellung     | Ethanol 90%      | 821E-02303   | 1              |
| Eigenprodukt         | Ethanol 90%      | H139-2841    | 1              |
| Eigenproduktion      | Ethanol 90%      | 1316M-02303  | 1              |
| Eigenproduktion      | Ethanol 90%      | 192521C      | 1              |
| Engel/Engel          | Ethanol 90%      | 4415A-07014  | 1              |
| Euro OTC             | Ethanol 90%      | 17174002     | 1              |
| Fagron               | Ethanol 90%      | 14027303     | 1              |
| Fagron               | Ethanol 90%      | 15442602     | 1              |
| Fagron               | Ethanol 90%      | 16314201     | 3              |
| Fagron               | Ethanol 90%      | 17306003     | 2              |
| Fagron               | Ethanol 90%      | 17306302     | 1              |
| Fagron               | Ethanol 90%      | 270614P1     | 1              |
| Fiebig               | Ethanol 90%      | 40A201117    | 1              |
| Galderma / Noweda    | Ethanol 90%      | 16107001     | 1              |
| GEHE 29.04.2014      | Ethanol 90%      | 14027502     | 2              |
| Gehe amax            | Ethanol 90%      | 19196501     | 1              |
| Gehe                 | Ethanol 90%      | 12068201     | 1              |
| Gehe                 | Ethanol 90%      | 14A180520    | 1              |
| Gehe                 | Ethanol 90%      | 15328301     | 1              |
| Gehe                 | Ethanol 90%      | 15442801     | 1              |
| Gehe                 | Ethanol 90%      | 16106901     | 1              |
| Gehe                 | Ethanol 90%      | 17048002     | 1              |
| Gehe                 | Ethanol 90%      | 17174102     | 1              |
| Gehe                 | Ethanol 90%      | 18089801     | 1              |
| GEHE                 | Ethanol 90%      | 18090001     | 1              |
| GEHE                 | Ethanol 90%      | 18200101     | 1              |
| Gehe                 | Ethanol 90%      | 18306201     | 1              |
| Gehe                 | Ethanol 90%      | 19098201     | 1              |
| Gehe                 | Ethanol 90%      | 20000569001  | 1              |
| GEHE                 | Ethanol 90%      | 28A110917    | 1              |
| Gehe                 | Ethanol 90%      | 3118I-02303  | 1              |
| Gehe                 | Ethanol 90%      | 3A060618     | 1              |
| Geilenkirchen        | Ethanol 90%      | 15010501     | 1              |
| Germania Apo         | Ethanol 90%      | 219060       | 1              |
| Goethe Apotheke      | Ethanol 90%      | 519M-03042   | 1              |
| Gutenberg-Apotheke   | Ethanol 90%      | 140324001    | 1              |
| Gutenberg-Apotheke   | Ethanol 90%      | Defektur     | 1              |
| Gütte/Phönix         | Ethanol 90%      | 20112013-M   | 1              |
| Hedinger             | Ethanol 90%      | 716020Be     | 1              |
| Henry Lamotte/Noweda | Ethanol 90%      | 10889901     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Herstellung                | Ethanol 90%      | 110416P1         | 1              |
| Hirsch                     | Ethanol 90%      | 11233            | 1              |
| Hirsch                     | Ethanol 90%      | 5013Q-02303      | 2              |
| HirschApotheke             | Ethanol 90%      | 10151-02303      | 1              |
| Hochhaus-Apotheke          | Ethanol 90%      | 2616Q-03042      | 1              |
| Hochhaus-Apotheke          | Ethanol 90%      | 4514A-03042      | 1              |
| Hoffmann / Bahnhof Apot... | Ethanol 90%      | 219E-03042       | 1              |
| Jenne                      | Ethanol 90%      | 19098202         | 1              |
| Kastner (eigen)            | Ethanol 90%      | 1215I-02303      | 1              |
| Kastner (eigen)            | Ethanol 90%      | 3114E-03042      | 1              |
| Kastner                    | Ethanol 90%      | 1314I-03042      | 1              |
| Kessler                    | Ethanol 90%      |                  | 1              |
| Kreuzäcker Apotheke        | Ethanol 90%      | 822A-02303       | 1              |
| Kruppa                     | Ethanol 90%      | 818H3            | 1              |
| KWST / KWST                | Ethanol 90%      | 4118E-02303      | 1              |
| Libellen Apotheke          | Ethanol 90%      | 1515Q-02303      | 1              |
| Löwen-Apotheke             | Ethanol 90%      | 1218Q-03042      | 1              |
| Markt Apotheke             | Ethanol 90%      | 4619M-02303      | 1              |
| Martinus-Apotheke Defek... | Ethanol 90%      | E-210120-1D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | A-160913-2D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-021116-3D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-030117-1Praxis | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-040414-1D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-060418-1D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-080114-1D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-130216-1D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-160416-1D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-211014-1D      | 1              |
| Martinus-Apotheke          | Ethanol 90%      | E-220716-1P      | 1              |
| Martinus-Apothke           | Ethanol 90%      | E-170215-1D      | 1              |
| Nachprüfung                | Ethanol 90%      | 2418M-02303      | 1              |
| Nachprüfung                | Ethanol 90%      | 913Q-03042       | 1              |
| Noweda/PKH Halle           | Ethanol 90%      | 5A160718         | 1              |
| Noweda                     | Ethanol 90%      | 10A170314        | 1              |
| Noweda                     | Ethanol 90%      | 13290203         | 1              |
| Noweda                     | Ethanol 90%      | 15219302         | 1              |
| Noweda                     | Ethanol 90%      | 15328301         | 1              |
| Noweda                     | Ethanol 90%      | 15442602         | 1              |
| Noweda                     | Ethanol 90%      | 15442603         | 1              |
| Noweda                     | Ethanol 90%      | 16314302         | 1              |
| Noweda                     | Ethanol 90%      | 18306402         | 1              |
| Phoenix 09.10.19 15,51EUR  | Ethanol 90%      | 19098202         | 1              |
| Phoenix                    | Ethanol 90%      | 13019703         | 1              |
| Phoenix                    | Ethanol 90%      | 13399802         | 1              |
| Phoenix                    | Ethanol 90%      | 17047802         | 1              |
| Phoenix                    | Ethanol 90%      | 1925681          | 2              |
| Phoenix                    | Ethanol 90%      | 20000564001      | 1              |
| Phoenix                    | Ethanol 90%      | 3077             | 1              |
| Phönix/Beiersdorf          | Ethanol 90%      | 18089901         | 1              |
| Phönix/Cealo               | Ethanol 90%      | 18090001         | 1              |
| phönix                     | Ethanol 90%      |                  | 1              |
| Phönix                     | Ethanol 90%      | 13399604         | 1              |
| Phonix                     | Ethanol 90%      | 14052601         | 1              |
| Phönix                     | Ethanol 90%      | 15442703         | 1              |
| Phönix                     | Ethanol 90%      | 1694702          | 1              |
| Phönix                     | Ethanol 90%      | 17306002         | 1              |
| Phönix                     | Ethanol 90%      | 19098401         | 1              |
| Phönix                     | Ethanol 90%      | 7A170918         | 1              |
| PKH GmbH/ Alliance Heal... | Ethanol 90%      | 11A150517        | 2              |
| PKH Halle/Noweda           | Ethanol 90%      | 4A290114         | 2              |

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| Supplier                   | Substance   | Batch          | Spectra |
|----------------------------|-------------|----------------|---------|
| PKH Halle/Sanacorp         | Ethanol 90% | 1A040418       | 1       |
| PKH Halle                  | Ethanol 90% | 1A040418       | 1       |
| PKH Halle                  | Ethanol 90% | 9A270416       | 1       |
| PKH                        | Ethanol 90% | 23A180615      | 1       |
| pkh                        | Ethanol 90% | 2a110319       | 1       |
| Post-Apotheke 15.01.2014   | Ethanol 90% | 15012014       | 1       |
| Post-Apotheke              | Ethanol 90% | 1414A-02303    | 1       |
| Rappen-Apotheke            | Ethanol 90% | 190513-2       | 1       |
| Rappen-Apotheke            | Ethanol 90% | 200430-2       | 1       |
| Rappen-Apotheke            | Ethanol 90% | 200623-1       | 1       |
| Römer-Apotheke             | Ethanol 90% | 150428003      | 1       |
| Römer-Apotheke             | Ethanol 90% | 1914E-03042    | 1       |
| Römer-Apotheke             | Ethanol 90% | 36141-03042    | 1       |
| Römer-Apotheke             | Ethanol 90% | 4213E-03042    | 1       |
| Rondell Apotheke           | Ethanol 90% | 4615E-02303    | 1       |
| Rondell Apotheke           | Ethanol 90% | 4615E-03042    | 1       |
| Rondell Apotheke           | Ethanol 90% | 4615E-07209    | 1       |
| Rondell Apotheke           | Ethanol 90% | 4814E-02303    | 1       |
| Rondell-Apotheke           | Ethanol 90% | 3913Q-03042    | 1       |
| Röntgen                    | Ethanol 90% | 18306402       | 1       |
| Rosenapotheke              | Ethanol 90% | 2417E-07094    | 1       |
| Sanacorp 24.11.14 EK 63... | Ethanol 90% | 14122101       | 1       |
| sanacorp                   | Ethanol 90% | 1030220120     | 1       |
| Sanacorp                   | Ethanol 90% | 15073202       | 1       |
| Sanacorp                   | Ethanol 90% | 1618E-02303    | 1       |
| Sanacorp                   | Ethanol 90% | 16194501       | 1       |
| Sanacorp                   | Ethanol 90% | 16194601       | 1       |
| Sanacorp                   | Ethanol 90% | 17306003       | 1       |
| Sanacorp                   | Ethanol 90% | 19098301       | 1       |
| Selbst hergestellt         | Ethanol 90% | 180320         | 1       |
| selbst hergestellt         | Ethanol 90% | 1LG20180616    | 1       |
| selbst hergestellt         | Ethanol 90% | 1MH160427      | 1       |
| Solling-Apo                | Ethanol 90% | 181213001      | 1       |
| Stern                      | Ethanol 90% | 150622004      | 1       |
| Taoasis                    | Ethanol 90% | VE4038-127890  | 1       |
| Taoasis                    | Ethanol 90% | VE40438-127890 | 1       |
| Toeste Apotheke            | Ethanol 90% | 4819A-03042    | 1       |
| Tsiripidou (Fortuna Apo... | Ethanol 90% |                | 1       |
| Tsiripidou                 | Ethanol 90% | 180324         | 1       |
| VbF B/Phönix               | Ethanol 90% | 5585102        | 1       |
| VDL 09.05.14               | Ethanol 90% | 13399801       | 1       |
| verdünnt von 96% von Ap... | Ethanol 90% | 190208002      | 1       |
| Wolf Apotheke/Defektur     | Ethanol 90% | 80615/50Kr     | 1       |
| Wolf Apotheke              | Ethanol 90% |                | 3       |
| Wolf-Apotheke / Defektur   | Ethanol 90% | 70428/50Hk     | 1       |
| Wolf-Apotheke/Defektur     | Ethanol 90% | 1021M-02303    | 1       |
| Wolf-Apotheke/Defektur     | Ethanol 90% | 1921I-02303    | 1       |
| Wolf-Apotheke              | Ethanol 90% | 4020A-02303    | 1       |
| Wolf-Apotheke              | Ethanol 90% | 4820E-02303    | 1       |
| Wolf-Apotheke-Defektur     | Ethanol 90% | 80711/50Hk     | 1       |
| Zentrum-Apotheke           | Ethanol 90% | 514I-03042     | 1       |

- 287 284 spectra from 1294 *Apo-Ident* customers from a total of 51 396 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).



## Validation results

The validation runs checked whether the substance/substance group *Ethanol 90%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Ethanol 90%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 240           | 0              | 66 919        |
| <b>Type B</b> | 0              | 520           | 0              | 106 763       |
| <b>Type C</b> | 0              | 1423          | 2              | 287 190       |

The substance/substance group *Ethanol 90%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.5000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 98.8462 %) |
| <b>Type C</b> | 100.0000 % (> 99.6862 %) | 99.8596 % (> 99.6491 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Ethanol 90%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                    | Distance in main model | Distance in second-stage model |
|------------------------------|------------------------|--------------------------------|
| Dexpanthenol                 | 47.51                  | –                              |
| Dexpanthenol concentrate 50% | 100.14                 | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Ethanol 90%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:



| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31056     | 31056               | 0.00                         | 109.24                          |
| 31392     | 34737               | 5.24                         | 97.10                           |
| 33102     | 33102               | 0.00                         | 88.82                           |
| 34322     | 34322               | 0.00                         | 79.80                           |
| 34512     | 31056               | 1.88                         | 108.88                          |
| 34737     | 34737               | 0.00                         | 91.18                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Ethanol 96%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31488-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Ethanol 96%; Ethanolum 96%

### Special notes

When selecting the *Ethanol 96%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Ethanol 96%               | 4      | 2      | 835    |

## Second-stage model

For differentiation of the substance/substance group *Ethanol 96%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Ethanol 96%*:

| Supplier         | Substance   | Batch        | Sample ID | Spectra | Certificate |
|------------------|-------------|--------------|-----------|---------|-------------|
| Caelo            | Ethanol 96% | 182621       | 34330     | 40      | 20181119*   |
| Caelo            | Ethanol 96% | 190302       | 34457     | 40      | 20190206*   |
| Laborchemie A... | Ethanol 96% | 24001427     | 33852     | 40      | 20170801    |
| Merck            | Ethanol 96% | K45197671406 | 31488     | 60      | 1503676     |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 180 spectra of 4 reference samples from the substance/substance group *Ethanol 96%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 979 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Ethanol 96%*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier           | Substance   | Batch    | Sample ID | Spectra |
|--------------------|-------------|----------|-----------|---------|
| Caelo              | Ethanol 96% | 20003544 | 35251     | 40      |
| Laborchemie Apolda | Ethanol 96% | 25000305 | 34123     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 2163 spectra from 633 *Apo-Ident* customers from 853 batches from the substance/substance group *Ethanol 96%*.
- Among them are spectra of independent samples from 798 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                    | Substance   | Batch               | Spectra |
|-----------------------------|-------------|---------------------|---------|
| — (Retest)                  | Ethanol 96% | 374/17              | 1       |
|                             | Ethanol 96% |                     | 4       |
| .....                       | Ethanol 96% | 22001720            | 1       |
| /Phönix                     | Ethanol 96% | 140604              | 1       |
| A.H.D.                      | Ethanol 96% | 20000305            | 1       |
| Abtshof Magdeburg GmbH      | Ethanol 96% | L08020              | 1       |
| Agralko                     | Ethanol 96% | 1062015             | 1       |
| Agralko                     | Ethanol 96% | 2015010901          | 1       |
| AgrAlko                     | Ethanol 96% | 410-1405            | 1       |
| AgrAlko                     | Ethanol 96% | A2014000328         | 2       |
| Agraralkohol AG München     | Ethanol 96% |                     | 1       |
| AHC/Laborchemie Apolda      | Ethanol 96% | 24000161            | 1       |
| AHD 03.12.14 EK 85,21       | Ethanol 96% | 21002075            | 1       |
| AHK GmbH                    | Ethanol 96% | 18/02/09            | 1       |
| AHK GmbH                    | Ethanol 96% | 18/08/14            | 1       |
| Alfred Quadflieg, Gelse...  | Ethanol 96% | K16/08/03           | 1       |
| alk                         | Ethanol 96% | 100122017/07072017  | 1       |
| Alkoholvertrieb Süd Dr. ... | Ethanol 96% | 39552016/28012016   | 1       |
| Alkohol Vertrieb Süd        | Ethanol 96% | 121952017/21082017  | 1       |
| Alkoholvertrieb/Süd         | Ethanol 96% | 136842018/0102018   | 1       |
| Alkoholvertrieb/Süd         | Ethanol 96% | 60492019/18032019   | 2       |
| Alkoholvertrieb Bernd M...  | Ethanol 96% | 3074201709012017    | 1       |
| Alkoholvertrieb Dr. Ber...  | Ethanol 96% | 15132014/02122013   | 1       |
| Alkoholvertrieb Dr. Ber...  | Ethanol 96% | 41010414052992014   | 1       |
| Alkoholvertrieb Süd GmbH... | Ethanol 96% | 124412018/28082018  | 1       |
| Alkoholvertrieb Süd GmbH... | Ethanol 96% | 1313081029/26082013 | 1       |
| Alkoholvertrieb Süd GmbH... | Ethanol 96% | 30742017/09012017   | 1       |
| Alkoholvertrieb Süd GmbH... | Ethanol 96% | 6282017/24102016    | 2       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 10412020/04112019   | 1       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 122022020           | 1       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 1313081029/26082013 | 1       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 136842018/01102018  | 2       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 138512017/28092017  | 1       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 17962021            | 3       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 2/0713              | 1       |
| Alkoholvertrieb Süd GmbH    | Ethanol 96% | 32132021            | 1       |

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| Supplier                   | Substance   | Batch                 | Spectra |
|----------------------------|-------------|-----------------------|---------|
| Alkoholvertrieb Süd GmbH   | Ethanol 96% | keine                 | 1       |
| Alkoholvertrieb Süd/ Dr... | Ethanol 96% | 136842018/01102018    | 1       |
| Alkoholvertrieb Süd/ Dr... | Ethanol 96% | 30742017/09012017     | 1       |
| Alkoholvertrieb Süd/DPD    | Ethanol 96% | 41010315061020072015  | 1       |
| Alkoholvertrieb Süd/Gehe   | Ethanol 96% | 1410T130111514122015  | 1       |
| Alkoholvertrieb Süd/Gehe   | Ethanol 96% | 3297636/11062014      | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% |                       | 2       |
| Alkoholvertrieb Süd        | Ethanol 96% | 100122017/07072017    | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 10412020/04112019     | 2       |
| Alkoholvertrieb Süd        | Ethanol 96% | 105272020             | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 116702016/05092016    | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 121952017/21082017    | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 124412018/28082018    | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 12532019/03122018     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 1313081029/26082013   | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 138512107/28092017    | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 17962021              | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 18122017/25112016     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 32132021              | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 3297636/11062014      | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 3742017/090112017     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 38422020/10022020     | 4       |
| Alkoholvertrieb Süd        | Ethanol 96% | 38422020/10022020--1  | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 38422020/10022020--2  | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 38422020/10022020--3  | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 38422020/10022020---4 | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 39552016/28012016     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 410-104-1405/2909201  | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 410-1101502/16032015  | 1       |
| Alkoholvertrieb süd        | Ethanol 96% | 53472018/0032018      | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 53472018/0032018      | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 5643/VALU38679/23     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 60492019/18032019     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 6282017/24102016      | 3       |
| Alkoholvertrieb Süd        | Ethanol 96% | 6537201/27052017      | 1       |
| Alkoholvertrieb süd        | Ethanol 96% | 71192018/23042018     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 71192018/23042018     | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 80452016/01062016     | 3       |
| Alkoholvertrieb Süd        | Ethanol 96% | 81692019/13052019     | 2       |
| Alkoholvertrieb Süd        | Ethanol 96% | 8522018/02112017      | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 8850                  | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 88502021              | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 9012016/05112015      | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 95772020              | 1       |
| Alkoholvertrieb Süd        | Ethanol 96% | 97612016/18072016     | 1       |
| Alkoholvertrieb Sued       | Ethanol 96% | 87872017/29052017     | 1       |
| Alkoholvertrieb            | Ethanol 96% | 100122017/07072017    | 1       |
| Alkoholvertrieb            | Ethanol 96% | 105272020             | 1       |
| Alkoholvertrieb            | Ethanol 96% | 11A17/1               | 1       |
| Alkoholvertrieb            | Ethanol 96% | 65942020/20042020     | 1       |
| All. Healthc. / Laborph... | Ethanol 96% | 22000616              | 1       |
| All.Heal./laborchemie A... | Ethanol 96% | 21001053              | 1       |
| All.Heal./laborchemie A... | Ethanol 96% | 21001561              | 1       |
| Allchem /Allchem           | Ethanol 96% | Sorte410/UN1170       | 2       |
| Allchem/Phönix             | Ethanol 96% | 15266298              | 1       |
| AllchemGmbH                | Ethanol 96% | UN1170                | 2       |
| alliance Health. 23.10.14  | Ethanol 96% | 21001379              | 1       |
| Alliance/LaborChemie       | Ethanol 96% | 25001980              | 1       |
| AllianceHealthcare         | Ethanol 96% | 22001291              | 1       |
| AllianceHealthcare         | Ethanol 96% | 23000997              | 1       |

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| Supplier                   | Substance   | Batch        | Spectra |
|----------------------------|-------------|--------------|---------|
| Allianz Healthcare         | Ethanol 96% | 26000285     | 1       |
| AMANN CHEMIE GmbH          | Ethanol 96% | n732001736   | 2       |
| AMANN CHEMIE GmbH          | Ethanol 96% | N732001736   | 2       |
| AMANN CHEMIE GmbH          | Ethanol 96% | UN1117       | 4       |
| Amann Chemie GmbH; Brei... | Ethanol 96% | 1410T1231219 | 1       |
| Amman Chemie               | Ethanol 96% | N732001736   | 1       |
| Anzag / Labor chemie       | Ethanol 96% | 25000305     | 1       |
| Anzag/ Laborchemie Apol... | Ethanol 96% | 26002023     | 1       |
| Anzag/Apolda               | Ethanol 96% | 24001494     | 1       |
| Anzag/Hedinger             | Ethanol 96% | 23000749     | 1       |
| Anzag/Heyl                 | Ethanol 96% | 24002259     | 1       |
| Anzag/Heyl                 | Ethanol 96% | 25000305     | 1       |
| Anzag/Heyl                 | Ethanol 96% | 26000283     | 2       |
| Anzag                      | Ethanol 96% | 19000121     | 1       |
| Anzag                      | Ethanol 96% | 25000305     | 1       |
| Anzag                      | Ethanol 96% | 25001144     | 1       |
| anzag                      | Ethanol 96% | 25439        | 1       |
| Apolda / Alliance Healt... | Ethanol 96% | 24000927     | 1       |
| Apolda / Anzag             | Ethanol 96% | 22001717     | 1       |
| Apolda / Gehe              | Ethanol 96% | 20000065     | 1       |
| Apolda / Gehe              | Ethanol 96% | 20000974     | 1       |
| Apolda / Gehe              | Ethanol 96% | 23001357     | 1       |
| Apolda / Noweda            | Ethanol 96% | 25001138     | 1       |
| Apolda / Noweda            | Ethanol 96% | 25001955     | 1       |
| Apolda / Noweda            | Ethanol 96% | 26000283     | 1       |
| Apolda / Sanacorp          | Ethanol 96% | 20002191     | 1       |
| Apolda / Sanacorp          | Ethanol 96% | 22001985     | 1       |
| Apolda /Noweda             | Ethanol 96% | 24002163     | 1       |
| Apolda GmbH Heyl           | Ethanol 96% | 27000743     | 1       |
| Apolda GMBH/Anzag          | Ethanol 96% | 21001382     | 1       |
| Apolda GmbH/Gehe           | Ethanol 96% | 22000616     | 1       |
| Apolda GmbH/N/PZN:10137... | Ethanol 96% | 20000975     | 1       |
| Apolda gmbH/N              | Ethanol 96% | 21002064     | 1       |
| Apolda gmbH/N              | Ethanol 96% | 22000999     | 1       |
| Apolda GMBH/Noweda         | Ethanol 96% | 22000616     | 1       |
| Apolda GMBH/Noweda         | Ethanol 96% | 24000863     | 1       |
| Apolda GMBH/Noweda         | Ethanol 96% | 25001144     | 1       |
| Apolda GmbH                | Ethanol 96% | 100050       | 1       |
| Apolda GmbH                | Ethanol 96% | 19001936     | 1       |
| Apolda GmbH                | Ethanol 96% | 20000305     | 1       |
| apolda gmbh                | Ethanol 96% | 210001054    | 1       |
| apolda gmbh                | Ethanol 96% | 21000152     | 2       |
| apolda gmbh                | Ethanol 96% | 21001379     | 1       |
| Apolda GmbH                | Ethanol 96% | 21001379     | 2       |
| Apolda GmbH                | Ethanol 96% | 21001382     | 1       |
| apolda gmbh                | Ethanol 96% | 21001736     | 1       |
| Apolda GmbH                | Ethanol 96% | 22000086     | 1       |
| apolda gmbh                | Ethanol 96% | 22000999     | 1       |
| Apolda GmbH                | Ethanol 96% | 22001717     | 1       |
| Apolda GmbH                | Ethanol 96% | 22001948     | 1       |
| Apolda Gmbh                | Ethanol 96% | 24001427     | 1       |
| Apolda GmbH                | Ethanol 96% | 24002163     | 1       |
| Apolda GmbH                | Ethanol 96% | 27000531     | 1       |
| Apolda GmbH                | Ethanol 96% | 27000743     | 1       |
| Apolda Laborchemie         | Ethanol 96% | 19002599     | 1       |
| Apolda Laborchemie         | Ethanol 96% | 20001887     | 1       |
| Apolda, direkt best.       | Ethanol 96% | 21001560     | 1       |
| Apolda, Gehe               | Ethanol 96% | 20001887     | 1       |
| Apolda, Gehe               | Ethanol 96% | 20002192     | 1       |
| Apolda, Noweda             | Ethanol 96% | 20001212     | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Apolda, Phönix             | Ethanol 96%      | 20000307     | 1              |
| Apolda/ Alliance Health... | Ethanol 96%      | 23000175     | 1              |
| Apolda/ Alliance           | Ethanol 96%      | 25000305     | 1              |
| Apolda/ Gehe               | Ethanol 96%      | 24001427     | 1              |
| Apolda/ Sanacorp           | Ethanol 96%      | 21000154     | 2              |
| Apolda/ Sanacorp           | Ethanol 96%      | 21001380     | 1              |
| Apolda/ Sanacorp           | Ethanol 96%      | 21001560     | 1              |
| Apolda/ Sanacorp           | Ethanol 96%      | 21002239     | 1              |
| Apolda/ Sanacorp           | Ethanol 96%      | 22000090     | 1              |
| Apolda/Ebert               | Ethanol 96%      | 24000920     | 1              |
| Apolda/Gehe                | Ethanol 96%      | 20002193     | 1              |
| Apolda/Gehe                | Ethanol 96%      | 24000186     | 1              |
| Apolda/Gehe                | Ethanol 96%      | 24001427     | 1              |
| Apolda/Gehe                | Ethanol 96%      | 24002163     | 1              |
| Apolda/Gehe                | Ethanol 96%      | 25001980     | 1              |
| Apolda/GEHE                | Ethanol 96%      | 26002023     | 2              |
| Apolda/Heyl/Noweda         | Ethanol 96%      | 22001985     | 3              |
| Apolda/Heyl/Noweda         | Ethanol 96%      | 23000749     | 1              |
| Apolda/Heyl/Noweda         | Ethanol 96%      | 23001368     | 1              |
| Apolda/Heyl/Noweda         | Ethanol 96%      | 24000187     | 1              |
| Apolda/Noweda              | Ethanol 96%      | 23001368     | 1              |
| Apolda/Noweda              | Ethanol 96%      | 24000163     | 1              |
| Apolda/Noweda              | Ethanol 96%      | 24001427     | 1              |
| Apolda/Noweda              | Ethanol 96%      | 25001955     | 1              |
| Apolda/Phoenix             | Ethanol 96%      | 21000197     | 1              |
| Apolda/Phoenix             | Ethanol 96%      | 22000616     | 1              |
| Apolda/Phoenix             | Ethanol 96%      | 25001980     | 3              |
| Apolda/Phönix              | Ethanol 96%      | 21002269     | 1              |
| Apolda/Phönix              | Ethanol 96%      | 22000096     | 1              |
| Apolda/Phönix              | Ethanol 96%      | 22000616     | 1              |
| Apolda/Phönix              | Ethanol 96%      | 22001291     | 1              |
| Apolda/Phönix              | Ethanol 96%      | 3613M-02304  | 1              |
| Apolda/Sana                | Ethanol 96%      | 24001427     | 1              |
| Apolda/Sanacorp            | Ethanol 96%      | 22000090     | 1              |
| Apolda/Sanacorp            | Ethanol 96%      | 22000392     | 1              |
| Apolda/Sanacorp            | Ethanol 96%      | 24002163     | 1              |
| Apolda/Sanacorp            | Ethanol 96%      | 250001980    | 2              |
| Apolda/Sanacorp            | Ethanol 96%      | 25000305     | 1              |
| Apolda/Sanacorp            | Ethanol 96%      | 25001144     | 4              |
| Apolda/Sanacorp            | Ethanol 96%      | 26000285     | 1              |
| Apolda/Sanacorp            | Ethanol 96%      | 26001268     | 2              |
| Apolda/Spangro             | Ethanol 96%      | 22002231     | 1              |
| Apolda/Spangro             | Ethanol 96%      | 24001494     | 1              |
| Apolda/VDL                 | Ethanol 96%      | 20001830     | 1              |
| Apolda                     | Ethanol 96%      | 21002268     | 1              |
| Apolda                     | Ethanol 96%      | 22001718     | 1              |
| Apolda                     | Ethanol 96%      | 22002230     | 1              |
| Apolda                     | Ethanol 96%      | 23001368     | 1              |
| Apolda                     | Ethanol 96%      | 24000161     | 1              |
| Apolda                     | Ethanol 96%      | 25000361     | 1              |
| Apolda                     | Ethanol 96%      | 25001139     | 1              |
| Apolda                     | Ethanol 96%      | 25001954     | 1              |
| Apolda                     | Ethanol 96%      | 26000283     | 2              |
| Apolda                     | Ethanol 96%      | 26001211     | 1              |
| Apolda                     | Ethanol 96%      | 26001277     | 2              |
| Apolda                     | Ethanol 96%      | 27001078     | 1              |
| Applichem/Diagonal         | Ethanol 96%      | 70214PJK05   | 1              |
| Applichem                  | Ethanol 96%      | 220113PML01  | 1              |
| Aromatique/EAL             | Ethanol 96%      | 53842020     | 1              |
| Behkel                     | Ethanol 96%      | 21/06/10     | 1              |

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| Supplier                     | Substance   | Batch                   | Spectra |
|------------------------------|-------------|-------------------------|---------|
| Behlen/direkt                | Ethanol 96% | 1410T1090119            | 1       |
| Behlen/direkt                | Ethanol 96% | 1410T1170320            | 1       |
| Behlen/Phönix                | Ethanol 96% | 1410T1300816            | 1       |
| Behlen                       | Ethanol 96% | 1410T1140120            | 1       |
| Behlen                       | Ethanol 96% | Behlen                  | 1       |
| Bergchemie/Bergchemie        | Ethanol 96% | 17-05-19                | 2       |
| Bergchemie                   | Ethanol 96% |                         | 1       |
| Bergchemie                   | Ethanol 96% | 13/03/06                | 1       |
| Bergchemie                   | Ethanol 96% | 13/11/27                | 1       |
| bergchemie                   | Ethanol 96% | 14-06-04                | 1       |
| Bergchemie                   | Ethanol 96% | 14-06-04                | 1       |
| Bergchemie                   | Ethanol 96% | 14-08-12                | 2       |
| Bergchemie                   | Ethanol 96% | 14-10-16                | 1       |
| bergchemie                   | Ethanol 96% | 14-12-10                | 1       |
| Bergchemie                   | Ethanol 96% | 15/06/10                | 1       |
| Bergchemie                   | Ethanol 96% | 15-05-07                | 1       |
| Bergchemie                   | Ethanol 96% | 15-10-09                | 1       |
| Bergchemie                   | Ethanol 96% | 15-5-07                 | 1       |
| Bergchemie                   | Ethanol 96% | 16/01/06                | 2       |
| Bergchemie                   | Ethanol 96% | 16/02/02                | 1       |
| Bergchemie                   | Ethanol 96% | 16/08/03                | 1       |
| Bergchemie                   | Ethanol 96% | 5/0810                  | 1       |
| Bergchemie                   | Ethanol 96% | 9-03-07                 | 1       |
| Bergchemie                   | Ethanol 96% | aaaaaa                  | 1       |
| bergchemie                   | Ethanol 96% | UN1170                  | 1       |
| Berkel AHK                   | Ethanol 96% | 220217/824              | 1       |
| Berkel AHG                   | Ethanol 96% | 80318/931               | 1       |
| Berkel AHK / Werner Hof. ... | Ethanol 96% | 16/08/04                | 2       |
| Berkel AHK /TEREOS           | Ethanol 96% | 190515/669              | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | 110717/861internePN5216 | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | 40517/843               | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | VE37799                 | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | VE39460                 | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | VE40783                 | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | VE41728                 | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | VE42914                 | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | VE44224                 | 1       |
| Berkel AHK Alkoholhande. ... | Ethanol 96% | VE45584                 | 1       |
| Berkel AHK Alkoholhandel     | Ethanol 96% | VE32323                 | 1       |
| Berkel AHK Alkoholhandel     | Ethanol 96% | VE32507                 | 1       |
| Berkel AHK Berlin            | Ethanol 96% | 80318/931               | 1       |
| BERKEL AHK GmbH              | Ethanol 96% | 170712/334              | 2       |
| Berkel AHK/ MTG              | Ethanol 96% | 1410T31080819           | 1       |
| Berkel AHK/ Tereos, Ori. ... | Ethanol 96% | 16/02/02                | 1       |
| Berkel AHK/Berkel AHK        | Ethanol 96% | VE52339                 | 1       |
| Berkel AHK/MTG Sped.         | Ethanol 96% | 1410T31040319           | 1       |
| Berkel AHK/MTG Sped.         | Ethanol 96% | 1410T31080819           | 1       |
| Berkel AHK/MTG Sped.         | Ethanol 96% | 1410T31170619           | 1       |
| Berkel AHK                   | Ethanol 96% | 101017/884              | 1       |
| Berkel AHK                   | Ethanol 96% | 110220/123              | 1       |
| BERKEL AHK                   | Ethanol 96% | 110220/123              | 1       |
| Berkel AHK                   | Ethanol 96% | 110221/259              | 1       |
| Berkel AHK                   | Ethanol 96% | 111016/786              | 2       |
| Berkel AHK                   | Ethanol 96% | 1137111/08              | 1       |
| Berkel AHK                   | Ethanol 96% | 120516/746              | 1       |
| Berkel AHK                   | Ethanol 96% | 13/09/05                | 1       |
| Berkel AHK                   | Ethanol 96% | 13/11/08                | 1       |
| Berkel AHK                   | Ethanol 96% | 14/01/30                | 1       |
| Berkel AHK                   | Ethanol 96% | 14/09/17                | 1       |
| Berkel AHK                   | Ethanol 96% | 14/11/13                | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>   | <b>Spectra</b> |
|-----------------|------------------|----------------|----------------|
| Berkel AHK      | Ethanol 96%      | 1410T31010420  | 2              |
| Berkel Ahk      | Ethanol 96%      | 1410T31040320  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31040613  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31041219  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31050914  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31080113  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T311060513 | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31120520  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31121017  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31141212  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31151217  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31170320  | 2              |
| Berkel AHK      | Ethanol 96%      | 1410T31181213  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31191113  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31191118  | 1              |
| Berkel Ahk      | Ethanol 96%      | 1410T31200420  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31230418  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31271014  | 1              |
| Berkel AHK      | Ethanol 96%      | 1410T31280116  | 1              |
| Berkel AHK      | Ethanol 96%      | 15/07/23       | 2              |
| Berkel AHK      | Ethanol 96%      | 151125         | 1              |
| Berkel AHK      | Ethanol 96%      | 17/01/11       | 1              |
| Berkel AHK      | Ethanol 96%      | 17/09/07-1     | 1              |
| BERKEL AHK      | Ethanol 96%      | 170712/334     | 2              |
| Berkel AHK      | Ethanol 96%      | 171208         | 1              |
| Berkel AHK      | Ethanol 96%      | 180327         | 1              |
| Berkel AHK      | Ethanol 96%      | 190618/958     | 1              |
| Berkel AHK      | Ethanol 96%      | 20/01/09       | 1              |
| Berkel AHK      | Ethanol 96%      | 20/02/26       | 2              |
| Berkel AHK      | Ethanol 96%      | 20/03/27       | 1              |
| Berkel AHK      | Ethanol 96%      | 20/07/08       | 1              |
| Berkel AHK      | Ethanol 96%      | 200214/567     | 1              |
| Berkel AHK      | Ethanol 96%      | 21/02/26       | 1              |
| Berkel AHK      | Ethanol 96%      | 210714/598     | 1              |
| Berkel AHK      | Ethanol 96%      | 231018/995     | 1              |
| Berkel AHK      | Ethanol 96%      | 260411/145     | 2              |
| Berkel AHK      | Ethanol 96%      | 2906211085     | 1              |
| Berkel AHK      | Ethanol 96%      | 30320/130      | 2              |
| BERKEL AHK      | Ethanol 96%      | 30320/130      | 1              |
| Berkel AHK      | Ethanol 96%      | 30420/143      | 2              |
| Berkel AHK      | Ethanol 96%      | 30620/175      | 1              |
| Berkel AHK      | Ethanol 96%      | 310317/834     | 1              |
| Berkel AHK      | Ethanol 96%      | 310317/835     | 1              |
| Berkel AHK      | Ethanol 96%      | 3613Q2304      | 1              |
| Berkel AHK      | Ethanol 96%      | 40517/843      | 1              |
| Berkel AHK      | Ethanol 96%      | 50319/035      | 1              |
| BERKEL AHK      | Ethanol 96%      | 50319/035      | 1              |
| Berkel AHK      | Ethanol 96%      | 50820/190      | 1              |
| Berkel AHK      | Ethanol 96%      | 60919/1La      | 1              |
| Berkel AHK      | Ethanol 96%      | 61218/008      | 1              |
| Berkel AHK      | Ethanol 96%      | 70120/115      | 2              |
| Berkel AHK      | Ethanol 96%      | 80318/931      | 1              |
| Berkel AHK      | Ethanol 96%      | 80921/310      | 1              |
| BERKEL AHK      | Ethanol 96%      | 90321/265      | 1              |
| Berkel AHK      | Ethanol 96%      | 91214/632      | 1              |
| Berkel AHK      | Ethanol 96%      | VE28587        | 1              |
| Berkel AHK      | Ethanol 96%      | VE37799        | 1              |
| Berkel AHK      | Ethanol 96%      | VE46375        | 1              |
| Berkel AHK      | Ethanol 96%      | VE49686        | 1              |
| Berkel AHK      | Ethanol 96%      | VE50571        | 1              |

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| Supplier                   | Substance   | Batch          | Spectra |
|----------------------------|-------------|----------------|---------|
| Berkel AKK                 | Ethanol 96% | 190220         | 1       |
| Berkel/AHD                 | Ethanol 96% | 1410T31260321  | 1       |
| Berkel/Alliance Healthc... | Ethanol 96% | 231018/994     | 1       |
| Berkel/Anzag               | Ethanol 96% | 101017/884     | 1       |
| Berkel/Anzag               | Ethanol 96% | 241117/897     | 1       |
| Berkel/Ebert               | Ethanol 96% | 1410T31271115  | 1       |
| Berkel                     | Ethanol 96% |                | 1       |
| Berkel                     | Ethanol 96% | 140T31030517   | 1       |
| Berkel                     | Ethanol 96% | 1410T31010420  | 1       |
| Berkel                     | Ethanol 96% | 1410T31031120  | 1       |
| Berkel                     | Ethanol 96% | 1410T31040320  | 1       |
| Berkel                     | Ethanol 96% | 1410T31051115  | 1       |
| Berkel                     | Ethanol 96% | 1410T31060618  | 1       |
| Berkel                     | Ethanol 96% | 1410T31100621  | 1       |
| Berkel                     | Ethanol 96% | 1410T31110220  | 2       |
| Berkel                     | Ethanol 96% | 1410T31120520  | 1       |
| Berkel                     | Ethanol 96% | 1410T31140120  | 1       |
| Berkel                     | Ethanol 96% | 1410T31141015  | 1       |
| Berkel                     | Ethanol 96% | 1410T31151220  | 1       |
| Berkel                     | Ethanol 96% | 1410T31170320  | 1       |
| Berkel                     | Ethanol 96% | 1410T31180319  | 1       |
| Berkel                     | Ethanol 96% | 1410T31191113  | 1       |
| Berkel                     | Ethanol 96% | 1410T31200420  | 1       |
| Berkel                     | Ethanol 96% | 1410T31260814  | 1       |
| Berkel                     | Ethanol 96% | 1410T31290621  | 1       |
| Berkel                     | Ethanol 96% | 1410T31310715  | 1       |
| BERKEL                     | Ethanol 96% | 1410U          | 1       |
| Berkel                     | Ethanol 96% | 17/04/05       | 1       |
| Berkel                     | Ethanol 96% | 220217/824     | 1       |
| Berkel                     | Ethanol 96% | 30320/130      | 1       |
| BerkelAHK                  | Ethanol 96% | 1410T31060717  | 1       |
| BerkelAHK                  | Ethanol 96% | 1410T31271115  | 1       |
| BerkelAHK                  | Ethanol 96% | 16/11/23       | 1       |
| Berkel-AHK                 | Ethanol 96% | 30320/130      | 1       |
| BfB                        | Ethanol 96% | 1/2/3/4        | 1       |
| BfB                        | Ethanol 96% | 10065927       | 1       |
| BFB                        | Ethanol 96% | keinevorhanden | 1       |
| BfB-Betrieb München        | Ethanol 96% |                | 1       |
| Bimmer                     | Ethanol 96% |                | 2       |
| Bioenergi Icking GmbH      | Ethanol 96% | N781062528     | 1       |
| Bioenergi Icking GmbH      | Ethanol 96% | N781601635     | 12      |
| Bioenergi Icking GmbH      | Ethanol 96% | N781602528     | 3       |
| Bioenergi Icking GmbH      | Ethanol 96% | N781704668     | 4       |
| Bioenergie Icking GmbH     | Ethanol 96% | Bioenergie     | 1       |
| Bioenergie Icking GmbH     | Ethanol 96% | N781601635     | 1       |
| Bioenergie Icking GmbH     | Ethanol 96% | N781602528     | 1       |
| Bioenergie Icking GmbH     | Ethanol 96% | N781807555     | 2       |
| Bioenergie Icking GmbH     | Ethanol 96% | N781809027     | 1       |
| Bioenergie Icking GmbH     | Ethanol 96% | N781911663     | 1       |
| Bioenergie Icking GmbH     | Ethanol 96% | N782012869     | 1       |
| Bioenergie Icking          | Ethanol 96% | 201102170016   | 1       |
| Bioenergie Icking          | Ethanol 96% | N782012869     | 1       |
| Bioenergie Icking          | Ethanol 96% | N782014159     | 1       |
| bionergie icking           | Ethanol 96% | 781807555      | 1       |
| Bionorica                  | Ethanol 96% | 22001720       | 1       |
| Birkenhof Brennerei Nis... | Ethanol 96% | L200401        | 1       |
| BMV Branntwein             | Ethanol 96% |                | 5       |
| BMV Branntwein             | Ethanol 96% | Ch19           | 1       |
| Bombastus                  | Ethanol 96% | 27001625       | 1       |
| Brand GmbH Alkoholvertr... | Ethanol 96% | 24052013/60    | 1       |

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| Supplier                   | Substance   | Batch          | Spectra |
|----------------------------|-------------|----------------|---------|
| Brantweinmonopol           | Ethanol 96% | 613Et0H96      | 1       |
| Brantweinmonopolstelle     | Ethanol 96% | 110717/861     | 1       |
| Brantweinmonopolstelle     | Ethanol 96% | 150518/949     | 1       |
| Brantweinmonopolstelle     | Ethanol 96% | 261018/996     | 1       |
| Brantweinmonopolstelle     | Ethanol 96% | 40517/843      | 1       |
| Brantweinmonopolstelle     | Ethanol 96% | 50319/035      | 1       |
| Brauerei                   | Ethanol 96% | 200525A        | 1       |
| Brennerei Henrich          | Ethanol 96% | Re20200120     | 1       |
| Brennerei Hoffer Alter     | Ethanol 96% | Pandemie       | 1       |
| Brennerei Jürgen Friz      | Ethanol 96% | M781911905     | 1       |
| Brennerei Kessler Bad P... | Ethanol 96% | L1120          | 1       |
| Brennerei Kessler          | Ethanol 96% | 8020-3         | 1       |
| Brennerei Kessler          | Ethanol 96% | L-0120-L1020   | 1       |
| Brennerei Kessler          | Ethanol 96% | L4518          | 1       |
| Brennerei Marienhof        | Ethanol 96% |                | 4       |
| Brennerei                  | Ethanol 96% | 201408-1       | 1       |
| Brückemann                 | Ethanol 96% | V032006620     | 1       |
| Brückweg Apotheke          | Ethanol 96% | 1410T31241018  | 1       |
| Brüggemann Alkohol         | Ethanol 96% | 7815040634     | 1       |
| Brüggemann / Kammer Kir... | Ethanol 96% | N141901790     | 2       |
| Brüggemann Alkohol Heil... | Ethanol 96% | V032006620     | 1       |
| Brüggemann Alkohol Wite... | Ethanol 96% | N841700370     | 6       |
| Brüggemann Alkohol/ Bio... | Ethanol 96% | N781602528     | 1       |
| Brüggemann Alkohol/Heil... | Ethanol 96% | 7816123659     | 3       |
| Brüggemann Alkohol         | Ethanol 96% | 7814070382     | 1       |
| Brüggemann Alkohol         | Ethanol 96% | 7814120470     | 1       |
| Brüggemann Alkohol         | Ethanol 96% | 7815060735     | 3       |
| Brüggemann Alkohol         | Ethanol 96% | N781601503     | 1       |
| Brüggemann Alkohol Heil... | Ethanol 96% | N8170469278170 | 1       |
| Brüggemann Alkohol Witt... | Ethanol 96% | 7818118981     | 1       |
| Brüggemann Alkohol Witt... | Ethanol 96% | 7819121988     | 1       |
| Brüggemann Alkohol Witt... | Ethanol 96% | 7820022415     | 2       |
| Brüggemann Alkohol Witt... | Ethanol 96% | 7820033297     | 1       |
| Brüggemann Distilling C... | Ethanol 96% | N782013731     | 1       |
| Brüggemann Wittenberg      | Ethanol 96% | 7815010512     | 5       |
| Brüggemann Wittenberg      | Ethanol 96% | 7815030598     | 1       |
| Brüggemann Wittenberg      | Ethanol 96% | N781809140     | 1       |
| Brüggemann/ Delicom        | Ethanol 96% | N781601155     | 1       |
| Brüggemann/DeliCom DPD ... | Ethanol 96% |                | 1       |
| Brüggemann/DPD             | Ethanol 96% | N782014934     | 1       |
| Brüggemann/Heilbronn 23... | Ethanol 96% | L-20101        | 1       |
| Brüggemann/Kammerkirsch... | Ethanol 96% | N142001932     | 1       |
| Brüggemann                 | Ethanol 96% | 1514020991     | 1       |
| Brüggemann                 | Ethanol 96% | 1514041040     | 1       |
| Brüggemann                 | Ethanol 96% | 201101270401   | 1       |
| Brüggemann                 | Ethanol 96% | 312104624      | 3       |
| Brüggemann                 | Ethanol 96% | 7813050119     | 1       |
| Brüggemann                 | Ethanol 96% | 7813110228     | 1       |
| Brüggemann                 | Ethanol 96% | 7814060362     | 1       |
| Brüggemann                 | Ethanol 96% | 7814110456     | 1       |
| Brüggemann                 | Ethanol 96% | 7815030598     | 1       |
| Brüggemann                 | Ethanol 96% | 7815040634     | 1       |
| Brüggemann                 | Ethanol 96% | 7815080789     | 3       |
| Brüggemann                 | Ethanol 96% | 7815110957     | 1       |
| Brüggemann                 | Ethanol 96% | 7816041610     | 1       |
| Brüggemann                 | Ethanol 96% | N781601257     | 1       |
| Brüggemann                 | Ethanol 96% | N781704589     | 1       |
| Brüggemann                 | Ethanol 96% | n781704927     | 1       |
| Brüggemann                 | Ethanol 96% | N781705545     | 1       |
| Brüggemann                 | Ethanol 96% | N781809235     | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|----------------------------|------------------|--------------------|----------------|
| Brüggemann                 | Ethanol 96%      | N781909367         | 1              |
| Brüggemann                 | Ethanol 96%      | N782013618         | 1              |
| Brüggemann                 | Ethanol 96%      | N841700608         | 1              |
| Brüggemann                 | Ethanol 96%      | V032006616         | 1              |
| Brüggemann                 | Ethanol 96%      | V032006620         | 2              |
| Brüggemann                 | Ethanol 96%      | V781704599(1)      | 1              |
| Brüggemann                 | Ethanol 96%      | V781704599(2)      | 1              |
| Brüggemann                 | Ethanol 96%      | V781704599(3)      | 1              |
| Brüggemann                 | Ethanol 96%      | V781704599(4)      | 1              |
| Brüggemann                 | Ethanol 96%      | V781911659         | 1              |
| BrüggemannAlcohol GmbH/... | Ethanol 96%      |                    | 1              |
| BrüggemannAlcohol Witte... | Ethanol 96%      | N782012493         | 1              |
| BrüggemannAlcohol Witte... | Ethanol 96%      | N781703809         | 5              |
| BrüggemannAlcohol Witte... | Ethanol 96%      | N781704731         | 4              |
| Brüggenmann/Alkohol        | Ethanol 96%      | 7814020283         | 1              |
| Brüggenmann/Alkohol        | Ethanol 96%      | 7814060362         | 1              |
| BrüggermannAlcohol/Sali... | Ethanol 96%      | N781807122         | 1              |
| brüggmann                  | Ethanol 96%      | 60100575563        | 1              |
| Bundes...                  | Ethanol 96%      | 8042014            | 1              |
| Bundesm.Brandwein          | Ethanol 96%      | 140710             | 1              |
| Bundesmonopolstelle für... | Ethanol 96%      | xxxx               | 1              |
| Bundesmonopolverw.         | Ethanol 96%      | 20130903           | 1              |
| Bundesmonopolverwaltung... | Ethanol 96%      | 2032012GI          | 1              |
| Bundesmonopolverwaltung... | Ethanol 96%      |                    | 5              |
| cae                        | Ethanol 96%      | 19129502           | 1              |
| Caelo                      | Ethanol 96%      |                    | 12             |
| Caelo                      | Ethanol 96%      | 1/12               | 1              |
| Caelo                      | Ethanol 96%      | 104612018/09072018 | 1              |
| Caelo                      | Ethanol 96%      | 120117/505/032     | 3              |
| Caelo                      | Ethanol 96%      | 120319/74282/021   | 1              |
| Caelo                      | Ethanol 96%      | 12345              | 1              |
| Caelo                      | Ethanol 96%      | 126987             | 1              |
| Caelo                      | Ethanol 96%      | 1410T31290518      | 1              |
| Caelo                      | Ethanol 96%      | 170718/505/048     | 2              |
| Caelo                      | Ethanol 96%      | 18181401           | 22             |
| Caelo                      | Ethanol 96%      | 18181402           | 17             |
| Caelo                      | Ethanol 96%      | 18191701           | 18             |
| Caelo                      | Ethanol 96%      | 18191702           | 17             |
| Caelo                      | Ethanol 96%      | 18306301           | 1              |
| Caelo                      | Ethanol 96%      | 190000643001       | 1              |
| Caelo                      | Ethanol 96%      | 19000643001        | 26             |
| Caelo                      | Ethanol 96%      | 19002599           | 1              |
| Caelo                      | Ethanol 96%      | 19030201           | 19             |
| Caelo                      | Ethanol 96%      | 19030202           | 8              |
| Caelo                      | Ethanol 96%      | 19129501           | 18             |
| Caelo                      | Ethanol 96%      | 19129502           | 16             |
| Caelo                      | Ethanol 96%      | 1929501            | 1              |
| Caelo                      | Ethanol 96%      | 200002439001       | 1              |
| Caelo                      | Ethanol 96%      | 20001378001        | 18             |
| Caelo                      | Ethanol 96%      | 2000137801         | 1              |
| Caelo                      | Ethanol 96%      | 20001583           | 1              |
| Caelo                      | Ethanol 96%      | 20001887           | 1              |
| Caelo                      | Ethanol 96%      | 20002439001        | 9              |
| Caelo                      | Ethanol 96%      | 20003544001        | 13             |
| Caelo                      | Ethanol 96%      | 20150908           | 1              |
| Caelo                      | Ethanol 96%      | 20982018/05122017  | 1              |
| Caelo                      | Ethanol 96%      | 21001403001        | 2              |
| Caelo                      | Ethanol 96%      | 21001403002        | 3              |
| Caelo                      | Ethanol 96%      | 21001403003        | 6              |
| Caelo                      | Ethanol 96%      | 21001964           | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|----------------------------|------------------|-------------------|----------------|
| Caelo                      | Ethanol 96%      | 21002075          | 1              |
| Caelo                      | Ethanol 96%      | 21002244          | 1              |
| Caelo                      | Ethanol 96%      | 21002269          | 1              |
| Caelo                      | Ethanol 96%      | 21002294001       | 8              |
| Caelo                      | Ethanol 96%      | 21002758001       | 2              |
| Caelo                      | Ethanol 96%      | 21002758002       | 3              |
| Caelo                      | Ethanol 96%      | 220000086         | 1              |
| Caelo                      | Ethanol 96%      | 22000096          | 1              |
| Caelo                      | Ethanol 96%      | 22000101001       | 1              |
| Caelo                      | Ethanol 96%      | 22000392          | 1              |
| Caelo                      | Ethanol 96%      | 22000641          | 1              |
| Caelo                      | Ethanol 96%      | 22000999          | 1              |
| Caelo                      | Ethanol 96%      | 22001718          | 1              |
| Caelo                      | Ethanol 96%      | 22001948          | 1              |
| Caelo                      | Ethanol 96%      | 22001985          | 2              |
| Caelo                      | Ethanol 96%      | 23000480          | 1              |
| Caelo                      | Ethanol 96%      | 23000749          | 2              |
| Caelo                      | Ethanol 96%      | 23000998          | 1              |
| Caelo                      | Ethanol 96%      | 23000998/1050816  | 1              |
| Caelo                      | Ethanol 96%      | 23001357          | 1              |
| Caelo                      | Ethanol 96%      | 23001368          | 3              |
| Caelo                      | Ethanol 96%      | 23001968          | 1              |
| Caelo                      | Ethanol 96%      | 2394894           | 2              |
| Caelo                      | Ethanol 96%      | 24000034          | 1              |
| Caelo                      | Ethanol 96%      | 24000856          | 1              |
| Caelo                      | Ethanol 96%      | 24000863          | 2              |
| Caelo                      | Ethanol 96%      | 24001427          | 1              |
| Caelo                      | Ethanol 96%      | 24002163          | 1              |
| Caelo                      | Ethanol 96%      | 24002259          | 1              |
| Caelo                      | Ethanol 96%      | 25000305          | 1              |
| Caelo                      | Ethanol 96%      | 25000361          | 1              |
| Caelo                      | Ethanol 96%      | 25001138          | 1              |
| Caelo                      | Ethanol 96%      | 25001144          | 1              |
| Caelo                      | Ethanol 96%      | 25001980          | 1              |
| Caelo                      | Ethanol 96%      | 26000285          | 1              |
| Caelo                      | Ethanol 96%      | 26001211          | 1              |
| Caelo                      | Ethanol 96%      | 410300518106      | 1              |
| Caelo                      | Ethanol 96%      | 5678              | 1              |
| Caelo                      | Ethanol 96%      | 7813010053        | 2              |
| Caelo                      | Ethanol 96%      | 87872017/29052017 | 1              |
| Caelo                      | Ethanol 96%      | 90309001/PR       | 1              |
| Caelo                      | Ethanol 96%      | 915A-03041        | 1              |
| Caelo                      | Ethanol 96%      | AKD7              | 1              |
| Caelo                      | Ethanol 96%      | CH24002163        | 1              |
| Caelo                      | Ethanol 96%      | CHB19000643001    | 1              |
| Caelo                      | Ethanol 96%      | K43619871227      | 1              |
| Caelo                      | Ethanol 96%      | K46109471         | 1              |
| Caelo                      | Ethanol 96%      | K47876771620      | 1              |
| Caesar & Loretz GmbH / ... | Ethanol 96%      | 18191702          | 1              |
| Caesar & Loretz GmbH/ F... | Ethanol 96%      | 21002294001       | 1              |
| Caesar & Loretz GmbH/ K... | Ethanol 96%      | 19129502          | 2              |
| Caesar & Loretz GmbH/ N... | Ethanol 96%      | 19000643001       | 1              |
| Caesar & Loretz GmbH/ S... | Ethanol 96%      | 20002439001       | 1              |
| Caesar & Loretz GmbH/Fi... | Ethanol 96%      | 18191701          | 1              |
| Caesar & Loretz GmbH/Gehe  | Ethanol 96%      | 19030201          | 1              |
| Caesar & Loretz GmbH/Gehe  | Ethanol 96%      | 19129501          | 1              |
| Caesar & Loretz GmbH/Gehe  | Ethanol 96%      | 20001378001       | 2              |
| Caesar & Loretz GmbH/Gehe  | Ethanol 96%      | 21001403001       | 1              |
| Caesar & Loretz GmbH/Kehr  | Ethanol 96%      | 19030201          | 1              |
| Caesar & Loretz GmbH/Kr... | Ethanol 96%      | 19129502          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|----------------------------|------------------|-------------------|----------------|
| Caesar & Loretz GmbH/No... | Ethanol 96%      | 21001403003       | 1              |
| Caesar & Loretz GmbH/P     | Ethanol 96%      | 19129501          | 1              |
| Caesar & Loretz GmbH/Sana  | Ethanol 96%      | 19030201          | 1              |
| Caesar & Loretz GmbH/Sana  | Ethanol 96%      | 21001403002       | 1              |
| Caesar & Loretz GmbH/Sa... | Ethanol 96%      | 19129502          | 5              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 18191702          | 5              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 19000643001       | 5              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 19030201          | 7              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 19030202          | 1              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 19129501          | 11             |
| Caesar & Loretz GmbH       | Ethanol 96%      | 19129502          | 11             |
| Caesar & Loretz GmbH       | Ethanol 96%      | 20001378001       | 12             |
| Caesar & Loretz GmbH       | Ethanol 96%      | 20002439001       | 4              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 20003544001       | 7              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 21001403001       | 2              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 21001403002       | 2              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 21002294001       | 6              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 21002758001       | 3              |
| Caesar & Loretz GmbH       | Ethanol 96%      | 21002758002       | 2              |
| Caesar/Phoenix             | Ethanol 96%      | 19129502          | 1              |
| Carlo/ Phönix              | Ethanol 96%      | 19000643001       | 1              |
| Clara Hof Destillerie- ... | Ethanol 96%      |                   | 1              |
| Crop Energies Bioethano... | Ethanol 96%      | 72V0015           | 1              |
| crop energies/ Lichtena... | Ethanol 96%      | 27032020          | 1              |
| CropEnergies/Aromatique    | Ethanol 96%      | 12110469          | 1              |
| Dankwart                   | Ethanol 96%      | J0140242          | 1              |
| Defektur/Wolf Apotheke     | Ethanol 96%      | 2019E-07077       | 1              |
| Dextro                     | Ethanol 96%      | 2012-231          | 1              |
| DHL                        | Ethanol 96%      | 11062013          | 1              |
| Direkt                     | Ethanol 96%      | 20190404          | 1              |
| Direktbestellung/Martin... | Ethanol 96%      |                   | 2              |
| Dr. Miller, Alkoholvert... | Ethanol 96%      | 81692019/13052019 | 1              |
| Drop.energies/ Südzucke... | Ethanol 96%      | 72V0015           | 1              |
| eal Euro Alkohol           | Ethanol 96%      | 20140100          | 2              |
| eal Euro-Alkohol           | Ethanol 96%      |                   | 1              |
| Eal Euro-Alkohol           | Ethanol 96%      | 20140100          | 1              |
| eal                        | Ethanol 96%      | 20150108          | 1              |
| Eckerts Wacholder Brenn... | Ethanol 96%      | 1718A03041        | 1              |
| Eckerts WacholderBrenne... | Ethanol 96%      | 455GT2            | 1              |
| Eigenherstellung für Re... | Ethanol 96%      | 23062020          | 1              |
| Emil Scheibel Schwarzwa... | Ethanol 96%      |                   | 2              |
| Emil Scheibel Schwarzwa... | Ethanol 96%      | 450MT2            | 1              |
| Engel                      | Ethanol 96%      | 1410T31170619     | 1              |
| Engel                      | Ethanol 96%      | 1410T31290518     | 1              |
| Ethanol                    | Ethanol 96%      | 18181401          | 1              |
| Euro Alkohol GmbH          | Ethanol 96%      | 16532020          | 1              |
| Euro Alkohol GmbH          | Ethanol 96%      | 20150108          | 1              |
| Euro Alkohol GmbH          | Ethanol 96%      | 20170160          | 1              |
| Euro Alkohol Schmittmann   | Ethanol 96%      | 11031708          | 1              |
| Euro OTC                   | Ethanol 96%      |                   | 1              |
| Euro OTC                   | Ethanol 96%      | 18001042          | 1              |
| Euro OTC                   | Ethanol 96%      | 18191702          | 1              |
| Euro OTC                   | Ethanol 96%      | 20001378001       | 1              |
| Euro OTC                   | Ethanol 96%      | 24000186          | 1              |
| Euro OTC                   | Ethanol 96%      | 27042017          | 1              |
| euro-alkohol/schmittmann   | Ethanol 96%      | 20170160          | 1              |
| Fa Karl Josef Kost, Kob... | Ethanol 96%      | 5ma1410150520132  | 1              |
| Fa. Karl Kost Koblenz      | Ethanol 96%      | 410040216085      | 2              |
| Fa. Karl Kost Koblenz      | Ethanol 96%      | 410041115082      | 1              |
| Fa.Karl-Josef Kost/Kobl... | Ethanol 96%      | 410120320128      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|----------------------------|------------------|-------------------|----------------|
| Fa.Kost Koblenz            | Ethanol 96%      | 410100521142      | 1              |
| Fagron                     | Ethanol 96%      |                   | 1              |
| Fagron                     | Ethanol 96%      | 10971471840       | 1              |
| Fagron                     | Ethanol 96%      | 1410T31200516     | 1              |
| Fagron                     | Ethanol 96%      | 19001836          | 1              |
| Fagron                     | Ethanol 96%      | 19F14-B01-363425  | 1              |
| Fagron                     | Ethanol 96%      | 22000096          | 1              |
| Fagron                     | Ethanol 96%      | 22001291          | 1              |
| Fagron                     | Ethanol 96%      | 22001718          | 2              |
| Fagron                     | Ethanol 96%      | 23002116          | 1              |
| Fagron                     | Ethanol 96%      | 26000285          | 1              |
| Fiebig                     | Ethanol 96%      |                   | 2              |
| Fiebig                     | Ethanol 96%      | 12020161/1        | 1              |
| Fiebig                     | Ethanol 96%      | 20003544001       | 2              |
| Finteler Apotheke          | Ethanol 96%      | 170407            | 1              |
| Firma Behlen               | Ethanol 96%      | 1410T1061217      | 1              |
| Firma Kost/Krieger         | Ethanol 96%      | 410311014072      | 1              |
| Fischar/Novatis            | Ethanol 96%      | 7011061-1071      | 1              |
| Frick, Duchroth            | Ethanol 96%      | 19-129212-03      | 1              |
| Friedrich Schwarze         | Ethanol 96%      | CH839/L9390097    | 1              |
| Frohnachtaler Edelbrände   | Ethanol 96%      | KeineCharge       | 1              |
| Gehe am 18.02.2014         | Ethanol 96%      | 20002191          | 1              |
| Gehe Kassel                | Ethanol 96%      |                   | 1              |
| Gehe Laborchemie Apolda... | Ethanol 96%      | 19000689          | 1              |
| Gehe/ Laborchemie Apolda   | Ethanol 96%      | 26001268          | 1              |
| GEHE/ Spinnrad             | Ethanol 96%      | 12532019/03122018 | 1              |
| Gehe/ApoldaGmbH            | Ethanol 96%      | 24002163          | 1              |
| Gehe/Dr. Wollff            | Ethanol 96%      | 21002237          | 2              |
| Gehe/Laborchemie Apolda    | Ethanol 96%      | 20000973          | 1              |
| Gehe/Laborchemie Apolda    | Ethanol 96%      | 23001368          | 1              |
| Gehe/Laborchemie apolda    | Ethanol 96%      | 27000743          | 1              |
| Gehe                       | Ethanol 96%      | 1017310073        | 1              |
| GEHE                       | Ethanol 96%      | 18181401          | 1              |
| Gehe                       | Ethanol 96%      | 20002439001       | 1              |
| Gehe                       | Ethanol 96%      | 22001291          | 1              |
| Gehe                       | Ethanol 96%      | 23000175          | 1              |
| Gehe                       | Ethanol 96%      | 23000997          | 1              |
| Gehe                       | Ethanol 96%      | 23001968          | 1              |
| Gehe                       | Ethanol 96%      | 25000305          | 1              |
| GEHE                       | Ethanol 96%      | 25000353          | 1              |
| Gehe                       | Ethanol 96%      | 25001144          | 1              |
| Gehe                       | Ethanol 96%      | 25001980          | 2              |
| GEHE                       | Ethanol 96%      | 26000283          | 1              |
| GEHE                       | Ethanol 96%      | 26001268          | 1              |
| gehe                       | Ethanol 96%      | 2602066           | 1              |
| Gehe                       | Ethanol 96%      | DE00001237810     | 1              |
| Gehe                       | Ethanol 96%      | LieferungMai2013  | 1              |
| Gehe-Apolda                | Ethanol 96%      | 2000/1895         | 1              |
| Gehe-Apolda                | Ethanol 96%      | 20001885          | 1              |
| Geistreich                 | Ethanol 96%      | 6042020           | 1              |
| Greif Apotheke             | Ethanol 96%      | 3119A-0230        | 1              |
| Greif Apotheke             | Ethanol 96%      | 4719E-0230        | 1              |
| Gutenberg-Apotheke         | Ethanol 96%      | 904214            | 1              |
| Hamburg Destilling Comp... | Ethanol 96%      | KH0500            | 1              |
| Hänseler                   | Ethanol 96%      |                   | 24             |
| HB Alkoholvertrieb         | Ethanol 96%      |                   | 1              |
| HDC                        | Ethanol 96%      | 200421            | 2              |
| Hedinger / Anzag           | Ethanol 96%      | 24000161          | 1              |
| Hedinger                   | Ethanol 96%      | 22001720          | 1              |
| hedinger                   | Ethanol 96%      | 25001980          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>           | <b>Spectra</b> |
|----------------------------|------------------|------------------------|----------------|
| Hedinger                   | Ethanol 96%      | 30013                  | 1              |
| Hedinger                   | Ethanol 96%      | 701214B                | 4              |
| Heidinger/ Noweda          | Ethanol 96%      | 2215M                  | 1              |
| Henry Lamotte Oil / Gehe   | Ethanol 96%      | 25001144               | 2              |
| Hessische Spezialitäten... | Ethanol 96%      | 410_108_1501           | 1              |
| Hessische Spezialitäten... | Ethanol 96%      | Sorte410Neutralalkohol | 1              |
| HessSpezialitätenbrenne... | Ethanol 96%      | 1410T1170320           | 1              |
| hetterich                  | Ethanol 96%      | 3574702                | 1              |
| Heyl / AHD                 | Ethanol 96%      | 20001830               | 1              |
| Heyl / Alliance Healthc... | Ethanol 96%      | 270007514x             | 1              |
| Heyl / Gehe                | Ethanol 96%      | 27000531               | 1              |
| Heyl / Noweda              | Ethanol 96%      | 23001368               | 1              |
| Heyl / Noweda              | Ethanol 96%      | 26000285               | 1              |
| Heyl / Noweda              | Ethanol 96%      | 26001268               | 1              |
| Heyl / Noweda              | Ethanol 96%      | 27001078               | 1              |
| Heyl / Sanacorp            | Ethanol 96%      |                        | 1              |
| Heyl / Sanacorp            | Ethanol 96%      | 21001373               | 1              |
| Heyl / Sanacorp            | Ethanol 96%      | 21001379               | 1              |
| Heyl Laborchemie Apolda... | Ethanol 96%      | 23002116               | 1              |
| Heyl Laborchemie/Sanacorp  | Ethanol 96%      | 27000743               | 1              |
| Heyl Laborchemie/Noweda    | Ethanol 96%      | 27000561               | 1              |
| Heyl(Laborchemie Apolda... | Ethanol 96%      | 21002064               | 1              |
| Heyl/ Noweda               | Ethanol 96%      | 24001427               | 1              |
| hey1/ Noweda               | Ethanol 96%      | 23001968               | 2              |
| hey1/ Noweda               | Ethanol 96%      | 24002259               | 1              |
| hey1/ Noweda               | Ethanol 96%      | 25001955               | 1              |
| Heyl/ Phoenix              | Ethanol 96%      | 23001368               | 1              |
| Heyl/ Phoenix              | Ethanol 96%      | 24002163               | 4              |
| Heyl/ Sanacorp             | Ethanol 96%      | 24001427               | 1              |
| Heyl/Alliance              | Ethanol 96%      | 25001980               | 1              |
| Heyl/Anzag                 | Ethanol 96%      | 22001291               | 1              |
| Heyl/Gehe                  | Ethanol 96%      | 22001717               | 1              |
| Heyl/Gehe                  | Ethanol 96%      | 22001948               | 1              |
| Heyl/Gehe                  | Ethanol 96%      | 24000863               | 1              |
| Heyl/Gehe                  | Ethanol 96%      | 25001138               | 1              |
| Heyl/Gehe                  | Ethanol 96%      | 25001144               | 1              |
| Heyl/Gehe                  | Ethanol 96%      | 26000283               | 1              |
| Heyl/Noweda                | Ethanol 96%      | 22000326               | 1              |
| Heyl/Noweda                | Ethanol 96%      | 23000749               | 1              |
| Heyl/Noweda                | Ethanol 96%      | 23002116               | 3              |
| Heyl/Noweda                | Ethanol 96%      | 24000034               | 1              |
| Heyl/Noweda                | Ethanol 96%      | 24001427               | 1              |
| Heyl/Noweda                | Ethanol 96%      | 25001980               | 2              |
| Heyl/Noweda                | Ethanol 96%      | 26002023               | 1              |
| Heyl/Phoenix               | Ethanol 96%      | 21002268               | 1              |
| Heyl/Phoenix               | Ethanol 96%      | 24002163               | 2              |
| Heyl/Phönix                | Ethanol 96%      | 23000749               | 1              |
| Heyl/Phönix                | Ethanol 96%      | 23001368               | 1              |
| Heyl/Sanacorp HI           | Ethanol 96%      | 27000743               | 2              |
| Heyl/Sanacorp              | Ethanol 96%      | 240001427              | 1              |
| Heyl/Sanacorp              | Ethanol 96%      | 24001496               | 1              |
| Heyl/Sanacorp              | Ethanol 96%      | 24002163               | 2              |
| Heyl/Sanacorp              | Ethanol 96%      | 25000305               | 5              |
| Heyl/Sanacorp              | Ethanol 96%      | 25001144               | 1              |
| Heyl/Sanacorp              | Ethanol 96%      | 25001980               | 1              |
| Heyl                       | Ethanol 96%      | 22000392               | 1              |
| Heyl                       | Ethanol 96%      | 22000394               | 1              |
| hey1                       | Ethanol 96%      | 22001291               | 1              |
| Heyl                       | Ethanol 96%      | 22001292               | 1              |
| Heyl                       | Ethanol 96%      | 22001948               | 1              |

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| <b>Supplier</b>              | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|------------------------------|------------------|-------------------|----------------|
| Heyl                         | Ethanol 96%      | 23000188          | 1              |
| Heyl                         | Ethanol 96%      | 23000189          | 1              |
| HEYL                         | Ethanol 96%      | 23000749          | 1              |
| Heyl                         | Ethanol 96%      | 23000750          | 1              |
| Heyl                         | Ethanol 96%      | 23001368          | 2              |
| Heyl                         | Ethanol 96%      | 24000163          | 1              |
| Heyl                         | Ethanol 96%      | 24000187          | 1              |
| Heyl                         | Ethanol 96%      | 24000856          | 2              |
| hey1                         | Ethanol 96%      | 24001496          | 1              |
| hey1                         | Ethanol 96%      | 24002163          | 1              |
| Heyl                         | Ethanol 96%      | 24008630          | 1              |
| Heyl                         | Ethanol 96%      | 2400920           | 1              |
| hey1                         | Ethanol 96%      | 25000305          | 1              |
| Heyl                         | Ethanol 96%      | 25000305          | 2              |
| hey1                         | Ethanol 96%      | 25001144          | 1              |
| Heyl                         | Ethanol 96%      | 25001144          | 1              |
| hey1                         | Ethanol 96%      | 25001980          | 2              |
| Heyl                         | Ethanol 96%      | 25001980          | 1              |
| Heyl                         | Ethanol 96%      | 26002066          | 1              |
| Heyl                         | Ethanol 96%      | 27000539          | 1              |
| Heyl                         | Ethanol 96%      | 27000675          | 1              |
| Heyl                         | Ethanol 96%      | 27000743          | 1              |
| Höfer chemie                 | Ethanol 96%      | 237398/0          | 1              |
| Höfer Chemie                 | Ethanol 96%      | 23739870          | 1              |
| Hoffmann/ Martinus-Apot...   | Ethanol 96%      | E-060815-1        | 1              |
| Hoffmann/ Martinus-Apot...   | Ethanol 96%      | E-231213-1        | 2              |
| Hoffmann/ Noweda             | Ethanol 96%      | E-121017-1        | 1              |
| Hoffmann/Schmittmann         | Ethanol 96%      | 20150108          | 1              |
| Hoffmann                     | Ethanol 96%      | 123456            | 1              |
| Hoffmann                     | Ethanol 96%      | 16061405          | 1              |
| Hoffmann                     | Ethanol 96%      | 17/09/07-1        | 1              |
| hoffmann                     | Ethanol 96%      | 19/10/10          | 1              |
| Hoffmann                     | Ethanol 96%      | 20160007          | 1              |
| Hoffmann                     | Ethanol 96%      | 28081201          | 1              |
| Hoffmann                     | Ethanol 96%      | E-200412-1        | 2              |
| Hofmann Noweda               | Ethanol 96%      | 20/10/19          | 1              |
| Hofmann,Branntweinmonopol    | Ethanol 96%      |                   | 1              |
| Hofmann,Branntweinmonopol    | Ethanol 96%      | 20140162          | 1              |
| Hofmann,Branntweinmonopol    | Ethanol 96%      | 20170160          | 1              |
| Hofmann/Schmittmann Korn     | Ethanol 96%      | 19/10/10          | 1              |
| Hofmann/Schmittmann Korn     | Ethanol 96%      | VE49528           | 1              |
| Hofmann/Schmittmann          | Ethanol 96%      | 20160007          | 1              |
| Hofmann                      | Ethanol 96%      | 20150278          | 1              |
| Honberg-Apo                  | Ethanol 96%      | L27420            | 1              |
| Horst Brand Trier            | Ethanol 96%      |                   | 1              |
| Horst Brand Trier            | Ethanol 96%      | 1410T31010420     | 1              |
| Horst Brand Trier            | Ethanol 96%      | 8052020           | 1              |
| Hubertus Apotheke            | Ethanol 96%      | 23001968          | 1              |
| Ichthyol/Gehe                | Ethanol 96%      | 18122017/25112016 | 1              |
| Jovi Intern.UG /Buchmül. ... | Ethanol 96%      | VE49950           | 1              |
| K.J. Kost/Krieger            | Ethanol 96%      | 410220114066      | 1              |
| Kammer Kirschner             | Ethanol 96%      |                   | 1              |
| Kammer/Kirsch                | Ethanol 96%      | V131702621        | 1              |
| KammerKirsch Karlsruhe       | Ethanol 96%      | 200320            | 1              |
| Kammer-Kirsch                | Ethanol 96%      | 120216            | 1              |
| Karl Josef Kost Alkohole     | Ethanol 96%      | 410150520132      | 1              |
| Karl Josef Kost              | Ethanol 96%      | 410191018111      | 1              |
| Karl JosefKost               | Ethanol 96%      | 410181217102      | 1              |
| Karl Kost Alkohole           | Ethanol 96%      | 410050319115      | 1              |
| Karl Kost Alkohole           | Ethanol 96%      | 410150420131      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>    | <b>Spectra</b> |
|----------------------------|------------------|-----------------|----------------|
| Karl Kost Alkohole         | Ethanol 96%      | 410310120126    | 1              |
| Karl-Josef KG              | Ethanol 96%      | 410110117094    | 1              |
| Karl-Josef Kost Alkohol... | Ethanol 96%      | 41004115082     | 1              |
| Karl-Josef Kost Alkohol... | Ethanol 96%      | 410190516087    | 1              |
| Karl-Josef Kost Alkohol... | Ethanol 96%      | 410070119113    | 1              |
| Karl-Josef Kost/Krieger    | Ethanol 96%      | 410181217102    | 1              |
| Karl-Josef Kost/Krieger    | Ethanol 96%      | 410310120126    | 4              |
| Karl-Josef Kost            | Ethanol 96%      | 410040216085    | 1              |
| Karl-Josef Kost            | Ethanol 96%      | 410050319115    | 1              |
| Karl-Josef Kost            | Ethanol 96%      | 410181217102    | 1              |
| Karl-Josef Kost            | Ethanol 96%      | 410270917100    | 1              |
| Karl-Josef Kost            | Ethanol 96%      | 410310120126    | 1              |
| Karl-Josef-Kost            | Ethanol 96%      | 410070119113    | 1              |
| Karl-Josef-Kost            | Ethanol 96%      | 410230519117    | 1              |
| Kassner & Sasse            | Ethanol 96%      | 12/11/23        | 1              |
| Kassner & Sasse            | Ethanol 96%      | 16/02/02        | 1              |
| Kehr                       | Ethanol 96%      | 24000186        | 1              |
| Kessler                    | Ethanol 96%      | 8020-3          | 1              |
| Klenk                      | Ethanol 96%      | 10059387-15102  | 1              |
| Kloster Apotheke           | Ethanol 96%      |                 | 1              |
| Kloster Apotheke           | Ethanol 96%      | 999999          | 1              |
| Kornbrennerei J.J.Kemper   | Ethanol 96%      | 1208            | 1              |
| Kornbrennerei J.J.Kemper   | Ethanol 96%      | 4000            | 1              |
| Kost Alkohole              | Ethanol 96%      | 410050718107    | 1              |
| Kost Alkohole              | Ethanol 96%      | 410130217095    | 3              |
| Kost Alkohole              | Ethanol 96%      | 410160719119    | 1              |
| Kost Alkohole              | Ethanol 96%      | 41251119124     | 1              |
| Kost Koblenz/ Krieger      | Ethanol 96%      | 410150420131    | 4              |
| Kost Koblenz/ Krieger      | Ethanol 96%      | 410251119124    | 1              |
| Kost Koblenz/ Krieger      | Ethanol 96%      | 410300119114    | 1              |
| Kost Koblenz               | Ethanol 96%      | 410240417096    | 1              |
| Kost/13.12.13              | Ethanol 96%      | 410051213065    | 3              |
| Kost/kost/sophien          | Ethanol 96%      | 4065280513      | 1              |
| Kost/kost/sophien          | Ethanol 96%      | 410051213065    | 2              |
| Kost/Krieger/04.07.13      | Ethanol 96%      | 410040713061    | 2              |
| Kost/Krieger/05.12.13      | Ethanol 96%      | 410111113064    | 2              |
| Kost/Krieger/18.03.14      | Ethanol 96%      | 410220114066    | 1              |
| Kost/Krieger/18.10.13      | Ethanol 96%      | 410081013063    | 2              |
| Kost/Krieger/23.05.13      | Ethanol 96%      | 410130313059    | 2              |
| Kost/Krieger/26.06.13      | Ethanol 96%      | 410140513060    | 1              |
| Kost/sophien               | Ethanol 96%      | 410010414067    | 1              |
| kost                       | Ethanol 96%      | 410031212052    | 1              |
| Kost                       | Ethanol 96%      | 410071019122    | 1              |
| Kost                       | Ethanol 96%      | 410130217095    | 1              |
| Kost                       | Ethanol 96%      | 410160719-119   | 1              |
| Kost                       | Ethanol 96%      | 410191018111    | 1              |
| Kost                       | Ethanol 96%      | 410200918110    | 1              |
| Kost                       | Ethanol 96%      | 410221116092    | 1              |
| Kost                       | Ethanol 96%      | 410261017101    | 1              |
| Kost                       | Ethanol 96%      | 410300316086    | 1              |
| Kottkamp Alkoholver.       | Ethanol 96%      | 120117/505/032  | 1              |
| Kottkamp Alkoholvertr.     | Ethanol 96%      | 230414          | 1              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 1512155050519   | 1              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 211114/505/008  | 1              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 160714/505/004  | 1              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 1200117/505/032 | 1              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 120117/505/32   | 1              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 200918/505/050  | 2              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 201017/505/040  | 3              |
| Kottkamp Alkoholvertrie... | Ethanol 96%      | 21117/505/041   | 1              |

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| Supplier                    | Substance   | Batch             | Spectra |
|-----------------------------|-------------|-------------------|---------|
| Kottkamp Alkoholvertrie...  | Ethanol 96% | 220817/505/038    | 1       |
| Kottkamp Alkoholvertrie...  | Ethanol 96% | 221117/505/042    | 1       |
| Kottkamp Alkoholvertrie...  | Ethanol 96% | 70218/505/043     | 2       |
| Kottkamp Alkoholvertrieb    | Ethanol 96% | 180213            | 1       |
| Kottkamp Alkoholvertrieb    | Ethanol 96% | 71118/505/051     | 3       |
| Kottkamp Alkoholvertrieb    | Ethanol 96% | 90318/505/044     | 1       |
| kottkamp,gehe               | Ethanol 96% | 130513            | 1       |
| Kottkamp/Anzag              | Ethanol 96% | 130116/505/020    | 1       |
| kottkamp/Anzag              | Ethanol 96% | 61015/505/017     | 1       |
| Kottkamp/Direkt             | Ethanol 96% | 4915A-03041       | 1       |
| Kottkamp/Gehe               | Ethanol 96% | 121213            | 1       |
| Kottkamp/Phönix             | Ethanol 96% | 151215/505/019    | 1       |
| Kottkamp                    | Ethanol 96% | 71026022          | 1       |
| Kraul & Wilkening u. Ste... | Ethanol 96% | 10420/122/001     | 1       |
| Kraul & Wilkening u. St...  | Ethanol 96% | 10420/122/001     | 2       |
| Kraul & Wilkening u. St...  | Ethanol 96% | 270320/74282/037  | 1       |
| Kraul und Wilkening         | Ethanol 96% |                   | 1       |
| Kraul und Wilkening         | Ethanol 96% | 281217/74282/008  | 1       |
| Kraul& Wilkening u. Ste...  | Ethanol 96% | 10420/122/001     | 1       |
| Kraul&Wilkening u. Stel...  | Ethanol 96% | 10420/122/001     | 1       |
| Kraul&Wilkening u.Stell...  | Ethanol 96% | 11/18             | 1       |
| Kraul&Wilkening u.Stell...  | Ethanol 96% | 3/19              | 1       |
| Kraul&Wilkening und Ste...  | Ethanol 96% |                   | 1       |
| Kraul&Wilkwning u. Stel...  | Ethanol 96% | 270320/74282/036  | 1       |
| Kraul_Wi                    | Ethanol 96% | 271119/74282/028  | 1       |
| Kraul-Wilkening-Stellin...  | Ethanol 96% |                   | 1       |
| Kraut und Wilkening u. ...  | Ethanol 96% | 10420/122/001     | 1       |
| Krieger / Kost / 27.08.13   | Ethanol 96% | 410090813062      | 2       |
| Krugmann                    | Ethanol 96% | 1720              | 1       |
| Krugmann                    | Ethanol 96% | 8124              | 1       |
| Kullmanns Obstbrennerei     | Ethanol 96% | 3146              | 1       |
| KWST Kraul & Wilkenin...    | Ethanol 96% | 260320/011/004    | 1       |
| KWST / KWST                 | Ethanol 96% | 10420/122/001     | 1       |
| KWST / KWST                 | Ethanol 96% | 141019/74282/026  | 2       |
| KWST / KWST                 | Ethanol 96% | 1410197/74282/026 | 1       |
| KWST / KWST                 | Ethanol 96% | 190618/74282/012  | 3       |
| KWST / KWST                 | Ethanol 96% | 60008             | 1       |
| KWST Kraul & Wilkening ...  | Ethanol 96% | 10420/122/001     | 1       |
| KWST/dpd                    | Ethanol 96% | 10420/122/001     | 2       |
| KWST/dpd                    | Ethanol 96% | 231017/505/005    | 1       |
| KWST/KWST                   | Ethanol 96% | 61119/74282/027   | 1       |
| Kwst/Walther CMP            | Ethanol 96% | 290814            | 1       |
| kwst                        | Ethanol 96% | 10420/122/001     | 1       |
| KWST                        | Ethanol 96% | 10420/122/001     | 4       |
| KWST                        | Ethanol 96% | 190320/011/002    | 1       |
| KWST                        | Ethanol 96% | 190618/74282/012  | 1       |
| KWST                        | Ethanol 96% | 230320/011/003    | 1       |
| KWST                        | Ethanol 96% | 240519/74282/023  | 2       |
| KWST                        | Ethanol 96% | 260320/011/004    | 1       |
| KWST                        | Ethanol 96% | 281217/74282/008  | 1       |
| KWST                        | Ethanol 96% | 290819/74282/025  | 1       |
| KWST                        | Ethanol 96% | 50220/74282/032   | 1       |
| KWST                        | Ethanol 96% | 60219/74282/020   | 1       |
| KWST                        | Ethanol 96% | 64-17-5           | 1       |
| KWST                        | Ethanol 96% | 70220/015/001     | 1       |
| Labochemie/ Phönix          | Ethanol 96% | 24002163          | 1       |
| Labopharm/Sanacorp          | Ethanol 96% | 25001144          | 1       |
| Laborch. Apolda/ Noweda     | Ethanol 96% | 21002237          | 1       |
| Laborch. Apolda/ Noweda     | Ethanol 96% | 22001291          | 1       |
| Laborch. Apolda/ Noweda     | Ethanol 96% | 22001718          | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Laborch. Apolda/ Noweda    | Ethanol 96%      | 23000997     | 1              |
| Laborch. Apolda            | Ethanol 96%      | 18001881     | 1              |
| Laborch.Apolda/Gehe        | Ethanol 96%      | 21002269     | 1              |
| Laborch.Apolda/Gehe        | Ethanol 96%      | 26000285     | 1              |
| Laborch.Apolda/Noweda      | Ethanol 96%      | 27000675     | 2              |
| Laborch.Apolda/Phönix      | Ethanol 96%      | 26001211     | 1              |
| Laborch                    | Ethanol 96%      | 24001427     | 1              |
| Laborchemie / Alliance...  | Ethanol 96%      | 26000283     | 1              |
| Laborchemie / Anzag        | Ethanol 96%      | 25001144     | 2              |
| Laborchemie / Noweda       | Ethanol 96%      | 20001830     | 1              |
| Laborchemie / Noweda       | Ethanol 96%      | 26002023     | 2              |
| Laborchemie / Sanacorp     | Ethanol 96%      | 22001717     | 1              |
| laborchemie abolda gmbh    | Ethanol 96%      | 19112005     | 1              |
| Laborchemie Apolada/Pho... | Ethanol 96%      | 26002066     | 1              |
| Laborchemie Apold GmbH     | Ethanol 96%      | 21002269     | 1              |
| Laborchemie Apold GmbH     | Ethanol 96%      | 22001948     | 1              |
| Laborchemie Apold GmbH     | Ethanol 96%      | 23001968     | 1              |
| Laborchemie Apolda ,Gehe   | Ethanol 96%      | 21002075     | 1              |
| Laborchemie Apolda ,Gehe   | Ethanol 96%      | 22000641     | 1              |
| Laborchemie Apolda ,Gehe   | Ethanol 96%      | 24002263     | 1              |
| Laborchemie Apolda / S...  | Ethanol 96%      | 26001268     | 1              |
| Laborchemie Apolda / Gehe  | Ethanol 96%      | 25001980     | 1              |
| Laborchemie Apolda / Gehe  | Ethanol 96%      | 26000285     | 1              |
| Laborchemie Apolda / Gehe  | Ethanol 96%      | 27000675     | 1              |
| Laborchemie Apolda / Gehe  | Ethanol 96%      | 27001084     | 1              |
| Laborchemie Apolda / No... | Ethanol 96%      | 26001211     | 1              |
| Laborchemie Apolda / No... | Ethanol 96%      | 26002023     | 1              |
| Laborchemie Apolda / No... | Ethanol 96%      | 27000561     | 1              |
| Laborchemie Apolda / No... | Ethanol 96%      | 27000675     | 1              |
| Laborchemie apolda /Now... | Ethanol 96%      | CHB26001998  | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 21001561     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 25000305     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 29000309     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 24001427     | 1              |
| LABORCHEMIE APOLDA GmbH... | Ethanol 96%      | 23001968     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 260001277    | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 25001955     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 26002023     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 27000561     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 25001980     | 1              |
| Laborchemie Apolda GMBH... | Ethanol 96%      | 21002244     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 220030       | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 23000749     | 1              |
| LABORCHEMIE APOLDA GmbH... | Ethanol 96%      | 23001368     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 24001427     | 1              |
| Laborchemie Apolda GMBH... | Ethanol 96%      | 25001954     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 26000327     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 23001368     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 24001494     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 25000361     | 2              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 25001955     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 26000283     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 22000616     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 27000675     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 23001357     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 24000187     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 24000927     | 1              |
| LABORCHEMIE APOLDA GmbH... | Ethanol 96%      | 25000361     | 2              |
| laborchemie apolda gmbh... | Ethanol 96%      | 25001144     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 25001954     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| LABORCHEMIE APOLDA GmbH... | Ethanol 96%      | 25001955     | 1              |
| LABORCHEMIE APOLDA GmbH... | Ethanol 96%      | 26000283     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 27000539     | 2              |
| Laborchemie Apolda GMBH... | Ethanol 96%      | 22001985     | 1              |
| Laborchemie APOLDA gmbH... | Ethanol 96%      | 24000863     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 24001427     | 1              |
| Laborchemie Apolda GMBH... | Ethanol 96%      | 25000305     | 1              |
| Laborchemie APOLDA GmbH... | Ethanol 96%      | 25000305     | 1              |
| LABORCHEMIE APOLDA GmbH... | Ethanol 96%      | 27001084     | 1              |
| Laborchemie APOLDA GmbH... | Ethanol 96%      | 21002237     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 23000749     | 3              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 23001368     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 23002116     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 24001427     | 1              |
| Laborchemie Apolda GmbH... | Ethanol 96%      | 27000675     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 19001937     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 21000154     | 1              |
| Laborchemie APOLDA GmbH    | Ethanol 96%      | 21001561     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 21001736     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 21002268     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 21002269     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 22000394     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 22000616     | 2              |
| Laborchemie APOLDA GmbH    | Ethanol 96%      | 22000616     | 1              |
| Laborchemie Apolda GMBH    | Ethanol 96%      | 22001        | 1              |
| Laborchemie APOLDA GmbH    | Ethanol 96%      | 22001291     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 22001985     | 1              |
| Laborchemie Apolda gmbh    | Ethanol 96%      | 22002230     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 22002231     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 23000188     | 3              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 23000189     | 1              |
| Laborchemie Apolda Gmbh    | Ethanol 96%      | 23000749     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 23000749     | 1              |
| Laborchemie APOLDA GmbH    | Ethanol 96%      | 23000997     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 23001357     | 1              |
| laborchemie apolda gmbh    | Ethanol 96%      | 23001368     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 23001368     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 23002116     | 1              |
| Laborchemie APOLDA GmbH    | Ethanol 96%      | 23002116     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 24000186     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 24000187     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 24000856     | 2              |
| Laborchemie Apolda GMBH    | Ethanol 96%      | 24000856     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 24001427     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 24001494     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 24002163     | 1              |
| LABORCHEMIE APOLDA GmbH    | Ethanol 96%      | 24002259     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 25000305     | 4              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 25000361     | 2              |
| Laborchemie APOLDA GmbH    | Ethanol 96%      | 25000361     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 25001139     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 25001144     | 2              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 25001980     | 1              |
| Laborchemie APOLDA GmbH    | Ethanol 96%      | 25001980     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 26001268     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 26001277     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 26002023     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 27000531     | 2              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 27000539     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 27000593     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Laborchemie Apolda GmbH    | Ethanol 96%      | 27000675     | 1              |
| Laborchemie Apolda GmbH    | Ethanol 96%      | 27001084     | 1              |
| Laborchemie Apolda Heyl... | Ethanol 96%      | 24000186     | 1              |
| Laborchemie Apolda Heyl... | Ethanol 96%      | 20001887     | 1              |
| Laborchemie Apolda Heyl    | Ethanol 96%      | 20001885     | 1              |
| Laborchemie Apolda Heyl    | Ethanol 96%      | 27000934     | 1              |
| Laborchemie Apolda über... | Ethanol 96%      | 21001964     | 1              |
| Laborchemie Apolda über... | Ethanol 96%      | 22002230     | 1              |
| Laborchemie Apolda über... | Ethanol 96%      | 23000997     | 1              |
| Laborchemie Apolda/ AHD    | Ethanol 96%      | 25000461     | 1              |
| Laborchemie Apolda/ All... | Ethanol 96%      | 23001368     | 1              |
| Laborchemie Apolda/ All... | Ethanol 96%      | 24001427     | 1              |
| Laborchemie Apolda/ All... | Ethanol 96%      | 25001954     | 2              |
| Laborchemie Apolda/ All... | Ethanol 96%      | 26002023     | 1              |
| Laborchemie Apolda/ All... | Ethanol 96%      | 27000751     | 1              |
| Laborchemie Apolda/ All... | Ethanol 96%      | 24000187     | 1              |
| Laborchemie Apolda/ Gehe   | Ethanol 96%      | 27000531     | 1              |
| Laborchemie APOLDA/ Now... | Ethanol 96%      | 20001574     | 1              |
| Laborchemie Apolda/ Now... | Ethanol 96%      | 23000750     | 6              |
| Laborchemie Apolda/ Now... | Ethanol 96%      | 23001785     | 4              |
| Laborchemie Apolda/ Now... | Ethanol 96%      | 25000353     | 1              |
| Laborchemie Apolda/ Now... | Ethanol 96%      | 25001954     | 1              |
| Laborchemie Apolda/ Now... | Ethanol 96%      | 26000327     | 1              |
| Laborchemie Apolda/ Now... | Ethanol 96%      | 27000561     | 1              |
| Laborchemie Apolda/ Now... | Ethanol 96%      | 27000675     | 1              |
| Laborchemie Apolda/ San... | Ethanol 96%      | 22002231     | 1              |
| Laborchemie Apolda/ San... | Ethanol 96%      | 27001625     | 1              |
| Laborchemie Apolda/AHD     | Ethanol 96%      | 25001980     | 1              |
| Laborchemie Apolda/AHD     | Ethanol 96%      | 26001268     | 1              |
| Laborchemie Apolda/AHD     | Ethanol 96%      | 27000934     | 1              |
| Laborchemie Apolda/Alli... | Ethanol 96%      | 22001291     | 1              |
| Laborchemie Apolda/Alli... | Ethanol 96%      | 22000392     | 1              |
| Laborchemie Apolda/Alli... | Ethanol 96%      | 26000264     | 1              |
| Laborchemie Apolda/Anzag   | Ethanol 96%      | 25001980     | 1              |
| Laborchemie Apolda/Gehe... | Ethanol 96%      | 25000305     | 1              |
| Laborchemie Apolda/Gehe... | Ethanol 96%      | 26000283     | 1              |
| Laborchemie Apolda/Gehe... | Ethanol 96%      | 27000531     | 1              |
| Laborchemie apolda/gehe... | Ethanol 96%      | 27000743     | 1              |
| Laborchemie Apolda/Gehe... | Ethanol 96%      | 26001268     | 1              |
| Laborchemie Apolda/Gehe... | Ethanol 96%      | 27001078     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 22000394     | 2              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 23001357     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 24002163     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 24002263     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 25001980     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 26001268     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 26001277     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 27000531     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 27000934     | 1              |
| Laborchemie Apolda/Gehe    | Ethanol 96%      | 27001084     | 1              |
| Laborchemie Apolda/gehe    | Ethanol 96%      | 28001615     | 1              |
| Laborchemie Apolda/Greif   | Ethanol 96%      | 27000934     | 1              |
| Laborchemie Apolda/Jenn... | Ethanol 96%      | 12345        | 4              |
| Laborchemie Apolda/Jenn... | Ethanol 96%      | 20002191     | 1              |
| Laborchemie Apolda/Krie... | Ethanol 96%      | 25000305     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 20000974     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 22000086     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 23000997     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 24000102     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 24001427     | 2              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 24002163     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 25000305     | 2              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 25001139     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 260002023    | 2              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 26000285     | 2              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 26001277     | 2              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 26002023     | 1              |
| Laborchemie Apolda/Noweda  | Ethanol 96%      | 27000675     | 4              |
| Laborchemie Apolda/Phoe... | Ethanol 96%      | 21001736     | 1              |
| Laborchemie Apolda/Phoe... | Ethanol 96%      | 22001948     | 2              |
| Laborchemie apolda/Phoe... | Ethanol 96%      | 23000997     | 1              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 18181401     | 2              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 21000152     | 1              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 21002268     | 1              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 22000392     | 1              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 22001291     | 1              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 23001368     | 1              |
| LABORCHEMIE APOLDA/PHÖNIX  | Ethanol 96%      | 23001968     | 1              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 24000186     | 1              |
| Laborchemie Apolda/Phönix  | Ethanol 96%      | 25000305     | 1              |
| Laborchemie Apolda/Sana    | Ethanol 96%      | 23000780     | 1              |
| Laborchemie Apolda/Sana... | Ethanol 96%      | 22000999     | 1              |
| Laborchemie Apolda/Sana... | Ethanol 96%      | 26000283     | 1              |
| Laborchemie Apolda/Span... | Ethanol 96%      | 25000361     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 17041401     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 19001519     | 2              |
| Laborchemie Apolda         | Ethanol 96%      | 20000065     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 20000071     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 20001199     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 20001885     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 20001886     | 2              |
| Laborchemie Apolda         | Ethanol 96%      | 20002191     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 21000152     | 2              |
| Laborchemie Apolda         | Ethanol 96%      | 21000197     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 21001054     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 21002075     | 3              |
| Laborchemie Apolda         | Ethanol 96%      | 21002244     | 2              |
| Laborchemie APOLDA         | Ethanol 96%      | 21002269     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 22000394     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 22000616     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 22000999     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 22001385     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 22001720     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 23000188     | 1              |
| Laborchemie APOLDA         | Ethanol 96%      | 23000780     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 23000997     | 2              |
| Laborchemie APOLDA         | Ethanol 96%      | 23000998     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 23001368     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 23001785     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 23002116     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 24000161     | 2              |
| Laborchemie Apolda         | Ethanol 96%      | 24000186     | 4              |
| Laborchemie Apolda         | Ethanol 96%      | 24000188     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 24001427     | 2              |
| Laborchemie Apolda         | Ethanol 96%      | 24002163     | 3              |
| Laborchemie Apolda         | Ethanol 96%      | 24002259     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 25000305     | 3              |
| Laborchemie Apolda         | Ethanol 96%      | 25000361     | 1              |
| Laborchemie APOLDA         | Ethanol 96%      | 25000361     | 1              |
| Laborchemie Apolda         | Ethanol 96%      | 25001138     | 2              |

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| Supplier                    | Substance   | Batch     | Spectra |
|-----------------------------|-------------|-----------|---------|
| laborchemie apolda          | Ethanol 96% | 25001144  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 25001144  | 3       |
| Laborchemie Apolda          | Ethanol 96% | 25001980  | 3       |
| Laborchemie Apolda          | Ethanol 96% | 26000264  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 26000285  | 4       |
| Laborchemie Apolda          | Ethanol 96% | 26000327  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 26001211  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 26001268  | 2       |
| Laborchemie Apolda          | Ethanol 96% | 26001277  | 2       |
| Laborchemie Apolda          | Ethanol 96% | 26002023  | 3       |
| Laborchemie Apolda          | Ethanol 96% | 26002066  | 2       |
| Laborchemie Apolda          | Ethanol 96% | 270000604 | 1       |
| Laborchemie Apolda          | Ethanol 96% | 27000531  | 3       |
| Laborchemie Apolda          | Ethanol 96% | 27000539  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 27000593  | 2       |
| Laborchemie Apolda          | Ethanol 96% | 27000604  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 27000675  | 4       |
| Laborchemie Apolda          | Ethanol 96% | 27000743  | 10      |
| Laborchemie Apolda          | Ethanol 96% | 27001078  | 3       |
| Laborchemie Apolda          | Ethanol 96% | 27001084  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 27001625  | 1       |
| Laborchemie Apolda          | Ethanol 96% | 2700743   | 1       |
| Laborchemie Apolda          | Ethanol 96% | 28000790  | 3       |
| Laborchemie Apolda          | Ethanol 96% | 2800791   | 1       |
| Laborchemie ApoldaGmbH      | Ethanol 96% | 25001144  | 2       |
| Laborchemie Apoldal, Sa...  | Ethanol 96% | 26002023  | 1       |
| Laborchemie Apoldo GmbH     | Ethanol 96% | 22002231  | 1       |
| Laborchemie Apolida GmbH... | Ethanol 96% | 23001368  | 1       |
| Laborchemie Apolida GmbH... | Ethanol 96% | 24002163  | 1       |
| Laborchemie hey1 / Gehe     | Ethanol 96% | 24002163  | 1       |
| Laborchemie hey1 / Gehe     | Ethanol 96% | 25001144  | 2       |
| Laborchemie Heyl Apolda...  | Ethanol 96% | 24000863  | 1       |
| Laborchemie Heyl Apolda...  | Ethanol 96% | 26002023  | 1       |
| Laborchemie Heyl/Noweda     | Ethanol 96% | 23001968  | 1       |
| Laborchemie Heyl            | Ethanol 96% | 25001955  | 1       |
| Laborchemie Heyl            | Ethanol 96% | 26000264  | 1       |
| Laborchemie/ Phönix         | Ethanol 96% | 23000997  | 1       |
| LABORCHEMIE/1               | Ethanol 96% | 25001955  | 1       |
| Laborchemie/Gehe            | Ethanol 96% | 20000071  | 1       |
| Laborchemie/Gehe            | Ethanol 96% | 20000305  | 3       |
| Laborchemie/Gehe            | Ethanol 96% | 22000603  | 3       |
| LABORCHEMIE/Gehe            | Ethanol 96% | 23000750  | 1       |
| Laborchemie/Gehe            | Ethanol 96% | 23001368  | 1       |
| LABORCHEMIE/Gehe            | Ethanol 96% | 24000163  | 1       |
| LABORCHEMIE/Gehe            | Ethanol 96% | 24000856  | 1       |
| Laborchemie/Gehe            | Ethanol 96% | 24000920  | 2       |
| Laborchemie/Gehe            | Ethanol 96% | 24001427  | 1       |
| Laborchemie/Gehe            | Ethanol 96% | 25000305  | 3       |
| Laborchemie/Gehe            | Ethanol 96% | 26000283  | 1       |
| Laborchemie/Gehe            | Ethanol 96% | 26000285  | 2       |
| Laborchemie/Noweda          | Ethanol 96% | 19001836  | 1       |
| Laborchemie/Noweda          | Ethanol 96% | 22000161  | 1       |
| LaborChemie/Noweda          | Ethanol 96% | 23000997  | 1       |
| Laborchemie/Noweda          | Ethanol 96% | 24000034  | 1       |
| Laborchemie/Noweda          | Ethanol 96% | 24000186  | 1       |
| Laborchemie/Noweda          | Ethanol 96% | 24000187  | 1       |
| Laborchemie/Noweda          | Ethanol 96% | 24000856  | 1       |
| Laborchemie/Noweda          | Ethanol 96% | 25001980  | 1       |
| Laborchemie/Noweda          | Ethanol 96% | 27000675  | 1       |
| Laborchemie/Sanacorp        | Ethanol 96% | 22000616  | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|----------------------------|------------------|----------------------|----------------|
| Laborchemie/Sanacorp       | Ethanol 96%      | 25000305             | 1              |
| Laborchemie/Sanacorp       | Ethanol 96%      | 25001144             | 1              |
| Laborchemie/Sanacorp       | Ethanol 96%      | 26000285             | 1              |
| Laborchemie/Sanacorp       | Ethanol 96%      | 27001084             | 1              |
| Laborchemie                | Ethanol 96%      |                      | 1              |
| Laborchemie                | Ethanol 96%      | 21000152             | 1              |
| Laborchemie                | Ethanol 96%      | 21002244             | 1              |
| Laborchemie                | Ethanol 96%      | 22001717             | 1              |
| Laborchemie                | Ethanol 96%      | 24000856             | 1              |
| Laborchemie                | Ethanol 96%      | 25000305             | 1              |
| laborchemie                | Ethanol 96%      | 26001277             | 1              |
| Laborchemie                | Ethanol 96%      | 27000531             | 1              |
| Laborchemie                | Ethanol 96%      | 27000675             | 1              |
| Laborchemie                | Ethanol 96%      | 28001617             | 1              |
| laborchemie                | Ethanol 96%      | 2x26001268           | 1              |
| LaborchemieApolda GmbH/... | Ethanol 96%      | 20000306             | 1              |
| LaborchemieApolda GmbH/... | Ethanol 96%      | 19002422             | 1              |
| LaborchemieApolda GmbH/... | Ethanol 96%      | 23001357             | 1              |
| LaborchemieApolda GmbH/... | Ethanol 96%      | 25000361             | 1              |
| LaborchemieApolda GmbH/... | Ethanol 96%      | 25001955             | 1              |
| LaborchemieApolda/Phönix   | Ethanol 96%      | 21000152             | 1              |
| LaborchemieApolda/Sanac... | Ethanol 96%      | 21001053             | 1              |
| Lamotte/PX                 | Ethanol 96%      | 200201121            | 1              |
| Larborchemie Apolda GMBH   | Ethanol 96%      | 23002116             | 1              |
| Lautergold/Lauter-Berns... | Ethanol 96%      | 35110                | 1              |
| Löwen-Brennerei-GmbH       | Ethanol 96%      | Corona               | 1              |
| Löwen-Brennerei-GmbH       | Ethanol 96%      | E25/20-18001         | 3              |
| Martin und Werner Mundo... | Ethanol 96%      | 1410T31150921        | 1              |
| Martin und Werner Mundo... | Ethanol 96%      | 1410T31171114        | 1              |
| Martinus Apotheke          | Ethanol 96%      | E-040420-1           | 1              |
| Merck                      | Ethanol 96%      |                      | 1              |
| Merck                      | Ethanol 96%      | 1009711000           | 1              |
| Merck                      | Ethanol 96%      | 1075571009           | 2              |
| Merck                      | Ethanol 96%      | 137K16157910         | 1              |
| Merck                      | Ethanol 96%      | 45056971             | 1              |
| Merck                      | Ethanol 96%      | I0994871912          | 1              |
| Merck                      | Ethanol 96%      | I1054067             | 2              |
| Merck                      | Ethanol 96%      | Index-No603-002-00-5 | 1              |
| Merck                      | Ethanol 96%      | K43729871232         | 3              |
| Merck                      | Ethanol 96%      | K44538471324         | 1              |
| Merck                      | Ethanol 96%      | K45475971            | 1              |
| Merck                      | Ethanol 96%      | K45475971416         | 3              |
| Merck                      | Ethanol 96%      | K46405471507         | 2              |
| Merck                      | Ethanol 96%      | K47002671535         | 1              |
| Merck                      | Ethanol 96%      | k47190371548         | 1              |
| Merck                      | Ethanol 96%      | K48293171636         | 1              |
| Merck                      | Ethanol 96%      | 10994871912          | 1              |
| Merck                      | Ethanol 96%      | 11054071944          | 1              |
| Miller Alkoholvertrieb ... | Ethanol 96%      | 20982018/05122017    | 1              |
| Miller Alkoholvertrieb ... | Ethanol 96%      | 410-103-150508/26052 | 1              |
| Miller                     | Ethanol 96%      | 1413040904/16042013  | 1              |
| Miller                     | Ethanol 96%      | Juni2017             | 1              |
| Monopolstelle Jenne        | Ethanol 96%      | J150114              | 1              |
| Movera GmbH                | Ethanol 96%      | 9972161              | 1              |
| Movera GmbH                | Ethanol 96%      | 9972601              | 1              |
| Mundo OHG/ Röntgen         | Ethanol 96%      | 1410T31310719        | 1              |
| Mundo oHG/AH               | Ethanol 96%      | 1410T31010719        | 1              |
| Mundo oHG/AH               | Ethanol 96%      | 1410T31040417        | 1              |
| Mundo OHG                  | Ethanol 96%      |                      | 1              |
| Mundo OHG                  | Ethanol 96%      | 1410T31010420        | 1              |

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| Supplier                   | Substance   | Batch         | Spectra |
|----------------------------|-------------|---------------|---------|
| Mundo OHG                  | Ethanol 96% | 1410T31041219 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31060513 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31060514 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31061218 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31090617 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31120813 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31141015 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31160316 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31191113 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31241018 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31260716 | 1       |
| Mundo OHG                  | Ethanol 96% | 1410T31281216 | 2       |
| Mundo OHG                  | Ethanol 96% | 1410T31291020 | 1       |
| Mundo/AHD                  | Ethanol 96% | 1410T31030516 | 1       |
| Mundo/AHD                  | Ethanol 96% | 1410T31070815 | 1       |
| Mundo                      | Ethanol 96% |               | 1       |
| Mundo                      | Ethanol 96% | 1410T31150615 | 1       |
| Mundo                      | Ethanol 96% | 20142         | 1       |
| mandoOHG                   | Ethanol 96% | 1410T31260218 | 1       |
| Nachgeprüft Karl-Josef     | Ethanol 96% | 818N03041     | 1       |
| NACHPRÜFUNG ...            | Ethanol 96% |               | 1       |
| NACHPRÜFUNG Charge 2210... | Ethanol 96% |               | 1       |
| Nordbrand Nordhausen GmbH  | Ethanol 96% |               | 7       |
| Nordbrand Nordhausen GmbH  | Ethanol 96% | 200914-1      | 1       |
| Nordbrand Nordhausen       | Ethanol 96% |               | 2       |
| Nordbrand Nordhausen       | Ethanol 96% | 30420         | 1       |
| Nordbrand Nordhausen       | Ethanol 96% | UN1170        | 2       |
| Nordhausen                 | Ethanol 96% | B32/26052020  | 2       |
| Nordhausen                 | Ethanol 96% | B32/27072020  | 1       |
| Nordhäuser                 | Ethanol 96% | 200404-1      | 1       |
| Noweda / Aploda            | Ethanol 96% | 21000197      | 1       |
| Noweda / Apolda            | Ethanol 96% | 20000974      | 1       |
| Noweda 04.08.15            | Ethanol 96% | 22000616      | 1       |
| Noweda/Heyl                | Ethanol 96% | 25001144      | 1       |
| Noweda/Labochemie          | Ethanol 96% | 20001566      | 1       |
| Noweda/Laborchem. Apolda   | Ethanol 96% | 23001055      | 4       |
| Noweda/laborchemie Apolda  | Ethanol 96% | 21002237      | 1       |
| Noweda                     | Ethanol 96% | 1202124       | 2       |
| Noweda                     | Ethanol 96% | 19000643001   | 1       |
| Noweda                     | Ethanol 96% | 19000663      | 1       |
| Noweda                     | Ethanol 96% | 19001935      | 1       |
| Noweda                     | Ethanol 96% | 19002422      | 1       |
| Noweda                     | Ethanol 96% | 19030201      | 1       |
| Noweda                     | Ethanol 96% | 19129501      | 1       |
| Noweda                     | Ethanol 96% | 20002439001   | 1       |
| Noweda                     | Ethanol 96% | 21000197      | 1       |
| Noweda                     | Ethanol 96% | 24000856      | 1       |
| Noweda                     | Ethanol 96% | 25000305      | 2       |
| Noweda                     | Ethanol 96% | 26002023      | 1       |
| Noweda                     | Ethanol 96% | 30032021      | 1       |
| Noweda                     | Ethanol 96% | N781706124    | 3       |
| Otto Fischar GmbH & Co KG  | Ethanol 96% | 7150032       | 1       |
| Overlack                   | Ethanol 96% | 1089417       | 1       |
| Phoenix Goettin            | Ethanol 96% | 21002269      | 1       |
| Phoenix/ Laborchemie Ap... | Ethanol 96% | 25000305      | 1       |
| Phoenix/Laborchemie APO... | Ethanol 96% | 23000188      | 1       |
| Phoenix                    | Ethanol 96% | 19000643001   | 1       |
| Phoenix                    | Ethanol 96% | 19030201      | 2       |
| Phoenix                    | Ethanol 96% | 19129502      | 2       |
| Phoenix                    | Ethanol 96% | 200000973     | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|----------------------------|------------------|-------------------|----------------|
| Phoenix                    | Ethanol 96%      | 21001561          | 1              |
| Phoenix                    | Ethanol 96%      | 3204              | 2              |
| Phönix / Heyl              | Ethanol 96%      | 24000856          | 1              |
| Phönix 06.2.15             | Ethanol 96%      | 21002075          | 1              |
| Phönix, Caesar&Loretz G... | Ethanol 96%      | 19000643001       | 1              |
| Phönix/ Apolda             | Ethanol 96%      | 24001427          | 1              |
| Phönix/ Laborchemie        | Ethanol 96%      | 24002163          | 2              |
| Phönix/Apolda              | Ethanol 96%      | 24000856          | 2              |
| Phönix/berkel              | Ethanol 96%      | 130208            | 1              |
| Phönix/Cealo               | Ethanol 96%      | 18181401          | 1              |
| Phönix/Heyl                | Ethanol 96%      | 23001368          | 2              |
| Phönix/Heyl                | Ethanol 96%      | 24000863          | 1              |
| Phönix                     | Ethanol 96%      | 18122017/25112016 | 1              |
| Phönix                     | Ethanol 96%      | 18181402          | 1              |
| Phönix                     | Ethanol 96%      | 18191701          | 2              |
| Phönix                     | Ethanol 96%      | 18191702          | 2              |
| Phönix                     | Ethanol 96%      | 20001378001       | 1              |
| Phönix                     | Ethanol 96%      | 20003544001       | 2              |
| Phönix                     | Ethanol 96%      | 21001403003       | 1              |
| Phönix                     | Ethanol 96%      | 24002163          | 1              |
| Phönix                     | Ethanol 96%      | 26000285          | 1              |
| Post-Apotheke              | Ethanol 96%      | 111a-02304        | 1              |
| prima Sprit                | Ethanol 96%      |                   | 1              |
| PVL                        | Ethanol 96%      | 1204131           | 1              |
| Retest                     | Ethanol 96%      | 2005786           | 1              |
| Rondell Apotheke           | Ethanol 96%      | 410040216085      | 1              |
| Röntgen                    | Ethanol 96%      | 1410T31010420     | 1              |
| Röntgen                    | Ethanol 96%      | 1410T31120718     | 1              |
| Röntgen                    | Ethanol 96%      | 22000101001       | 1              |
| Röntgen                    | Ethanol 96%      | 27001084          | 1              |
| Rum Albrecht-Bad Bevensen  | Ethanol 96%      |                   | 1              |
| Sana/Laborchemie           | Ethanol 96%      | 260000283         | 1              |
| Sanacop                    | Ethanol 96%      | 23000780          | 1              |
| Sanacorp/ Laborchemie A... | Ethanol 96%      | 24002163          | 1              |
| Sanacorp                   | Ethanol 96%      |                   | 1              |
| Sanacorp                   | Ethanol 96%      | 20001574          | 1              |
| Sanacorp                   | Ethanol 96%      | 20001830          | 1              |
| Sanacorp                   | Ethanol 96%      | 21001560          | 2              |
| Sanacorp                   | Ethanol 96%      | 21002268          | 1              |
| Sanacorp                   | Ethanol 96%      | 24001427          | 1              |
| Sanacorp                   | Ethanol 96%      | 25001138          | 1              |
| Sanacorp                   | Ethanol 96%      | 25001980          | 1              |
| Sanacorp                   | Ethanol 96%      | 27000675          | 1              |
| Sanacorp                   | Ethanol 96%      | 97612016          | 2              |
| sanacorp                   | Ethanol 96%      | K40787471         | 1              |
| SAV LP                     | Ethanol 96%      | 601826            | 1              |
| Schlitzer Destillerie      | Ethanol 96%      | 1430T34090817     | 1              |
| Schmittmann GmbH           | Ethanol 96%      | 20130105          | 1              |
| Schmittmann GmbH           | Ethanol 96%      | 20140100          | 1              |
| Schmittmann GmbH           | Ethanol 96%      | 20160426          | 1              |
| Schmittmann GmbH           | Ethanol 96%      | 2041503           | 1              |
| Schmittmann/Hoffmann       | Ethanol 96%      | 20020112-1        | 1              |
| Schmittmann                | Ethanol 96%      | 20150108          | 1              |
| Senge& Butz GmbH WE: 0...  | Ethanol 96%      | 41209             | 1              |
| Sonnen-Apotheke Wefensl... | Ethanol 96%      |                   | 1              |
| Sonnen-Apotheke Wefensl... | Ethanol 96%      | VE42671-1530      | 1              |
| Sonnenberg/Zentrum         | Ethanol 96%      | 4711E-03041       | 1              |
| Sophien AM/ Karl-Josef ... | Ethanol 96%      | 410040121138      | 5              |
| Sophien Arzneimittel GmbH  | Ethanol 96%      | 410240921145      | 1              |
| Sophien Arzneimittel       | Ethanol 96%      | 410120320128      | 1              |

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| Supplier                   | Substance   | Batch          | Spectra |
|----------------------------|-------------|----------------|---------|
| sophien arzneimittel       | Ethanol 96% | 410191018111   | 1       |
| Sophien-AM / K.J.Kost      | Ethanol 96% | 410041115082   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410060120125   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410070119113   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410071019122   | 2       |
| Sophien-AM/ Kost           | Ethanol 96% | 41011041916    | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410150420131   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410160719119   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410170820136   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410191018111   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410251119124   | 1       |
| Sophien-AM/ Kost           | Ethanol 96% | 410310120126   | 1       |
| Sophien-Arzneimittel Gm... | Ethanol 96% | 410090721143   | 1       |
| Sophien-Arzneimittel Gm... | Ethanol 96% | 410090720134   | 1       |
| Sophien-Arzneimittel GmbH  | Ethanol 96% | 410261017101   | 1       |
| Sophien-Arzneimittel Kost  | Ethanol 96% | 410090617097   | 1       |
| Spangro/Laborchemie Apo... | Ethanol 96% | 20001583       | 1       |
| Spangropharm               | Ethanol 96% | 1410T31041016  | 1       |
| Spezial.brennerei Behle... | Ethanol 96% | Sorte410       | 1       |
| Spinnrad/Gehe              | Ethanol 96% | 919310072      | 1       |
| Spinnrad/Noweda            | Ethanol 96% | 1017310073     | 1       |
| Spinnrad                   | Ethanol 96% | 1017310124     | 1       |
| Spinnrad                   | Ethanol 96% | 317310072      | 1       |
| Spinnrad                   | Ethanol 96% | 713310072      | 1       |
| spinnrad                   | Ethanol 96% | 815310072      | 1       |
| steuerfreier Alkohol       | Ethanol 96% | 19032020       | 1       |
| Sünner/Sünner              | Ethanol 96% | 31032020-01    | 1       |
| Taoasis/K                  | Ethanol 96% | VE30892-112552 | 1       |
| Taoasis                    | Ethanol 96% | 122428         | 1       |
| Taoasis                    | Ethanol 96% | VE36425-122428 | 1       |
| TAOASIS                    | Ethanol 96% | VE39261-125696 | 1       |
| Taoasis                    | Ethanol 96% | VE40497-128163 | 2       |
| Taoasis                    | Ethanol 96% | VE42394-1530   | 1       |
| Taoasis / G                | Ethanol 96% | VE31397-114015 | 1       |
| TC284_011018/Berkel        | Ethanol 96% | 1410T31091018  | 1       |
| Tereos 20131470D           | Ethanol 96% | 1410T31040613  | 1       |
| Tereos, Origny/ Berkel ... | Ethanol 96% | 19/12/11-1     | 1       |
| Tereos, Origny/ Berkel ... | Ethanol 96% | 20/03/27       | 1       |
| Tereos,Origny/ Kassner&... | Ethanol 96% | 17/02/08       | 1       |
| Tereos/ Berkel AHK Alko... | Ethanol 96% | 90119/018      | 1       |
| Tereos/Berkel AHK          | Ethanol 96% | 101017/884     | 1       |
| Tereos/BERKEL AHK          | Ethanol 96% | 1410T31060717  | 1       |
| Tereos/Berkel AHK          | Ethanol 96% | 1410T31140217  | 1       |
| Tereos/Berkel AHK          | Ethanol 96% | 1410T31151117  | 1       |
| Tereos/BERKEL AHK          | Ethanol 96% | 1410T31291117  | 1       |
| Tereos/Berkel AHK          | Ethanol 96% | 31115/705      | 1       |
| Th. Geyer                  | Ethanol 96% | I1075571009    | 1       |
| The Duke Destillerie       | Ethanol 96% | LN20/ELU01     | 1       |
| T-o-f / Walter CMP         | Ethanol 96% | 41119/505/062  | 1       |
| VDL                        | Ethanol 96% | K43005871151   | 1       |
| VWR                        | Ethanol 96% | 16E034127      | 1       |
| VWR                        | Ethanol 96% | I0962467       | 2       |
| W. Hoffmann/Noweda         | Ethanol 96% | 20120106       | 1       |
| Walter CMP GmbH            | Ethanol 96% | 40320          | 1       |
| Walter CMP GmbH            | Ethanol 96% | 40320/504/056  | 3       |
| Walter CMP                 | Ethanol 96% | 1809-013       | 1       |
| Walter CMP                 | Ethanol 96% | 200320-505-066 | 1       |
| Walter CMP                 | Ethanol 96% | 40320/504/056  | 1       |
| Walter CMP                 | Ethanol 96% | 41119/505/062  | 1       |
| Walter-CMP + Co. KG        | Ethanol 96% | 200320/505/066 | 1       |

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| Supplier                   | Substance   | Batch          | Spectra |
|----------------------------|-------------|----------------|---------|
| Walter-CMP + Co. KG        | Ethanol 96% | 40320/504/056  | 1       |
| WalterCMP GmbH und CO.KG   | Ethanol 96% | 120419/505/047 | 2       |
| Walter-CMP GmbH&Co.KG ...  | Ethanol 96% | 200320/505/066 | 1       |
| Walter-CMP/direkt 12.10... | Ethanol 96% |                | 1       |
| Walter-CMP/direkt 12.10... | Ethanol 96% | 150720/505/070 | 1       |
| Walter-CMP                 | Ethanol 96% | 200320-505-066 | 2       |
| Weinhaus SChenk            | Ethanol 96% | 18032020       | 1       |
| wepa                       | Ethanol 96% | 1820462779     | 1       |
| Werner Hoffmann            | Ethanol 96% |                | 1       |
| Werner Hoffmann            | Ethanol 96% | 20130033       | 1       |
| Werner Hoffmann            | Ethanol 96% | 7081503        | 1       |
| Werner Hoffmann            | Ethanol 96% | VE49528        | 1       |
| Werner Hofmann / Schmit... | Ethanol 96% | 19/10/10       | 1       |
| Werner Hofmann / Schmit... | Ethanol 96% | 41019/02/20    | 1       |
| Werner Hofmann, Vertrie... | Ethanol 96% | Corona02024030 | 1       |
| Werner Hofmann/Werner H... | Ethanol 96% | 20150278       | 1       |
| Werner Hofmann/Werner H... | Ethanol 96% | 21/06/10       | 1       |
| Werner Hofmann             | Ethanol 96% | 111111         | 1       |
| Werner Hofmann             | Ethanol 96% | 15071707       | 1       |
| Werner Hofmann             | Ethanol 96% | 17/09/07-1     | 2       |
| Werner Hofmann             | Ethanol 96% | 18/02/09       | 1       |
| Werner Hofmann             | Ethanol 96% | 18/09/26-1     | 2       |
| Werner Hofmann             | Ethanol 96% | 19/10/10       | 1       |
| Werner Hofmann             | Ethanol 96% | 20/03/27       | 1       |
| Werner Hofmann             | Ethanol 96% | 20/10/19       | 1       |
| Werner Hofmann             | Ethanol 96% | 20120106       | 1       |
| Werner Hofmann             | Ethanol 96% | 20150278       | 1       |
| Werner Hofmann             | Ethanol 96% | 20170160       | 2       |
| Werner Hofmann             | Ethanol 96% | 29061804       | 1       |
| Werner Hofmann             | Ethanol 96% | 30091302       | 1       |
| Werner Hofmann             | Ethanol 96% | 5031809        | 1       |
| Werner Hofmann             | Ethanol 96% | 5121821        | 1       |
| Werner Hofmann             | Ethanol 96% | 8021304        | 1       |
| Wilhelm-Apotheke           | Ethanol 96% | 80318/E        | 1       |
| Wittenberger Destillati... | Ethanol 96% | 300320WDG      | 1       |
| xxx                        | Ethanol 96% |                | 2       |

- 286 546 spectra from 1294 *Apo-Ident* customers from a total of 51 056 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Ethanol 96%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Ethanol 96%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 180           | 0              | 66 979        |
| Type B | 0              | 80            | 0              | 107 283       |
| Type C | 0              | 2145          | 18             | 286 510       |

The substance/substance group *Ethanol 96%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.6667 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6861 %) | 99.1678 % (> 99.0291 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Ethanol 96%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>   | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|--------------------|-------------------------------|---------------------------------------|
| Coal tar spirit SR | 20.19                         | –                                     |
| Dexpantenol        | 53.41                         | –                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Ethanol 96%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31488            | 31488                      | 0.00                                | 55.21                                  |
| 33852            | 34457                      | 3.98                                | 52.96                                  |
| 34330            | 34330                      | 0.00                                | 53.57                                  |
| 34457            | 34457                      | 0.00                                | 53.00                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical

variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Ether**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31651-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Ether; Aether

### Special notes

When selecting the *Ether* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Ether                     | 4      | 3      | 162    |

### Second-stage model

For differentiation of the substance/substance group *Ether* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Ether*:

| Supplier     | Substance | Batch   | Sample ID | Spectra | Certificate |
|--------------|-----------|---------|-----------|---------|-------------|
| Hedinger     | Ether     | 052159  | 31854     | 60      | 9337        |
| Hedinger     | Ether     | 052161  | 33214     | 40      | 20160621    |
| Otto Fischar | Ether     | 5975088 | 31855     | 60      | 20150817    |
| Otto Fischar | Ether     | 5977054 | 33633     | 40      | 20170524    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 200 spectra of 4 reference samples from the substance/substance group *Ether*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 959 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Ether*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier     | Substance | Batch   | Sample ID | Spectra |
|--------------|-----------|---------|-----------|---------|
| Hedinger     | Ether     | 052162  | 34122     | 40      |
| Hedinger     | Ether     | 052166  | 35261     | 40      |
| Otto Fischar | Ether     | 5971044 | 35854     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 472 spectra from 202 *Apo-Ident* customers from 164 batches from the substance/substance group *Ether*.
- Among them are spectra of independent samples from 162 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance | Batch    | Spectra |
|----------------------------|-----------|----------|---------|
| Otto Fischer GmbH & Co...  | Ether     | 5978012  | 1       |
| Aallianc. Healthc. / Fi... | Ether     | 5798015  | 1       |
| AH/Fischar                 | Ether     | 5976061  | 1       |
| Alliance/Fischar           | Ether     | 5971044  | 2       |
| Allianc. Health. / Otto... | Ether     | 597606B  | 1       |
| Alliance Healthcare/Anzag  | Ether     | 597806A  | 1       |
| Alliance Healthcare/Anzag  | Ether     | 597806B  | 1       |
| Alliance Healthcare/Fis... | Ether     | 5973065  | 1       |
| Alliance Healthcare/Fis... | Ether     | 597401A  | 1       |
| Alliance/Otto Fischar      | Ether     | 5970071  | 1       |
| Apoth. Dr. Petra Huener... | Ether     | 52165    | 2       |
| Caelo                      | Ether     | 28051304 | 1       |
| Caelo                      | Ether     | 52156    | 1       |
| Caelo                      | Ether     | 52161    | 1       |
| Caelo                      | Ether     | 52163    | 2       |
| Caelo                      | Ether     | 5973014  | 1       |
| Caelo                      | Ether     | 597306B  | 1       |
| Caelo                      | Ether     | 5974015  | 1       |
| Caelo                      | Ether     | 5974058  | 1       |
| Caelo                      | Ether     | 5976063  | 1       |
| Caelo                      | Ether     | 5976064  | 1       |
| Caelo                      | Ether     | 597606B  | 2       |
| Caelo                      | Ether     | 5977016  | 5       |
| Caelo                      | Ether     | 5977057  | 1       |
| Caelo                      | Ether     | 5978017  | 1       |
| Caelo                      | Ether     | 5979031  | 1       |
| Chiesi                     | Ether     | 5978016  | 1       |
| E+J, 28.09.2016            | Ether     | 597601C  | 1       |
| Ebert & Jacobi             | Ether     | 5978067  | 1       |
| Euro OTC                   | Ether     | 52163    | 1       |
| Fagron                     | Ether     | 5977055  | 2       |
| Fiebig                     | Ether     | 52163    | 1       |
| Fisch./Anzag               | Ether     | 5978018  | 1       |
| Fisch./Gehe                | Ether     | 5970016  | 1       |
| Fisch./Gehe                | Ether     | 597903C  | 1       |
| Fischar / Alliance Heal... | Ether     | 5970012  | 5       |
| Fischar / Alliance Heal... | Ether     | 5970017  | 2       |
| Fischar / Alliance Heal... | Ether     | 597001C  | 4       |
| Fischar / Alliance Heal... | Ether     | 5970078  | 4       |
| Fischar / Alliance Heal... | Ether     | 5971049  | 6       |
| Fischar / Alliance Heal... | Ether     | 5975011  | 1       |
| Fischar / Alliance Heal... | Ether     | 5976067  | 3       |
| Fischar / Alliance Heal... | Ether     | 597801C  | 6       |

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| Supplier                   | Substance | Batch       | Spectra |
|----------------------------|-----------|-------------|---------|
| Fischar / Alliance Heal... | Ether     | 5978061     | 6       |
| Fischar / Alliance Heal... | Ether     | 5979034     | 6       |
| Fischar / Alliance Heal... | Ether     | 597903A     | 1       |
| Fischar / Alliance Heal... | Ether     | 97001C5     | 2       |
| Fischar / Anzag            | Ether     | 5978065     | 2       |
| Fischar / Gehe             | Ether     | 5976063     | 1       |
| Fischar / Gehe             | Ether     | 5977018     | 1       |
| Fischar / Kehr             | Ether     | 5970072     | 1       |
| Fischar / Kehr             | Ether     | 597606B     | 2       |
| Fischar / Noweda / EK 1... | Ether     | 597903A     | 1       |
| Fischar / Gehe             | Ether     | 5978016     | 1       |
| fishar / noweda            | Ether     | 5978017     | 1       |
| Fischar /Zentrum-Apotheke  | Ether     | 5974013     | 1       |
| Fischar 001                | Ether     | 597204B     | 1       |
| Fischar Anzag              | Ether     | 85(5978015) | 1       |
| Fischar Anzag              | Ether     | 86(5978066) | 1       |
| Fischar Anzag              | Ether     | 89(5979031) | 1       |
| Fischar Sanacorp           | Ether     | 5970019     | 1       |
| fishar über Phönix         | Ether     | 5979032     | 1       |
| Fischar/ NOWEDA            | Ether     | 5978069     | 1       |
| Fischar/ Alliance Healt... | Ether     | 5977051     | 6       |
| fishar/ alliance           | Ether     | 5970079     | 6       |
| Fischar/ Anzag             | Ether     | 5970016     | 1       |
| Fischar/ Anzag             | Ether     | 5970071     | 1       |
| fishar/ Anzag              | Ether     | 597903C     | 1       |
| Fischar/ Anzag             | Ether     | 87(5978066) | 1       |
| Fischar/ Anzag             | Ether     | 88(5979036) | 1       |
| Fischar/ GEHE              | Ether     | 5970071     | 1       |
| Fischar/ GEHE              | Ether     | 597903C     | 1       |
| Fischar/ Now               | Ether     | 597301C     | 1       |
| Fischar/ Now               | Ether     | 597306C     | 1       |
| Fischar/ Now               | Ether     | 5977054     | 1       |
| Fischar/ Noweda            | Ether     | 5977054     | 1       |
| Fischar/ Noweda            | Ether     | 5978066     | 1       |
| Fischar/AEP                | Ether     | 5979032     | 1       |
| Fischar/AHD                | Ether     | 5970016     | 1       |
| Fischar/AHD                | Ether     | 83(5977053) | 1       |
| Fischar/AHD                | Ether     | 84(5978012) | 1       |
| Fischar/Allia              | Ether     | 5979031     | 1       |
| Fischar/Alliance Health... | Ether     | 5978066     | 1       |
| Fischar/Alliance           | Ether     | 5978015     | 4       |
| Fischar/Alliance           | Ether     | 597903C     | 2       |
| Fischar/Anzag              | Ether     | 5973063     | 1       |
| Fischar/Anzag              | Ether     | 597903A     | 1       |
| Fischar/Fiebig 05.10.2019  | Ether     | 5979031     | 1       |
| Fischar/Fiebig 25.09.2020  | Ether     | 5970016     | 1       |
| Fischar/Fiebig 29.06.2021  | Ether     | 5970077     | 1       |
| Fischar/Fiebig             | Ether     | 5976062     | 2       |
| Fischar/Gehe               | Ether     | 5970071     | 1       |
| Fischar/Gehe               | Ether     | 5970077     | 2       |
| Fischar/Gehe               | Ether     | 5971045     | 1       |
| Fischar/Gehe               | Ether     | 5973018     | 1       |
| Fischar/Gehe               | Ether     | 597405A     | 1       |
| Fischar/GEHE               | Ether     | 5977051     | 1       |
| Fischar/GEHE               | Ether     | 5978017     | 2       |
| Fischar/Jenne              | Ether     | 5970072     | 3       |
| Fischar/Jenne              | Ether     | 5978013     | 1       |
| Fischar/Jenne              | Ether     | 5978017     | 1       |
| Fischar/Jenne              | Ether     | 5978062     | 1       |
| fishar/jenne               | Ether     | 5979031     | 1       |

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| <b>Supplier</b>           | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|------------------|--------------|----------------|
| Fischar/Jenne             | Ether            | AP210401-01  | 1              |
| Fischar/Kehr              | Ether            | 5977055      | 1              |
| Fischar/Kehr              | Ether            | 5978015      | 1              |
| Fischar/Kehr              | Ether            | 5979031      | 1              |
| Fischar/Kehr              | Ether            | 5979032      | 2              |
| Fischar/Kehr              | Ether            | 597903B      | 1              |
| Fischar/Krieger           | Ether            | 597903C      | 1              |
| Fischar/Noweda , EK 14,41 | Ether            | 5979033      | 1              |
| Fischar/Noweda            | Ether            | 5973019      | 1              |
| Fischar/Noweda            | Ether            | 5976019      | 1              |
| Fischar/Noweda            | Ether            | 5978014      | 1              |
| Fischar/Noweda            | Ether            | 5978018      | 1              |
| Fischar/Noweda            | Ether            | 5978066      | 1              |
| Fischar/Noweda            | Ether            | 597806C      | 1              |
| Fischar/Noweda            | Ether            | 59790079     | 1              |
| FISCHAR/Noweda            | Ether            | 597903A      | 1              |
| Fischar/Noweda            | Ether            | 597903B      | 1              |
| Fischar/Phoenix           | Ether            | 5970071      | 2              |
| Fischar/Phoenix           | Ether            | 5974014      | 1              |
| Fischar/Phoenix           | Ether            | 5974058      | 1              |
| Fischar/Phoenix           | Ether            | 5979032      | 1              |
| fishar/Phoenix            | Ether            | 597903C      | 1              |
| Fischar/Phönix            | Ether            | 5973064      | 1              |
| Fischar/Phönix            | Ether            | 5978018      | 1              |
| Fischar/Sanacorp          | Ether            | 5972042      | 1              |
| Fischar/Sanacorp          | Ether            | 5973066      | 1              |
| Fischar/Sanacorp          | Ether            | 597606       | 1              |
| Fischar/Sanacorp          | Ether            | 597606B      | 1              |
| Fischar/Sanacorp          | Ether            | 5977018      | 1              |
| Fischar/Sanacorp          | Ether            | 5977054      | 1              |
| Fischar/Sanacorp          | Ether            | 5977055      | 1              |
| Fischar/Sanacorp          | Ether            | 5977056      | 3              |
| Fischar/Sanacorp          | Ether            | 5978014      | 2              |
| Fischar/Sanacorp          | Ether            | 5978016      | 1              |
| Fischar/Sanacorp          | Ether            | 5978017      | 1              |
| Fischar/Sanacorp          | Ether            | 597801C      | 1              |
| Fischar/Sanacorp          | Ether            | 5979032      | 1              |
| Fischar/Sanacorp          | Ether            | 5979035      | 6              |
| Fischar/XX                | Ether            | 597001B      | 1              |
| Fischar                   | Ether            | 52157        | 1              |
| Fischar                   | Ether            | 5970017      | 1              |
| Fischar                   | Ether            | 597036       | 1              |
| Fischar                   | Ether            | 5971081      | 1              |
| Fischar                   | Ether            | 5972082      | 1              |
| fishar                    | Ether            | 5972083      | 1              |
| Fischar                   | Ether            | 5972089      | 1              |
| Fischar                   | Ether            | 597208C      | 1              |
| Fischar                   | Ether            | 5973013      | 1              |
| Fischar                   | Ether            | 5973063      | 1              |
| Fischar                   | Ether            | 5973065      | 1              |
| Fischar                   | Ether            | 5973067      | 1              |
| Fischar                   | Ether            | 5973069      | 1              |
| Fischar                   | Ether            | 5974013      | 1              |
| Fischar                   | Ether            | 597401A      | 1              |
| Fischar                   | Ether            | 597401C      | 1              |
| Fischar                   | Ether            | 5974051      | 1              |
| Fischar                   | Ether            | 5974059      | 2              |
| fishar                    | Ether            | 5975012      | 1              |
| fishar                    | Ether            | 5976016      | 1              |
| fishar                    | Ether            | 597601C      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Fischar                    | Ether            | 597601C      | 1              |
| Fischar                    | Ether            | 597606A      | 1              |
| Fischar                    | Ether            | 597606B      | 1              |
| fischar                    | Ether            | 5977056      | 1              |
| Fischar                    | Ether            | 5977057      | 1              |
| Fischar                    | Ether            | 5977058      | 1              |
| Fischar                    | Ether            | 5977059      | 2              |
| fischar                    | Ether            | 5978013      | 1              |
| Fischar                    | Ether            | 5978015      | 1              |
| Fischar                    | Ether            | 5978017      | 1              |
| Fischar                    | Ether            | 5978018      | 2              |
| Fischar                    | Ether            | 5978019      | 2              |
| Fischar                    | Ether            | 5978066      | 1              |
| Fischar                    | Ether            | 597806C      | 1              |
| Fischar                    | Ether            | 5979032      | 1              |
| fischar                    | Ether            | 5979036      | 1              |
| Fischar                    | Ether            | 597903B      | 3              |
| Fischar                    | Ether            | 597903C      | 1              |
| Fischar                    | Ether            | 90207/2      | 1              |
| Fischbar / Gehe            | Ether            | 597903C      | 1              |
| Fischbar                   | Ether            | 597701B      | 1              |
| FISCHER GMBH / GEHE        | Ether            | 5974051      | 1              |
| Fischer Saarbrücken/GEHE   | Ether            | 5972047      | 1              |
| Fischer/ Sanacorp          | Ether            | 5977056      | 1              |
| Fischer/AEP                | Ether            | 5976061      | 1              |
| Fischer/Gehe               | Ether            | 5977057      | 1              |
| Fischer/Jenne              | Ether            | 5670079      | 1              |
| Fischer/Jenne              | Ether            | 5978064      | 1              |
| fischer/Kehr               | Ether            | 5977058      | 1              |
| Fischer/Phönix             | Ether            | 597606b      | 1              |
| Fischer                    | Ether            | 597001A      | 1              |
| Fischer                    | Ether            | 5971044      | 1              |
| Fischer                    | Ether            | 5973066      | 1              |
| Fischer                    | Ether            | 597306A      | 1              |
| Fischer                    | Ether            | 597606B      | 1              |
| fischer                    | Ether            | 5977058      | 1              |
| Fischer                    | Ether            | 5978017      | 1              |
| fischer                    | Ether            | 597801C      | 1              |
| fISHA Noweda               | Ether            | 5977054      | 1              |
| fishar/ Sanacorp           | Ether            | 5977054      | 2              |
| Gehe /Hedinger             | Ether            | 52163        | 1              |
| GEHE 06.09.2019            | Ether            | 5979031      | 1              |
| Gehe/ Fischar              | Ether            | 5977057      | 1              |
| Gehe/Fischar               | Ether            | 597301       | 2              |
| Gehe                       | Ether            | 5972082      | 1              |
| gepepharm GmbH             | Ether            | 52155        | 1              |
| Hebinger                   | Ether            | 52153        | 2              |
| Hedinger / Gehe            | Ether            | 52163        | 2              |
| Hedinger / Gehe            | Ether            | 52165        | 1              |
| Hedinger / Gehe            | Ether            | 52166        | 1              |
| Hedinger / Gehe            | Ether            | 52167        | 1              |
| Hedinger / Noweda          | Ether            | 52156        | 4              |
| Hedinger, Stuttgart / P... | Ether            | 52164        | 1              |
| Hedinger, Stuttgart / S... | Ether            | 52166        | 1              |
| Hedinger, Stuttgart        | Ether            | 52165        | 1              |
| Hedinger/ VDL              | Ether            | 52162        | 2              |
| Hedinger/ VDL              | Ether            | 52163        | 2              |
| Hedinger/4                 | Ether            | 52163        | 1              |
| Hedinger/AHD               | Ether            | 52163        | 1              |
| Hedinger/AHD               | Ether            | 52165        | 1              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Hedinger/Alliance      | Ether            | 52163        | 1              |
| Hedinger/Alliance      | Ether            | 52165        | 1              |
| hedinger/anzag         | Ether            | 52153        | 2              |
| Hedinger/Anzag         | Ether            | 52161        | 1              |
| Hedinger/Anzag         | Ether            | 52163        | 1              |
| Hedinger/Gehe/28.10.20 | Ether            | 52164        | 1              |
| Hedinger/Gehe          | Ether            | 52153        | 1              |
| Hedinger/Gehe          | Ether            | 52156        | 2              |
| Hedinger/Gehe          | Ether            | 52157        | 1              |
| Hedinger/Gehe          | Ether            | 52162        | 1              |
| hedinger/gehe          | Ether            | 52163        | 1              |
| Hedinger/Gehe          | Ether            | 52164        | 2              |
| Hedinger/Jenne         | Ether            | 52165        | 1              |
| Hedinger/Kehr          | Ether            | 52157        | 1              |
| Hedinger/Noweda        | Ether            | 52153        | 1              |
| Hedinger/Noweda        | Ether            | 52157        | 3              |
| Hedinger/Noweda        | Ether            | 52161        | 2              |
| Hedinger/Noweda        | Ether            | 52162        | 3              |
| Hedinger/Noweda        | Ether            | 52163        | 1              |
| HEDINGER/NOWEDA        | Ether            | 52165        | 1              |
| HEDINGER/NOWEDA        | Ether            | 52166        | 1              |
| HEDINGER/NOWEDA        | Ether            | 52167        | 1              |
| HEDINGER/NOWEDA        | Ether            | 5978062      | 1              |
| Hedinger/Phönix        | Ether            | 52162        | 1              |
| Hedinger/Phönix        | Ether            | 52166        | 1              |
| Hedinger/Sanacorp      | Ether            | 12114902     | 1              |
| Hedinger/Sanacorp      | Ether            | 52164        | 1              |
| Hedinger/V.d.L.        | Ether            | 52153        | 1              |
| Hedinger               | Ether            | 13011812     | 1              |
| Hedinger               | Ether            | 14070804     | 1              |
| Hedinger               | Ether            | 21071803     | 1              |
| Hedinger               | Ether            | 30011406     | 1              |
| Hedinger               | Ether            | 5121813      | 1              |
| Hedinger               | Ether            | 52152        | 1              |
| Hedinger               | Ether            | 52153        | 4              |
| Hedinger               | Ether            | 52155        | 1              |
| Hedinger               | Ether            | 52156        | 1              |
| Hedinger               | Ether            | 52157        | 1              |
| Hedinger               | Ether            | 52161        | 2              |
| Hedinger               | Ether            | 52163        | 7              |
| Hedinger               | Ether            | 52164        | 2              |
| Hedinger               | Ether            | 52165        | 6              |
| Hedinger               | Ether            | 52166        | 1              |
| Hedinger               | Ether            | 52169        | 1              |
| Heninger               | Ether            | 52162        | 3              |
| Herdinger              | Ether            | 52162        | 1              |
| Ichthyol/Phönix        | Ether            | 5978017      | 1              |
| Ichthyol-Gesellschaft  | Ether            | 5976011      | 1              |
| Kehr/Fischar           | Ether            | 5977052      | 1              |
| L12/Hedinger           | Ether            | 52161        | 1              |
| noveda/fischar         | Ether            | 5974056      | 1              |
| noveda/ Otto Fischar   | Ether            | 5976066      | 1              |
| Noweda/apoident        | Ether            | 52164        | 1              |
| Noweda/Fischar         | Ether            | 5970013      | 1              |
| Noweda/Hedinger        | Ether            | 52163        | 1              |
| Noweda/Hedinger        | Ether            | 52164        | 1              |
| Noweda                 | Ether            | 52162        | 1              |
| Noweda                 | Ether            | 52163        | 3              |
| Noweda                 | Ether            | 52164        | 1              |
| Noweda                 | Ether            | 5971381      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Noweda                     | Ether            | 5977058          | 1              |
| noweda                     | Ether            | 597801C          | 1              |
| noweda-Fischar             | Ether            | 5978066          | 1              |
| Otto Fischar / Anzag       | Ether            | 5978067          | 1              |
| Otto Fischar / Noweda      | Ether            | 77016            | 1              |
| Otto Fischar / Sanacorp    | Ether            | 5975015          | 1              |
| Otto Fischar /Noweda       | Ether            | 5976065          | 2              |
| Otto Fischar GmbH & Co ... | Ether            | 5970015          | 2              |
| Otto Fischar GmbH & Co.... | Ether            | 5970078          | 1              |
| Otto Fischar GmbH & Co.... | Ether            | 5974102          | 2              |
| Otto Fischar GmbH & Co.... | Ether            | 5976065          | 1              |
| Otto Fischar GmbH & Co.... | Ether            | 5977016          | 1              |
| Otto Fischar GmbH & Co.... | Ether            | 5977055          | 1              |
| Otto Fischar GmbH & Co.KG  | Ether            | 5977017          | 1              |
| Otto Fischar GmbH &Co. KG  | Ether            | 5977057          | 1              |
| Otto Fischar GmbH& Co.KG   | Ether            | 5972049          | 1              |
| Otto Fischar GmbH& Co.KG   | Ether            | 597204C          | 1              |
| Otto Fischar GmbH&Co. KG   | Ether            | 5971046          | 1              |
| Otto Fischar GmbH          | Ether            | 5972045          | 1              |
| Otto Fischar GmbH          | Ether            | 5972048          | 1              |
| Otto Fischar GmbH          | Ether            | 597208           | 1              |
| Otto Fischar GmbH          | Ether            | 5972082          | 1              |
| Otto Fischar GmbH          | Ether            | 5972088          | 1              |
| Otto Fischar GmbH          | Ether            | 5972089          | 1              |
| Otto Fischar GmbH          | Ether            | 597301B          | 1              |
| Otto Fischar GmbH          | Ether            | 5979032          | 1              |
| Otto Fischar über Noweda   | Ether            | 597903B          | 2              |
| Otto Fischar/ Anzag        | Ether            | 5977017          | 1              |
| Otto Fischar/ Noweda       | Ether            | 597903B          | 1              |
| Otto Fischar/AHD           | Ether            | 5978014          | 1              |
| Otto Fischar/GEHE          | Ether            | 597301B/311152/2 | 1              |
| Otto Fischar/Gehe          | Ether            | 5977059          | 1              |
| Otto Fischar/Gehe          | Ether            | 597705B          | 1              |
| otto fischar/Sana          | Ether            | 597401B          | 1              |
| Otto Fischar/Sanacorp      | Ether            | 597301A          | 1              |
| Otto Fischar/Sanacorp      | Ether            | 5974104          | 1              |
| Otto Fischar/Sanacorp      | Ether            | 5977054          | 1              |
| Otto Fischar               | Ether            | 5975013          | 1              |
| Otto Fischar               | Ether            | 5975089          | 1              |
| Otto Fischar               | Ether            | 5976019          | 1              |
| Otto Fischar               | Ether            | 597606B          | 1              |
| otto fischar               | Ether            | 5978016          | 1              |
| Otto Fischer /Anzag        | Ether            | 5979032          | 1              |
| Otto Fischer /Anzag        | Ether            | 5979036          | 2              |
| Otto Fischer /Noweda       | Ether            | 5977018          | 1              |
| Otto Fischer GmbH & Co.... | Ether            | 5978067          | 1              |
| Otto Fischer GmbH          | Ether            | 5976069          | 1              |
| Otto Fischer GmbH          | Ether            | 597606B          | 1              |
| Otto Fischer/ Kehr         | Ether            | 5976062          | 1              |
| Otto Fischer/Anzag         | Ether            | 5978063          | 1              |
| Otto Fischer/Kehr          | Ether            | 5976067          | 1              |
| Otto Fischer/Kehr          | Ether            | 5977051          | 1              |
| Otto Fischer/Kehr          | Ether            | 5977056          | 1              |
| Otto FischerGmbH / Alli... | Ether            | 597401B          | 1              |
| Phoenix/Fischarl           | Ether            | 5973066          | 1              |
| Phönix/Fischer             | Ether            | 5977018          | 1              |
| Phönix                     | Ether            | 52153            | 1              |
| Phönix                     | Ether            | 597204B          | 1              |
| Phönix                     | Ether            | 5977018          | 1              |
| Sanacorp Fischar           | Ether            | 5978067          | 1              |

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| Supplier          | Substance | Batch   | Spectra |
|-------------------|-----------|---------|---------|
| Sanacorp/Hedinger | Ether     | 52163   | 2       |
| Sanacorp          | Ether     | 2971044 | 1       |
| Sanacorp          | Ether     | 52152   | 1       |
| Sanacorp          | Ether     | 5970071 | 1       |
| Sanacorp          | Ether     | 5978017 | 1       |
| Stumpf/Fischer    | Ether     | 5974052 | 1       |

- 288 237 spectra from 1294 *Apo-Ident* customers from a total of 51 724 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Ether* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Ether* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 200           | 0              | 66 959        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 470           | 2              | 288 237       |

The substance/substance group *Ether* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.5763 % (> 98.9407 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Ether* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance               | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------|---------------------------|-----------------------------------|
| Permethrin 25% solution | 97.88                     | –                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Ether* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31854     | 31854                  | 0.00                            | 160.63                             |
| 31855     | 31854                  | 0.48                            | 160.78                             |
| 33214     | 31854                  | 5.06                            | 150.70                             |
| 33633     | 31854                  | 4.04                            | 154.63                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Ethyl acetate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30719-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Ethyl acetate; Ethylis acetat

### Special notes

When selecting the *Ethyl acetate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Ethyl acetate             | 4      | 3      | 17     |



## Second-stage model

For differentiation of the substance/substance group *Ethyl acetate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Ethyl acetate*:

| Supplier | Substance     | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------|----------|-----------|---------|-------------|
| Caelo    | Ethyl acetate | 11357003 | 30719     | 40      | 1402681     |
| Caelo    | Ethyl acetate | 13366102 | 31385     | 40      | 20131107    |
| Caelo    | Ethyl acetate | 180804   | 34075     | 40      | 20180320*   |
| Caelo    | Ethyl acetate | 21001136 | 35547     | 50      | 20210426*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 170 spectra of 4 reference samples from the substance/substance group *Ethyl acetate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 989 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Ethyl acetate*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance     | Batch     | Sample ID | Spectra |
|----------|---------------|-----------|-----------|---------|
| Caelo    | Ethyl acetate | 15362301  | 32568     | 40      |
| Caelo    | Ethyl acetate | 15362303  | 33215     | 40      |
| Caelo    | Ethyl acetate | 192305003 | 35294     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 30 spectra from 27 *Apo-Ident* customers from 19 batches from the substance/substance group *Ethyl acetate*.
- Among them are spectra of independent samples from 17 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance     | Batch     | Spectra |
|----------------------|---------------|-----------|---------|
| Caelo                | Ethyl acetate |           | 1       |
| Caelo                | Ethyl acetate | 10286201  | 1       |
| Caelo                | Ethyl acetate | 11357003  | 2       |
| Caelo                | Ethyl acetate | 12357601  | 1       |
| Caelo                | Ethyl acetate | 12357604  | 1       |
| Caelo                | Ethyl acetate | 13366101  | 1       |
| Caelo                | Ethyl acetate | 14305302  | 1       |
| Caelo                | Ethyl acetate | 15182402  | 2       |
| Caelo                | Ethyl acetate | 15182404  | 1       |
| Caelo                | Ethyl acetate | 15362301  | 1       |
| Caelo                | Ethyl acetate | 15362303  | 1       |
| Caelo                | Ethyl acetate | 15362304  | 3       |
| Caelo                | Ethyl acetate | 16343802  | 1       |
| Caelo                | Ethyl acetate | 16943801  | 1       |
| Caelo                | Ethyl acetate | 18039501  | 3       |
| Caelo                | Ethyl acetate | 18080401  | 3       |
| Caelo                | Ethyl acetate | 18080402  | 1       |
| Caelo                | Ethyl acetate | 192305002 | 2       |
| Caelo                | Ethyl acetate | 9081304   | 1       |
| Caesar & Loretz GmbH | Ethyl acetate | 18080402  | 2       |

- 288 679 spectra from 1294 *Apo-Ident* customers from a total of 51 870 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Ethyl acetate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Ethyl acetate* and it was evaluated

how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 170           | 0              | 66 989        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 30            | 0              | 288 679       |

The substance/substance group *Ethyl acetate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.4706 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6873 %) | 100.0000 % (> 80.0000 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Ethyl acetate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance               | Distance in main model | Distance in second-stage model |
|-------------------------|------------------------|--------------------------------|
| Acetone                 | 44.73                  | –                              |
| Permethrin 25% solution | 146.32                 | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Ethyl acetate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30719     | 30719               | 0.00                         | 44.43                           |
| 31385     | 34075               | 8.08                         | 39.62                           |
| 34075     | 34075               | 0.00                         | 41.97                           |
| 35547     | 35547               | 0.00                         | 41.18                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Eucalyptus oil / Rosmary oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30875-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Eucalyptus oil / Rosmary oil; Eucalypti aetheroleum; Eucalyptus oil; Rosemary oil; Rosmarini aetheroleum

### Special notes

When selecting the *Eucalyptus oil / Rosmary oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group    | Type A | Type B | Type C |
|------------------------------|--------|--------|--------|
| Eucalyptus oil / Rosmary oil | 19     | 19     | 531    |

## Second-stage model

For differentiation of the substance/substance group *Eucalyptus oil* / *Rosmary oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Eucalyptus oil* / *Rosmary oil*:

| Supplier  | Substance      | Batch            | Sample ID | Spectra | Certificate        |
|-----------|----------------|------------------|-----------|---------|--------------------|
| Bombastus | Eucalyptus oil | 279796           | 31110     | 40      | 73399              |
| Bombastus | Eucalyptus oil | 18005784         | 34523     | 40      | 127858             |
| Caelo     | Eucalyptus oil | 13106314         | 31284     | 40      | AR-15-FG-000909-01 |
| Caelo     | Eucalyptus oil | 14039604         | 31285     | 40      | 1412280            |
| Caelo     | Eucalyptus oil | 14039609         | 31298     | 40      | 20140214           |
| Caelo     | Eucalyptus oil | 14121904         | 31314     | 40      | AR-15-FG-004302-01 |
| Caelo     | Eucalyptus oil | 14039626         | 31864     | 60      | 20140211           |
| Caelo     | Eucalyptus oil | 15316504         | 31865     | 60      | 20150925           |
| Caelo     | Eucalyptus oil | 21001199         | 35553     | 50      | 20210426*          |
| Euro OTC  | Eucalyptus oil | 1406028-01       | 31527     | 60      | 20140716           |
| Euro OTC  | Eucalyptus oil | 1511015          | 31823     | 60      | 20151214*          |
| Fagron    | Eucalyptus oil | 16C15-B05-331849 | 33277     | 40      | 20160411           |
| Fagron    | Eucalyptus oil | 18F12-B03-364810 | 34759     | 40      | 20180807           |
| Caelo     | Rosemary oil   | 162769           | 32686     | 40      | 20160930*          |
| Caelo     | Rosemary oil   | 191803           | 34614     | 40      | 20190703*          |
| Euro OTC  | Rosemary oil   | 1303016-01       | 31311     | 40      | 1502125            |
| Euro OTC  | Rosemary oil   | 1511016          | 31822     | 60      | 20151214*          |
| Euro OTC  | Rosemary oil   | 2008036          | 35139     | 40      | 20201127*          |
| Fagron    | Rosemary oil   | 12E08-N05        | 30875     | 40      | 1502124            |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 870 spectra of 19 reference samples from the substance/substance group *Eucalyptus oil* / *Rosmary oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 19 different batches.
- 66 289 spectra from a total of 1360 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 750 spectra of 19 reference samples from the substance/substance group *Eucalyptus oil* / *Rosemary oil*.
- Among them are spectra of independent samples from 19 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance      | Batch    | Sample ID | Spectra |
|-----------|----------------|----------|-----------|---------|
| Bombastus | Eucalyptus oil | 21001207 | 36194     | 40      |
| Caelo     | Eucalyptus oil | 11104312 | 30859     | 40      |
| Caelo     | Eucalyptus oil | 163513   | 33084     | 40      |
| Caelo     | Eucalyptus oil | 192026   | 34649     | 40      |
| Caelo     | Eucalyptus oil | 192938   | 34723     | 40      |
| Caelo     | Eucalyptus oil | 20000642 | 35026     | 40      |
| Caelo     | Eucalyptus oil | 21004148 | 36162     | 40      |
| Euro OTC  | Eucalyptus oil | 1608042  | 32773     | 40      |
| Euro OTC  | Eucalyptus oil | 1703030  | 33237     | 40      |
| Euro OTC  | Eucalyptus oil | 1801002  | 33928     | 40      |
| Euro OTC  | Eucalyptus oil | 1806016  | 34189     | 40      |
| Euro OTC  | Eucalyptus oil | 1903030  | 34496     | 40      |
| Euro OTC  | Eucalyptus oil | 2009023  | 35117     | 40      |
| Euro OTC  | Eucalyptus oil | 2204012  | 36277     | 30      |
| Bombastus | Rosemary oil   | 22001148 | 36198     | 40      |
| Euro OTC  | Rosemary oil   | 1608043  | 32774     | 40      |
| Euro OTC  | Rosemary oil   | 1803038  | 34088     | 40      |
| Euro OTC  | Rosemary oil   | 1903001  | 34420     | 40      |
| Euro OTC  | Rosemary oil   | 2205009  | 36279     | 40      |

- 106 613 spectra from a total of 2482 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1606 spectra from 483 *Apo-Ident* customers from 543 batches from the substance/substance group *Eucalyptus oil* / *Rosemary oil*.
- Among them are spectra of independent samples from 521 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance      | Batch              | Spectra |
|----------------------------|----------------|--------------------|---------|
| 14039625                   | Eucalyptus oil | 14039625           | 1       |
| ACM                        | Eucalyptus oil |                    | 1       |
| AHD , 03.09.13             | Rosemary oil   | 12246515           | 2       |
| AHD 03.12.2013             | Eucalyptus oil | 282165             | 1       |
| AHD 07.10.16 E.k:9,72      | Eucalyptus oil | 15400203           | 1       |
| ahd/lamotte                | Eucalyptus oil | 14039604           | 1       |
| AHD                        | Eucalyptus oil | 307667             | 1       |
| Alliance Health Care       | Eucalyptus oil | 291534             | 1       |
| Alliance Healthcare        | Eucalyptus oil | 18001402           | 1       |
| Allianz Healthcare         | Eucalyptus oil | 15400202           | 1       |
| Anzag 05.11.12 ek:7,37     | Rosemary oil   | 11287211           | 1       |
| Anzag 12.03.13 ek: 7,37EUR | Rosemary oil   | 12246508           | 1       |
| Anzag                      | Eucalyptus oil | 273707             | 1       |
| Apotheke Bauer,München     | Rosemary oil   | 201703347          | 1       |
| Apotheker Bauer & Cie      | Eucalyptus oil |                    | 1       |
| Bergland / Gehe            | Eucalyptus oil | K301874            | 1       |
| Bergland / Gehe            | Eucalyptus oil | K302509            | 1       |
| Bergland/Sanacorp          | Rosemary oil   | C301101-3448311132 | 1       |
| Bergland                   | Rosemary oil   | K601476            | 1       |
| Bergland                   | Eucalyptus oil | K801202            | 1       |
| Bomastus direkt            | Eucalyptus oil | 293624             | 1       |
| Bomastus                   | Eucalyptus oil | 118005784          | 1       |
| Bomastus                   | Rosemary oil   | 17000647           | 1       |
| Bomastus                   | Eucalyptus oil | 17000944           | 8       |
| Bomastus                   | Eucalyptus oil | 17000947           | 4       |
| Bomastus                   | Eucalyptus oil | 17001384           | 2       |
| Bomastus                   | Eucalyptus oil | 1700387-1961       | 1       |
| Bomastus                   | Rosemary oil   | 17006473286        | 1       |
| Bomastus                   | Eucalyptus oil | 18000176           | 10      |
| Bomastus                   | Eucalyptus oil | 18001402           | 1       |
| Bomastus                   | Rosemary oil   | 18001783           | 3       |
| Bomastus                   | Eucalyptus oil | 18001849           | 3       |
| Bomastus                   | Rosemary oil   | 18003402           | 2       |
| Bomastus                   | Rosemary oil   | 180035943286       | 1       |
| Bomastus                   | Eucalyptus oil | 18004242           | 3       |
| Bomastus                   | Rosemary oil   | 18004852           | 3       |
| Bomastus                   | Eucalyptus oil | 18005267           | 4       |
| Bomastus                   | Rosemary oil   | 18005616           | 3       |
| Bomastus                   | Eucalyptus oil | 18005784           | 26      |
| Bomastus                   | Eucalyptus oil | 180057843214       | 1       |
| Bomastus                   | Eucalyptus oil | 18006426           | 2       |
| Bomastus                   | Eucalyptus oil | 19000586           | 5       |
| Bomastus                   | Eucalyptus oil | 19000587           | 5       |
| Bomastus                   | Rosemary oil   | 19000812           | 5       |
| Bomastus                   | Eucalyptus oil | 19001869           | 8       |
| Bomastus                   | Rosemary oil   | 19002758           | 1       |
| Bomastus                   | Eucalyptus oil | 19002830           | 1       |
| Bomastus                   | Eucalyptus oil | 19002892           | 7       |
| Bomastus                   | Eucalyptus oil | 19002956           | 5       |
| Bomastus                   | Rosemary oil   | 19003037           | 3       |
| Bomastus                   | Eucalyptus oil | 19004174           | 6       |
| Bomastus                   | Eucalyptus oil | 19005565           | 1       |
| Bomastus                   | Rosemary oil   | 19006261           | 1       |
| Bomastus                   | Rosemary oil   | 19006565           | 3       |
| Bomastus                   | Rosemary oil   | 199003037          | 1       |
| Bomastus                   | Eucalyptus oil | 20000294           | 2       |
| Bomastus                   | Eucalyptus oil | 20000339           | 6       |
| Bomastus                   | Eucalyptus oil | 20002624           | 1       |
| Bomastus                   | Eucalyptus oil | 2000339            | 1       |
| Bomastus                   | Eucalyptus oil | 20003487           | 3       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Rosemary oil     | 20003725     | 3              |
| Bombastus       | Eucalyptus oil   | 20003727     | 2              |
| Bombastus       | Eucalyptus oil   | 20005166     | 2              |
| Bombastus       | Eucalyptus oil   | 2003487      | 1              |
| Bombastus       | Rosemary oil     | 2003725      | 1              |
| Bombastus       | Eucalyptus oil   | 2005166      | 1              |
| Bombastus       | Eucalyptus oil   | 21000603     | 2              |
| Bombastus       | Rosemary oil     | 21000910     | 1              |
| Bombastus       | Eucalyptus oil   | 21001207     | 1              |
| Bombastus       | Eucalyptus oil   | 261706       | 1              |
| Bombastus       | Eucalyptus oil   | 269495       | 1              |
| Bombastus       | Eucalyptus oil   | 270004       | 1              |
| Bombastus       | Eucalyptus oil   | 273707       | 1              |
| Bombastus       | Rosemary oil     | 273724       | 3              |
| Bombastus       | Eucalyptus oil   | 275646       | 2              |
| Bombastus       | Rosemary oil     | 275963       | 1              |
| Bombastus       | Eucalyptus oil   | 276113       | 1              |
| Bombastus       | Eucalyptus oil   | 277671       | 1              |
| Bombastus       | Eucalyptus oil   | 278619       | 2              |
| Bombastus       | Rosemary oil     | 278907       | 4              |
| Bombastus       | Eucalyptus oil   | 279798       | 1              |
| Bombastus       | Eucalyptus oil   | 281667       | 2              |
| Bombastus       | Rosemary oil     | 281945       | 1              |
| Bombastus       | Rosemary oil     | 282541       | 1              |
| Bombastus       | Eucalyptus oil   | 283384       | 1              |
| Bombastus       | Eucalyptus oil   | 283991       | 1              |
| Bombastus       | Eucalyptus oil   | 284861       | 1              |
| Bombastus       | Eucalyptus oil   | 285362       | 2              |
| Bombastus       | Eucalyptus oil   | 285615       | 2              |
| Bombastus       | Rosemary oil     | 285668       | 1              |
| Bombastus       | Eucalyptus oil   | 286454       | 2              |
| Bombastus       | Eucalyptus oil   | 286740       | 2              |
| Bombastus       | Rosemary oil     | 2872889      | 1              |
| Bombastus       | Eucalyptus oil   | 288028       | 1              |
| Bombastus       | Eucalyptus oil   | 288085       | 4              |
| Bombastus       | Rosemary oil     | 288951       | 1              |
| Bombastus       | Rosemary oil     | 289392       | 2              |
| Bombastus       | Eucalyptus oil   | 290094       | 1              |
| Bombastus       | Eucalyptus oil   | 291597       | 2              |
| Bombastus       | Eucalyptus oil   | 292317       | 1              |
| Bombastus       | Eucalyptus oil   | 293087       | 3              |
| Bombastus       | Eucalyptus oil   | 293175       | 2              |
| Bombastus       | Eucalyptus oil   | 293227       | 3              |
| Bombastus       | Eucalyptus oil   | 294181       | 1              |
| Bombastus       | Eucalyptus oil   | 294460       | 2              |
| Bombastus       | Eucalyptus oil   | 294687       | 1              |
| Bombastus       | Rosemary oil     | 295093       | 1              |
| Bombastus       | Eucalyptus oil   | 295573       | 1              |
| Bombastus       | Rosemary oil     | 296037       | 2              |
| Bombastus       | Eucalyptus oil   | 296079       | 2              |
| Bombastus       | Eucalyptus oil   | 296325       | 3              |
| Bombastus       | Eucalyptus oil   | 297732       | 1              |
| Bombastus       | Rosemary oil     | 298408       | 2              |
| Bombastus       | Eucalyptus oil   | 298889       | 2              |
| Bombastus       | Eucalyptus oil   | 298985       | 4              |
| Bombastus       | Eucalyptus oil   | 299561       | 1              |
| Bombastus       | Eucalyptus oil   | 299699       | 2              |
| Bombastus       | Eucalyptus oil   | 300063       | 4              |
| Bombastus       | Eucalyptus oil   | 300798       | 1              |
| Bombastus       | Eucalyptus oil   | 300881       | 4              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Bombastus              | Rosemary oil     | 301180       | 1              |
| Bombastus              | Eucalyptus oil   | 301205       | 2              |
| Bombastus              | Eucalyptus oil   | 302670       | 1              |
| Bombastus              | Eucalyptus oil   | 303327       | 2              |
| Bombastus              | Eucalyptus oil   | 303336       | 2              |
| Bombastus              | Rosemary oil     | 304472       | 3              |
| Bombastus              | Eucalyptus oil   | 304517       | 3              |
| Bombastus              | Eucalyptus oil   | 305628       | 1              |
| Bombastus              | Rosemary oil     | 305785       | 1              |
| Bombastus              | Eucalyptus oil   | 306025       | 4              |
| Bombastus              | Rosemary oil     | 306506       | 5              |
| Bombastus              | Eucalyptus oil   | 306637       | 4              |
| Bombastus              | Eucalyptus oil   | 307667       | 8              |
| Bombastus              | Eucalyptus oil   | 307668       | 2              |
| Bombastus              | Eucalyptus oil   | 308151       | 5              |
| Bombastus              | Eucalyptus oil   | 308248       | 2              |
| Bombastus              | Eucalyptus oil   | 308260       | 1              |
| Bombastus              | Rosemary oil     | 311262       | 1              |
| Bombastus              | Rosemary oil     | 6860867      | 1              |
| Bombastus              | Eucalyptus oil   | 90(307667)   | 1              |
| Bombastus              | Eucalyptus oil   | 91(18005784) | 1              |
| Bombastus              | Eucalyptus oil   | 91101        | 1              |
| Bombastus              | Eucalyptus oil   | 92(19001869) | 1              |
| Bombastu-Werke AG/Gehe | Eucalyptus oil   | 282165       | 1              |
| Bombastu-Werke AG/Gehe | Eucalyptus oil   | 283991       | 1              |
| Bomsatus               | Eucalyptus oil   | 20000056     | 1              |
| Caelo                  | Eucalyptus oil   |              | 3              |
| Caelo                  | Eucalyptus oil   | 10051816     | 1              |
| Caelo                  | Eucalyptus oil   | 10318506     | 1              |
| Caelo                  | Rosemary oil     | 10374817     | 2              |
| Caelo                  | Rosemary oil     | 11031402     | 1              |
| Caelo                  | Eucalyptus oil   | 11102507     | 2              |
| Caelo                  | Eucalyptus oil   | 11104312     | 1              |
| Caelo                  | Rosemary oil     | 11171-02012  | 1              |
| Caelo                  | Rosemary oil     | 11287208     | 3              |
| Caelo                  | Rosemary oil     | 11287211     | 6              |
| Caelo                  | Eucalyptus oil   | 11324107     | 5              |
| Caelo                  | Eucalyptus oil   | 11324108     | 1              |
| Caelo                  | Eucalyptus oil   | 11324112     | 8              |
| Caelo                  | Rosemary oil     | 1209034-01   | 2              |
| Caelo                  | Eucalyptus oil   | 12103605     | 1              |
| Caelo                  | Eucalyptus oil   | 12103607     | 4              |
| Caelo                  | Eucalyptus oil   | 12103611     | 4              |
| Caelo                  | Eucalyptus oil   | 12103612     | 1              |
| Caelo                  | Eucalyptus oil   | 12114107     | 2              |
| Caelo                  | Eucalyptus oil   | 12114111     | 1              |
| Caelo                  | Eucalyptus oil   | 12114112     | 5              |
| Caelo                  | Eucalyptus oil   | 1214E-01978  | 1              |
| Caelo                  | Rosemary oil     | 12246501     | 5              |
| Caelo                  | Rosemary oil     | 12246508     | 5              |
| Caelo                  | Rosemary oil     | 12246515     | 3              |
| Caelo                  | Rosemary oil     | 12246517     | 2              |
| Caelo                  | Rosemary oil     | 12246520     | 3              |
| Caelo                  | Eucalyptus oil   | 13106301     | 1              |
| Caelo                  | Eucalyptus oil   | 13106304     | 1              |
| Caelo                  | Eucalyptus oil   | 13106316     | 1              |
| Caelo                  | Eucalyptus oil   | 13106326     | 4              |
| Caelo                  | Eucalyptus oil   | 13106401     | 5              |
| Caelo                  | Eucalyptus oil   | 13106402     | 2              |
| Caelo                  | Eucalyptus oil   | 13106403     | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Eucalyptus oil   | 13106411         | 3              |
| Caelo           | Eucalyptus oil   | 13106412         | 8              |
| Caelo           | Eucalyptus oil   | 13106413         | 1              |
| Caelo           | Rosemary oil     | 1319b04-302288   | 1              |
| Caelo           | Rosemary oil     | 13241711         | 1              |
| Caelo           | Rosemary oil     | 13I19-B04-293599 | 1              |
| Caelo           | Rosemary oil     | 1402907          | 1              |
| Caelo           | Eucalyptus oil   | 14039601         | 2              |
| Caelo           | Eucalyptus oil   | 14039602         | 1              |
| Caelo           | Eucalyptus oil   | 14039603         | 1              |
| Caelo           | Eucalyptus oil   | 14039604         | 1              |
| Caelo           | Eucalyptus oil   | 14039609         | 17             |
| Caelo           | Eucalyptus oil   | 14039610         | 1              |
| Caelo           | Eucalyptus oil   | 14039612         | 1              |
| Caelo           | Eucalyptus oil   | 14039618         | 2              |
| Caelo           | Eucalyptus oil   | 14039622         | 2              |
| Caelo           | Eucalyptus oil   | 14039623         | 1              |
| Caelo           | Eucalyptus oil   | 14039625         | 5              |
| Caelo           | Eucalyptus oil   | 14039626         | 9              |
| Caelo           | Eucalyptus oil   | 14039627         | 3              |
| Caelo           | Eucalyptus oil   | 14039630         | 1              |
| Caelo           | Rosemary oil     | 14092904         | 3              |
| Caelo           | Rosemary oil     | 14092910         | 5              |
| Caelo           | Rosemary oil     | 14092911         | 4              |
| Caelo           | Eucalyptus oil   | 14121904         | 5              |
| Caelo           | Eucalyptus oil   | 14121905         | 1              |
| Caelo           | Eucalyptus oil   | 1439603          | 1              |
| Caelo           | Eucalyptus oil   | 150111701        | 1              |
| Caelo           | Eucalyptus oil   | 15011701         | 7              |
| Caelo           | Eucalyptus oil   | 15011702         | 1              |
| Caelo           | Eucalyptus oil   | 15011703         | 1              |
| Caelo           | Eucalyptus oil   | 15011704         | 1              |
| Caelo           | Rosemary oil     | 150422           | 1              |
| Caelo           | Rosemary oil     | 15042203         | 1              |
| Caelo           | Eucalyptus oil   | 15063301         | 5              |
| Caelo           | Eucalyptus oil   | 15063302         | 1              |
| Caelo           | Eucalyptus oil   | 15063303         | 1              |
| Caelo           | Eucalyptus oil   | 15063309         | 19             |
| Caelo           | Eucalyptus oil   | 15063309/1100516 | 1              |
| Caelo           | Eucalyptus oil   | 15063312         | 12             |
| Caelo           | Eucalyptus oil   | 15063313         | 1              |
| Caelo           | Eucalyptus oil   | 15063316         | 2              |
| Caelo           | Rosemary oil     | 1511016-01       | 1              |
| Caelo           | Eucalyptus oil   | 1515Q-01978      | 1              |
| Caelo           | Eucalyptus oil   | 15316501         | 9              |
| Caelo           | Eucalyptus oil   | 15316502         | 6              |
| Caelo           | Eucalyptus oil   | 15316504         | 14             |
| Caelo           | Eucalyptus oil   | 15316505         | 1              |
| Caelo           | Eucalyptus oil   | 15316507         | 1              |
| Caelo           | Eucalyptus oil   | 15316512         | 9              |
| Caelo           | Eucalyptus oil   | 15316514         | 1              |
| Caelo           | Rosemary oil     | 15316703         | 1              |
| Caelo           | Rosemary oil     | 15316704         | 5              |
| Caelo           | Rosemary oil     | 15316706         | 1              |
| Caelo           | Eucalyptus oil   | 15326512         | 1              |
| Caelo           | Eucalyptus oil   | 15400202         | 19             |
| Caelo           | Eucalyptus oil   | 15400203         | 4              |
| Caelo           | Eucalyptus oil   | 15400204         | 1              |
| Caelo           | Eucalyptus oil   | 15400206         | 4              |
| Caelo           | Eucalyptus oil   | 15400210         | 13             |

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| Supplier | Substance      | Batch                | Spectra |
|----------|----------------|----------------------|---------|
| Caelo    | Eucalyptus oil | 15400211             | 5       |
| Caelo    | Eucalyptus oil | 15400220             | 1       |
| Caelo    | Rosemary oil   | 15442001             | 3       |
| Caelo    | Rosemary oil   | 15442009             | 2       |
| Caelo    | Rosemary oil   | 15442017             | 7       |
| Caelo    | Rosemary oil   | 15442018             | 1       |
| Caelo    | Rosemary oil   | 15442019             | 1       |
| Caelo    | Rosemary oil   | 15442020             | 1       |
| Caelo    | Eucalyptus oil | 1608042              | 2       |
| Caelo    | Eucalyptus oil | 1608042-01           | 1       |
| Caelo    | Rosemary oil   | 1608043-01           | 2       |
| Caelo    | Eucalyptus oil | 16235505             | 14      |
| Caelo    | Eucalyptus oil | 16235508             | 2       |
| Caelo    | Rosemary oil   | 16276903             | 5       |
| Caelo    | Rosemary oil   | 16276903-20170704Ma1 | 1       |
| Caelo    | Rosemary oil   | 16276904             | 1       |
| Caelo    | Rosemary oil   | 16276905             | 1       |
| Caelo    | Rosemary oil   | 16276907             | 2       |
| Caelo    | Rosemary oil   | 16276908             | 4       |
| Caelo    | Rosemary oil   | 16276910             | 7       |
| Caelo    | Rosemary oil   | 16276917             | 1       |
| Caelo    | Eucalyptus oil | 16351301             | 10      |
| Caelo    | Eucalyptus oil | 16351302             | 3       |
| Caelo    | Eucalyptus oil | 16351308             | 4       |
| Caelo    | Eucalyptus oil | 16351309             | 9       |
| Caelo    | Eucalyptus oil | 16351312             | 30      |
| Caelo    | Eucalyptus oil | 16351313             | 8       |
| Caelo    | Eucalyptus oil | 16351314             | 1       |
| Caelo    | Eucalyptus oil | 16351316             | 2       |
| Caelo    | Rosemary oil   | 17012014             | 1       |
| Caelo    | Eucalyptus oil | 170303001            | 1       |
| Caelo    | Eucalyptus oil | 1703030-01           | 1       |
| Caelo    | Eucalyptus oil | 17198802             | 11      |
| Caelo    | Rosemary oil   | 17326702             | 16      |
| Caelo    | Rosemary oil   | 17326703             | 4       |
| Caelo    | Rosemary oil   | 17326704             | 1       |
| Caelo    | Rosemary oil   | 17326707             | 1       |
| Caelo    | Rosemary oil   | 17326712             | 1       |
| Caelo    | Rosemary oil   | 17326713             | 3       |
| Caelo    | Rosemary oil   | 17326716             | 2       |
| Caelo    | Eucalyptus oil | 17337701             | 7       |
| Caelo    | Eucalyptus oil | 17337702             | 2       |
| Caelo    | Eucalyptus oil | 17337705             | 3       |
| Caelo    | Eucalyptus oil | 17337707             | 6       |
| Caelo    | Eucalyptus oil | 17337710             | 1       |
| Caelo    | Rosemary oil   | 1736702              | 1       |
| Caelo    | Eucalyptus oil | 18000176             | 1       |
| Caelo    | Rosemary oil   | 18003594             | 1       |
| Caelo    | Eucalyptus oil | 18006426             | 1       |
| Caelo    | Eucalyptus oil | 18027403             | 1       |
| Caelo    | Eucalyptus oil | 18027408             | 2       |
| Caelo    | Eucalyptus oil | 18027409             | 1       |
| Caelo    | Eucalyptus oil | 18027417             | 3       |
| Caelo    | Eucalyptus oil | 1806016-01           | 1       |
| Caelo    | Rosemary oil   | 18091402             | 1       |
| Caelo    | Eucalyptus oil | 18171701             | 34      |
| Caelo    | Eucalyptus oil | 18171702             | 4       |
| Caelo    | Eucalyptus oil | 18171703             | 2       |
| Caelo    | Eucalyptus oil | 18171704             | 2       |
| Caelo    | Eucalyptus oil | 18171707             | 15      |

continued on the next page

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Eucalyptus oil   | 18171708     | 4              |
| Caelo           | Eucalyptus oil   | 18171712     | 1              |
| Caelo           | Eucalyptus oil   | 18171714     | 9              |
| Caelo           | Eucalyptus oil   | 18171715     | 6              |
| Caelo           | Eucalyptus oil   | 1817702      | 1              |
| Caelo           | Eucalyptus oil   | 18225401     | 11             |
| Caelo           | Eucalyptus oil   | 18225402     | 2              |
| Caelo           | Eucalyptus oil   | 18225403     | 2              |
| Caelo           | Eucalyptus oil   | 18225404     | 1              |
| Caelo           | Eucalyptus oil   | 18225407     | 8              |
| Caelo           | Eucalyptus oil   | 18225408     | 3              |
| Caelo           | Eucalyptus oil   | 18225410     | 4              |
| Caelo           | Eucalyptus oil   | 18225411     | 1              |
| Caelo           | Eucalyptus oil   | 18225413     | 4              |
| Caelo           | Eucalyptus oil   | 18225416     | 1              |
| Caelo           | Eucalyptus oil   | 18225417     | 1              |
| Caelo           | Eucalyptus oil   | 18225602     | 5              |
| Caelo           | Eucalyptus oil   | 18225801     | 1              |
| Caelo           | Eucalyptus oil   | 18225802     | 1              |
| Caelo           | Eucalyptus oil   | 18225803     | 1              |
| Caelo           | Rosemary oil     | 18252001     | 1              |
| Caelo           | Rosemary oil     | 18252002     | 9              |
| Caelo           | Rosemary oil     | 18252003     | 1              |
| Caelo           | Rosemary oil     | 18252007     | 7              |
| Caelo           | Rosemary oil     | 18252008     | 2              |
| Caelo           | Rosemary oil     | 18252009     | 1              |
| Caelo           | Rosemary oil     | 18252017     | 7              |
| Caelo           | Rosemary oil     | 18252018     | 1              |
| Caelo           | Rosemary oil     | 18252023     | 1              |
| Caelo           | Eucalyptus oil   | 1871701      | 1              |
| Caelo           | Eucalyptus oil   | 19016705     | 1              |
| Caelo           | Eucalyptus oil   | 19016707     | 4              |
| Caelo           | Eucalyptus oil   | 19016710     | 2              |
| Caelo           | Eucalyptus oil   | 19016712     | 3              |
| Caelo           | Eucalyptus oil   | 19016714     | 14             |
| Caelo           | Eucalyptus oil   | 19016715     | 4              |
| Caelo           | Eucalyptus oil   | 1901672      | 1              |
| Caelo           | Eucalyptus oil   | 1906714      | 1              |
| Caelo           | Rosemary oil     | 191803004    | 2              |
| Caelo           | Rosemary oil     | 191803005    | 1              |
| Caelo           | Rosemary oil     | 191803006    | 2              |
| Caelo           | Rosemary oil     | 19180301     | 1              |
| Caelo           | Rosemary oil     | 191803010    | 1              |
| Caelo           | Rosemary oil     | 191803011    | 3              |
| Caelo           | Rosemary oil     | 191803012    | 2              |
| Caelo           | Rosemary oil     | 19180302     | 1              |
| Caelo           | Rosemary oil     | 19180305     | 17             |
| Caelo           | Eucalyptus oil   | 192026001    | 1              |
| Caelo           | Eucalyptus oil   | 192026002    | 1              |
| Caelo           | Eucalyptus oil   | 192026004    | 1              |
| Caelo           | Eucalyptus oil   | 192026006    | 5              |
| Caelo           | Eucalyptus oil   | 19238009     | 1              |
| Caelo           | Eucalyptus oil   | 192938004    | 2              |
| Caelo           | Eucalyptus oil   | 192938005    | 22             |
| Caelo           | Eucalyptus oil   | 192938006    | 1              |
| Caelo           | Eucalyptus oil   | 192938008    | 7              |
| Caelo           | Eucalyptus oil   | 192938009    | 2              |
| Caelo           | Eucalyptus oil   | 192938011    | 2              |
| Caelo           | Eucalyptus oil   | 19298005     | 1              |
| Caelo           | Eucalyptus oil   | 20000642003  | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|-----------------|------------------|---------------------|----------------|
| Caelo           | Eucalyptus oil   | 20000642007         | 4              |
| Caelo           | Rosemary oil     | 20004109002         | 1              |
| Caelo           | Rosemary oil     | 20004109005         | 1              |
| Caelo           | Eucalyptus oil   | 20004134001         | 6              |
| Caelo           | Eucalyptus oil   | 20004134003         | 1              |
| Caelo           | Eucalyptus oil   | 2000433006          | 1              |
| Caelo           | Eucalyptus oil   | 20004332002         | 1              |
| Caelo           | Eucalyptus oil   | 20004332007         | 3              |
| Caelo           | Eucalyptus oil   | 20004332008         | 2              |
| Caelo           | Eucalyptus oil   | 20004332010         | 1              |
| Caelo           | Eucalyptus oil   | 20004332011         | 1              |
| Caelo           | Eucalyptus oil   | 2003022-01          | 1              |
| Caelo           | Rosemary oil     | 2016E-02012         | 1              |
| Caelo           | Rosemary oil     | 2019U-02012         | 1              |
| Caelo           | Eucalyptus oil   | 2112I-01978         | 1              |
| Caelo           | Eucalyptus oil   | 24061708            | 1              |
| Caelo           | Rosemary oil     | 24061709            | 1              |
| Caelo           | Rosemary oil     | 2613M-02012         | 1              |
| Caelo           | Eucalyptus oil   | 270421              | 1              |
| Caelo           | Rosemary oil     | 2715E-02012         | 1              |
| Caelo           | Rosemary oil     | 273098              | 1              |
| Caelo           | Rosemary oil     | 275963              | 1              |
| Caelo           | Eucalyptus oil   | 276113              | 1              |
| Caelo           | Rosemary oil     | 279984              | 1              |
| Caelo           | Rosemary oil     | 28051309            | 1              |
| Caelo           | Eucalyptus oil   | 28071502            | 1              |
| Caelo           | Rosemary oil     | 28111813            | 1              |
| Caelo           | Eucalyptus oil   | 2818A-01978         | 1              |
| Caelo           | Eucalyptus oil   | 290094              | 1              |
| Caelo           | Rosemary oil     | 29092003            | 1              |
| Caelo           | Eucalyptus oil   | 292087              | 1              |
| Caelo           | Eucalyptus oil   | 293087              | 1              |
| Caelo           | Eucalyptus oil   | 294687              | 1              |
| Caelo           | Rosemary oil     | 296036              | 1              |
| Caelo           | Eucalyptus oil   | 296079              | 1              |
| Caelo           | Eucalyptus oil   | 297732              | 2              |
| Caelo           | Eucalyptus oil   | 301115              | 1              |
| Caelo           | Eucalyptus oil   | 3012E-01978         | 1              |
| Caelo           | Rosemary oil     | 3018E-02012         | 1              |
| Caelo           | Eucalyptus oil   | 303327              | 1              |
| Caelo           | Eucalyptus oil   | 306025              | 1              |
| Caelo           | Eucalyptus oil   | 307667              | 2              |
| Caelo           | Rosemary oil     | 3091206             | 1              |
| Caelo           | Rosemary oil     | 31031502            | 1              |
| Caelo           | Eucalyptus oil   | 3322                | 1              |
| Caelo           | Rosemary oil     | 382H25              | 1              |
| Caelo           | Rosemary oil     | 4101301             | 1              |
| Caelo           | Eucalyptus oil   | 4136096             | 2              |
| Caelo           | Rosemary oil     | 462K25              | 1              |
| Caelo           | Eucalyptus oil   | 513I-01978          | 1              |
| Caelo           | Rosemary oil     | 56(16276908)        | 1              |
| Caelo           | Rosemary oil     | 57(17326713)        | 1              |
| Caelo           | Rosemary oil     | 58(18252007)        | 1              |
| Caelo           | Eucalyptus oil   | 617Q-01978          | 1              |
| Caelo           | Eucalyptus oil   | 7011302             | 1              |
| Caelo           | Eucalyptus oil   | 9061815             | 1              |
| Caelo           | Rosemary oil     | 9061816             | 1              |
| Caelo           | Eucalyptus oil   | 916M-01978          | 1              |
| Caelo           | Eucalyptus oil   | 9351601             | 1              |
| Caelo           | Eucalyptus oil   | P-09121922/19016710 | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesaer/Jenne              | Rosemary oil     | 17326713     | 1              |
| Caesar & Loretz GmbH / ... | Eucalyptus oil   | 18225407     | 1              |
| Caesar & Loretz GmbH / ... | Eucalyptus oil   | 18171707     | 2              |
| Caesar & Loretz GmbH / ... | Rosemary oil     | 18252017     | 1              |
| Caesar & Loretz GmbH D-... | Eucalyptus oil   | 11102507     | 1              |
| Caesar & Loretz GmbH/ N... | Eucalyptus oil   | 18225401     | 2              |
| Caesar & Loretz GmbH/ P... | Eucalyptus oil   | 20004332002  | 1              |
| Caesar & Loretz GmbH/An... | Eucalyptus oil   | 18171707     | 1              |
| Caesar & Loretz GmbH/Fi... | Rosemary oil     | 18252002     | 1              |
| Caesar & Loretz GmbH/Fi... | Rosemary oil     | 1903001-01   | 1              |
| Caesar & Loretz GmbH/Gehe  | Eucalyptus oil   | 19016714     | 1              |
| Caesar & Loretz GmbH/Gehe  | Rosemary oil     | 191803011    | 1              |
| Caesar & Loretz GmbH/Je... | Eucalyptus oil   | 18171708     | 1              |
| Caesar & Loretz GmbH/No... | Eucalyptus oil   | 192938005    | 1              |
| Caesar & Loretz GmbH/no... | Eucalyptus oil   | 20004134004  | 1              |
| Caesar & Loretz GmbH/No... | Eucalyptus oil   | 20004332002  | 1              |
| Caesar & Loretz GmbH/Sa... | Eucalyptus oil   | 18171714     | 2              |
| Caesar & Loretz GmbH/Sa... | Rosemary oil     | 19180305     | 1              |
| Caesar & Loretz GmbH/Sa... | Eucalyptus oil   | 192938005    | 1              |
| Caesar & Loretz GmbH/Sa... | Eucalyptus oil   | 192938009    | 1              |
| Caesar & Loretz GmbH/Sp... | Eucalyptus oil   | 18171707     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18171701     | 3              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18171703     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18171707     | 3              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18171708     | 2              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18171714     | 5              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18171715     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18225402     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18225407     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 18225410     | 1              |
| Caesar & Loretz GmbH       | Rosemary oil     | 18252002     | 2              |
| Caesar & Loretz GmbH       | Rosemary oil     | 18252005     | 1              |
| Caesar & Loretz GmbH       | Rosemary oil     | 18252007     | 4              |
| Caesar & Loretz GmbH       | Rosemary oil     | 18252009     | 1              |
| Caesar & Loretz GmbH       | Rosemary oil     | 18252010     | 2              |
| Caesar & Loretz GmbH       | Rosemary oil     | 18252017     | 2              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 19016704     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 19016707     | 4              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 19016710     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 19016712     | 4              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 19016714     | 3              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 19016715     | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 19026006     | 1              |
| Caesar & Loretz GmbH       | Rosemary oil     | 19180302     | 1              |
| Caesar & Loretz GmbH       | Rosemary oil     | 19180305     | 6              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 192938005    | 3              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 192938009    | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 192938011    | 2              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 192938012    | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20000642003  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20000642004  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20000642005  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20000642007  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20003801001  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20003965002  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20004134001  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 20004332008  | 1              |
| Caesar & Loretz GmbH       | Eucalyptus oil   | 21001199007  | 1              |
| Caeser und Loretz GmbH     | Eucalyptus oil   | 19016707     | 1              |
| Cealo/AHD                  | Eucalyptus oil   | 15316512     | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Cealo           | Eucalyptus oil   | 192938005        | 1              |
| Celo            | Eucalyptus oil   | 15400202         | 1              |
| Cordes/ Novatis | Eucalyptus oil   | 192938005        | 1              |
| EuRho           | Eucalyptus oil   | 288085           | 1              |
| Euro OTC        | Rosemary oil     | 1202025-01       | 2              |
| Euro OTC        | Eucalyptus oil   | 1202030-01       | 1              |
| Euro OTC        | Rosemary oil     | 1209034-01       | 1              |
| Euro OTC        | Eucalyptus oil   | 1211028-01       | 4              |
| Euro OTC        | Eucalyptus oil   | 1211028-02       | 2              |
| Euro OTC        | Eucalyptus oil   | 12D05-N03        | 1              |
| Euro OTC        | Rosemary oil     | 1303016-01       | 1              |
| Euro OTC        | Rosemary oil     | 130801401        | 2              |
| Euro OTC        | Rosemary oil     | 1404037-01       | 1              |
| Euro OTC        | Rosemary oil     | 1404037-02       | 1              |
| Euro OTC        | Eucalyptus oil   | 1406028-01       | 1              |
| Euro OTC        | Eucalyptus oil   | 15063309         | 1              |
| Euro OTC        | Eucalyptus oil   | 1511015_01       | 1              |
| Euro OTC        | Eucalyptus oil   | 1511015-01       | 2              |
| Euro OTC        | Rosemary oil     | 1511016-01       | 1              |
| Euro OTC        | Rosemary oil     | 1511016-02       | 3              |
| Euro OTC        | Eucalyptus oil   | 1608042-01       | 6              |
| Euro OTC        | Eucalyptus oil   | 1703030-01       | 1              |
| Euro OTC        | Eucalyptus oil   | 180100201        | 1              |
| Euro OTC        | Eucalyptus oil   | 1801002-01       | 2              |
| Euro OTC        | Rosemary oil     | 1803038-01       | 2              |
| Euro OTC        | Eucalyptus oil   | 1806013-01       | 1              |
| Euro OTC        | Eucalyptus oil   | 1806016-01       | 5              |
| Euro OTC        | Rosemary oil     | 1903001-01       | 2              |
| Euro OTC        | Eucalyptus oil   | 1903030-01       | 3              |
| Euro OTC        | Eucalyptus oil   | 2003022-01       | 4              |
| Euro OTC        | Eucalyptus oil   | 278619           | 1              |
| Euro OTC        | Rosemary oil     | 290203901        | 1              |
| Euro OTC        | Eucalyptus oil   | 300881           | 1              |
| Euro OTC        | Rosemary oil     | 954878           | 1              |
| Fagro/Gehe      | Eucalyptus oil   | 14/20-B02-302706 | 1              |
| Fagron          | Eucalyptus oil   | 11/27-N03        | 1              |
| Fagron          | Eucalyptus oil   | 11102506         | 1              |
| Fagron          | Eucalyptus oil   | 11D11-N02        | 1              |
| Fagron          | Rosemary oil     | 11K21-N05        | 3              |
| Fagron          | Eucalyptus oil   | 11K23-N05        | 2              |
| Fagron          | Eucalyptus oil   | 12B23-N08        | 8              |
| Fagron          | Rosemary oil     | 12E08-N05        | 3              |
| Fagron          | Eucalyptus oil   | 12G25-N11        | 7              |
| Fagron          | Rosemary oil     | 13/19-B04-287289 | 1              |
| Fagron          | Rosemary oil     | 13/19-B04-293577 | 12             |
| Fagron          | Rosemary oil     | 13/19-B04-308855 | 2              |
| Fagron          | Rosemary oil     | 13A28-N03        | 3              |
| Fagron          | Rosemary oil     | 13B18-N01        | 3              |
| Fagron          | Eucalyptus oil   | 13E15-N04        | 4              |
| Fagron          | Rosemary oil     | 13I19B04         | 1              |
| Fagron          | Rosemary oil     | 13I19-B04        | 5              |
| Fagron          | Rosemary oil     | 13I19-B04-293577 | 2              |
| Fagron          | Rosemary oil     | 13L19-B04-302288 | 1              |
| Fagron          | Eucalyptus oil   | 14A17B40         | 1              |
| Fagron          | Eucalyptus oil   | 14A17-B40        | 3              |
| Fagron          | Eucalyptus oil   | 14A17-B40-291551 | 1              |
| Fagron          | Eucalyptus oil   | 14B03-B02-304361 | 1              |
| Fagron          | Eucalyptus oil   | 14e09-b06-294679 | 1              |
| Fagron          | Eucalyptus oil   | 14E09-B06-294681 | 2              |
| Fagron          | Rosemary oil     | 1511016-02       | 1              |

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| <b>Supplier</b>         | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-------------------------|------------------|-------------------|----------------|
| Fagron                  | Eucalyptus oil   | 15B03-B02-304362  | 3              |
| Fagron                  | Eucalyptus oil   | 15B03-B03-304361  | 1              |
| Fagron                  | Eucalyptus oil   | 15B03-B02-30462   | 1              |
| Fagron                  | Rosemary oil     | 1608043-01        | 1              |
| Fagron                  | Eucalyptus oil   | 16C15-B05-322992  | 2              |
| Fagron                  | Eucalyptus oil   | 16C15-B05-327603  | 1              |
| Fagron                  | Rosemary oil     | 16L22B84329543    | 1              |
| Fagron                  | Eucalyptus oil   | 18171701          | 1              |
| Fagron                  | Eucalyptus oil   | 303327            | 1              |
| Fagron                  | Rosemary oil     | 693655-N12        | 1              |
| Fagron                  | Eucalyptus oil   | C15-B05-322992    | 1              |
| fargo                   | Rosemary oil     | 13A28-N03         | 2              |
| Fiebig                  | Rosemary oil     | 15442018          | 1              |
| Fiebig                  | Rosemary oil     | 16276912          | 1              |
| Fiebig                  | Rosemary oil     | 17326704          | 1              |
| Fiebig                  | Rosemary oil     | 17326714          | 1              |
| Fiebig                  | Eucalyptus oil   | 18005267          | 1              |
| Fiebig                  | Eucalyptus oil   | 18006213          | 1              |
| Fiebig                  | Rosemary oil     | 18252013          | 2              |
| Fiebig                  | Eucalyptus oil   | 305909            | 1              |
| Frey & Lau GmbH/Phoenix | Eucalyptus oil   | 12G25-N11         | 1              |
| Frey & Lau GmbH/Phoenix | Rosemary oil     | 13/19-B04-293575  | 1              |
| Frey+Lau                | Rosemary oil     | 905855            | 1              |
| Gatt-Koller             | Eucalyptus oil   | 1702449           | 1              |
| Gatt-Koller             | Rosemary oil     | 1802349           | 1              |
| Gatt-Koller             | Eucalyptus oil   | 1803744           | 1              |
| Gehe 20.02.15           | Eucalyptus oil   | 1406028-02        | 1              |
| Gehe/ EuRho             | Rosemary oil     | 1903001-01        | 1              |
| Gehe/L10                | Rosemary oil     | 18252002          | 1              |
| Gehe                    | Eucalyptus oil   | 19001869          | 1              |
| Gehe                    | Eucalyptus oil   | 19016707          | 1              |
| Gehe                    | Rosemary oil     | 19180305          | 1              |
| Gehe                    | Eucalyptus oil   | 296079            | 1              |
| Gehe                    | Eucalyptus oil   | 297732            | 1              |
| Gehe                    | Eucalyptus oil   | 299561            | 1              |
| Gehe                    | Rosemary oil     | 301180            | 1              |
| Gehe                    | Eucalyptus oil   | 302670            | 1              |
| Gehe                    | Eucalyptus oil   | 306637            | 1              |
| Gehe                    | Eucalyptus oil   | 308151            | 1              |
| Hänseler                | Eucalyptus oil   |                   | 11             |
| Herba                   | Rosemary oil     | 5131011122331026  | 1              |
| Ichthyol-Gesellschaft   | Eucalyptus oil   | 1610280E/15316504 | 2              |
| Jenne                   | Eucalyptus oil   | 18171707          | 3              |
| Jenne                   | Eucalyptus oil   | 18171714          | 2              |
| Kögl                    | Eucalyptus oil   | 153305164716      | 1              |
| Kögl                    | Eucalyptus oil   | 20172254          | 2              |
| Kögl                    | Rosemary oil     | 985929            | 3              |
| L10/Bambastus           | Eucalyptus oil   | 303336            | 1              |
| L10                     | Eucalyptus oil   | 18027411          | 1              |
| L11                     | Eucalyptus oil   | 18027405          | 1              |
| L12                     | Eucalyptus oil   | 15316513          | 1              |
| L12                     | Eucalyptus oil   | 16235509          | 1              |
| L12                     | Eucalyptus oil   | 16351309          | 1              |
| L12                     | Rosemary oil     | 17326702          | 1              |
| L12                     | Eucalyptus oil   | 18225403          | 2              |
| Noveda                  | Eucalyptus oil   | 13106402          | 1              |
| Noweda 07.11.2019       | Eucalyptus oil   | 18171715          | 1              |
| Noweda/Phoenix/ Taoasis | Rosemary oil     | 3231031-117639    | 1              |
| noweda                  | Rosemary oil     |                   | 1              |
| Noweda                  | Rosemary oil     | 10374817          | 1              |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------------------|------------------|------------------|----------------|
| Noweda                      | Rosemary oil     | 11287211         | 1              |
| Noweda                      | Eucalyptus oil   | 16351312         | 1              |
| Noweda                      | Eucalyptus oil   | 1806016-01       | 1              |
| Noweda                      | Eucalyptus oil   | 18225801         | 1              |
| Noweda                      | Eucalyptus oil   | 19000587         | 2              |
| Noweda                      | Eucalyptus oil   | 19001869         | 2              |
| Noweda                      | Eucalyptus oil   | 20000339         | 1              |
| Noweda                      | Eucalyptus oil   | 20003727         | 1              |
| Noweda                      | Eucalyptus oil   | 20004332007      | 1              |
| Noweda                      | Eucalyptus oil   | 5156PT-K11       | 1              |
| Pharma Liebermann / Now...  | Eucalyptus oil   | 8071115          | 1              |
| Phoenix 07.01.2019          | Eucalyptus oil   | 18171701         | 1              |
| Phoenix 07.01.2019          | Rosemary oil     | 18252002         | 1              |
| Phoenix WE:27.01.2017 ...   | Eucalyptus oil   | 15400210         | 1              |
| Phoenix/ Taoasis            | Rosemary oil     | 3231016          | 1              |
| Phoenix                     | Eucalyptus oil   | 16235502         | 1              |
| Phoenix                     | Eucalyptus oil   | 16351312         | 1              |
| Phoenix                     | Eucalyptus oil   | 170303001        | 1              |
| Phoenix                     | Eucalyptus oil   | 18005784         | 1              |
| phoenix                     | Eucalyptus oil   | 306637           | 1              |
| Phönix 7.10.19              | Eucalyptus oil   | 18005784         | 1              |
| Phönix Gotha                | Eucalyptus oil   | 308151           | 1              |
| phönix                      | Eucalyptus oil   |                  | 2              |
| Phönix                      | Rosemary oil     | 131119-B04       | 1              |
| Phönix                      | Eucalyptus oil   | 14A17-B40        | 1              |
| Phönix                      | Eucalyptus oil   | 14A17-B40-291551 | 1              |
| phönix                      | Eucalyptus oil   | 14E09-B06-294681 | 1              |
| Phönix                      | Eucalyptus oil   | 1801002-01       | 1              |
| Phönix                      | Eucalyptus oil   | 19016714         | 1              |
| Phönix                      | Eucalyptus oil   | 273707           | 1              |
| Phönix                      | Rosemary oil     | 282665           | 1              |
| Primavera/Direkt            | Rosemary oil     | 1204H22          | 1              |
| Primavera/Direkt            | Rosemary oil     | 1340215          | 1              |
| Primavera/Direkt            | Rosemary oil     | 13K23            | 1              |
| Primavera/Direkt            | Rosemary oil     | 193C23           | 1              |
| Primavera/Direkt            | Rosemary oil     | 274E26           | 2              |
| Primavera/Direkt            | Rosemary oil     | 426B25           | 1              |
| Primavera/Gege              | Rosemary oil     | 179G26           | 1              |
| Primavera/Phoenix           | Rosemary oil     | 207J26           | 1              |
| Primavera/Sanacorp          | Rosemary oil     | 1058G22          | 1              |
| primavera                   | Eucalyptus oil   | 256A16           | 1              |
| PVL                         | Eucalyptus oil   | 1260813          | 1              |
| PVL                         | Rosemary oil     | 491212           | 1              |
| rosma                       | Rosemary oil     | 17000647         | 1              |
| sana 05.12.14 5,25          | Eucalyptus oil   | 14039609         | 1              |
| Sanacorp                    | Eucalyptus oil   | 11324112         | 1              |
| Sanacorp, 21.02.17, 8,73EUR | Rosemary oil     | 15442017         | 1              |
| Sanacorp                    | Eucalyptus oil   | 14E09-B06        | 2              |
| Sanacorp                    | Eucalyptus oil   | 15400202         | 1              |
| Sanacorp                    | Eucalyptus oil   | 16235508         | 1              |
| Sanacorp                    | Eucalyptus oil   | 16351301         | 1              |
| Sanacorp                    | Eucalyptus oil   | 16351309         | 1              |
| Sanacorp                    | Eucalyptus oil   | 16351313         | 3              |
| Sanacorp                    | Rosemary oil     | 17000647         | 1              |
| Sanacorp                    | Eucalyptus oil   | 17337707         | 2              |
| Sanacorp                    | Eucalyptus oil   | 18000176         | 1              |
| Sanacorp                    | Rosemary oil     | 18001783         | 1              |
| Sanacorp                    | Eucalyptus oil   | 18171701         | 2              |
| Sanacorp                    | Eucalyptus oil   | 18171702         | 2              |
| Sanacorp                    | Rosemary oil     | 287289           | 1              |

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| Supplier                | Substance      | Batch          | Spectra |
|-------------------------|----------------|----------------|---------|
| Sanacorp                | Rosemary oil   | 306506         | 2       |
| Sanacorp                | Eucalyptus oil | 48/AKD3        | 1       |
| Sanacorp                | Rosemary oil   | 777549         | 1       |
| Sanacorp                | Eucalyptus oil | 19016714       | 1       |
| Spangro 7.11.18         | Eucalyptus oil | 17001384       | 1       |
| Spangro 7.11.18         | Rosemary oil   | 17326702       | 1       |
| Taoasis GmbH            | Rosemary oil   | 130815-113178  | 1       |
| Taoasis GmbH            | Rosemary oil   | 3231016-115522 | 1       |
| Taoasis GmbH            | Eucalyptus oil | 33364-110969   | 1       |
| Taoasis GmbH            | Eucalyptus oil | 4563-10750     | 1       |
| Taoasis GmbH            | Eucalyptus oil | 4563-8123A     | 1       |
| Taoasis GmbH            | Rosemary oil   | 7028-105285    | 1       |
| Taoasis/Noweda          | Rosemary oil   | 1921019-121067 | 1       |
| Taoasis/Noweda          | Rosemary oil   | 3231015-118416 | 1       |
| Taoasis                 | Rosemary oil   | 121217-110772  | 1       |
| Taoasis                 | Eucalyptus oil | 125802-8125    | 1       |
| Taoasis                 | Eucalyptus oil | 125802-8443    | 1       |
| Taoasis                 | Rosemary oil   | 130313-111912  | 1       |
| Taoasis                 | Eucalyptus oil | 2097-475       | 1       |
| TAOASIS                 | Eucalyptus oil | 2393           | 1       |
| Taoasis                 | Eucalyptus oil | 2478-6685      | 1       |
| Taoasis                 | Rosemary oil   | 2517-7232      | 1       |
| Taoasis                 | Rosemary oil   | 26057-118014   | 1       |
| Taoasis                 | Rosemary oil   | 3231031-117639 | 1       |
| Taoasis                 | Eucalyptus oil | 502745-108325  | 1       |
| Taoasis                 | Eucalyptus oil | 521399-108557  | 1       |
| Taoasis                 | Eucalyptus oil | 527885-109905  | 1       |
| Taoasis                 | Eucalyptus oil | 53970-110969   | 1       |
| Taoasis                 | Eucalyptus oil | 543495-112704  | 1       |
| Taoasis                 | Eucalyptus oil | 557095-114030  | 1       |
| Taoasis                 | Rosemary oil   | 6761-11499     | 1       |
| Taoasis                 | Eucalyptus oil | 7361-13371     | 1       |
| Taoasis                 | Rosemary oil   | 8016-12554     | 1       |
| Taoasis                 | Eucalyptus oil | 8745-115428    | 1       |
| Taoasis                 | Eucalyptus oil | 8745-116747    | 1       |
| Taoasis                 | Eucalyptus oil | A107371-6619   | 1       |
| VDL 26.04.14 Preis 5,25 | Eucalyptus oil |                | 1       |
| VDL;5,40EUR;11.04.15    | Eucalyptus oil | 14039625       | 1       |

- 287 103 spectra from 1294 *Apo-Ident* customers from a total of 51 354 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Eucalyptus oil* / *Rosmary oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Eucalyptus oil* / *Rosmary oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 870           | 0              | 66 289        |
| <b>Type B</b> | 0              | 750           | 0              | 106 613       |
| <b>Type C</b> | 0              | 1596          | 10             | 287 103       |

The substance/substance group *Eucalyptus oil* / *Rosmary oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.3103 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.2000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.3773 % (> 99.1905 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Eucalyptus oil* / *Rosmary oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>        | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|-------------------------|-------------------------------|---------------------------------------|
| Cineole                 | 25.52                         | —                                     |
| Myrtle oil              | 27.91                         | —                                     |
| Sage oil                | 28.79                         | —                                     |
| Turpentine oil          | 28.86                         | —                                     |
| Juniper wood oil        | 39.98                         | —                                     |
| Cypress oil             | 40.52                         | —                                     |
| Cajeput (essentiel oil) | 42.89                         | —                                     |
| Spruce needle oil       | 45.01                         | —                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Eucalyptus oil* / *Rosmary oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 30875            | 30875                      | 0.00                                | 41.60                                  |
| 31110            | 31285                      | 5.30                                | 30.45                                  |
| 31284            | 31284                      | 0.00                                | 39.46                                  |
| 31285            | 31285                      | 0.00                                | 31.64                                  |
| 31298            | 31285                      | 1.58                                | 30.99                                  |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31311            | 31311                      | 0.00                                | 40.70                                  |
| 31314            | 31314                      | 0.00                                | 39.17                                  |
| 31527            | 31823                      | 3.38                                | 30.61                                  |
| 31822            | 31822                      | 0.00                                | 40.94                                  |
| 31823            | 31823                      | 0.00                                | 30.61                                  |
| 31864            | 31823                      | 2.33                                | 31.00                                  |
| 31865            | 31314                      | 6.25                                | 35.83                                  |
| 32686            | 32686                      | 0.00                                | 37.74                                  |
| 33277            | 31823                      | 12.35                               | 37.23                                  |
| 34523            | 31823                      | 2.58                                | 31.21                                  |
| 34614            | 34614                      | 0.00                                | 40.11                                  |
| 34759            | 31823                      | 3.76                                | 26.01                                  |
| 35139            | 35139                      | 0.00                                | 38.92                                  |
| 35553            | 35553                      | 0.00                                | 36.31                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Eugenol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31286-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Eugenol; Eugenolum

### Special notes

When selecting the *Eugenol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Eugenol                   | 5      | 3      | 16     |

## Second-stage model

For differentiation of the substance/substance group *Eugenol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Eugenol*:

| Supplier | Substance | Batch            | Sample ID | Spectra | Certificate |
|----------|-----------|------------------|-----------|---------|-------------|
| Caelo    | Eugenol   | 13401501         | 31286     | 40      | 1407436     |
| Caelo    | Eugenol   | 13401506         | 31397     | 40      | 20131213    |
| Caelo    | Eugenol   | 173534           | 33896     | 40      | 20180126*   |
| Caelo    | Eugenol   | 21002269         | 35720     | 50      | 20210803*   |
| Fagron   | Eugenol   | 16I12-B05-336284 | 34481     | 40      | 20161010    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 210 spectra of 5 reference samples from the substance/substance group *Eugenol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 949 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Eugenol*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance | Batch            | Sample ID | Spectra |
|----------|-----------|------------------|-----------|---------|
| Caelo    | Eugenol   | 20001728         | 34987     | 40      |
| Fagron   | Eugenol   | 15H11-B03-322946 | 32731     | 40      |
| Fagron   | Eugenol   | 20K26-F02-376293 | 35266     | 40      |
| Fagron   | Eugenol   | 15H11-B03-322946 | 33220     | 40      |

- 107 203 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 30 spectra from 23 *Apo-Ident* customers from 16 batches from the substance/substance group *Eugenol*.
- Among them are spectra of independent samples from 16 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance | Batch            | Spectra |
|----------|-----------|------------------|---------|
| Caelo    | Eugenol   | 14165401         | 1       |
| Caelo    | Eugenol   | 14165403         | 1       |
| Caelo    | Eugenol   | 15255901         | 2       |
| Caelo    | Eugenol   | 15255904         | 2       |
| Caelo    | Eugenol   | 16034701         | 1       |
| Caelo    | Eugenol   | 16034703         | 3       |
| Caelo    | Eugenol   | 17353401         | 2       |
| Caelo    | Eugenol   | 17353403         | 3       |
| Caelo    | Eugenol   | 17353406         | 1       |
| Caelo    | Eugenol   | 1735401          | 1       |
| Caelo    | Eugenol   | 18147002         | 4       |
| Caelo    | Eugenol   | 19093201         | 5       |
| Caelo    | Eugenol   | 20001728003      | 1       |
| Caelo    | Eugenol   | 21002269003      | 1       |
| Fagron   | Eugenol   | 13H14-B40-286617 | 1       |
| Speiko   | Eugenol   | 1051             | 1       |

- 288 679 spectra from 1294 *Apo-Ident* customers from a total of 51 872 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Eugenol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Eugenol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 210           | 0              | 66 949        |
| Type B | 0              | 160           | 0              | 107 203       |
| Type C | 0              | 30            | 0              | 288 679       |

The substance/substance group *Eugenol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.1429 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| Type C | 100.0000 % (> 99.6873 %) | 100.0000 % (> 80.0000 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Eugenol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance | Distance in main model | Distance in second-stage model |
|-----------|------------------------|--------------------------------|
| Clove oil | 26.59                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Eugenol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31286     | 31286               | 0.00                         | 33.89                           |
| 31397     | 31286               | 1.61                         | 35.61                           |
| 33896     | 33896               | 0.00                         | 34.55                           |
| 34481     | 31286               | 3.27                         | 35.52                           |
| 35720     | 35720               | 0.00                         | 35.55                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at

least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Gel Cordes®**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30632-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Gel Cordes®

### Special notes

When selecting the *Gel Cordes®* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Gel Cordes®               | 5      | 3      | 32     |

## Second-stage model

For differentiation of the substance/substance group *Gel Cordes*<sup>®</sup> the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Gel Cordes*<sup>®</sup>:

| Supplier | Substance               | Batch   | Sample ID | Spectra | Certificate |
|----------|-------------------------|---------|-----------|---------|-------------|
| Ichthyol | Gel Cordes <sup>®</sup> | 12A035  | 30632     | 40      | 1405096     |
| Ichthyol | Gel Cordes <sup>®</sup> | 15A099  | 31876     | 60      | 20150624    |
| Ichthyol | Gel Cordes <sup>®</sup> | 15A099  | 32910     | 40      | 20150624    |
| Ichthyol | Gel Cordes <sup>®</sup> | 15A099  | 32911     | 40      | 20150624    |
| Ichthyol | Gel Cordes <sup>®</sup> | 18A086  | 34677     | 40      | 20181101    |
| Ichthyol | Gel Cordes <sup>®</sup> | 19A0165 | 34842     | 40      | 20190917    |
| Ichthyol | Gel Cordes <sup>®</sup> | 20A0132 | 35108     | 30      | 20200728    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 290 spectra of 7 reference samples from the substance/substance group *Gel Cordes*<sup>®</sup>. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 869 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 137 spectra of 4 reference samples from the substance/substance group *Gel Cordes*<sup>®</sup>.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance               | Batch   | Sample ID          | Spectra |
|----------|-------------------------|---------|--------------------|---------|
| Ichthyol | Gel Cordes <sup>®</sup> | 13A007  | 31083              | 40      |
| Ichthyol | Gel Cordes <sup>®</sup> | 17A047  | 33987              | 40      |
| Ichthyol | Gel Cordes <sup>®</sup> | 21A0128 | 35756              | 50      |
| Ichthyol | Gel Cordes <sup>®</sup> | 20A0132 | 35108 <sup>†</sup> | 7       |

- 107 226 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 248 spectra from 61 *Apo-Ident* customers from 38 batches from the substance/substance group *Gel Cordes<sup>®</sup>*.
- Among them are spectra of independent samples from 32 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                    | Substance               | Batch       | Spectra |
|-----------------------------|-------------------------|-------------|---------|
| 1xAnzag 2xJenne Ivthyol     | Gel Cordes <sup>®</sup> | 31(17A047)  | 1       |
| AHD                         | Gel Cordes <sup>®</sup> | 16A169      | 1       |
| Anzag/Ichthyol              | Gel Cordes <sup>®</sup> | 17A047      | 1       |
| Anzag/Ichthyol              | Gel Cordes <sup>®</sup> | 17A237      | 1       |
| Audor Pharma                | Gel Cordes <sup>®</sup> | 17A047      | 3       |
| Caelo                       | Gel Cordes <sup>®</sup> | 17A047      | 1       |
| Caelo                       | Gel Cordes <sup>®</sup> | 32(17A047)  | 1       |
| Caelo                       | Gel Cordes <sup>®</sup> | 42(17A237)  | 1       |
| Caeolo                      | Gel Cordes <sup>®</sup> | 14A017      | 1       |
| Cordes GmbH/Noweda          | Gel Cordes <sup>®</sup> | 15A099      | 2       |
| Gehe                        | Gel Cordes <sup>®</sup> | 17A237      | 1       |
| Ichthol/ gehe 12.09.16      | Gel Cordes <sup>®</sup> | 15a099      | 1       |
| Ichthyol / Anzag            | Gel Cordes <sup>®</sup> | 1219Q-03685 | 1       |
| Ichthyol / GEHE             | Gel Cordes <sup>®</sup> | 19A0165     | 2       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 36(17A237)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 37(17A237)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 38(17A237)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 39(17A237)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 40(17A237)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 43(17A237)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 44(17A237)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 45(18A086)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 46(18A086)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 47(18A086)  | 1       |
| Ichthyol /Anzag             | Gel Cordes <sup>®</sup> | 48(18A084)  | 1       |
| Ichthyol Gesellschaft       | Gel Cordes <sup>®</sup> | 17A047      | 1       |
| Ichthyol Gesellschaft       | Gel Cordes <sup>®</sup> | 20A0132     | 1       |
| Ichthyol Gesellschaft Co... | Gel Cordes <sup>®</sup> | 15A099      | 1       |
| Ichthyol Gesellschaft Co... | Gel Cordes <sup>®</sup> | 17A047      | 2       |
| Ichthyol Gesellschaft Co... | Gel Cordes <sup>®</sup> | 17A237      | 2       |
| Ichthyol Gesellschaft Co... | Gel Cordes <sup>®</sup> | 18A086      | 1       |

*continued on the next page*

<sup>†</sup>These spectra were recorded from material of the same package as the corresponding calibration spectra (*Type A*). Hence, these spectra are not independent and are not of *Type B*.

*continued from previous page*

| Supplier                   | Substance   | Batch      | Spectra |
|----------------------------|-------------|------------|---------|
| Ichthyol/ Jenne            | Gel Cordes® | 18A086     | 2       |
| Ichthyol/ Noweda           | Gel Cordes® | 17A237     | 1       |
| Ichthyol/AHD               | Gel Cordes® | 17A047     | 1       |
| Ichthyol/AHD               | Gel Cordes® | 18A086     | 4       |
| Ichthyol/AHD               | Gel Cordes® | 19A0165    | 1       |
| Ichthyol/AHD               | Gel Cordes® | 30(17A047) | 1       |
| Ichthyol/AHD               | Gel Cordes® | 33(17A237) | 1       |
| Ichthyol/AHD               | Gel Cordes® | 34(17A237) | 1       |
| Ichthyol/AHD               | Gel Cordes® | 35(17A237) | 1       |
| Ichthyol/Alkun             | Gel Cordes® | 17A047     | 1       |
| Ichthyol/Alliance Healt... | Gel Cordes® | 15A099     | 3       |
| Ichthyol/Alliance          | Gel Cordes® | 15A099     | 1       |
| Ichthyol/Alliance          | Gel Cordes® | 17A237     | 2       |
| Ichthyol/Anzag             | Gel Cordes® | 12A035     | 2       |
| Ichthyol/Gehe              | Gel Cordes® | 14A017     | 1       |
| Ichthyol/Gehe              | Gel Cordes® | 15A099     | 1       |
| Ichthyol/Gehe              | Gel Cordes® | 18A086     | 1       |
| Ichthyol/Noweda            | Gel Cordes® | 17A047     | 1       |
| Ichthyol/Noweda            | Gel Cordes® | 17A237     | 2       |
| Ichthyol/Noweda            | Gel Cordes® | 18A086     | 1       |
| Ichthyol/Phönix            | Gel Cordes® | 17A047     | 3       |
| Ichthyol/Phönix            | Gel Cordes® | 17A237     | 1       |
| Ichthyol/Phönix            | Gel Cordes® | 18A086     | 1       |
| Ichthyol/Phönix            | Gel Cordes® | 19A0165    | 1       |
| Ichthyol/Sana              | Gel Cordes® | 21A0233    | 1       |
| Ichthyol/Sanacorp          | Gel Cordes® | 14A017     | 1       |
| Ichthyol/Sanacorp          | Gel Cordes® | 16A169     | 1       |
| Ichthyol/Sanacorp          | Gel Cordes® | 17A047     | 1       |
| Ichthyol/Spangro           | Gel Cordes® | 16A169     | 1       |
| Ichthyol                   | Gel Cordes® | 14A017     | 2       |
| Ichthyol                   | Gel Cordes® | 15A099     | 29      |
| Ichthyol                   | Gel Cordes® | 16A169     | 13      |
| ICHTHYOL                   | Gel Cordes® | 16A169     | 1       |
| ICHthyol                   | Gel Cordes® | 16A69      | 1       |
| Ichthyol                   | Gel Cordes® | 17A047     | 2       |
| Ichthyol                   | Gel Cordes® | 17A237     | 1       |
| Ichthyol                   | Gel Cordes® | 18A086     | 2       |
| Ichthyol-Gesellschaft C... | Gel Cordes® | 20A0132    | 1       |
| Ichthyol-Gesellschaft C... | Gel Cordes® | 13A007     | 1       |
| Ichthyol-Gesellschaft C... | Gel Cordes® | 18A086     | 1       |
| Ichthyol-Gesellschaft C... | Gel Cordes® | 18A086     | 1       |
| Ichthyol-Gesellschaft C... | Gel Cordes® | 20A0132    | 3       |
| Ichthyol-Gesellschaft C... | Gel Cordes® | 21A0128    | 4       |
| Ichthyol-Gesellschaft/...  | Gel Cordes® | 17A237     | 3       |
| ICHTHYOL-GESELLSCHAFT/G... | Gel Cordes® | 21A0233    | 1       |
| ICHTHYOL-GESELLSCHAFT/J... | Gel Cordes® | 19A0165    | 1       |
| ICHTHYOL-GESELLSCHAFT/J... | Gel Cordes® | 21A0128    | 8       |
| Ichthyol-Gesellschaft/N... | Gel Cordes® | 13A007     | 2       |
| ICHTHYOL-GESELLSCHAFT      | Gel Cordes® | 18A086     | 3       |
| Ichthyol-Gesellschaft      | Gel Cordes® | 19A0165    | 1       |
| ICHTHYOL-GESELLSCHAFT      | Gel Cordes® | 19A0165    | 32      |
| ICHTHYOL-GESELLSCHAFT      | Gel Cordes® | 19A0265    | 1       |
| ICHTHYOL-GESELLSCHAFT      | Gel Cordes® | 20A0132    | 27      |
| Ichtyol                    | Gel Cordes® | 14A017     | 2       |
| Ichtyol                    | Gel Cordes® | 718E-03685 | 1       |
| Ichtyol-Gesellschaft       | Gel Cordes® | 15A099     | 1       |
| Ichtyol-Gesellschaft       | Gel Cordes® | 17A047     | 1       |
| Ichtyol-Gesellschaft       | Gel Cordes® | 17A237     | 4       |
| Ichtyol-Gesellschaft       | Gel Cordes® | 18A086     | 2       |
| Ichtyol-Gesellschaft       | Gel Cordes® | 19A0165    | 2       |

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| Supplier                      | Substance               | Batch      | Spectra |
|-------------------------------|-------------------------|------------|---------|
| Ivthylol/Phoenix              | Gel Cordes <sup>®</sup> | 17A047     | 1       |
| Noweda/Ichthylol-Gesells. . . | Gel Cordes <sup>®</sup> | 14A017     | 3       |
| Noweda/Ichthylol-Gesells. . . | Gel Cordes <sup>®</sup> | 15A099     | 1       |
| Noweda                        | Gel Cordes <sup>®</sup> | 17A047     | 1       |
| Noweda                        | Gel Cordes <sup>®</sup> | 17A237     | 2       |
| Noweda                        | Gel Cordes <sup>®</sup> | 18A086     | 1       |
| Noweda                        | Gel Cordes <sup>®</sup> | 20A0132    | 1       |
| Phoenix                       | Gel Cordes <sup>®</sup> | 18A086     | 2       |
| PHÖNIX                        | Gel Cordes <sup>®</sup> | 17A237     | 2       |
| Phönix                        | Gel Cordes <sup>®</sup> | 18A086     | 1       |
| Sanacorp                      | Gel Cordes <sup>®</sup> | 20A0132    | 1       |
| Wolf Apotheke                 | Gel Cordes <sup>®</sup> | 41(17A237) | 1       |

- 288 461 spectra from 1294 *Apo-Ident* customers from a total of 51 850 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Gel Cordes<sup>®</sup>* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Gel Cordes<sup>®</sup>* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 290           | 0              | 66 869        |
| <b>Type B</b> | 0              | 130           | 7              | 107 226       |
| <b>Type C</b> | 0              | 248           | 0              | 288 461       |

The substance/substance group *Gel Cordes<sup>®</sup>* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.9310 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 94.8905 % (> 92.7007 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 97.5806 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Gel Cordes<sup>®</sup>* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                  | Distance in<br>main model | Distance in<br>second-stage model |
|--------------------------------------------|---------------------------|-----------------------------------|
| Base cream, diluted                        | 21.10                     | —                                 |
| Glycolic acid 70%                          | 29.93                     | —                                 |
| Anionic hydrophilic cream with propyle...  | 36.10                     | —                                 |
| Lotio Cordes®                              | 40.48                     | —                                 |
| Hydrophilic cream, non-ionic without p...  | 42.25                     | —                                 |
| Non-ionic hydrous liniment SR/DAC (NRF...  | 44.26                     | —                                 |
| Anionic hydrophilic cream SR (NRF p.27)    | 46.29                     | —                                 |
| Sodium-(s)-lactate solution 50%            | 47.14                     | —                                 |
| Anionic hydrophilic cream without prese... | 48.01                     | —                                 |
| Liquorice juice purified, diluted          | 49.29                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Gel Cordes®* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30632     | 30632                  | 0.00                            | 42.74                              |
| 31876     | 30632                  | 16.03                           | 41.73                              |
| 32910     | 30632                  | 10.61                           | 41.84                              |
| 32911     | 30632                  | 12.17                           | 41.71                              |
| 34677     | 30632                  | 20.69                           | 41.70                              |
| 34842     | 30632                  | 23.27                           | 41.66                              |
| 35108     | 30632                  | 18.12                           | 42.54                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Geranium oil, genuine**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30468-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Geranium oil, genuine; Oleum geranii verum

### Special notes

When selecting the *Geranium oil, genuine* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Geranium oil, genuine     | 5      | 4      | 13     |

## Second-stage model

For differentiation of the substance/substance group *Geranium oil, genuine* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Geranium oil, genuine*:

| Supplier | Substance           | Batch       | Sample ID | Spectra | Certificate |
|----------|---------------------|-------------|-----------|---------|-------------|
| Caelo    | Geranium oil, ge... | 12354109    | 31193     | 40      | 1403533     |
| Caelo    | Geranium oil, ge... | 15172205    | 31789     | 60      | 20150608    |
| Caelo    | Geranium oil, ge... | 171503      | 33316     | 40      | 20170523*   |
| Caelo    | Geranium oil, ge... | 190160      | 34646     | 40      | 20190117*   |
| Caelo    | Geranium oil, ge... | 20004486002 | 35846     | 50      | 20210112    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 230 spectra of 5 reference samples from the substance/substance group *Geranium oil, genuine*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 929 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Geranium oil, genuine*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance             | Batch    | Sample ID | Spectra |
|----------|-----------------------|----------|-----------|---------|
| Caelo    | Geranium oil, genuine | 16070404 | 33438     | 40      |
| Caelo    | Geranium oil, genuine | 180259   | 34053     | 40      |
| Caelo    | Geranium oil, genuine | 193059   | 34995     | 40      |
| Caelo    | Geranium oil, genuine | 22000168 | 36158     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 37 spectra from 16 *Apo-Ident* customers from 14 batches from the substance/substance group *Geranium oil, genuine*.
- Among them are spectra of independent samples from 13 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance             | Batch       | Spectra |
|----------------------|-----------------------|-------------|---------|
| Anzag                | Geranium oil, genuine | 193059003   | 2       |
| Caelo                | Geranium oil, genuine | 11275605    | 1       |
| Caelo                | Geranium oil, genuine | 153670202   | 1       |
| Caelo                | Geranium oil, genuine | 15370201    | 1       |
| Caelo                | Geranium oil, genuine | 16070403    | 3       |
| Caelo                | Geranium oil, genuine | 17150301    | 4       |
| Caelo                | Geranium oil, genuine | 18025902    | 5       |
| Caelo                | Geranium oil, genuine | 18025903    | 1       |
| Caelo                | Geranium oil, genuine | 18025906    | 1       |
| Caelo                | Geranium oil, genuine | 19016002    | 1       |
| Caelo                | Geranium oil, genuine | 19016005    | 1       |
| Caelo                | Geranium oil, genuine | 193059001   | 2       |
| Caelo                | Geranium oil, genuine | 20004486002 | 3       |
| Caelo                | Geranium oil, genuine | 35434343    | 1       |
| Caesar & Loretz GmbH | Geranium oil, genuine | 19016002    | 3       |
| Caesar & Loretz GmbH | Geranium oil, genuine | 193059001   | 4       |
| Caesar & Loretz GmbH | Geranium oil, genuine | 193059003   | 1       |
| Caesar & Loretz GmbH | Geranium oil, genuine | 20004486002 | 1       |
| Fiebig               | Geranium oil, genuine | 193059003   | 1       |

- 288 672 spectra from 1294 *Apo-Ident* customers from a total of 51 874 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Geranium oil, genuine* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Geranium oil, genuine*

and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 230           | 0              | 66 929        |
| Type B | 0              | 160           | 0              | 107 203       |
| Type C | 0              | 37            | 0              | 288 672       |

The substance/substance group *Geranium oil, genuine* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.3913 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| Type C | 100.0000 % (> 99.6873 %) | 100.0000 % (> 83.7838 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Geranium oil, genuine* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                       | Distance in main model | Distance in second-stage model |
|---------------------------------|------------------------|--------------------------------|
| Rose oil (genuine / artificial) | 26.95                  | –                              |
| Citronella oil                  | 51.25                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Geranium oil, genuine* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31193     | 31193               | 0.00                         | 51.64                           |
| 31789     | 33316               | 3.28                         | 51.15                           |
| 33316     | 33316               | 0.00                         | 52.94                           |

*continued on the next page*

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| <b>Sample ID</b> | <b>Reference<br/>sample ID</b> | <b>Distance to<br/>reference sample</b> | <b>Distance to<br/>next foreign sample</b> |
|------------------|--------------------------------|-----------------------------------------|--------------------------------------------|
| 34646            | 34646                          | 0.00                                    | 54.37                                      |
| 35846            | 34646                          | 6.31                                    | 53.89                                      |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Glucose syrup</b>                                             |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30934-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Glucose syrup; Glucose syrup GE 40%; Glucosum liquidum

### Special notes

When selecting the *Glucose syrup* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Glucose syrup             | 3      | 1      | 8      |



## Second-stage model

For differentiation of the substance/substance group *Glucose syrup* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Glucose syrup*:

| Supplier | Substance     | Batch            | Sample ID | Spectra | Certificate |
|----------|---------------|------------------|-----------|---------|-------------|
| Fagron   | Glucose syrup | 12I18-N11        | 30934     | 40      | 1403229     |
| Fagron   | Glucose syrup | 14G16-T01-018036 | 31603     | 60      | 20150120    |
| Fagron   | Glucose syrup | 14G16-T01-018036 | 32272     | 40      | 20150120    |
| Fagron   | Glucose syrup | 16I02-T07-039136 | 33632     | 40      | 20161222    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 180 spectra of 4 reference samples from the substance/substance group *Glucose syrup*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 66 979 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Glucose syrup*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance     | Batch            | Sample ID | Spectra |
|----------|---------------|------------------|-----------|---------|
| Fagron   | Glucose syrup | 16B02-T11-029595 | 32273     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 14 spectra from 13 *Apo-Ident* customers from 10 batches from the substance/substance group *Glucose syrup*.
- Among them are spectra of independent samples from 8 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance     | Batch            | Spectra |
|----------|---------------|------------------|---------|
| Caelo    | Glucose syrup | 16D02-T11-029595 | 1       |
| Caelo    | Glucose syrup | 16I02-T07-039136 | 1       |
| Fagron   | Glucose syrup | 10J25-T52-013485 | 1       |
| Fagron   | Glucose syrup | 13D23-N02        | 1       |
| Fagron   | Glucose syrup | 13G03-N01        | 1       |
| Fagron   | Glucose syrup | 14G16-T01-018036 | 1       |
| Fagron   | Glucose syrup | 14G16T01-018037  | 1       |
| Fagron   | Glucose syrup | 14G16-T01-018038 | 1       |
| Fagron   | Glucose syrup | 15H28-T01-025267 | 1       |
| Fagron   | Glucose syrup | 16B02-T11-029595 | 2       |
| Fagron   | Glucose syrup | 16I02-T07-039136 | 2       |
| Phönix   | Glucose syrup | 13D23-N02        | 1       |

- 288 695 spectra from 1294 *Apo-Ident* customers from a total of 51 878 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Glucose syrup* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Glucose syrup* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 180           | 0              | 66 979        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 14            | 0              | 288 695       |

The substance/substance group *Glucose syrup* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.6667 %) |
| Type B | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| Type C | 100.0000 % (> 99.6877 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Glucose syrup* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                            | Distance in main model | Distance in second-stage model |
|--------------------------------------|------------------------|--------------------------------|
| Honey                                | 18.17                  | —                              |
| Marshmallow syrup (conserved)        | 21.94                  | —                              |
| Ribwort plantain syrup (conserved)   | 25.33                  | —                              |
| Ipecacuanha syrup (NRF 19.1)         | 26.26                  | —                              |
| Sugar syrup DAB                      | 30.72                  | —                              |
| Raspberry syrup (conserved)          | 31.07                  | —                              |
| Fennel honey (conserved)             | 34.19                  | —                              |
| Sorbitol, liquid (non crystallising) | 34.52                  | —                              |
| Rose honey                           | 35.14                  | —                              |
| Glycerine ointment (conserved)       | 45.12                  | —                              |
| Cherry syrup (conserved)             | 45.32                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Glucose syrup* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30934     | 30934               | 0.00                         | 30.42                           |
| 31603     | 30934               | 6.49                         | 32.98                           |
| 32272     | 30934               | 7.89                         | 30.84                           |
| 33632     | 30934               | 2.92                         | 27.59                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at

least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Glycerine ointment (conserved)**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30986-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Glycerine ointment (conserved); Unguentum glycerini (konserviert)

### Special notes

When selecting the *Glycerine ointment (conserved)* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group      | Type A | Type B | Type C |
|--------------------------------|--------|--------|--------|
| Glycerine ointment (conserved) | 5      | 3      | 14     |

## Second-stage model

For differentiation of the substance/substance group *Glycerine ointment (conserved)* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Glycerine ointment (conserved)*:

| Supplier | Substance           | Batch       | Sample ID | Spectra | Certificate |
|----------|---------------------|-------------|-----------|---------|-------------|
| Caelo    | Glycerine ointme... | 12288201    | 30986     | 40      | 20121017    |
| Caelo    | Glycerine ointme... | 14031701    | 31296     | 40      | 1410452     |
| Caelo    | Glycerine ointme... | 16192001    | 32589     | 40      | 20160627    |
| Caelo    | Glycerine ointme... | 18286201    | 34685     | 40      | 20181108    |
| Caelo    | Glycerine ointme... | 22000015002 | 36053     | 40      | 20220209    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 200 spectra of 5 reference samples from the substance/substance group *Glycerine ointment (conserved)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 959 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Glycerine ointment (conserved)*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.



| Supplier | Substance                      | Batch    | Sample ID | Spectra |
|----------|--------------------------------|----------|-----------|---------|
| Caelo    | Glycerine ointment (conserved) | 17049101 | 33240     | 40      |
| Caelo    | Glycerine ointment (conserved) | 18095401 | 34206     | 40      |
| Caelo    | Glycerine ointment (conserved) | 20002504 | 35101     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 36 spectra from 12 *Apo-Ident* customers from 16 batches from the substance/substance group *Glycerine ointment (conserved)*.
- Among them are spectra of independent samples from 14 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance                      | Batch    | Spectra |
|----------------------|--------------------------------|----------|---------|
| Caelo                | Glycerine ointment (conserved) | 13250102 | 2       |
| Caelo                | Glycerine ointment (conserved) | 14031701 | 1       |
| Caelo                | Glycerine ointment (conserved) | 14183401 | 5       |
| Caelo                | Glycerine ointment (conserved) | 15025101 | 3       |
| Caelo                | Glycerine ointment (conserved) | 16021501 | 3       |
| Caelo                | Glycerine ointment (conserved) | 16192001 | 2       |
| Caelo                | Glycerine ointment (conserved) | 16192002 | 1       |
| Caelo                | Glycerine ointment (conserved) | 17048101 | 1       |
| Caelo                | Glycerine ointment (conserved) | 17049101 | 5       |
| Caelo                | Glycerine ointment (conserved) | 17049102 | 1       |
| Caelo                | Glycerine ointment (conserved) | 17242901 | 2       |
| Caelo                | Glycerine ointment (conserved) | 18095401 | 4       |
| Caelo                | Glycerine ointment (conserved) | 18095402 | 3       |
| Caelo                | Glycerine ointment (conserved) | 18286202 | 1       |
| Caelo                | Glycerine ointment (conserved) | 19108202 | 1       |
| Caesar & Loretz GmbH | Glycerine ointment (conserved) | 19292201 | 1       |

- 288 673 spectra from 1294 *Apo-Ident* customers from a total of 51 873 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Glycerine ointment (conserved)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Glycerine ointment (conserved)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 200           | 0              | 66 959        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 35            | 1              | 288 673       |

The substance/substance group *Glycerine ointment (conserved)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.0000 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6873 %) | 97.2222 % (> 88.8889 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Glycerine ointment (conserved)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                    | Distance in main model | Distance in second-stage model |
|------------------------------|------------------------|--------------------------------|
| Honey                        | 32.53                  | —                              |
| Rose honey                   | 34.86                  | —                              |
| Glucose syrup                | 39.25                  | —                              |
| Glycerol 85%                 | 44.60                  | —                              |
| Ipecacuanha syrup (NRF 19.1) | 53.76                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Glycerine ointment (conserved)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30986     | 31296               | 11.00                        | 28.13                           |
| 31296     | 31296               | 0.00                         | 28.56                           |
| 32589     | 31296               | 9.74                         | 26.04                           |
| 34685     | 31296               | 9.80                         | 28.29                           |
| 36053     | 31296               | 5.49                         | 27.81                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Glycerol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30189-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Glycerol; Glycerolum

### Special notes

When selecting the *Glycerol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Glycerol                  | 6      | 6      | 152    |

## Second-stage model

For differentiation of the substance/substance group *Glycerol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Glycerol*:

| Supplier | Substance | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------|----------|-----------|---------|-------------|
| Caelo    | Glycerol  | 12111504 | 30871     | 40      | 20120418    |
| Caelo    | Glycerol  | 13127603 | 31152     | 40      | 1405278     |
| Caelo    | Glycerol  | 13370502 | 31352     | 60      | 20131115    |
| Caelo    | Glycerol  | 162308   | 32325     | 40      | 20160809*   |
| Caelo    | Glycerol  | 162308   | 32693     | 40      | 20160809*   |
| Caelo    | Glycerol  | 171857   | 33703     | 40      | 20170724*   |
| Caelo    | Glycerol  | 171857   | 33708     | 40      | 20170724*   |
| Caelo    | Glycerol  | 191371   | 34636     | 40      | 20190612*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 340 spectra of 8 reference samples from the substance/substance group *Glycerol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 819 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 240 spectra of 6 reference samples from the substance/substance group *Glycerol*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 6 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance | Batch    | Sample ID | Spectra |
|----------|-----------|----------|-----------|---------|
| Caelo    | Glycerol  | 180984   | 34064     | 40      |
| Caelo    | Glycerol  | 183222   | 34327     | 40      |
| Caelo    | Glycerol  | 192428   | 34730     | 40      |
| Caelo    | Glycerol  | 20001472 | 35017     | 40      |
| Caelo    | Glycerol  | 21004174 | 36067     | 40      |
| Caelo    | Glycerol  | 22000861 | 36163     | 40      |

- 107123 spectra from a total of 2495 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1633 spectra from 597 *Apo-Ident* customers from 159 batches from the substance/substance group *Glycerol*.
- Among them are spectra of independent samples from 146 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance | Batch       | Spectra |
|----------------------------|-----------|-------------|---------|
| 01791469                   | Glycerol  | 16230804    | 1       |
| AHD / Caesar & Loretz G... | Glycerol  | 20001051004 | 1       |
| AHD                        | Glycerol  | 18126607    | 1       |
| ALH                        | Glycerol  | 15406504    | 1       |
| Alliance Health Care       | Glycerol  | 20001051005 | 1       |
| Alliance                   | Glycerol  | 20003598001 | 4       |
| Anzag                      | Glycerol  | 13127610    | 2       |
| apomix                     | Glycerol  | 13127608    | 1       |
| Beiersdorf AG              | Glycerol  | 15406501    | 1       |
| Blue Cube Germany Asset... | Glycerol  | 3002JASL41  | 2       |
| Bombastus                  | Glycerol  | 18098405    | 1       |
| Caesar & Loretz GmbH       | Glycerol  | 20003598001 | 1       |
| Caele/Gehe                 | Glycerol  | 20001051004 | 1       |
| Caelo                      | Glycerol  |             | 1       |
| Caelo                      | Glycerol  | 1004211590  | 1       |
| Caelo                      | Glycerol  | 11061303    | 1       |
| Caelo                      | Glycerol  | 11118104    | 1       |
| Caelo                      | Glycerol  | 11217403    | 1       |
| Caelo                      | Glycerol  | 11305101    | 1       |
| Caelo                      | Glycerol  | 11305102    | 3       |
| Caelo                      | Glycerol  | 119234301   | 1       |
| Caelo                      | Glycerol  | 12014304    | 14      |
| Caelo                      | Glycerol  | 12111503    | 4       |
| Caelo                      | Glycerol  | 12111504    | 3       |
| Caelo                      | Glycerol  | 12111505    | 1       |
| Caelo                      | Glycerol  | 1211503     | 1       |
| Caelo                      | Glycerol  | 13002902    | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Glycerol         | 13002903         | 8              |
| Caelo           | Glycerol         | 13002904         | 4              |
| Caelo           | Glycerol         | 13002907         | 1              |
| Caelo           | Glycerol         | 1300291          | 1              |
| Caelo           | Glycerol         | 13111403         | 1              |
| Caelo           | Glycerol         | 13127603         | 15             |
| Caelo           | Glycerol         | 13127604         | 10             |
| Caelo           | Glycerol         | 13127607         | 2              |
| Caelo           | Glycerol         | 13127608         | 3              |
| Caelo           | Glycerol         | 13127610         | 2              |
| Caelo           | Glycerol         | 1317604          | 1              |
| Caelo           | Glycerol         | 133370507        | 1              |
| Caelo           | Glycerol         | 13370501         | 2              |
| Caelo           | Glycerol         | 13370502         | 9              |
| Caelo           | Glycerol         | 13370503         | 15             |
| Caelo           | Glycerol         | 13370507         | 1              |
| Caelo           | Glycerol         | 13822208         | 1              |
| Caelo           | Glycerol         | 14074302         | 18             |
| Caelo           | Glycerol         | 14074303         | 6              |
| Caelo           | Glycerol         | 143709           | 1              |
| Caelo           | Glycerol         | 14373401         | 3              |
| Caelo           | Glycerol         | 14373403         | 22             |
| Caelo           | Glycerol         | 14373404         | 3              |
| Caelo           | Glycerol         | 14373409         | 21             |
| Caelo           | Glycerol         | 14373412         | 4              |
| Caelo           | Glycerol         | 14373413         | 33             |
| Caelo           | Glycerol         | 1437343          | 1              |
| Caelo           | Glycerol         | 1473403          | 1              |
| Caelo           | Glycerol         | 1473409          | 1              |
| Caelo           | Glycerol         | 1474303          | 1              |
| Caelo           | Glycerol         | 15283603         | 1              |
| Caelo           | Glycerol         | 15406501         | 24             |
| Caelo           | Glycerol         | 15406502         | 21             |
| Caelo           | Glycerol         | 15406503         | 37             |
| Caelo           | Glycerol         | 15406504         | 16             |
| Caelo           | Glycerol         | 1546501          | 1              |
| Caelo           | Glycerol         | 1546502          | 1              |
| Caelo           | Glycerol         | 16023503         | 8              |
| Caelo           | Glycerol         | 16023504         | 32             |
| Caelo           | Glycerol         | 16023506         | 45             |
| Caelo           | Glycerol         | 16023508         | 16             |
| Caelo           | Glycerol         | 1620804          | 1              |
| Caelo           | Glycerol         | 16230802         | 4              |
| Caelo           | Glycerol         | 16230804         | 68             |
| Caelo           | Glycerol         | 16230805         | 1              |
| Caelo           | Glycerol         | 1623504          | 1              |
| Caelo           | Glycerol         | 1623506          | 1              |
| Caelo           | Glycerol         | 16320804         | 1              |
| Caelo           | Glycerol         | 17037503         | 37             |
| Caelo           | Glycerol         | 17037504         | 18             |
| Caelo           | Glycerol         | 17041403         | 1              |
| Caelo           | Glycerol         | 171185703        | 1              |
| Caelo           | Glycerol         | 17185702         | 1              |
| Caelo           | Glycerol         | 17185703         | 53             |
| Caelo           | Glycerol         | 1718570318098405 | 1              |
| Caelo           | Glycerol         | 17185704         | 4              |
| Caelo           | Glycerol         | 17189703         | 1              |
| Caelo           | Glycerol         | 17292803         | 30             |
| Caelo           | Glycerol         | 17292804         | 3              |
| Caelo           | Glycerol         | 1791469          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caelo                      | Glycerol         | 18081504     | 1              |
| Caelo                      | Glycerol         | 18096405     | 1              |
| Caelo                      | Glycerol         | 18098405     | 68             |
| Caelo                      | Glycerol         | 18098406     | 8              |
| Caelo                      | Glycerol         | 18098408     | 1              |
| Caelo                      | Glycerol         | 18098409     | 1              |
| Caelo                      | Glycerol         | 18126602     | 68             |
| Caelo                      | Glycerol         | 18126603     | 10             |
| Caelo                      | Glycerol         | 18126605     | 64             |
| Caelo                      | Glycerol         | 18126607     | 41             |
| Caelo                      | Glycerol         | 18126609     | 5              |
| Caelo                      | Glycerol         | 1826605      | 2              |
| Caelo                      | Glycerol         | 18322202     | 39             |
| Caelo                      | Glycerol         | 18322206     | 7              |
| Caelo                      | Glycerol         | 18322208     | 6              |
| Caelo                      | Glycerol         | 1898405      | 1              |
| Caelo                      | Glycerol         | 19091803     | 1              |
| Caelo                      | Glycerol         | 19137101     | 67             |
| Caelo                      | Glycerol         | 1917101      | 1              |
| Caelo                      | Glycerol         | 19234301     | 36             |
| Caelo                      | Glycerol         | 19234302     | 15             |
| Caelo                      | Glycerol         | 19234303     | 1              |
| Caelo                      | Glycerol         | 192428002    | 63             |
| Caelo                      | Glycerol         | 19248002     | 1              |
| Caelo                      | Glycerol         | 200001051004 | 1              |
| Caelo                      | Glycerol         | 200003598002 | 1              |
| Caelo                      | Glycerol         | 20001051002  | 3              |
| Caelo                      | Glycerol         | 20001051004  | 46             |
| Caelo                      | Glycerol         | 20001051005  | 14             |
| Caelo                      | Glycerol         | 20001472001  | 26             |
| Caelo                      | Glycerol         | 20001472002  | 11             |
| Caelo                      | Glycerol         | 20001472003  | 1              |
| Caelo                      | Glycerol         | 20003598001  | 25             |
| Caelo                      | Glycerol         | 20003598002  | 14             |
| Caelo                      | Glycerol         | 2001051004   | 1              |
| Caelo                      | Glycerol         | 2061201      | 1              |
| Caelo                      | Glycerol         | 21004174002  | 2              |
| Caelo                      | Glycerol         | 2114Q1590    | 1              |
| Caelo                      | Glycerol         | 22000861004  | 1              |
| Caelo                      | Glycerol         | 22042004     | 1              |
| Caelo                      | Glycerol         | 2713M1590    | 1              |
| Caelo                      | Glycerol         | 2x19234301   | 1              |
| Caelo                      | Glycerol         | 4031501      | 1              |
| Caelo                      | Glycerol         | 510211590    | 1              |
| Caelo                      | Glycerol         | 733514373412 | 1              |
| Caesar & Lorenz GmbH       | Glycerol         | 17292803     | 1              |
| Caesar & Lorenz GmbH       | Glycerol         | 19137101     | 1              |
| Caesar & Lorenz GmbH       | Glycerol         | 192428002    | 1              |
| Caesar & Lorenz            | Glycerol         | 13002904     | 1              |
| Caesar & Loretz GmbH / ... | Glycerol         | 16023506     | 1              |
| Caesar & Loretz GmbH / ... | Glycerol         | 19137101     | 1              |
| Caesar & Loretz GmbH Hi... | Glycerol         | 13127608     | 1              |
| Caesar & Loretz GmbH Hi... | Glycerol         | 14074302     | 1              |
| Caesar & Loretz GmbH Hi... | Glycerol         | 16023506     | 1              |
| Caesar & Loretz GmbH/ A... | Glycerol         | 19137101     | 1              |
| Caesar & Loretz GmbH/ G... | Glycerol         | 20001051004  | 1              |
| Caesar & Loretz GmbH/ G... | Glycerol         | 20003598002  | 1              |
| Caesar & Loretz GmbH/ J... | Glycerol         | 19234301     | 1              |
| Caesar & Loretz GmbH/AHD   | Glycerol         | 192428002    | 1              |
| Caesar & Loretz GmbH/AHD   | Glycerol         | 2000359801   | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|----------------------------|------------------|---------------|----------------|
| Caesar & Loretz GmbH/An... | Glycerol         | 20001051002   | 1              |
| Caesar & Loretz GmbH/Fi... | Glycerol         | 18322202      | 1              |
| Caesar & Loretz GmbH/Gehe  | Glycerol         | 192428002     | 1              |
| Caesar & Loretz GmbH/Gehe  | Glycerol         | 20001051004   | 1              |
| Caesar & Loretz GmbH/GEHE  | Glycerol         | 20001472001   | 1              |
| Caesar & Loretz GmbH/Gö... | Glycerol         | 19137101      | 2              |
| Caesar & Loretz GmbH/Je... | Glycerol         | 19137101      | 1              |
| Caesar & Loretz GmbH/Je... | Glycerol         | 192428002     | 5              |
| Caesar & Loretz GmbH/Kehr  | Glycerol         | 19137101      | 1              |
| Caesar & Loretz GmbH/No... | Glycerol         | 20001051005   | 1              |
| Caesar & Loretz GmbH/No... | Glycerol         | 20003598002   | 1              |
| Caesar & Loretz GmbH/Phoe  | Glycerol         | 19137101      | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol         | 19234301      | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol         | 20003598001   | 1              |
| Caesar & Loretz GmbH/Sa... | Glycerol         | 20001472001   | 2              |
| Caesar & Loretz GmbH       | Glycerol         | 14373403      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 15406502      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 16230804      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 18098405      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 181226605     | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 18126602      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 18126603      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 18126605      | 8              |
| Caesar & Loretz GmbH       | Glycerol         | 18126607      | 9              |
| Caesar & Loretz GmbH       | Glycerol         | 18126609      | 4              |
| Caesar & Loretz GmbH       | Glycerol         | 18322202      | 8              |
| Caesar & Loretz GmbH       | Glycerol         | 18322206      | 6              |
| Caesar & Loretz GmbH       | Glycerol         | 18322208      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 19137101      | 9              |
| Caesar & Loretz GmbH       | Glycerol         | 19137102      | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 19234301      | 20             |
| Caesar & Loretz GmbH       | Glycerol         | 19234302      | 2              |
| Caesar & Loretz GmbH       | Glycerol         | 192428002     | 10             |
| Caesar & Loretz GmbH       | Glycerol         | 200010510004  | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 20001051004   | 15             |
| Caesar & Loretz GmbH       | Glycerol         | 20001051005   | 4              |
| Caesar & Loretz GmbH       | Glycerol         | 20001472001   | 7              |
| Caesar & Loretz GmbH       | Glycerol         | 20001472002   | 1              |
| Caesar & Loretz GmbH       | Glycerol         | 20003598001   | 10             |
| Caesar & Loretz GmbH       | Glycerol         | 20003598002   | 6              |
| Caesar & Loretz GmbH       | Glycerol         | 20003598003   | 3              |
| Caesar & Loretz Hilden     | Glycerol         | 18126607      | 1              |
| Caesar & Loretz Hilden     | Glycerol         | 19137101      | 1              |
| Caesar & Loretz/Geilenk... | Glycerol         | 20001051004   | 1              |
| Caesar & Loretz            | Glycerol         | 20003598001   | 1              |
| Caesar&Lorenz / Gehe       | Glycerol         | 19137101      | 1              |
| Caesar/Lorenz              | Glycerol         | 13002904      | 2              |
| Caleo/Gehe                 | Glycerol         | 17292803      | 1              |
| Carl Roth GmbH & Co.KG ... | Glycerol         | 60291203      | 1              |
| Carl Roth GmbH+Co.KG       | Glycerol         | 509291466     | 1              |
| Carl Roth GmbH+Co.KG       | Glycerol         | 60291202      | 1              |
| Cealo / Gehe               | Glycerol         | 18098405      | 1              |
| Cealo                      | Glycerol         | 18126602      | 1              |
| chemdicount                | Glycerol         | L0T01010121   | 2              |
| Chemdiscount               | Glycerol         |               | 1              |
| Chemdiscount               | Glycerol         | 4260344721306 | 1              |
| Chemdiscount               | Glycerol         | 91374122      | 1              |
| Chemidiscout / WHC GmbH    | Glycerol         |               | 1              |
| chemsolute                 | Glycerol         |               | 1              |
| Cremer Oleo GmbH Hambur... | Glycerol         | 62776         | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Dr. K. Holborn/Wepa        | Glycerol         |                  | 1              |
| Dr. K. Hollborm & Söhne    | Glycerol         | 1106             | 1              |
| Dr.K.Hollborn&Söhne/Wepa   | Glycerol         |                  | 2              |
| Euro OTC                   | Glycerol         | 15406503         | 1              |
| Euro OTC                   | Glycerol         | 16023503         | 1              |
| Euro OTC                   | Glycerol         | 16023506         | 1              |
| Euro OTC                   | Glycerol         | 18098405         | 1              |
| FABA                       | Glycerol         | 200404-2         | 1              |
| Fagron                     | Glycerol         | 13002904         | 1              |
| Fagron                     | Glycerol         | 13370503         | 1              |
| Fagron                     | Glycerol         | 14074302         | 1              |
| Fagron                     | Glycerol         | 14373409         | 2              |
| Fagron                     | Glycerol         | 15406501         | 1              |
| Fiebig                     | Glycerol         | 15406501         | 1              |
| Fiebig                     | Glycerol         | 18126602         | 2              |
| Fiebig                     | Glycerol         | 18126607         | 1              |
| Fiebig                     | Glycerol         | 18322206         | 1              |
| Forbury Direct Global G... | Glycerol         | 5032020          | 1              |
| Gehe 16.12.14              | Glycerol         | 13370503         | 1              |
| Gehe amax                  | Glycerol         | 18126607         | 1              |
| Gehe amax                  | Glycerol         | 20001051004      | 1              |
| Gehe                       | Glycerol         | 12014304         | 1              |
| Gehe                       | Glycerol         | 12111504         | 2              |
| Gehe                       | Glycerol         | 13002904         | 1              |
| Gehe                       | Glycerol         | 13127603         | 2              |
| Gehe                       | Glycerol         | 13370502         | 1              |
| Gehe                       | Glycerol         | 15406501         | 1              |
| Gehe                       | Glycerol         | 16023504         | 1              |
| GEHE                       | Glycerol         | 16023506         | 1              |
| Gehe                       | Glycerol         | 17292803         | 1              |
| GEHE                       | Glycerol         | 18098405         | 1              |
| GEHE                       | Glycerol         | 18126602         | 1              |
| Gehe                       | Glycerol         | 18322202         | 2              |
| Herrlan-PSM/Phönix         | Glycerol         |                  | 2              |
| Hollborn&Söhne/Phoenix     | Glycerol         |                  | 1              |
| Ichthyol/Sanacorp          | Glycerol         | 13002902         | 2              |
| Ingo Steyer KG, D-217...   | Glycerol         |                  | 1              |
| INTR/Phönix                | Glycerol         | 16023506         | 1              |
| Isolatech Langenfeld       | Glycerol         | E-GL-3V-6kg      | 1              |
| Isolatech                  | Glycerol         | AZ000841         | 1              |
| Julius Hoesch              | Glycerol         | 184829           | 1              |
| Jürgen Boesecke GmbH       | Glycerol         | 200400342        | 1              |
| L12                        | Glycerol         | 18098405         | 1              |
| Mea Vita                   | Glycerol         | 4057824967008    | 1              |
| Merck                      | Glycerol         | K50033528813     | 1              |
| mercur oleo                | Glycerol         | 9664/20-MH000993 | 1              |
| Nachprüfung                | Glycerol         | 123456           | 1              |
| Noweda                     | Glycerol         | 14373403         | 1              |
| Noweda                     | Glycerol         | 14373413         | 1              |
| Noweda                     | Glycerol         | 16230802         | 1              |
| Noweda                     | Glycerol         | 16230804         | 1              |
| Noweda                     | Glycerol         | 17185703         | 1              |
| Noweda                     | Glycerol         | 18126602         | 1              |
| Noweda                     | Glycerol         | 18126603         | 3              |
| Noweda                     | Glycerol         | 18126605         | 1              |
| Noweda                     | Glycerol         | 18322202         | 1              |
| Noweda                     | Glycerol         | 19234301         | 1              |
| Noweda                     | Glycerol         | 192428002        | 3              |
| Olin Stade-Bützfleth       | Glycerol         | 3002JASL41       | 1              |
| Optim Barsilay             | Glycerol         | 3002JAL41        | 1              |

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| Supplier           | Substance | Batch            | Spectra |
|--------------------|-----------|------------------|---------|
| Optim/ Olin        | Glycerol  | 3002JASL41       | 1       |
| Phoenix            | Glycerol  | 16023504         | 2       |
| phoenix            | Glycerol  | 16230804         | 1       |
| Phoenix            | Glycerol  | 18098405         | 4       |
| Phoenix            | Glycerol  | 18322202         | 1       |
| Phoenix            | Glycerol  | 19234301         | 1       |
| Phoenix            | Glycerol  | 20003598002      | 1       |
| Phönix 22.08.12    | Glycerol  | 11305102         | 1       |
| Phönix/EuRho       | Glycerol  | 12111503         | 1       |
| Phönix             | Glycerol  | 13002904         | 2       |
| Phönix             | Glycerol  | 13127604         | 1       |
| Phönix             | Glycerol  | 13127610         | 1       |
| Phönix             | Glycerol  | 18126602         | 1       |
| Phönix             | Glycerol  | 192428002        | 1       |
| Phönix             | Glycerol  | 20001051004      | 2       |
| Phönix             | Glycerol  | 20001472001      | 1       |
| Sanacorp           | Glycerol  | 17292803         | 2       |
| Sanacorp           | Glycerol  | 18126602         | 1       |
| Sanacorp           | Glycerol  | 18126607         | 1       |
| Shell              | Glycerol  |                  | 1       |
| Smokeria SMTP GmbH | Glycerol  | 20-03-16-SM-VG-5 | 1       |
| Spinnrad           | Glycerol  | 22048041         | 1       |
| VWR Chemicals      | Glycerol  | 20A084103        | 1       |
| VWR Chemicals      | Glycerol  | 20a0841032       | 1       |
| VWR Chemicals      | Glycerol  | 20C104124        | 1       |
| VWR Chemicals      | Glycerol  | 20C1344102       | 1       |
| VWR                | Glycerol  | 20a084103        | 1       |
| whc GmbH Phönix    | Glycerol  |                  | 1       |
| WHC                | Glycerol  | 91374122         | 1       |

- 287 076 spectra from 1294 *Apo-Ident* customers from a total of 51 736 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Glycerol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Glycerol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 340           | 0              | 66 819        |
| <b>Type B</b> | 0              | 240           | 0              | 107 123       |
| <b>Type C</b> | 0              | 1631          | 2              | 287 076       |

The substance/substance group *Glycerol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.2353 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 97.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.8775 % (> 99.6938 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Glycerol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance    | Distance in<br>main model | Distance in<br>second-stage model |
|--------------|---------------------------|-----------------------------------|
| Glycerol 85% | 89.00                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Glycerol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30871     | 31152                  | 4.03                            | 97.68                              |
| 31152     | 31152                  | 0.00                            | 100.07                             |
| 31352     | 31152                  | 4.50                            | 91.84                              |
| 32325     | 32325                  | 0.00                            | 120.03                             |
| 32693     | 32693                  | 0.00                            | 133.46                             |
| 33703     | 33703                  | 0.00                            | 121.37                             |
| 33708     | 33708                  | 0.00                            | 126.18                             |
| 34636     | 34636                  | 0.00                            | 120.84                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Glycerol 85%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30886-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Glycerol 85%; Glycerolum 85%

### Special notes

When selecting the *Glycerol 85%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Glycerol 85%              | 10     | 35     | 904    |

## Second-stage model

For differentiation of the substance/substance group *Glycerol 85%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Glycerol 85%*:

| Supplier | Substance    | Batch      | Sample ID | Spectra | Certificate        |
|----------|--------------|------------|-----------|---------|--------------------|
| Caelo    | Glycerol 85% | 12216606   | 30886     | 80      | 20120731           |
| Caelo    | Glycerol 85% | 13356404   | 31360     | 60      | 20131112           |
| Caelo    | Glycerol 85% | 13406202   | 31377     | 40      | 20131219           |
| Caelo    | Glycerol 85% | 17197706   | 34031     | 40      | AR-18-FG-009772-02 |
| Euro OTC | Glycerol 85% | 1409035-01 | 31588     | 60      | AR-15-FG-007030-02 |
| Euro OTC | Glycerol 85% | 1506036    | 31719     | 60      | 0000010478         |
| Euro OTC | Glycerol 85% | 1509023    | 31737     | 60      | 20151005*          |
| Euro OTC | Glycerol 85% | 1601059    | 31956     | 60      | 20160225*          |
| Euro OTC | Glycerol 85% | 2011017    | 35136     | 40      | 20201208*          |
| Fagron   | Glycerol 85% | 12H16-N04  | 30980     | 80      | 20120905           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 580 spectra of 10 reference samples from the substance/substance group *Glycerol 85%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 10 different batches.
- 66 579 spectra from a total of 1369 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- 1590 spectra of 39 reference samples from the substance/substance group *Glycerol 85%*.
- Among them are spectra of independent samples from 35 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance    | Batch    | Sample ID | Spectra |
|-----------|--------------|----------|-----------|---------|
| Bombastus | Glycerol 85% | 20002102 | 36196     | 40      |
| Caelo     | Glycerol 85% | 160637   | 32203     | 40      |
| Caelo     | Glycerol 85% | 162153   | 32326     | 40      |
| Caelo     | Glycerol 85% | 162189   | 32328     | 40      |
| Caelo     | Glycerol 85% | 162978   | 32694     | 40      |
| Caelo     | Glycerol 85% | 163550   | 33097     | 40      |
| Caelo     | Glycerol 85% | 163472   | 33098     | 40      |
| Caelo     | Glycerol 85% | 171577   | 33320     | 40      |
| Caelo     | Glycerol 85% | 172155   | 33704     | 40      |
| Caelo     | Glycerol 85% | 171977   | 33705     | 40      |
| Caelo     | Glycerol 85% | 183270   | 34326     | 40      |
| Caelo     | Glycerol 85% | 190112   | 34460     | 40      |
| Caelo     | Glycerol 85% | 191883   | 34619     | 40      |
| Caelo     | Glycerol 85% | 20001747 | 35021     | 40      |
| Caelo     | Glycerol 85% | 20002233 | 35272     | 40      |
| Caelo     | Glycerol 85% | 20001944 | 35275     | 40      |
| Caelo     | Glycerol 85% | 21000360 | 35276     | 40      |
| Caelo     | Glycerol 85% | 21001534 | 35730     | 50      |
| Caelo     | Glycerol 85% | 21001879 | 35731     | 50      |
| Caelo     | Glycerol 85% | 22000873 | 36305     | 40      |
| Caelo     | Glycerol 85% | 22000889 | 36306     | 40      |
| Caelo     | Glycerol 85% | 22000890 | 36307     | 40      |
| Euro OTC  | Glycerol 85% | 1607037  | 32703     | 40      |
| Euro OTC  | Glycerol 85% | 1610032  | 32828     | 40      |
| Euro OTC  | Glycerol 85% | 1703003  | 33449     | 40      |
| Euro OTC  | Glycerol 85% | 1708022  | 33661     | 40      |
| Euro OTC  | Glycerol 85% | 1801025  | 33996     | 40      |
| Euro OTC  | Glycerol 85% | 1804017  | 34091     | 40      |
| Euro OTC  | Glycerol 85% | 1808009  | 34218     | 40      |
| Euro OTC  | Glycerol 85% | 1901041  | 34426     | 40      |
| Euro OTC  | Glycerol 85% | 1906019  | 34656     | 40      |
| Euro OTC  | Glycerol 85% | 1910011  | 34748     | 40      |
| Euro OTC  | Glycerol 85% | 2007039  | 35118     | 40      |
| Euro OTC  | Glycerol 85% | 2109022  | 35898     | 50      |
| Euro OTC  | Glycerol 85% | 2203036  | 36284     | 40      |
| Caelo     | Glycerol 85% | 160637   | 32314     | 40      |
| Caelo     | Glycerol 85% | 171977   | 33706     | 40      |
| Caelo     | Glycerol 85% | 171577   | 33709     | 40      |
| Caelo     | Glycerol 85% | 183270   | 34745     | 40      |

- 105 773 spectra from a total of 2466 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 6518 spectra from 1143 *Apo-Ident* customers from 918 batches from the substance/substance group *Glycerol 85%*.

- Among them are spectra of independent samples from 902 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance    | Batch      | Spectra |
|----------------------------|--------------|------------|---------|
|                            | Glycerol 85% | 13356404   | 1       |
| 040607                     | Glycerol 85% | 40607      | 1       |
| 2959                       | Glycerol 85% | 2959       | 1       |
| A.H. 18.06.13 ek: 6,78EUR  | Glycerol 85% | 12273604   | 1       |
| A.Hedinger/Sana            | Glycerol 85% | 40626      | 1       |
| A.Hedinger/Sana            | Glycerol 85% | 40655      | 1       |
| A.Hedinger/Sana            | Glycerol 85% | 40667      | 1       |
| AEP/ Fischar               | Glycerol 85% | 5067011    | 1       |
| AEP                        | Glycerol 85% | 19124401   | 2       |
| AHD / Hedinger             | Glycerol 85% | 40557      | 1       |
| AHD / Hedinger             | Glycerol 85% | 40607      | 1       |
| AHD/ Fischar               | Glycerol 85% | 5067081    | 1       |
| AHD/Fischar                | Glycerol 85% | 5067091    | 1       |
| AHD/Fischar                | Glycerol 85% | 5069011    | 1       |
| Ahd/PharmachemPöckneck     | Glycerol 85% | 13248201   | 1       |
| AHD                        | Glycerol 85% | 13406202   | 1       |
| AHD                        | Glycerol 85% | 14306203   | 1       |
| AHD                        | Glycerol 85% | 40642      | 1       |
| AHD                        | Glycerol 85% | 40647      | 1       |
| AHD                        | Glycerol 85% | 5060035    | 1       |
| AHD                        | Glycerol 85% | 5068081    | 1       |
| AHD                        | Glycerol 85% | 5068101    | 1       |
| Ahrenshof GmbH             | Glycerol 85% | EU649      | 1       |
| ALH                        | Glycerol 85% | 40599      | 1       |
| Allianc. Healthc./Fischar  | Glycerol 85% | 5064091    | 1       |
| Alliance / Hedinger        | Glycerol 85% | 40678      | 1       |
| Alliance Health 24.06.2... | Glycerol 85% | 5538401    | 1       |
| Alliance Health 27.11.2... | Glycerol 85% |            | 1       |
| Alliance Healthcare/Fis... | Glycerol 85% | 5063011    | 1       |
| Alliance Healthcare        | Glycerol 85% | 13144605   | 1       |
| Alliance Healthcare        | Glycerol 85% | 40655      | 1       |
| Alliance Healthcare        | Glycerol 85% | 40678      | 1       |
| Alliance Healthcare        | Glycerol 85% | 5066061    | 1       |
| Alliance/ Henry Lamotte    | Glycerol 85% | 1000012233 | 1       |
| Alliance/Lamotte           | Glycerol 85% | 1000013005 | 1       |
| Alliance                   | Glycerol 85% | 1808009-02 | 1       |
| Allianz Healthcare         | Glycerol 85% | 1910011-01 | 1       |
| Allianz Healthcare         | Glycerol 85% | 5069081    | 1       |
| Alte Apotheke              | Glycerol 85% | 40599      | 2       |
| Anzag 3.04.18              | Glycerol 85% | 40628      | 1       |
| Anzag,7,17 Euro,16.1014    | Glycerol 85% | 13356405   | 1       |
| Anzag,7,62EUR; 27.0415     | Glycerol 85% | 14306204   | 1       |
| Anzag/ Fischar             | Glycerol 85% | 5068021    | 2       |
| Anzag/ Hedinger            | Glycerol 85% | 40478      | 1       |
| Anzag/ Hedinger            | Glycerol 85% | 40495      | 2       |
| Anzag/                     | Glycerol 85% | 12108201   | 1       |
| Anzag                      | Glycerol 85% | 1306016-02 | 1       |
| Anzag                      | Glycerol 85% | 2109022-01 | 1       |
| Anzag                      | Glycerol 85% | 40467      | 1       |
| Anzag                      | Glycerol 85% | 40471      | 1       |
| Anzag                      | Glycerol 85% | 40475      | 2       |
| Anzag                      | Glycerol 85% | 40579      | 1       |
| Anzag                      | Glycerol 85% | 40599      | 1       |
| Anzag                      | Glycerol 85% | 40607      | 2       |
| Anzag                      | Glycerol 85% | 40620      | 2       |
| Anzag                      | Glycerol 85% | 819409013  | 1       |
| apo ident                  | Glycerol 85% | 1801025-01 | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|----------------------------|------------------|--------------------|----------------|
| Apoident /Sanacorp         | Glycerol 85%     | 180809-01          | 1              |
| apo-ident                  | Glycerol 85%     | 1708022-01         | 2              |
| apo-ident                  | Glycerol 85%     | 17088022-01        | 1              |
| apo-ident                  | Glycerol 85%     | 1808009-02         | 1              |
| apomix                     | Glycerol 85%     | 18253407           | 1              |
| Au.HedingerGmbH&CoKG/Al... | Glycerol 85%     | 40626              | 1              |
| Au.HedingerGmbH&CoKG/Al... | Glycerol 85%     | 40678              | 3              |
| aug. hedinger GmbH & Co... | Glycerol 85%     | 40579              | 1              |
| Aug. Hedinger GmbH & Co    | Glycerol 85%     | 40519              | 1              |
| Aug. Hedinger              | Glycerol 85%     | 40566              | 2              |
| Aug. Hedinger              | Glycerol 85%     | 40586              | 1              |
| Aug. Hedinger              | Glycerol 85%     | 40607              | 1              |
| August Hed./               | Glycerol 85%     | 40678              | 4              |
| August Hedinger/Gehe       | Glycerol 85%     | 40667              | 3              |
| August Hedinger/Jenne      | Glycerol 85%     | 40678              | 1              |
| August Hedinger/Jenne      | Glycerol 85%     | 40690              | 2              |
| August Hedinger/Jenne      | Glycerol 85%     | 40708              | 1              |
| August Hedinger            | Glycerol 85%     | 40557              | 1              |
| BambynekFiebig             | Glycerol 85%     | 18000211           | 1              |
| BambynekFiebig             | Glycerol 85%     | 18004342           | 1              |
| Bartel/Sanacorp            | Glycerol 85%     | 40515              | 1              |
| Bartel                     | Glycerol 85%     | 40475              | 1              |
| Bartel                     | Glycerol 85%     | 40584              | 1              |
| Beyers                     | Glycerol 85%     | 19002              | 1              |
| Beyvers GmbH               | Glycerol 85%     | 19001              | 1              |
| Bombastus                  | Glycerol 85%     | 105698             | 1              |
| Bombastus                  | Glycerol 85%     | 1502010-01         | 1              |
| Bombastus                  | Glycerol 85%     | 15146303           | 1              |
| Bombastus                  | Glycerol 85%     | 1607037-01         | 1              |
| Bombastus                  | Glycerol 85%     | 1708022-01         | 4              |
| Bombastus                  | Glycerol 85%     | 17157703           | 1              |
| Bombastus                  | Glycerol 85%     | 18000211           | 6              |
| Bombastus                  | Glycerol 85%     | 18000212           | 2              |
| Bombastus                  | Glycerol 85%     | 18001893           | 4              |
| Bombastus                  | Glycerol 85%     | 18001896           | 5              |
| Bombastus                  | Glycerol 85%     | 18004342           | 8              |
| Bombastus                  | Glycerol 85%     | 18004343           | 5              |
| Bombastus                  | Glycerol 85%     | 18005462           | 10             |
| Bombastus                  | Glycerol 85%     | 18005463           | 18             |
| Bombastus                  | Glycerol 85%     | 1805463            | 1              |
| Bombastus                  | Glycerol 85%     | 1808009-01         | 1              |
| Bombastus                  | Glycerol 85%     | 19000626           | 1              |
| Bombastus                  | Glycerol 85%     | 19000627           | 9              |
| Bombastus                  | Glycerol 85%     | 19000628           | 10             |
| Bombastus                  | Glycerol 85%     | 19004185P-191101-3 | 1              |
| Bombastus                  | Glycerol 85%     | 19004186           | 11             |
| Bombastus                  | Glycerol 85%     | 19004187           | 5              |
| Bombastus                  | Glycerol 85%     | 1900627            | 2              |
| Bombastus                  | Glycerol 85%     | 19006534           | 1              |
| Bombastus                  | Glycerol 85%     | 19006535           | 6              |
| Bombastus                  | Glycerol 85%     | 200000557          | 1              |
| Bombastus                  | Glycerol 85%     | 20000556           | 1              |
| Bombastus                  | Glycerol 85%     | 20000557           | 3              |
| Bombastus                  | Glycerol 85%     | 20000558           | 5              |
| Bombastus                  | Glycerol 85%     | 20001470           | 2              |
| Bombastus                  | Glycerol 85%     | 20001471           | 7              |
| Bombastus                  | Glycerol 85%     | 20001473           | 13             |
| Bombastus                  | Glycerol 85%     | 20001631           | 3              |
| Bombastus                  | Glycerol 85%     | 20001632           | 7              |
| Bombastus                  | Glycerol 85%     | 20001746           | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Glycerol 85%     | 20001747     | 6              |
| Bombastus       | Glycerol 85%     | 20001748     | 15             |
| Bombastus       | Glycerol 85%     | 20002101     | 2              |
| Bombastus       | Glycerol 85%     | 20002102     | 2              |
| Bombastus       | Glycerol 85%     | 260914PAS01  | 1              |
| Bombastus       | Glycerol 85%     | 266037       | 1              |
| Bombastus       | Glycerol 85%     | 266584       | 1              |
| Bombastus       | Glycerol 85%     | 269070       | 2              |
| Bombastus       | Glycerol 85%     | 272305       | 6              |
| Bombastus       | Glycerol 85%     | 275075       | 2              |
| Bombastus       | Glycerol 85%     | 275076       | 1              |
| Bombastus       | Glycerol 85%     | 276850       | 2              |
| Bombastus       | Glycerol 85%     | 276852       | 3              |
| Bombastus       | Glycerol 85%     | 278655       | 1              |
| Bombastus       | Glycerol 85%     | 279852       | 4              |
| Bombastus       | Glycerol 85%     | 280855       | 1              |
| Bombastus       | Glycerol 85%     | 28111803     | 1              |
| Bombastus       | Glycerol 85%     | 2812731      | 1              |
| Bombastus       | Glycerol 85%     | 2823731      | 1              |
| Bombastus       | Glycerol 85%     | 282731       | 8              |
| Bombastus       | Glycerol 85%     | 283567       | 2              |
| Bombastus       | Glycerol 85%     | 284400       | 5              |
| Bombastus       | Glycerol 85%     | 284401       | 1              |
| Bombastus       | Glycerol 85%     | 285366       | 5              |
| Bombastus       | Glycerol 85%     | 287120       | 4              |
| Bombastus       | Glycerol 85%     | 287890       | 2              |
| Bombastus       | Glycerol 85%     | 289295       | 6              |
| Bombastus       | Glycerol 85%     | 289296       | 2              |
| Bombastus       | Glycerol 85%     | 290715       | 3              |
| Bombastus       | Glycerol 85%     | 291085       | 4              |
| Bombastus       | Glycerol 85%     | 291086       | 5              |
| Bombastus       | Glycerol 85%     | 292791       | 16             |
| Bombastus       | Glycerol 85%     | 293387       | 4              |
| Bombastus       | Glycerol 85%     | 294927       | 4              |
| Bombastus       | Glycerol 85%     | 295501       | 7              |
| Bombastus       | Glycerol 85%     | 295502       | 2              |
| Bombastus       | Glycerol 85%     | 296480       | 3              |
| Bombastus       | Glycerol 85%     | 296481       | 7              |
| Bombastus       | Glycerol 85%     | 297034       | 3              |
| Bombastus       | Glycerol 85%     | 298592       | 3              |
| Bombastus       | Glycerol 85%     | 298593       | 8              |
| Bombastus       | Glycerol 85%     | 298594       | 2              |
| Bombastus       | Glycerol 85%     | 300393       | 1              |
| Bombastus       | Glycerol 85%     | 300394       | 6              |
| Bombastus       | Glycerol 85%     | 300395       | 7              |
| Bombastus       | Glycerol 85%     | 301816       | 6              |
| Bombastus       | Glycerol 85%     | 301817       | 7              |
| Bombastus       | Glycerol 85%     | 301818       | 3              |
| Bombastus       | Glycerol 85%     | 302749       | 8              |
| Bombastus       | Glycerol 85%     | 302750       | 2              |
| Bombastus       | Glycerol 85%     | 302751       | 4              |
| Bombastus       | Glycerol 85%     | 305199       | 1              |
| Bombastus       | Glycerol 85%     | 305200       | 7              |
| Bombastus       | Glycerol 85%     | 305201       | 7              |
| Bombastus       | Glycerol 85%     | 306829       | 10             |
| Bombastus       | Glycerol 85%     | 306830       | 11             |
| Bombastus       | Glycerol 85%     | 308737       | 4              |
| Bombastus       | Glycerol 85%     | 308738       | 7              |
| Bombastus       | Glycerol 85%     | 310592       | 12             |
| Bombastus       | Glycerol 85%     | 310593       | 8              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Glycerol 85%     | 40215PK01    | 1              |
| Bombastus       | Glycerol 85%     | 40635        | 1              |
| Bombastus       | Glycerol 85%     | 5065101      | 1              |
| Bombastus       | Glycerol 85%     | 5067091      | 1              |
| Bombastus       | Glycerol 85%     | 60081703     | 1              |
| Bombastus       | Glycerol 85%     | 6474         | 1              |
| Bombastus       | Glycerol 85%     | ChB18000212  | 1              |
| Bombstus        | Glycerol 85%     | 296481       | 1              |
| Caelo           | Glycerol 85%     |              | 8              |
| Caelo           | Glycerol 85%     | 1000006424   | 1              |
| Caelo           | Glycerol 85%     | 1000007843   | 1              |
| Caelo           | Glycerol 85%     | 1043003      | 1              |
| Caelo           | Glycerol 85%     | 1113E-01589  | 1              |
| Caelo           | Glycerol 85%     | 112117302    | 1              |
| Caelo           | Glycerol 85%     | 11217302     | 1              |
| Caelo           | Glycerol 85%     | 11217303     | 1              |
| Caelo           | Glycerol 85%     | 11324201     | 3              |
| Caelo           | Glycerol 85%     | 11324202     | 2              |
| Caelo           | Glycerol 85%     | 11324208     | 1              |
| Caelo           | Glycerol 85%     | 11355301     | 1              |
| Caelo           | Glycerol 85%     | 12069601     | 1              |
| Caelo           | Glycerol 85%     | 12069603     | 1              |
| Caelo           | Glycerol 85%     | 12069604     | 1              |
| Caelo           | Glycerol 85%     | 12069605     | 1              |
| Caelo           | Glycerol 85%     | 12108201     | 19             |
| Caelo           | Glycerol 85%     | 12108206     | 1              |
| Caelo           | Glycerol 85%     | 1213E-01589  | 1              |
| Caelo           | Glycerol 85%     | 1215302      | 1              |
| Caelo           | Glycerol 85%     | 12216601     | 6              |
| Caelo           | Glycerol 85%     | 12216602     | 5              |
| Caelo           | Glycerol 85%     | 12216603     | 15             |
| Caelo           | Glycerol 85%     | 12216604     | 3              |
| Caelo           | Glycerol 85%     | 12216606     | 12             |
| Caelo           | Glycerol 85%     | 12273604     | 23             |
| Caelo           | Glycerol 85%     | 12278501     | 1              |
| Caelo           | Glycerol 85%     | 12278502     | 1              |
| Caelo           | Glycerol 85%     | 12278507     | 3              |
| Caelo           | Glycerol 85%     | 12278508     | 3              |
| Caelo           | Glycerol 85%     | 123142       | 2              |
| Caelo           | Glycerol 85%     | 123456       | 1              |
| Caelo           | Glycerol 85%     | 123464       | 2              |
| Caelo           | Glycerol 85%     | 1290317      | 1              |
| Caelo           | Glycerol 85%     | 1292201      | 1              |
| Caelo           | Glycerol 85%     | 13039202     | 6              |
| Caelo           | Glycerol 85%     | 13039203     | 19             |
| Caelo           | Glycerol 85%     | 13039204     | 23             |
| Caelo           | Glycerol 85%     | 13060001     | 4              |
| Caelo           | Glycerol 85%     | 13060002     | 2              |
| Caelo           | Glycerol 85%     | 13060006     | 2              |
| Caelo           | Glycerol 85%     | 13060007     | 4              |
| Caelo           | Glycerol 85%     | 1309202      | 1              |
| Caelo           | Glycerol 85%     | 1309203      | 1              |
| Caelo           | Glycerol 85%     | 1309204      | 1              |
| Caelo           | Glycerol 85%     | 13144604     | 6              |
| Caelo           | Glycerol 85%     | 13144605     | 19             |
| Caelo           | Glycerol 85%     | 13144606     | 6              |
| Caelo           | Glycerol 85%     | 13144607     | 21             |
| Caelo           | Glycerol 85%     | 13205003     | 1              |
| Caelo           | Glycerol 85%     | 13248201     | 13             |
| Caelo           | Glycerol 85%     | 13248204     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Glycerol 85%     | 13276024     | 1              |
| Caelo           | Glycerol 85%     | 1327603      | 1              |
| Caelo           | Glycerol 85%     | 13276201     | 2              |
| Caelo           | Glycerol 85%     | 13276202     | 1              |
| Caelo           | Glycerol 85%     | 13276203     | 17             |
| Caelo           | Glycerol 85%     | 13276204     | 11             |
| Caelo           | Glycerol 85%     | 13276205     | 21             |
| Caelo           | Glycerol 85%     | 13276206     | 1              |
| Caelo           | Glycerol 85%     | 13276208     | 3              |
| Caelo           | Glycerol 85%     | 13356402     | 1              |
| Caelo           | Glycerol 85%     | 13356403     | 4              |
| Caelo           | Glycerol 85%     | 13356404     | 10             |
| Caelo           | Glycerol 85%     | 13356405     | 12             |
| Caelo           | Glycerol 85%     | 13356406     | 11             |
| Caelo           | Glycerol 85%     | 13396407     | 1              |
| Caelo           | Glycerol 85%     | 13406202     | 9              |
| Caelo           | Glycerol 85%     | 13406203     | 1              |
| Caelo           | Glycerol 85%     | 13406204     | 6              |
| Caelo           | Glycerol 85%     | 13406205     | 4              |
| Caelo           | Glycerol 85%     | 135406204    | 1              |
| Caelo           | Glycerol 85%     | 140113PML02  | 1              |
| Caelo           | Glycerol 85%     | 1404024-01   | 1              |
| Caelo           | Glycerol 85%     | 1405021      | 1              |
| Caelo           | Glycerol 85%     | 14061701     | 1              |
| Caelo           | Glycerol 85%     | 1409035-01   | 2              |
| Caelo           | Glycerol 85%     | 14101304     | 1              |
| Caelo           | Glycerol 85%     | 14148103     | 5              |
| Caelo           | Glycerol 85%     | 14148104     | 3              |
| Caelo           | Glycerol 85%     | 14148105     | 1              |
| Caelo           | Glycerol 85%     | 14148106     | 2              |
| Caelo           | Glycerol 85%     | 14149403     | 6              |
| Caelo           | Glycerol 85%     | 14149404     | 11             |
| Caelo           | Glycerol 85%     | 14149406     | 13             |
| Caelo           | Glycerol 85%     | 14149409     | 1              |
| Caelo           | Glycerol 85%     | 14149410     | 21             |
| Caelo           | Glycerol 85%     | 14149411     | 15             |
| Caelo           | Glycerol 85%     | 14149404     | 1              |
| Caelo           | Glycerol 85%     | 1418103      | 1              |
| Caelo           | Glycerol 85%     | 1418E-01589  | 1              |
| Caelo           | Glycerol 85%     | 1419411      | 1              |
| Caelo           | Glycerol 85%     | 14194911     | 1              |
| Caelo           | Glycerol 85%     | 14249301     | 4              |
| Caelo           | Glycerol 85%     | 14306202     | 1              |
| Caelo           | Glycerol 85%     | 14306203     | 18             |
| Caelo           | Glycerol 85%     | 14306204     | 12             |
| Caelo           | Glycerol 85%     | 14306205     | 8              |
| Caelo           | Glycerol 85%     | 14373412     | 1              |
| Caelo           | Glycerol 85%     | 15036901     | 1              |
| Caelo           | Glycerol 85%     | 15036902     | 10             |
| Caelo           | Glycerol 85%     | 15036903     | 15             |
| Caelo           | Glycerol 85%     | 15036904     | 20             |
| Caelo           | Glycerol 85%     | 15036905     | 2              |
| Caelo           | Glycerol 85%     | 15049801     | 3              |
| Caelo           | Glycerol 85%     | 15050101     | 2              |
| Caelo           | Glycerol 85%     | 15050102     | 8              |
| Caelo           | Glycerol 85%     | 1506036-01   | 1              |
| Caelo           | Glycerol 85%     | 15071703     | 1              |
| Caelo           | Glycerol 85%     | 1509023-01   | 2              |
| Caelo           | Glycerol 85%     | 15115005     | 4              |
| Caelo           | Glycerol 85%     | 15121803     | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Glycerol 85%     | 1514604          | 1              |
| Caelo           | Glycerol 85%     | 15146301         | 6              |
| Caelo           | Glycerol 85%     | 15146303         | 1              |
| Caelo           | Glycerol 85%     | 15146304         | 2              |
| Caelo           | Glycerol 85%     | 15146305         | 4              |
| Caelo           | Glycerol 85%     | 15146307         | 1              |
| Caelo           | Glycerol 85%     | 15283503         | 2              |
| Caelo           | Glycerol 85%     | 15283504         | 1              |
| Caelo           | Glycerol 85%     | 15283505         | 1              |
| Caelo           | Glycerol 85%     | 15283506         | 5              |
| Caelo           | Glycerol 85%     | 1528503          | 1              |
| Caelo           | Glycerol 85%     | 1529201          | 1              |
| Caelo           | Glycerol 85%     | 1529202          | 1              |
| Caelo           | Glycerol 85%     | 15292201         | 18             |
| Caelo           | Glycerol 85%     | 15292202         | 18             |
| Caelo           | Glycerol 85%     | 15292203         | 21             |
| Caelo           | Glycerol 85%     | 15292204         | 32             |
| Caelo           | Glycerol 85%     | 15292205         | 24             |
| Caelo           | Glycerol 85%     | 1536902          | 1              |
| Caelo           | Glycerol 85%     | 15378201         | 1              |
| Caelo           | Glycerol 85%     | 153782019        | 1              |
| Caelo           | Glycerol 85%     | 15378202         | 16             |
| Caelo           | Glycerol 85%     | 153782021Flasche | 1              |
| Caelo           | Glycerol 85%     | 15378203         | 17             |
| Caelo           | Glycerol 85%     | 153782032Flasche | 1              |
| Caelo           | Glycerol 85%     | 15378205         | 2              |
| Caelo           | Glycerol 85%     | 15378209         | 3              |
| Caelo           | Glycerol 85%     | 15378210         | 2              |
| Caelo           | Glycerol 85%     | 15378212         | 1              |
| Caelo           | Glycerol 85%     | 15379201         | 7              |
| Caelo           | Glycerol 85%     | 15379207         | 4              |
| Caelo           | Glycerol 85%     | 15379208         | 4              |
| Caelo           | Glycerol 85%     | 15404502         | 1              |
| Caelo           | Glycerol 85%     | 15404503         | 2              |
| Caelo           | Glycerol 85%     | 15404504         | 9              |
| Caelo           | Glycerol 85%     | 15404505         | 4              |
| Caelo           | Glycerol 85%     | 15404511         | 1              |
| Caelo           | Glycerol 85%     | 1601059          | 1              |
| Caelo           | Glycerol 85%     | 1601059-01       | 10             |
| Caelo           | Glycerol 85%     | 160215301        | 1              |
| Caelo           | Glycerol 85%     | 16023504         | 1              |
| Caelo           | Glycerol 85%     | 16063701         | 30             |
| Caelo           | Glycerol 85%     | 16063702         | 28             |
| Caelo           | Glycerol 85%     | 160637025        | 1              |
| Caelo           | Glycerol 85%     | 16063706         | 3              |
| Caelo           | Glycerol 85%     | 16063707         | 4              |
| Caelo           | Glycerol 85%     | 16063714         | 1              |
| Caelo           | Glycerol 85%     | 1607037          | 1              |
| Caelo           | Glycerol 85%     | 1607037-01       | 1              |
| Caelo           | Glycerol 85%     | 161003201        | 2              |
| Caelo           | Glycerol 85%     | 1610032-01       | 11             |
| Caelo           | Glycerol 85%     | 161006201        | 1              |
| Caelo           | Glycerol 85%     | 16121301         | 1              |
| Caelo           | Glycerol 85%     | 16215301         | 19             |
| Caelo           | Glycerol 85%     | 16215302         | 26             |
| Caelo           | Glycerol 85%     | 16215303         | 34             |
| Caelo           | Glycerol 85%     | 16215304         | 1              |
| Caelo           | Glycerol 85%     | 16215308         | 1              |
| Caelo           | Glycerol 85%     | 16215309         | 1              |
| Caelo           | Glycerol 85%     | 16215310         | 4              |

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| Supplier | Substance    | Batch                | Spectra |
|----------|--------------|----------------------|---------|
| Caelo    | Glycerol 85% | 1621806              | 1       |
| Caelo    | Glycerol 85% | 16218901             | 17      |
| Caelo    | Glycerol 85% | 16218902             | 8       |
| Caelo    | Glycerol 85% | 16218903             | 1       |
| Caelo    | Glycerol 85% | 16218906             | 9       |
| Caelo    | Glycerol 85% | 16218907             | 2       |
| Caelo    | Glycerol 85% | 1625303              | 1       |
| Caelo    | Glycerol 85% | 1629706              | 1       |
| Caelo    | Glycerol 85% | 16297802             | 2       |
| Caelo    | Glycerol 85% | 16297803             | 23      |
| Caelo    | Glycerol 85% | 16297806             | 61      |
| Caelo    | Glycerol 85% | 16297806/P-12061721  | 1       |
| Caelo    | Glycerol 85% | 16297808             | 4       |
| Caelo    | Glycerol 85% | 16297809             | 2       |
| Caelo    | Glycerol 85% | 1634702              | 1       |
| Caelo    | Glycerol 85% | 16347202             | 10      |
| Caelo    | Glycerol 85% | 16347203             | 3       |
| Caelo    | Glycerol 85% | 16347205             | 1       |
| Caelo    | Glycerol 85% | 16347206             | 6       |
| Caelo    | Glycerol 85% | 16347208             | 22      |
| Caelo    | Glycerol 85% | 16347209             | 6       |
| Caelo    | Glycerol 85% | 163472202-20171106Ma | 1       |
| Caelo    | Glycerol 85% | 16355001             | 4       |
| Caelo    | Glycerol 85% | 16355002             | 39      |
| Caelo    | Glycerol 85% | 16355005             | 4       |
| Caelo    | Glycerol 85% | 169215903            | 1       |
| Caelo    | Glycerol 85% | 16963701             | 1       |
| Caelo    | Glycerol 85% | 1697803              | 1       |
| Caelo    | Glycerol 85% | 1703003-01           | 7       |
| Caelo    | Glycerol 85% | 17061404             | 1       |
| Caelo    | Glycerol 85% | 17070193/1           | 1       |
| Caelo    | Glycerol 85% | 1708022-01           | 8       |
| Caelo    | Glycerol 85% | 170822-01            | 1       |
| Caelo    | Glycerol 85% | 171121G/17157702     | 1       |
| Caelo    | Glycerol 85% | 17157702             | 91      |
| Caelo    | Glycerol 85% | 171577020            | 1       |
| Caelo    | Glycerol 85% | 17157704             | 1       |
| Caelo    | Glycerol 85% | 17157707             | 1       |
| Caelo    | Glycerol 85% | 1715772              | 1       |
| Caelo    | Glycerol 85% | 17157911             | 1       |
| Caelo    | Glycerol 85% | 17197701             | 4       |
| Caelo    | Glycerol 85% | 17197702             | 2       |
| Caelo    | Glycerol 85% | 17197705             | 1       |
| Caelo    | Glycerol 85% | 17197706             | 15      |
| Caelo    | Glycerol 85% | 17215501             | 55      |
| Caelo    | Glycerol 85% | 17215502             | 7       |
| Caelo    | Glycerol 85% | 17215503             | 2       |
| Caelo    | Glycerol 85% | 17300301             | 1       |
| Caelo    | Glycerol 85% | 17322101             | 56      |
| Caelo    | Glycerol 85% | 17322104             | 69      |
| Caelo    | Glycerol 85% | 17322105             | 7       |
| Caelo    | Glycerol 85% | 17322107             | 16      |
| Caelo    | Glycerol 85% | 17322108             | 5       |
| Caelo    | Glycerol 85% | 17328201             | 5       |
| Caelo    | Glycerol 85% | 17328202             | 2       |
| Caelo    | Glycerol 85% | 1733322107           | 1       |
| Caelo    | Glycerol 85% | 1738202              | 1       |
| Caelo    | Glycerol 85% | 18000211             | 2       |
| Caelo    | Glycerol 85% | 18001                | 1       |
| Caelo    | Glycerol 85% | 18001896             | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-----------------|------------------|----------------------|----------------|
| Caelo           | Glycerol 85%     | 18005463             | 3              |
| Caelo           | Glycerol 85%     | 1801025-01           | 1              |
| Caelo           | Glycerol 85%     | 180200               | 1              |
| Caelo           | Glycerol 85%     | 18020001             | 5              |
| Caelo           | Glycerol 85%     | 18020002             | 45             |
| Caelo           | Glycerol 85%     | 18020002-G20190115Ma | 1              |
| Caelo           | Glycerol 85%     | 18020004             | 2              |
| Caelo           | Glycerol 85%     | 18020005             | 5              |
| Caelo           | Glycerol 85%     | 1802002              | 2              |
| Caelo           | Glycerol 85%     | 1804017-01           | 5              |
| Caelo           | Glycerol 85%     | 1808009-01           | 3              |
| Caelo           | Glycerol 85%     | 181108185            | 1              |
| Caelo           | Glycerol 85%     | 181108186            | 1              |
| Caelo           | Glycerol 85%     | 18153702             | 73             |
| Caelo           | Glycerol 85%     | 18153703             | 7              |
| Caelo           | Glycerol 85%     | 18153705             | 3              |
| Caelo           | Glycerol 85%     | 18153706             | 4              |
| Caelo           | Glycerol 85%     | 18177005             | 1              |
| Caelo           | Glycerol 85%     | 18240901             | 43             |
| Caelo           | Glycerol 85%     | 18240903             | 1              |
| Caelo           | Glycerol 85%     | 18253401             | 7              |
| Caelo           | Glycerol 85%     | 18253402             | 36             |
| Caelo           | Glycerol 85%     | 18253404             | 52             |
| Caelo           | Glycerol 85%     | 18253406             | 10             |
| Caelo           | Glycerol 85%     | 18253407             | 2              |
| Caelo           | Glycerol 85%     | 182553404            | 1              |
| Caelo           | Glycerol 85%     | 183270               | 1              |
| Caelo           | Glycerol 85%     | 18327001             | 3              |
| Caelo           | Glycerol 85%     | 18327003             | 19             |
| Caelo           | Glycerol 85%     | 18327004             | 1              |
| Caelo           | Glycerol 85%     | 18327008             | 1              |
| Caelo           | Glycerol 85%     | 19000628             | 2              |
| Caelo           | Glycerol 85%     | 190011201            | 1              |
| Caelo           | Glycerol 85%     | 1901041-01           | 1              |
| Caelo           | Glycerol 85%     | 19011201             | 34             |
| Caelo           | Glycerol 85%     | 19011202             | 5              |
| Caelo           | Glycerol 85%     | 19011203             | 36             |
| Caelo           | Glycerol 85%     | 19011204             | 6              |
| Caelo           | Glycerol 85%     | 19011208             | 15             |
| Caelo           | Glycerol 85%     | 19011209             | 12             |
| Caelo           | Glycerol 85%     | 19021301             | 1              |
| Caelo           | Glycerol 85%     | 19021809             | 1              |
| Caelo           | Glycerol 85%     | 1906019-01           | 1              |
| Caelo           | Glycerol 85%     | 1910011-01           | 1              |
| Caelo           | Glycerol 85%     | 1912440              | 1              |
| Caelo           | Glycerol 85%     | 19124401             | 47             |
| Caelo           | Glycerol 85%     | 19124402             | 6              |
| Caelo           | Glycerol 85%     | 19124404             | 5              |
| Caelo           | Glycerol 85%     | 191883001            | 8              |
| Caelo           | Glycerol 85%     | 191883002            | 15             |
| Caelo           | Glycerol 85%     | 19188301             | 33             |
| Caelo           | Glycerol 85%     | 19188302             | 2              |
| Caelo           | Glycerol 85%     | 19188303             | 1              |
| Caelo           | Glycerol 85%     | 19188304             | 6              |
| Caelo           | Glycerol 85%     | 19209501             | 52             |
| Caelo           | Glycerol 85%     | 19209502             | 8              |
| Caelo           | Glycerol 85%     | 19235701             | 6              |
| Caelo           | Glycerol 85%     | 192976002            | 7              |
| Caelo           | Glycerol 85%     | 192976003            | 1              |
| Caelo           | Glycerol 85%     | 192976004            | 32             |

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| Supplier | Substance    | Batch        | Spectra |
|----------|--------------|--------------|---------|
| Caelo    | Glycerol 85% | 192976005    | 3       |
| Caelo    | Glycerol 85% | 192976006    | 45      |
| Caelo    | Glycerol 85% | 192976007    | 2       |
| Caelo    | Glycerol 85% | 2/AKD52      | 1       |
| Caelo    | Glycerol 85% | 200001747001 | 1       |
| Caelo    | Glycerol 85% | 200004043002 | 1       |
| Caelo    | Glycerol 85% | 20000941002  | 3       |
| Caelo    | Glycerol 85% | 20000941003  | 19      |
| Caelo    | Glycerol 85% | 200010043002 | 1       |
| Caelo    | Glycerol 85% | 2000104003   | 1       |
| Caelo    | Glycerol 85% | 20001043     | 1       |
| Caelo    | Glycerol 85% | 20001043002  | 12      |
| Caelo    | Glycerol 85% | 20001043003  | 66      |
| Caelo    | Glycerol 85% | 20001043004  | 4       |
| Caelo    | Glycerol 85% | 20001043005  | 3       |
| Caelo    | Glycerol 85% | 20001747001  | 12      |
| Caelo    | Glycerol 85% | 20001747003  | 3       |
| Caelo    | Glycerol 85% | 20001747004  | 34      |
| Caelo    | Glycerol 85% | 20001747006  | 1       |
| Caelo    | Glycerol 85% | 2000194004   | 1       |
| Caelo    | Glycerol 85% | 20001944004  | 12      |
| Caelo    | Glycerol 85% | 20004043002  | 9       |
| Caelo    | Glycerol 85% | 20004043005  | 6       |
| Caelo    | Glycerol 85% | 20004357001  | 13      |
| Caelo    | Glycerol 85% | 20004357002  | 2       |
| Caelo    | Glycerol 85% | 20004357004  | 20      |
| Caelo    | Glycerol 85% | 20004357005  | 2       |
| Caelo    | Glycerol 85% | 2001043003   | 2       |
| Caelo    | Glycerol 85% | 2001747004   | 2       |
| Caelo    | Glycerol 85% | 2004357004   | 1       |
| Caelo    | Glycerol 85% | 2004357005   | 1       |
| Caelo    | Glycerol 85% | 20061210     | 1       |
| Caelo    | Glycerol 85% | 2013A-01589  | 1       |
| Caelo    | Glycerol 85% | 20211212-2   | 1       |
| Caelo    | Glycerol 85% | 21000360003  | 8       |
| Caelo    | Glycerol 85% | 21001879003  | 1       |
| Caelo    | Glycerol 85% | 21001879004  | 4       |
| Caelo    | Glycerol 85% | 21002666002  | 7       |
| Caelo    | Glycerol 85% | 213E-01589   | 1       |
| Caelo    | Glycerol 85% | 23051813     | 1       |
| Caelo    | Glycerol 85% | 23081201     | 1       |
| Caelo    | Glycerol 85% | 24021402     | 1       |
| Caelo    | Glycerol 85% | 2405211589   | 1       |
| Caelo    | Glycerol 85% | 24101401     | 1       |
| Caelo    | Glycerol 85% | 2413Q01589   | 1       |
| Caelo    | Glycerol 85% | 2714M-01589  | 1       |
| Caelo    | Glycerol 85% | 271511       | 1       |
| Caelo    | Glycerol 85% | 2891         | 1       |
| Caelo    | Glycerol 85% | 300395       | 1       |
| Caelo    | Glycerol 85% | 30041804     | 1       |
| Caelo    | Glycerol 85% | 30081805     | 1       |
| Caelo    | Glycerol 85% | 3018I-01589  | 1       |
| Caelo    | Glycerol 85% | 305200       | 3       |
| Caelo    | Glycerol 85% | 310592       | 1       |
| Caelo    | Glycerol 85% | 3121202      | 1       |
| Caelo    | Glycerol 85% | 3311         | 1       |
| Caelo    | Glycerol 85% | 40473        | 1       |
| Caelo    | Glycerol 85% | 40481        | 1       |
| Caelo    | Glycerol 85% | 40483        | 1       |
| Caelo    | Glycerol 85% | 40497        | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Glycerol 85%     | 40507        | 2              |
| Caelo           | Glycerol 85%     | 40515        | 2              |
| Caelo           | Glycerol 85%     | 40524        | 2              |
| Caelo           | Glycerol 85%     | 40529        | 1              |
| Caelo           | Glycerol 85%     | 40542        | 4              |
| Caelo           | Glycerol 85%     | 40548        | 2              |
| Caelo           | Glycerol 85%     | 40556        | 1              |
| Caelo           | Glycerol 85%     | 40566        | 3              |
| Caelo           | Glycerol 85%     | 40567        | 1              |
| Caelo           | Glycerol 85%     | 40598        | 1              |
| Caelo           | Glycerol 85%     | 40599        | 2              |
| Caelo           | Glycerol 85%     | 40607        | 2              |
| Caelo           | Glycerol 85%     | 40612        | 3              |
| Caelo           | Glycerol 85%     | 40618        | 1              |
| Caelo           | Glycerol 85%     | 40625        | 1              |
| Caelo           | Glycerol 85%     | 40626        | 1              |
| Caelo           | Glycerol 85%     | 40629        | 1              |
| Caelo           | Glycerol 85%     | 40635        | 1              |
| Caelo           | Glycerol 85%     | 40641        | 1              |
| Caelo           | Glycerol 85%     | 40642        | 1              |
| Caelo           | Glycerol 85%     | 40646        | 1              |
| Caelo           | Glycerol 85%     | 40647        | 1              |
| Caelo           | Glycerol 85%     | 40649        | 1              |
| Caelo           | Glycerol 85%     | 40652        | 2              |
| Caelo           | Glycerol 85%     | 40655        | 7              |
| Caelo           | Glycerol 85%     | 40670        | 1              |
| Caelo           | Glycerol 85%     | 40673        | 1              |
| Caelo           | Glycerol 85%     | 40678        | 2              |
| Caelo           | Glycerol 85%     | 40680        | 1              |
| Caelo           | Glycerol 85%     | 4121702      | 1              |
| Caelo           | Glycerol 85%     | 4617M-01589  | 1              |
| Caelo           | Glycerol 85%     | 465911       | 1              |
| Caelo           | Glycerol 85%     | 4711A-01589  | 1              |
| Caelo           | Glycerol 85%     | 4717A-01589  | 1              |
| Caelo           | Glycerol 85%     | 5015Q-01589  | 1              |
| Caelo           | Glycerol 85%     | 5051501      | 1              |
| Caelo           | Glycerol 85%     | 5060012      | 1              |
| Caelo           | Glycerol 85%     | 506012       | 1              |
| Caelo           | Glycerol 85%     | 5062012      | 4              |
| Caelo           | Glycerol 85%     | 5062052      | 1              |
| Caelo           | Glycerol 85%     | 5062111      | 1              |
| Caelo           | Glycerol 85%     | 5062121      | 1              |
| Caelo           | Glycerol 85%     | 5063111      | 2              |
| Caelo           | Glycerol 85%     | 5064011      | 3              |
| Caelo           | Glycerol 85%     | 5064021      | 2              |
| Caelo           | Glycerol 85%     | 5064091      | 1              |
| Caelo           | Glycerol 85%     | 5065061      | 1              |
| Caelo           | Glycerol 85%     | 5065081      | 1              |
| Caelo           | Glycerol 85%     | 5065111      | 2              |
| Caelo           | Glycerol 85%     | 5066071      | 1              |
| Caelo           | Glycerol 85%     | 5066081      | 3              |
| Caelo           | Glycerol 85%     | 5066101      | 3              |
| Caelo           | Glycerol 85%     | 5066111      | 4              |
| Caelo           | Glycerol 85%     | 5067011      | 2              |
| Caelo           | Glycerol 85%     | 5067031      | 1              |
| Caelo           | Glycerol 85%     | 5067061      | 1              |
| Caelo           | Glycerol 85%     | 5067081      | 2              |
| Caelo           | Glycerol 85%     | 5067111      | 2              |
| Caelo           | Glycerol 85%     | 5068012      | 2              |
| Caelo           | Glycerol 85%     | 5068021      | 1              |

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| Supplier                   | Substance    | Batch          | Spectra |
|----------------------------|--------------|----------------|---------|
| Caelo                      | Glycerol 85% | 5068031        | 2       |
| Caelo                      | Glycerol 85% | 5068081        | 1       |
| Caelo                      | Glycerol 85% | 5068101        | 1       |
| Caelo                      | Glycerol 85% | 5069051        | 1       |
| Caelo                      | Glycerol 85% | 5x12273604     | 1       |
| Caelo                      | Glycerol 85% | 5x13039203     | 1       |
| Caelo                      | Glycerol 85% | 607211589      | 1       |
| Caelo                      | Glycerol 85% | 613Q-01589     | 1       |
| Caelo                      | Glycerol 85% | 703003-01      | 1       |
| Caelo                      | Glycerol 85% | 70913Gly       | 1       |
| Caelo                      | Glycerol 85% | 73/AKD2        | 1       |
| Caelo                      | Glycerol 85% | 7406HH7011     | 1       |
| Caelo                      | Glycerol 85% | 8004808001     | 1       |
| Caelo                      | Glycerol 85% | 8121402        | 1       |
| Caelo                      | Glycerol 85% | B-19188301     | 1       |
| Caelo                      | Glycerol 85% | BE-08675/37460 | 1       |
| Caelo                      | Glycerol 85% | CHB17328201    | 1       |
| Caelo                      | Glycerol 85% | G-080220-1     | 1       |
| Caelo                      | Glycerol 85% | nnnnnn         | 1       |
| Caelo                      | Glycerol 85% | P136/14        | 1       |
| Caelo                      | Glycerol 85% | P4114A-01589   | 1       |
| Caeol/ Noweda              | Glycerol 85% | 15378203       | 1       |
| Caeol/Phoenix              | Glycerol 85% | 15292203       | 1       |
| Caeol/Phönix               | Glycerol 85% | 16215303       | 1       |
| Caeol/Phönix               | Glycerol 85% | 16297806       | 1       |
| Caeolo/Gehe                | Glycerol 85% | 16297802       | 3       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 20001944004    | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 20000941003    | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 20001043004    | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 18153702       | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 18253404       | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 19011208       | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 192976006      | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 5060062        | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 192976006      | 1       |
| Caesar & Loretz GmbH / ... | Glycerol 85% | 19209501       | 1       |
| Caesar & Loretz GmbH /N... | Glycerol 85% | 192976004      | 1       |
| Caesar & Loretz GmbH An... | Glycerol 85% | 19124401       | 1       |
| Caesar & Loretz GmbH Hi... | Glycerol 85% | 13144607       | 1       |
| Caesar & Loretz GmbH Hi... | Glycerol 85% | 15292204       | 1       |
| Caesar & Loretz GmbH Hi... | Glycerol 85% | 16063702       | 1       |
| Caesar & Loretz GmbH Ph... | Glycerol 85% | 19124401       | 1       |
| Caesar & Loretz GmbH/ G... | Glycerol 85% | 192976006      | 1       |
| Caesar & Loretz GmbH/ J... | Glycerol 85% | 20001043003    | 1       |
| Caesar & Loretz GmbH/ J... | Glycerol 85% | 20001747004    | 1       |
| Caesar & Loretz GmbH/ K... | Glycerol 85% | 19209501       | 1       |
| Caesar & Loretz GmbH/ P... | Glycerol 85% | 191883002      | 1       |
| Caesar & Loretz GmbH/AEP   | Glycerol 85% | 20000941003    | 1       |
| Caesar & Loretz GmbH/AHD   | Glycerol 85% | 19188304       | 1       |
| Caesar & Loretz GmbH/Gehe  | Glycerol 85% | 19209501       | 1       |
| Caesar & Loretz GmbH/Gehe  | Glycerol 85% | 20000941003    | 1       |
| Caesar & Loretz GmbH/GEHE  | Glycerol 85% | 20001747004    | 1       |
| Caesar & Loretz GmbH/Gehe  | Glycerol 85% | 20004043005    | 1       |
| Caesar & Loretz GmbH/Gehe  | Glycerol 85% | 20004357004    | 1       |
| Caesar & Loretz GmbH/Gehe  | Glycerol 85% | 21001879003    | 1       |
| Caesar & Loretz GmbH/Ge... | Glycerol 85% | 200010430003   | 1       |
| Caesar & Loretz GmbH/Ge... | Glycerol 85% | 19011203       | 1       |
| Caesar & Loretz GmbH'/G... | Glycerol 85% | 18240901       | 1       |
| Caesar & Loretz GmbH/Je... | Glycerol 85% | 20001043003    | 2       |
| Caesar & Loretz GmbH/Je... | Glycerol 85% | 19209501       | 3       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH/Je... | Glycerol 85%     | 40673        | 1              |
| Caesar & Loretz GmbH/Kehr  | Glycerol 85%     | 18240901     | 1              |
| Caesar & Loretz GmbH/No... | Glycerol 85%     | 18240903     | 1              |
| Caesar & Loretz GmbH/No... | Glycerol 85%     | 19011201     | 1              |
| Caesar & Loretz GmbH/No... | Glycerol 85%     | 19011209     | 1              |
| Caesar & Loretz GmbH/P     | Glycerol 85%     | 192976004    | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol 85%     | 19011201     | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol 85%     | 19124401     | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol 85%     | 19209501     | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol 85%     | 20001043003  | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol 85%     | 20001944004  | 1              |
| Caesar & Loretz GmbH/Ph... | Glycerol 85%     | 20004357001  | 2              |
| Caesar & Loretz GmbH/Sana  | Glycerol 85%     | 20004357004  | 1              |
| Caesar & Loretz GmbH/Sa... | Glycerol 85%     | 18253402     | 1              |
| Caesar & Loretz GmbH/Sa... | Glycerol 85%     | 19124401     | 1              |
| Caesar & Loretz GmbH/Sa... | Glycerol 85%     | 20000941003  | 1              |
| Caesar & Loretz GmbH/Sa... | Glycerol 85%     | 20001043003  | 2              |
| Caesar & Loretz GmbH/Sa... | Glycerol 85%     | 20004357001  | 1              |
| Caesar & Loretz GmbH/Sp... | Glycerol 85%     | 18253402     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 12108201     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 12216603     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 13144606     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 17157702     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18020002     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18153702     | 3              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18153703     | 1              |
| Caesar & Loretz GmbH'      | Glycerol 85%     | 18153705     | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18240901     | 1              |
| Caesar & Loretz GmbH'      | Glycerol 85%     | 18240901     | 3              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18240902     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18240903     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18253401     | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18253402     | 3              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18253404     | 10             |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18327005     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 18327008     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19004186     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19011201     | 9              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19011202     | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19011203     | 7              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19011204     | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19011208     | 7              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19011209     | 3              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19124401     | 8              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19124402     | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 191883002    | 3              |
| Caesar & Loretz GmbH'      | Glycerol 85%     | 191883002    | 1              |
| Caesar & Loretz GmbH'      | Glycerol 85%     | 19188301     | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19188302     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19188304     | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19209501     | 14             |
| Caesar & Loretz GmbH       | Glycerol 85%     | 19235701     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 192976002    | 3              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 192976004    | 4              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 192976006    | 6              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20000941002  | 3              |
| Caesar & Loretz GmbH'      | Glycerol 85%     | 20000941002  | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20000941003  | 11             |
| Caesar & Loretz GmbH       | Glycerol 85%     | 2000104003   | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20001043002  | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH       | Glycerol 85%     | 20001043003  | 15             |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20001043004  | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20001746     | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20001747004  | 13             |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20001944004  | 4              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20004043002  | 4              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20004043005  | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20004357001  | 6              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 20004357004  | 7              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 21000360003  | 3              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 21001879003  | 3              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 21001879004  | 1              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 21002666002  | 2              |
| Caesar & Loretz GmbH       | Glycerol 85%     | 5060035      | 1              |
| Caesar & Loretz Hilden/... | Glycerol 85%     | 191883002    | 1              |
| Caesar & Loretz/Geilenk... | Glycerol 85%     | 20004043002  | 1              |
| Caesar & Loretz/Geilenk... | Glycerol 85%     | 20004043005  | 1              |
| Caesar & Loretz/Noweda     | Glycerol 85%     | 15379208     | 1              |
| Caesar & Loretz            | Glycerol 85%     | 16215303     | 1              |
| Caesar & Loretz            | Glycerol 85%     | 17322107     | 1              |
| Caesar und Loretz GmbH     | Glycerol 85%     | 17157702     | 1              |
| Caesar&Lorenz              | Glycerol 85%     | 20001747004  | 1              |
| Caesar&Loretz GmbH         | Glycerol 85%     | 13406202     | 2              |
| Caesar&Loretz/Noweda       | Glycerol 85%     | 16218906     | 2              |
| Caesar/Loretz              | Glycerol 85%     | 18153702     | 1              |
| Caesar/Noweda              | Glycerol 85%     | 2611I-01589  | 1              |
| Caleo/ Noweda              | Glycerol 85%     | 17322104     | 1              |
| Caleo/No                   | Glycerol 85%     | 17322107     | 1              |
| Caleo/No                   | Glycerol 85%     | 19011203     | 1              |
| Caleo/No                   | Glycerol 85%     | 19124401     | 1              |
| Caleo/PH                   | Glycerol 85%     | 19011201     | 1              |
| Caleo/ph                   | Glycerol 85%     | 20001043003  | 1              |
| Caleo/Phönix               | Glycerol 85%     | 16355002     | 2              |
| Caleo                      | Glycerol 85%     | 15036903     | 1              |
| Caleo                      | Glycerol 85%     | 15283503     | 1              |
| Caleo                      | Glycerol 85%     | 20000941002  | 2              |
| Calo/Phönix                | Glycerol 85%     | 16297802     | 1              |
| calo                       | Glycerol 85%     | 17322101     | 1              |
| Cealo/ AHD                 | Glycerol 85%     | 16215303     | 1              |
| Cealo/Noweda               | Glycerol 85%     | 17322108     | 2              |
| Cealo/Sanacorp             | Glycerol 85%     | 19011207     | 1              |
| Cealo                      | Glycerol 85%     | 13276205     | 1              |
| Cealo                      | Glycerol 85%     | 16215301     | 1              |
| Cealo                      | Glycerol 85%     | 20000941002  | 1              |
| Cordes/Noweda              | Glycerol 85%     | 1627803      | 1              |
| Delta                      | Glycerol 85%     | 310593       | 1              |
| Ebert & Jacobi             | Glycerol 85%     | 5065061      | 1              |
| Ebert & Jacobi             | Glycerol 85%     | 5066011      | 1              |
| Eigenherstellung           | Glycerol 85%     | 15092085     | 1              |
| Eigenherstellung           | Glycerol 85%     | 29062085     | 1              |
| Eigenherstellung           | Glycerol 85%     | 295501       | 1              |
| Eigenherstellung           | Glycerol 85%     | 8022185      | 1              |
| EJ/Hedinger                | Glycerol 85%     | 40652        | 1              |
| Eu Rho                     | Glycerol 85%     | 1910011-01   | 1              |
| Eu Rho                     | Glycerol 85%     | 40683        | 1              |
| Eu Rho                     | Glycerol 85%     | 40690        | 1              |
| EuRho / Phoenix            | Glycerol 85%     | 1610032-01   | 1              |
| EuRho /Gehe                | Glycerol 85%     | 1409035-01   | 1              |
| EuRho /Gehe                | Glycerol 85%     | 1607037-01   | 1              |
| EuRho- Nowewda             | Glycerol 85%     | 1906019-01   | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Eurho/Phoenix   | Glycerol 85%     | 1906019-01   | 1              |
| EuRho/Phönix    | Glycerol 85%     | 1509023-01   | 2              |
| EuRho           | Glycerol 85%     | 1201038-01   | 1              |
| EuRho           | Glycerol 85%     | 1301025-01   | 2              |
| EuRho           | Glycerol 85%     | 1506036-01   | 1              |
| eurho           | Glycerol 85%     | 1703003-01   | 3              |
| EuRho           | Glycerol 85%     | 1708022-01   | 1              |
| eurho           | Glycerol 85%     | 1801025-01   | 4              |
| EuRho           | Glycerol 85%     | 1804017-01   | 1              |
| EuRho           | Glycerol 85%     | 1808009-02   | 1              |
| EuRho           | Glycerol 85%     | 1906019-01   | 1              |
| EuRho           | Glycerol 85%     | 201101701    | 1              |
| eurho           | Glycerol 85%     | 287120       | 1              |
| Euro / AHD      | Glycerol 85%     | 1901041-01   | 1              |
| Euro /Anzag     | Glycerol 85%     | 1808009-01   | 1              |
| Euro Gehe       | Glycerol 85%     | 1703003-01   | 1              |
| Euro OTC        | Glycerol 85%     | 10022015C    | 1              |
| Euro OTC        | Glycerol 85%     | 10112014D    | 1              |
| Euro OTC        | Glycerol 85%     | 1108032      | 1              |
| Euro OTC        | Glycerol 85%     | 1108032-01   | 5              |
| Euro OTC        | Glycerol 85%     | 120103801    | 1              |
| Euro OTC        | Glycerol 85%     | 1201038-01   | 6              |
| Euro OTC        | Glycerol 85%     | 1210047-01   | 8              |
| Euro OTC        | Glycerol 85%     | 1201038-01   | 1              |
| Euro OTC        | Glycerol 85%     | 1301025-01   | 8              |
| Euro OTC        | Glycerol 85%     | 1301025-02   | 2              |
| Euro OTC        | Glycerol 85%     | 1306016-01   | 3              |
| Euro OTC        | Glycerol 85%     | 1306016-02   | 7              |
| Euro OTC        | Glycerol 85%     | 1401009      | 1              |
| Euro OTC        | Glycerol 85%     | 1401009-01   | 7              |
| Euro OTC        | Glycerol 85%     | 1403006-01   | 8              |
| Euro OTC        | Glycerol 85%     | 140502101    | 2              |
| Euro OTC        | Glycerol 85%     | 1405021-01   | 4              |
| Euro OTC        | Glycerol 85%     | 1405021-02   | 9              |
| Euro OTC        | Glycerol 85%     | 140903501    | 1              |
| Euro OTC        | Glycerol 85%     | 1409035-01   | 19             |
| Euro OTC        | Glycerol 85%     | 14380504     | 1              |
| Euro OTC        | Glycerol 85%     | 1502010-01   | 17             |
| Euro OTC        | Glycerol 85%     | 1506036-01   | 19             |
| Euro OTC        | Glycerol 85%     | 150902       | 1              |
| Euro OTC        | Glycerol 85%     | 1509023-01   | 24             |
| Euro OTC        | Glycerol 85%     | 151690       | 3              |
| Euro OTC        | Glycerol 85%     | 160105       | 1              |
| Euro OTC        | Glycerol 85%     | 160105901    | 2              |
| Euro OTC        | Glycerol 85%     | 1601059-01   | 40             |
| Euro OTC        | Glycerol 85%     | 160703       | 1              |
| Euro OTC        | Glycerol 85%     | 1607037      | 1              |
| Euro OTC        | Glycerol 85%     | 160703701    | 3              |
| Euro OTC        | Glycerol 85%     | 1607037-01   | 30             |
| Euro OTC        | Glycerol 85%     | 161002-01    | 1              |
| Euro OTC        | Glycerol 85%     | 161003201    | 1              |
| Euro OTC        | Glycerol 85%     | 1610032-01   | 54             |
| Euro OTC        | Glycerol 85%     | 1610032-1    | 1              |
| Euro OTC        | Glycerol 85%     | 16215302     | 1              |
| Euro OTC        | Glycerol 85%     | 16297806     | 1              |
| Euro OTC        | Glycerol 85%     | 16355002     | 1              |
| Euro OTC        | Glycerol 85%     | 1703001-01   | 1              |
| Euro OTC        | Glycerol 85%     | 1703003      | 2              |
| Euro OTC        | Glycerol 85%     | 170300301    | 3              |
| Euro OTC        | Glycerol 85%     | 1703003-01   | 63             |

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| Supplier     | Substance    | Batch              | Spectra |
|--------------|--------------|--------------------|---------|
| Euro OTC     | Glycerol 85% | 170509G/1607037-01 | 1       |
| Euro OTC     | Glycerol 85% | 170802201          | 1       |
| Euro OTC     | Glycerol 85% | 1708022-01         | 45      |
| Euro OTC     | Glycerol 85% | 17080822-01        | 1       |
| Euro OTC     | Glycerol 85% | 173003-01          | 1       |
| Euro OTC     | Glycerol 85% | 18000211           | 1       |
| Euro OTC     | Glycerol 85% | 18001025-01        | 1       |
| Euro OTC     | Glycerol 85% | 18004017-01        | 1       |
| Euro OTC     | Glycerol 85% | 180102501          | 6       |
| Euro OTC     | Glycerol 85% | 1801025-01         | 47      |
| Euro OTC     | Glycerol 85% | 1801-1025-01       | 1       |
| Euro OTC     | Glycerol 85% | 18020005           | 1       |
| Euro OTC     | Glycerol 85% | 1802009-02         | 1       |
| Euro OTC     | Glycerol 85% | 1804017            | 2       |
| Euro OTC     | Glycerol 85% | 180401701          | 5       |
| Euro OTC     | Glycerol 85% | 1804017-01         | 57      |
| Euro OTC     | Glycerol 85% | 180407-01          | 1       |
| Euro OTC     | Glycerol 85% | 18080009-02        | 1       |
| Euro OTC     | Glycerol 85% | 1808009            | 1       |
| Euro OTC     | Glycerol 85% | 180800901          | 1       |
| Euro OTC     | Glycerol 85% | 1808009-01         | 25      |
| Euro OTC     | Glycerol 85% | 1808009-02         | 45      |
| Euro OTC     | Glycerol 85% | 1808009-1          | 1       |
| Euro OTC     | Glycerol 85% | 18080092           | 1       |
| Euro OTC     | Glycerol 85% | 1868009-02         | 1       |
| Euro OTC     | Glycerol 85% | 190104101          | 2       |
| Euro OTC     | Glycerol 85% | 1901041-01         | 18      |
| Euro OTC     | Glycerol 85% | 1906018-01         | 1       |
| Euro OTC     | Glycerol 85% | 1906019            | 2       |
| Euro OTC     | Glycerol 85% | 190601901          | 3       |
| Euro OTC     | Glycerol 85% | 1906019-01         | 33      |
| Euro OTC     | Glycerol 85% | 1906019-1          | 1       |
| Euro OTC     | Glycerol 85% | 191001-01          | 1       |
| Euro OTC     | Glycerol 85% | 1910011_01         | 1       |
| Euro OTC     | Glycerol 85% | 191001101          | 3       |
| Euro OTC     | Glycerol 85% | 1910011-01         | 45      |
| Euro OTC     | Glycerol 85% | 200703901          | 1       |
| Euro OTC     | Glycerol 85% | 2007039-01         | 10      |
| Euro OTC     | Glycerol 85% | 201017-01          | 1       |
| Euro OTC     | Glycerol 85% | 201101701          | 1       |
| Euro OTC     | Glycerol 85% | 2011017-01         | 15      |
| Euro OTC     | Glycerol 85% | 2011017-02         | 4       |
| Euro OTC     | Glycerol 85% | 20122013A          | 1       |
| Euro OTC     | Glycerol 85% | 2109022-01         | 2       |
| Euro OTC     | Glycerol 85% | 302749             | 2       |
| Euro OTC     | Glycerol 85% | 40524              | 1       |
| Euro OTC     | Glycerol 85% | 5060012            | 1       |
| Euro OTC     | Glycerol 85% | 5065061            | 1       |
| Euro OTC     | Glycerol 85% | 5068012            | 1       |
| Euro OTC     | Glycerol 85% | 7406HH7011         | 2       |
| Euro OTC     | Glycerol 85% | 8004808001         | 2       |
| Euro OTC     | Glycerol 85% | BE-08467/36621     | 2       |
| Euro OTC     | Glycerol 85% | BE-0891238366      | 1       |
| Euro OTC     | Glycerol 85% | BE-09833/41464     | 1       |
| Euro OTC     | Glycerol 85% | GG61870088         | 1       |
| Euro OTC     | Glycerol 85% | GLYD202011060900   | 1       |
| euro//Noweda | Glycerol 85% | 18253402           | 1       |
| Euro/Gehe    | Glycerol 85% | 1509023-01         | 1       |
| Euro/Noweda  | Glycerol 85% | 1607037-01         | 1       |
| Euro/Noweda  | Glycerol 85% | 1610032-01         | 1       |

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| <b>Supplier</b>   | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-------------------|------------------|------------------|----------------|
| Euro/Noweda       | Glycerol 85%     | 180102501        | 1              |
| Euro              | Glycerol 85%     | 1601059-01       | 1              |
| Euro              | Glycerol 85%     | 1610032-01       | 2              |
| euro              | Glycerol 85%     | 1703003-01       | 1              |
| euro              | Glycerol 85%     | BE-0983341464    | 1              |
| Euroo/Gehe        | Glycerol 85%     | 1808009-02       | 1              |
| EuroOZC/ AHD      | Glycerol 85%     | 1906019-01       | 1              |
| EuroOZC/ Noweda   | Glycerol 85%     | 1804017-01       | 1              |
| Europharm/Otto    | Glycerol 85%     | 1108032-01       | 1              |
| Fagron            | Glycerol 85%     | 11L06-N02        | 4              |
| Fagron            | Glycerol 85%     | 1203C003         | 1              |
| Fagron            | Glycerol 85%     | 1209C001         | 1              |
| Fagron            | Glycerol 85%     | 12G11-N02        | 1              |
| Fagron            | Glycerol 85%     | 12H17-N01        | 2              |
| Fagron            | Glycerol 85%     | 12J04-N02        | 1              |
| Fagron            | Glycerol 85%     | 12J04-N09        | 2              |
| Fagron            | Glycerol 85%     | 12J05-N01        | 1              |
| Fagron            | Glycerol 85%     | 12L04-N09        | 1              |
| Fagron            | Glycerol 85%     | 13060006         | 1              |
| Fagron            | Glycerol 85%     | 1312B03285613    | 1              |
| Fagron            | Glycerol 85%     | 13c28-n02        | 2              |
| Fagron            | Glycerol 85%     | 13C28-N02        | 6              |
| Fagron            | Glycerol 85%     | 13C-N02          | 1              |
| Fagron            | Glycerol 85%     | 13D11-N05        | 1              |
| Fagron            | Glycerol 85%     | 13E24-N11        | 2              |
| Fagron            | Glycerol 85%     | 13I12-B03-285611 | 1              |
| Fagron            | Glycerol 85%     | 13J01-B01        | 1              |
| Fagron            | Glycerol 85%     | 13J01-B01-285777 | 1              |
| Fagron            | Glycerol 85%     | 13J01-B01-285781 | 2              |
| Fagron            | Glycerol 85%     | 13J20-B01-285782 | 1              |
| Fagron            | Glycerol 85%     | 13J29-B01        | 1              |
| Fagron            | Glycerol 85%     | 13J29-B01-285782 | 1              |
| Fagron            | Glycerol 85%     | 14306202         | 2              |
| Fagron            | Glycerol 85%     | 14A10-B01-291982 | 1              |
| Fagron            | Glycerol 85%     | 14A10-B01-291983 | 1              |
| Fagron            | Glycerol 85%     | 14D25-B02-293384 | 1              |
| Fagron            | Glycerol 85%     | 14D25-B02-295895 | 1              |
| Fagron            | Glycerol 85%     | 14H11-B05-298257 | 2              |
| Fagron            | Glycerol 85%     | 15036903         | 1              |
| Fagron            | Glycerol 85%     | 1529220          | 1              |
| Fagron            | Glycerol 85%     | 15292201         | 1              |
| Fagron            | Glycerol 85%     | 15E18-B02-309484 | 1              |
| Fagron            | Glycerol 85%     | 16215303         | 1              |
| Fagron            | Glycerol 85%     | 17215501         | 3              |
| Fagron            | Glycerol 85%     | 18020001         | 1              |
| Fagron            | Glycerol 85%     | 18B05-B03        | 1              |
| Fagron            | Glycerol 85%     | 250214PJK01      | 1              |
| Fagron            | Glycerol 85%     | 3111             | 1              |
| Fagron            | Glycerol 85%     | 5065101          | 1              |
| Fagron            | Glycerol 85%     | 5065111          | 2              |
| Fagron            | Glycerol 85%     | 5069021          | 1              |
| Fagron            | Glycerol 85%     | 56-81-5          | 1              |
| Fagron            | Glycerol 85%     | 5763701          | 1              |
| Fagron            | Glycerol 85%     | T01-0900603      | 3              |
| Fargon            | Glycerol 85%     | 1808009-01       | 1              |
| Fiebig 06.05.2019 | Glycerol 85%     | 5068101          | 2              |
| Fiebig/Fischer    | Glycerol 85%     | 5069021          | 1              |
| Fiebig            | Glycerol 85%     | 1322101          | 1              |
| Fiebig            | Glycerol 85%     | 17322101         | 1              |
| Fiebig            | Glycerol 85%     | 17322107         | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Fiebig                     | Glycerol 85%     | 18020002     | 2              |
| Fiebig                     | Glycerol 85%     | 18253404     | 1              |
| Fiebig                     | Glycerol 85%     | 20004357001  | 1              |
| Fiebig                     | Glycerol 85%     | 5068101      | 1              |
| Fischar / Alliance Hea...  | Glycerol 85%     | 5065111      | 1              |
| Fischar / Alliance Hea...  | Glycerol 85%     | 5066111      | 1              |
| Fischar / Anzag            | Glycerol 85%     | 5068021      | 1              |
| Fischar / Anzag            | Glycerol 85%     | 5068101      | 2              |
| Fischar / Fiebig           | Glycerol 85%     | 1070042      | 1              |
| Fischar / Fiebig           | Glycerol 85%     | 5060041      | 1              |
| Fischar / Fiebig           | Glycerol 85%     | 5060111      | 1              |
| Fischar / Fiebig           | Glycerol 85%     | 5061101      | 2              |
| Fischar / Gehe             | Glycerol 85%     | 2060111      | 1              |
| Fischar / GEHE             | Glycerol 85%     | 5060012      | 1              |
| Fischar / Gehe             | Glycerol 85%     | 5060036      | 1              |
| Fischar / Gehe             | Glycerol 85%     | 5060041      | 1              |
| Fischar / Gehe             | Glycerol 85%     | 5068012      | 3              |
| Fischar / Geilenkirchen    | Glycerol 85%     | 5060033      | 1              |
| Fischar / Geilenkirchen    | Glycerol 85%     | 5060062      | 1              |
| Fischar / Noweda           | Glycerol 85%     | 40678        | 1              |
| Fischar / Noweda           | Glycerol 85%     | 5060041      | 1              |
| Fischar / Noweda           | Glycerol 85%     | 50655081     | 1              |
| fischar / Noweda           | Glycerol 85%     | 5068081      | 1              |
| Fischar / Phönix           | Glycerol 85%     | 5060032      | 1              |
| Fischar / Phönix           | Glycerol 85%     | 5065031      | 2              |
| Fischar / Phönix           | Glycerol 85%     | 5066031      | 1              |
| Fischar GmbH/ Sanacorp ... | Glycerol 85%     | 5068031      | 1              |
| Fischar GmbH/AHD           | Glycerol 85%     | 5060041      | 1              |
| Fischar GmbH/AHD           | Glycerol 85%     | 5064091      | 1              |
| Fischar GmbH/Anzag         | Glycerol 85%     | 1070033      | 1              |
| Fischar GmbH/Krieger       | Glycerol 85%     | 5065111      | 1              |
| Fischar GmbH/Krieger       | Glycerol 85%     | 5066021      | 1              |
| Fischar GmbH/Krieger       | Glycerol 85%     | 5066111      | 1              |
| Fischar GmbH/Krieger       | Glycerol 85%     | 5067061      | 1              |
| Fischar GmbH/Krieger       | Glycerol 85%     | 5068021      | 2              |
| Fischar GmbH/Krieger       | Glycerol 85%     | 5068031      | 1              |
| Fischar GmbH               | Glycerol 85%     | 1076071      | 2              |
| Fischar GmbH               | Glycerol 85%     | 1077111      | 1              |
| Fischar GmbH               | Glycerol 85%     | 5060041      | 1              |
| fischar gmbh               | Glycerol 85%     | 5063012      | 1              |
| fischar gmbh               | Glycerol 85%     | 5064011      | 1              |
| fischar gmbh               | Glycerol 85%     | 5064021      | 1              |
| Fischar GmbH               | Glycerol 85%     | 5068012      | 1              |
| Fischar GmbH               | Glycerol 85%     | 5068031      | 1              |
| Fischar GmbH               | Glycerol 85%     | 5068081      | 1              |
| Fischar GmbH               | Glycerol 85%     | 5068121      | 1              |
| fischar noweda             | Glycerol 85%     | CHB5069059   | 1              |
| Fischar Sanacorp           | Glycerol 85%     | 5069051      | 1              |
| Fischar Sanacorp           | Glycerol 85%     | AP210626-02  | 1              |
| Fischar via Alliance       | Glycerol 85%     | 1079021      | 1              |
| Fischar/ AHD               | Glycerol 85%     | 5066081      | 1              |
| Fischar/ AHD               | Glycerol 85%     | 5068021      | 1              |
| Fischar/ Alliance Healt... | Glycerol 85%     | 5069111      | 1              |
| Fischar/ Gehe              | Glycerol 85%     | 1076011      | 1              |
| Fischar/ GEHE              | Glycerol 85%     | 5069021      | 1              |
| Fischar/ Now               | Glycerol 85%     | 5065011      | 1              |
| Fischar/ Now               | Glycerol 85%     | 5065111      | 2              |
| Fischar/ Now               | Glycerol 85%     | 5066031      | 1              |
| Fischar/ Now               | Glycerol 85%     | 5066071      | 4              |
| Fischar/ Now               | Glycerol 85%     | 5067031      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Fischar/ Now               | Glycerol 85%     | 5067081      | 1              |
| Fischar/ Now               | Glycerol 85%     | 5067111      | 2              |
| Fischar/ Now               | Glycerol 85%     | 5068012      | 4              |
| Fischar/ Now               | Glycerol 85%     | 5068101      | 4              |
| Fischar/ Now               | Glycerol 85%     | 5069059      | 1              |
| Fischar/ Now               | Glycerol 85%     | 5069081      | 1              |
| Fischar/ Noweda            | Glycerol 85%     | 1070011      | 1              |
| Fischar/ Noweda            | Glycerol 85%     | 1070042      | 1              |
| Fischar/ Noweda            | Glycerol 85%     | 5060033      | 1              |
| Fischar/ Noweda            | Glycerol 85%     | 5060041      | 1              |
| Fischar/ Noweda            | Glycerol 85%     | 5066011      | 1              |
| Fischar/ Noweda            | Glycerol 85%     | 5069059      | 1              |
| Fischar/ Phönix 08.05.2... | Glycerol 85%     | 5068101      | 1              |
| Fischar/ Phönix            | Glycerol 85%     | 5065101      | 2              |
| Fischar/ Phönix            | Glycerol 85%     | 5066081      | 1              |
| Fischar/ Phönix            | Glycerol 85%     | 5069051      | 1              |
| Fischar/ Sanacorp 12.02... | Glycerol 85%     | 5069111      | 1              |
| Fischar/ Sanacorp          | Glycerol 85%     | 5060091      | 1              |
| Fischar/AEP                | Glycerol 85%     | 5065111      | 3              |
| Fischar/AEP                | Glycerol 85%     | 5067081      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5060012      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5060032      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5060035      | 4              |
| Fischar/AHD                | Glycerol 85%     | 5060036      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5060041      | 2              |
| Fischar/AHD                | Glycerol 85%     | 5065031      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5065061      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5065081      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5067091      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5068012      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5068031      | 3              |
| Fischar/AHD                | Glycerol 85%     | 5068071      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5068081      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5069021      | 2              |
| Fischar/AHD                | Glycerol 85%     | 5069051      | 1              |
| Fischar/AHD                | Glycerol 85%     | 5069111      | 3              |
| FISCHAR/AHD_23.12.21       | Glycerol 85%     | 5061071      | 1              |
| Fischar/Alliance 25.04...  | Glycerol 85%     | 5060035      | 1              |
| fischar/Alliance 30.03...  | Glycerol 85%     | 5060032      | 1              |
| Fischar/Alliance           | Glycerol 85%     | 5068071      | 1              |
| Fischar/Anzag              | Glycerol 85%     | 5062111      | 1              |
| Fischar/Anzag              | Glycerol 85%     | 5063012      | 1              |
| Fischar/Anzag              | Glycerol 85%     | 5069051      | 1              |
| Fischar/E                  | Glycerol 85%     | 5062011      | 1              |
| Fischar/Ebert              | Glycerol 85%     | 5066071      | 1              |
| Fischar/Fiebig 21.07.21    | Glycerol 85%     | 5060111      | 2              |
| Fischar/Fiebig 22.09.2020  | Glycerol 85%     | 5060042      | 2              |
| Fischar/Fiebig 29.03.2022  | Glycerol 85%     | 5061121      | 1              |
| fischar/fiebig             | Glycerol 85%     | 5060063      | 1              |
| Fischar/Fiebig             | Glycerol 85%     | 5069011      | 1              |
| fischar/fiebig             | Glycerol 85%     | 5069081      | 1              |
| Fischar/Gehe               | Glycerol 85%     | 1077011      | 2              |
| Fischar/Gehe               | Glycerol 85%     | 1079052      | 1              |
| Fischar/Gehe               | Glycerol 85%     | 5060035      | 1              |
| Fischar/Gehe               | Glycerol 85%     | 5060036      | 1              |
| Fischar/Gehe               | Glycerol 85%     | 5065081      | 1              |
| Fischar/Gehe               | Glycerol 85%     | 5066031      | 1              |
| Fischar/Gehe               | Glycerol 85%     | 5066111      | 1              |
| Fischar/Gehe               | Glycerol 85%     | 5067011      | 1              |
| fischar/gehe               | Glycerol 85%     | 5067021      | 1              |

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| <b>Supplier</b>       | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------------|------------------|--------------|----------------|
| Fischar/Gehe          | Glycerol 85%     | 5067061      | 1              |
| fischar/gehe          | Glycerol 85%     | 5067111      | 2              |
| Fischar/Gehe          | Glycerol 85%     | 5068031      | 3              |
| Fischar/Gehe          | Glycerol 85%     | 5068061      | 1              |
| Fischar/Gehe          | Glycerol 85%     | 5068121      | 1              |
| Fischar/Gehe          | Glycerol 85%     | 5069021      | 1              |
| Fischar/Gehe          | Glycerol 85%     | 5069051      | 1              |
| Fischar/Geilenkirchen | Glycerol 85%     | 5068012      | 1              |
| Fischar/Geilenkirchen | Glycerol 85%     | 5068101      | 6              |
| Fischar/Jenne         | Glycerol 85%     | 5068021      | 2              |
| Fischar/Kehr          | Glycerol 85%     | 5068021      | 1              |
| Fischar/Kehr          | Glycerol 85%     | 5068101      | 1              |
| Fischar/Krieger       | Glycerol 85%     | 5060041      | 1              |
| Fischar/Krieger       | Glycerol 85%     | 5069081      | 1              |
| Fischar/Krieger       | Glycerol 85%     | 5069111      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 40683        | 2              |
| Fischar/Noweda        | Glycerol 85%     | 5060032      | 2              |
| Fischar/Noweda        | Glycerol 85%     | 5060035      | 4              |
| Fischar/Noweda        | Glycerol 85%     | 5060036      | 1              |
| fischar/Noweda        | Glycerol 85%     | 5060041      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5060041      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5060063      | 1              |
| fischar/Noweda        | Glycerol 85%     | 5064091      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5066071      | 1              |
| fischar/noweda        | Glycerol 85%     | 5066081      | 2              |
| Fischar/Noweda        | Glycerol 85%     | 5066101      | 1              |
| fischar/Noweda        | Glycerol 85%     | 5067011      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5067021      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5067031      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5067061      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5068011      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5068012      | 2              |
| Fischar/Noweda        | Glycerol 85%     | 5068101      | 2              |
| Fischar/Noweda        | Glycerol 85%     | 5069051      | 1              |
| fischar/Noweda        | Glycerol 85%     | 5069052      | 1              |
| Fischar/Noweda        | Glycerol 85%     | 5069059      | 2              |
| Fischar/Noweda        | Glycerol 85%     | 5069081      | 3              |
| Fischar/Noweda        | Glycerol 85%     | 5069111      | 5              |
| Fischar/Noweda        | Glycerol 85%     | 50699059     | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 1070033      | 2              |
| Fischar/Phoenix       | Glycerol 85%     | 1070042      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 1070061      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 1078012      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 180800208    | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 190542805    | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5060012      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5060032      | 2              |
| Fischar/Phoenix       | Glycerol 85%     | 5060041      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5060062      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5061102      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5066081      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5068012      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5068031      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5068071      | 1              |
| Fischar/Phoenix       | Glycerol 85%     | 5068101      | 1              |
| fischar/Phoenix       | Glycerol 85%     | 5069081      | 2              |
| Fischar/Phoenix       | Glycerol 85%     | 5069081      | 2              |
| Fischar/Phönix        | Glycerol 85%     |              | 1              |
| Fischar/Phönix        | Glycerol 85%     | 10132010     | 1              |
| Fischar/Phönix        | Glycerol 85%     | 1070011      | 2              |

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| <b>Supplier</b>          | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|--------------------------|------------------|--------------|----------------|
| Fischar/Phönix           | Glycerol 85%     | 5060012      | 2              |
| Fischar/Phönix           | Glycerol 85%     | 5060034      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5060041      | 2              |
| Fischar/Phönix           | Glycerol 85%     | 5062051      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5064071      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5065031      | 2              |
| Fischar/Phönix           | Glycerol 85%     | 5066011      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5066021      | 1              |
| fischar/Phönix           | Glycerol 85%     | 5066071      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5066101      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5066111      | 1              |
| fischar/Phönix           | Glycerol 85%     | 50666061     | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5067011      | 1              |
| fischar/Phönix           | Glycerol 85%     | 5067111      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5067111      | 1              |
| Fischar/Phönix           | Glycerol 85%     | 5068101      | 2              |
| Fischar/Sanacorp         | Glycerol 85%     | 20001043003  | 1              |
| Fischar/Sanacorp         | Glycerol 85%     | 5060012      | 1              |
| fischar/sanacorp         | Glycerol 85%     | 5060036      | 1              |
| Fischar/Sanacorp         | Glycerol 85%     | 5060036      | 2              |
| Fischar/Sanacorp         | Glycerol 85%     | 5060041      | 2              |
| FISCHAR/Sanacorp         | Glycerol 85%     | 5060041      | 1              |
| Fischar/Sanacorp         | Glycerol 85%     | 5060042      | 2              |
| Fischar/Sanacorp         | Glycerol 85%     | 5060062      | 1              |
| Fischar/Sanacorp         | Glycerol 85%     | 5060063      | 2              |
| Fischar/Sanacorp         | Glycerol 85%     | 5060091      | 1              |
| Fischar/Sanacorp         | Glycerol 85%     | 5069021      | 1              |
| Fischar/Sanacorp         | Glycerol 85%     | 5069081      | 1              |
| Fischar/Sanacorp         | Glycerol 85%     | AP210305-01  | 1              |
| Fischar/Spangro          | Glycerol 85%     | 5060032      | 1              |
| Fischar/Spangro          | Glycerol 85%     | 5067061      | 1              |
| FISCHAR/Spangro_04.05.21 | Glycerol 85%     | 5060111      | 1              |
| FISCHAR/Spangro_20.7.20  | Glycerol 85%     | 5060041      | 3              |
| Fischar/V.d.L.           | Glycerol 85%     | 5062111      | 1              |
| Fischar/V.d.L.           | Glycerol 85%     | 5064071      | 1              |
| Fischar                  | Glycerol 85%     | 1070011      | 3              |
| Fischar                  | Glycerol 85%     | 1070033      | 1              |
| Fischar                  | Glycerol 85%     | 1070035      | 1              |
| Fischar                  | Glycerol 85%     | 107011       | 1              |
| Fischar                  | Glycerol 85%     | 1075061      | 1              |
| Fischar                  | Glycerol 85%     | 1077081      | 2              |
| Fischar                  | Glycerol 85%     | 1078031      | 2              |
| Fischar                  | Glycerol 85%     | 1079021      | 1              |
| Fischar                  | Glycerol 85%     | 1802006B     | 1              |
| Fischar                  | Glycerol 85%     | 2068031      | 1              |
| Fischar                  | Glycerol 85%     | 3430         | 1              |
| Fischar                  | Glycerol 85%     | 5055031      | 1              |
| Fischar                  | Glycerol 85%     | 5060011      | 3              |
| fischar                  | Glycerol 85%     | 506003       | 1              |
| Fischar                  | Glycerol 85%     | 5060032      | 3              |
| fischar                  | Glycerol 85%     | 5060033      | 1              |
| Fischar                  | Glycerol 85%     | 5060033      | 2              |
| Fischar                  | Glycerol 85%     | 5060034      | 1              |
| Fischar                  | Glycerol 85%     | 5060035      | 3              |
| Fischar                  | Glycerol 85%     | 5060036      | 6              |
| Fischar                  | Glycerol 85%     | 5060041      | 7              |
| Fischar                  | Glycerol 85%     | 5060062      | 5              |
| Fischar                  | Glycerol 85%     | 5060063      | 4              |
| fischar                  | Glycerol 85%     | 5060111      | 2              |
| Fischar                  | Glycerol 85%     | 5060111      | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Fischar         | Glycerol 85%     | 5061021      | 1              |
| fischar         | Glycerol 85%     | 5061081      | 1              |
| Fischar         | Glycerol 85%     | 5061101      | 1              |
| Fischar         | Glycerol 85%     | 5062051      | 3              |
| Fischar         | Glycerol 85%     | 5062111      | 4              |
| Fischar         | Glycerol 85%     | 5062121      | 2              |
| Fischar         | Glycerol 85%     | 5063011      | 3              |
| Fischar         | Glycerol 85%     | 5063051      | 1              |
| Fischar         | Glycerol 85%     | 5063052      | 1              |
| Fischar         | Glycerol 85%     | 5063091      | 1              |
| Fischar         | Glycerol 85%     | 5063092      | 1              |
| Fischar         | Glycerol 85%     | 5064011      | 1              |
| Fischar         | Glycerol 85%     | 5064021      | 1              |
| Fischar         | Glycerol 85%     | 506407       | 1              |
| fischar         | Glycerol 85%     | 5064091      | 1              |
| Fischar         | Glycerol 85%     | 5064091      | 1              |
| Fischar         | Glycerol 85%     | 5065011      | 3              |
| Fischar         | Glycerol 85%     | 5065012      | 3              |
| Fischar         | Glycerol 85%     | 5065031      | 2              |
| fischar         | Glycerol 85%     | 5065061      | 2              |
| Fischar         | Glycerol 85%     | 5065061      | 5              |
| Fischar         | Glycerol 85%     | 5065081      | 2              |
| Fischar         | Glycerol 85%     | 5065101      | 3              |
| Fischar         | Glycerol 85%     | 5065111      | 2              |
| Fischar         | Glycerol 85%     | 5066011      | 2              |
| Fischar         | Glycerol 85%     | 5066021      | 4              |
| fischar         | Glycerol 85%     | 5066031      | 1              |
| Fischar         | Glycerol 85%     | 5066031      | 4              |
| Fischar         | Glycerol 85%     | 5066071      | 1              |
| Fischar         | Glycerol 85%     | 5066081      | 3              |
| Fischar         | Glycerol 85%     | 5066101      | 7              |
| Fischar         | Glycerol 85%     | 5066111      | 3              |
| Fischar         | Glycerol 85%     | 5067021      | 1              |
| Fischar         | Glycerol 85%     | 5067031      | 2              |
| fischar         | Glycerol 85%     | 5067061      | 1              |
| Fischar         | Glycerol 85%     | 5067061      | 2              |
| fischar         | Glycerol 85%     | 5067081      | 1              |
| Fischar         | Glycerol 85%     | 5067091      | 3              |
| Fischar         | Glycerol 85%     | 5068011      | 7              |
| Fischar         | Glycerol 85%     | 5068012      | 6              |
| fischar         | Glycerol 85%     | 5068021      | 2              |
| Fischar         | Glycerol 85%     | 5068021      | 5              |
| Fischar         | Glycerol 85%     | 5068031      | 6              |
| Fischar         | Glycerol 85%     | 5068081      | 3              |
| fischar         | Glycerol 85%     | 5068101      | 2              |
| Fischar         | Glycerol 85%     | 5068101      | 8              |
| Fischar         | Glycerol 85%     | 5068121      | 1              |
| Fischar         | Glycerol 85%     | 5069011      | 2              |
| Fischar         | Glycerol 85%     | 5069021      | 2              |
| Fischar         | Glycerol 85%     | 5069051      | 3              |
| Fischar         | Glycerol 85%     | 5069059      | 1              |
| Fischar         | Glycerol 85%     | 5069081      | 1              |
| Fischar         | Glycerol 85%     | 5069111      | 1              |
| Fischar         | Glycerol 85%     | 600425       | 1              |
| Fischar-Allianz | Glycerol 85%     | 5068121      | 2              |
| fischar-Noweda  | Glycerol 85%     | 1070011      | 1              |
| fischar-Noweda  | Glycerol 85%     | 1070033      | 1              |
| fischar-Noweda  | Glycerol 85%     | 1079021      | 1              |
| fischar-Noweda  | Glycerol 85%     | 5068101      | 1              |
| fishbar         | Glycerol 85%     | 5064091      | 1              |

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| <b>Supplier</b>              | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------------|------------------|--------------|----------------|
| fischbar                     | Glycerol 85%     | 5067061      | 1              |
| Fischer / AHD                | Glycerol 85%     | 5060012      | 1              |
| Fischer / Gehe               | Glycerol 85%     | 5060033      | 1              |
| Fischer / Jenne              | Glycerol 85%     | 5061081      | 1              |
| Fischer / Phoenix Leipz. ... | Glycerol 85%     | 5065081      | 1              |
| Fischer GmbH / Phoenix ...   | Glycerol 85%     | 5068012      | 1              |
| Fischer GmbH                 | Glycerol 85%     | 5066071      | 2              |
| fischer, Gehe                | Glycerol 85%     | 5062051      | 1              |
| Fischer/ Gehe                | Glycerol 85%     | 5060012      | 1              |
| Fischer/ Noweda              | Glycerol 85%     | 1076111      | 1              |
| Fischer/ Noweda              | Glycerol 85%     | 1610032-01   | 1              |
| fischer/ Phoenix / 02.1...   | Glycerol 85%     | 5066071      | 1              |
| Fischer/AHD                  | Glycerol 85%     | 5061081      | 1              |
| Fischer/Fiebig 04.03.2019    | Glycerol 85%     | 5068031      | 1              |
| Fischer/Gehe                 | Glycerol 85%     | 5060035      | 1              |
| Fischer/Noweda               | Glycerol 85%     | 5065011      | 1              |
| Fischer/Noweda               | Glycerol 85%     | 5069111      | 1              |
| Fischer/Phoenix              | Glycerol 85%     | 5060041      | 1              |
| Fischer/Phönix               | Glycerol 85%     | r/506108001  | 1              |
| Fischer/Sanacorp             | Glycerol 85%     | 1911009-01   | 1              |
| Fischer/Sanacorp             | Glycerol 85%     | 5060034      | 1              |
| Fischer/Sanacorp             | Glycerol 85%     | 5067061      | 1              |
| Fischer/Sanacorp             | Glycerol 85%     | 5068031      | 1              |
| Fischer/Sanacorp             | Glycerol 85%     | 5069011      | 1              |
| Fischer/Sanacorp             | Glycerol 85%     | 5069031      | 1              |
| Fischer/Sanacorp             | Glycerol 85%     | 5069051      | 1              |
| Fischer                      | Glycerol 85%     | 1070033      | 1              |
| Fischer                      | Glycerol 85%     | 1075012      | 1              |
| Fischer                      | Glycerol 85%     | 5060012      | 1              |
| Fischer                      | Glycerol 85%     | 5060032      | 1              |
| Fischer                      | Glycerol 85%     | 5060035      | 1              |
| Fischer                      | Glycerol 85%     | 5060062      | 1              |
| fischer                      | Glycerol 85%     | 5063051      | 1              |
| Fischer                      | Glycerol 85%     | 5063091      | 1              |
| Fischer                      | Glycerol 85%     | 5065101      | 1              |
| Fischer                      | Glycerol 85%     | 5065111      | 1              |
| Fischer                      | Glycerol 85%     | 5066021      | 1              |
| Fischer                      | Glycerol 85%     | 5066061      | 2              |
| Fischer                      | Glycerol 85%     | 50660631     | 1              |
| Fischer                      | Glycerol 85%     | 5066071      | 1              |
| Fischer                      | Glycerol 85%     | 5067031      | 1              |
| fischer                      | Glycerol 85%     | 5068081      | 1              |
| Fishar / Phönix              | Glycerol 85%     | 5064011      | 1              |
| Fishar/Phö                   | Glycerol 85%     | 5060012      | 1              |
| Fishar/Sanacorp              | Glycerol 85%     | 1070011      | 1              |
| Fishar/Sanacorp              | Glycerol 85%     | 5060041      | 3              |
| Fishar                       | Glycerol 85%     | 5066021      | 1              |
| Gatt-Koller                  | Glycerol 85%     | 1802637      | 1              |
| Gatt-Koller                  | Glycerol 85%     | 1804132      | 1              |
| Gehe - Hedinger              | Glycerol 85%     | 40618        | 1              |
| Gehe / Fischar               | Glycerol 85%     | 1077081      | 1              |
| Gehe am 05.04.2014           | Glycerol 85%     | 13276205     | 2              |
| Gehe amax                    | Glycerol 85%     | 5060062      | 1              |
| Gehe amax                    | Glycerol 85%     | 5067061      | 2              |
| Gehe amax                    | Glycerol 85%     | 5067111      | 1              |
| Gehe amax                    | Glycerol 85%     | 5068031      | 1              |
| Gehe amax                    | Glycerol 85%     | 5068081      | 2              |
| Gehe amax                    | Glycerol 85%     | 5068121      | 1              |
| Gehe,06.05.15                | Glycerol 85%     | 14306205     | 1              |
| Gehe/ Euro                   | Glycerol 85%     | 151690       | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| GEHE/apo-ident  | Glycerol 85%     | 1610032-01   | 1              |
| Gehe/EuRho      | Glycerol 85%     | 1906019-01   | 1              |
| gehe/fischa     | Glycerol 85%     | 5060041      | 1              |
| gehe/fischa     | Glycerol 85%     | 5060042      | 1              |
| Gehe/fischar    | Glycerol 85%     | 5065101      | 1              |
| Gehe/Fischar    | Glycerol 85%     | 5066071      | 1              |
| Gehe/Fischar    | Glycerol 85%     | 5068081      | 1              |
| Gehe/Fischer    | Glycerol 85%     | 5068031      | 1              |
| Gehe/Fischer    | Glycerol 85%     | 5068081      | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 2x040620     | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 40599        | 4              |
| Gehe/Hedinger   | Glycerol 85%     | 40607        | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 40612        | 4              |
| Gehe/Hedinger   | Glycerol 85%     | 40620        | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 40628        | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 40638        | 2              |
| Gehe/Hedinger   | Glycerol 85%     | 40642        | 2              |
| Gehe/Hedinger   | Glycerol 85%     | 40646        | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 40652        | 2              |
| Gehe/Hedinger   | Glycerol 85%     | 40667        | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 40673        | 1              |
| Gehe/Hedinger   | Glycerol 85%     | 40683        | 1              |
| Gehe            | Glycerol 85%     | 1001017-01   | 1              |
| Gehe            | Glycerol 85%     | 11355301     | 1              |
| Gehe            | Glycerol 85%     | 1201038-01   | 1              |
| Gehe            | Glycerol 85%     | 1210047-01   | 1              |
| GEHE            | Glycerol 85%     | 12216606     | 1              |
| Gehe            | Glycerol 85%     | 1301025-01   | 1              |
| Gehe            | Glycerol 85%     | 13356404     | 1              |
| Gehe            | Glycerol 85%     | 13356405     | 1              |
| Gehe            | Glycerol 85%     | 14149404     | 2              |
| Gehe            | Glycerol 85%     | 1502010-01   | 1              |
| Gehe            | Glycerol 85%     | 15036902     | 1              |
| Gehe            | Glycerol 85%     | 15036904     | 1              |
| Gehe            | Glycerol 85%     | 15146301     | 1              |
| Gehe            | Glycerol 85%     | 15292201     | 1              |
| Gehe            | Glycerol 85%     | 15292205     | 2              |
| GEHE            | Glycerol 85%     | 16215301     | 1              |
| Gehe            | Glycerol 85%     | 16215302     | 1              |
| Gehe            | Glycerol 85%     | 16218901     | 3              |
| Gehe            | Glycerol 85%     | 16218906     | 1              |
| Gehe            | Glycerol 85%     | 16297803     | 1              |
| Gehe            | Glycerol 85%     | 17002        | 1              |
| Gehe            | Glycerol 85%     | 17215501     | 2              |
| Gehe            | Glycerol 85%     | 17322104     | 2              |
| GEHE            | Glycerol 85%     | 17322104     | 1              |
| Gehe            | Glycerol 85%     | 18005463     | 1              |
| Gehe            | Glycerol 85%     | 18020002     | 1              |
| Gehe            | Glycerol 85%     | 1808009-02   | 2              |
| Gehe            | Glycerol 85%     | 18253404     | 2              |
| Gehe            | Glycerol 85%     | 19011201     | 1              |
| Gehe            | Glycerol 85%     | 1906019-01   | 1              |
| Gehe            | Glycerol 85%     | 19124401     | 1              |
| Gehe            | Glycerol 85%     | 19188301     | 1              |
| Gehe            | Glycerol 85%     | 19188304     | 1              |
| Gehe            | Glycerol 85%     | 192976007    | 1              |
| Gehe            | Glycerol 85%     | 20001043005  | 1              |
| Gehe            | Glycerol 85%     | 20001747003  | 1              |
| Gehe            | Glycerol 85%     | 276850       | 2              |
| Gehe            | Glycerol 85%     | 284401       | 1              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Gehe                   | Glycerol 85%     | 295501       | 2              |
| Gehe                   | Glycerol 85%     | 297034       | 1              |
| Gehe                   | Glycerol 85%     | 300395       | 1              |
| Gehe                   | Glycerol 85%     | 40491        | 2              |
| Gehe                   | Glycerol 85%     | 40507        | 1              |
| Gehe                   | Glycerol 85%     | 40559        | 1              |
| Gehe                   | Glycerol 85%     | 40576        | 1              |
| Gehe                   | Glycerol 85%     | 40607        | 1              |
| Gehe                   | Glycerol 85%     | 40628        | 1              |
| GEHE                   | Glycerol 85%     | 40635        | 1              |
| Gehe                   | Glycerol 85%     | 40638        | 1              |
| GEHE                   | Glycerol 85%     | 40646        | 1              |
| GEHE                   | Glycerol 85%     | 40647        | 1              |
| Gehe                   | Glycerol 85%     | 40649        | 1              |
| GEHE                   | Glycerol 85%     | 40652        | 2              |
| GEHE                   | Glycerol 85%     | 40667        | 1              |
| GEHE                   | Glycerol 85%     | 40670        | 1              |
| GEHE                   | Glycerol 85%     | 40673        | 1              |
| Gehe                   | Glycerol 85%     | 40684        | 1              |
| Gehe                   | Glycerol 85%     | 40685        | 1              |
| Gehe                   | Glycerol 85%     | 40716        | 1              |
| Gehe                   | Glycerol 85%     | 40719        | 1              |
| Gehe                   | Glycerol 85%     | 40724        | 1              |
| Gehe                   | Glycerol 85%     | 5062051      | 1              |
| Gehe                   | Glycerol 85%     | 5062121      | 1              |
| Gehe                   | Glycerol 85%     | 5063012      | 1              |
| Gehe                   | Glycerol 85%     | 5066031      | 1              |
| Gehe                   | Glycerol 85%     | 5226901      | 1              |
| Gehe-Hedinger          | Glycerol 85%     | 40522        | 1              |
| Geibo/EuRho            | Glycerol 85%     | 1703003-01   | 3              |
| Geibo/EuRho            | Glycerol 85%     | 17080220-01  | 1              |
| Geibo/Euro 12.8.19     | Glycerol 85%     | 1808009-02   | 1              |
| Geibo/Fischer 25.09.21 | Glycerol 85%     | 1070111      | 1              |
| Geibo/Hedinger         | Glycerol 85%     | 40646        | 1              |
| Geibo                  | Glycerol 85%     | 5067081      | 1              |
| Geibo                  | Glycerol 85%     | 5067111      | 2              |
| Geo-Chem/sanacorp      | Glycerol 85%     | 12216606     | 1              |
| Glycerol               | Glycerol 85%     | 20004357004  | 1              |
| HanosanGmbH            | Glycerol 85%     | 329411001    | 1              |
| Hanry Lanotte/Phönix   | Glycerol 85%     | 8001116001   | 1              |
| Hänseler               | Glycerol 85%     |              | 1              |
| Hedinger/Sanacorp      | Glycerol 85%     | 40475        | 1              |
| Hediner GmbH           | Glycerol 85%     | 40680        | 1              |
| Hedinge                | Glycerol 85%     | 40680        | 1              |
| hedingen               | Glycerol 85%     | CH040678     | 1              |
| Hedinger / AHC         | Glycerol 85%     | 40695        | 2              |
| Hedinger / Alliance    | Glycerol 85%     | 40506        | 2              |
| Hedinger / Anzag       | Glycerol 85%     | 40691        | 2              |
| Hedinger / Fiebig      | Glycerol 85%     | 40629        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40515        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40612        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40635        | 2              |
| Hedinger / Gehe        | Glycerol 85%     | 40644        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40664        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40669        | 2              |
| Hedinger / Gehe        | Glycerol 85%     | 40671        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40673        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40683        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40684        | 1              |
| Hedinger / Gehe        | Glycerol 85%     | 40685        | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Hedinger / Gehe            | Glycerol 85%     | 40690        | 3              |
| Hedinger / Gehe            | Glycerol 85%     | 40691        | 1              |
| Hedinger / Gehe            | Glycerol 85%     | 40716        | 1              |
| Hedinger / NOW             | Glycerol 85%     | 40697        | 1              |
| Hedinger / Noweda          | Glycerol 85%     | 40644        | 1              |
| Hedinger / Noweda          | Glycerol 85%     | 40671        | 1              |
| Hedinger / Noweda          | Glycerol 85%     | 40683        | 2              |
| Hedinger / Phönix          | Glycerol 85%     | 40649        | 1              |
| Hedinger / Phönix          | Glycerol 85%     | 40652        | 1              |
| Hedinger / Phönix          | Glycerol 85%     | 40665        | 1              |
| Hedinger / Phönix          | Glycerol 85%     | 40667        | 2              |
| Hedinger / Phönix          | Glycerol 85%     | 40678        | 2              |
| Hedinger / Phönix          | Glycerol 85%     | 40691        | 1              |
| Hedinger / Phönix          | Glycerol 85%     | 40708        | 1              |
| Hedinger / Sana            | Glycerol 85%     | 40660        | 1              |
| Hedinger / Sana            | Glycerol 85%     | 40664        | 1              |
| Hedinger / Sana            | Glycerol 85%     | 40667        | 2              |
| Hedinger / Sana            | Glycerol 85%     | 40678        | 1              |
| Hedinger / Sana            | Glycerol 85%     | 40684        | 1              |
| Hedinger / Sana            | Glycerol 85%     | 40685        | 1              |
| Hedinger / Sana            | Glycerol 85%     | 40688        | 1              |
| Hedinger / Sanacorp        | Glycerol 85%     | 40451        | 1              |
| Hedinger / Sanacorp        | Glycerol 85%     | 40566        | 1              |
| Hedinger / Sanacorp        | Glycerol 85%     | 40612        | 1              |
| Hedinger / Sanacorp        | Glycerol 85%     | 40678        | 1              |
| Hedinger /Noweda           | Glycerol 85%     | 40635        | 1              |
| Hedinger /Noweda           | Glycerol 85%     | 40660        | 1              |
| Hedinger /Noweda           | Glycerol 85%     | 40673        | 1              |
| Hedinger /Phönix           | Glycerol 85%     | 40628        | 1              |
| Hedinger /Phönix           | Glycerol 85%     | 40629        | 1              |
| Hedinger /Phönix           | Glycerol 85%     | 40644        | 1              |
| Hedinger /Phönix           | Glycerol 85%     | 40652        | 1              |
| Hedinger /Phönix           | Glycerol 85%     | 40655        | 1              |
| Hedinger AHD               | Glycerol 85%     | 40618        | 1              |
| Hedinger AHD               | Glycerol 85%     | 40646        | 1              |
| Hedinger Gehe              | Glycerol 85%     | 40519        | 1              |
| Hedinger Gehe              | Glycerol 85%     | 40646        | 1              |
| Hedinger GmbH/ Noweda      | Glycerol 85%     | 40690        | 1              |
| Hedinger GmbH/Alliance ... | Glycerol 85%     | 40673        | 1              |
| Hedinger GmbH/Kehr         | Glycerol 85%     | 40660        | 1              |
| Hedinger GmbH/Kehr         | Glycerol 85%     | 40691        | 1              |
| Hedinger GmbH/Noweda       | Glycerol 85%     | 40635        | 2              |
| Hedinger GmbH/Noweda       | Glycerol 85%     | 40662        | 3              |
| Hedinger GmbH/Noweda       | Glycerol 85%     | 40695        | 1              |
| Hedinger GmbH/Sanacorp     | Glycerol 85%     | 40697        | 1              |
| Hedinger GmbH              | Glycerol 85%     | 40548        | 1              |
| Hedinger GmbH              | Glycerol 85%     | 40626        | 3              |
| Hedinger GmbH              | Glycerol 85%     | 40683        | 2              |
| Hedinger Jenne             | Glycerol 85%     | 40462        | 1              |
| Hedinger Jenne             | Glycerol 85%     | 40501        | 1              |
| Hedinger Noweda            | Glycerol 85%     | 40662        | 1              |
| Hedinger Noweda            | Glycerol 85%     | 40683        | 1              |
| Hedinger Noweda            | Glycerol 85%     | 40684        | 1              |
| Hedinger Noweda            | Glycerol 85%     | 40713        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40471        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40475        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40480        | 2              |
| Hedinger Phönix            | Glycerol 85%     | 40495        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40507        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40542        | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Hedinger Phönix            | Glycerol 85%     | 40548        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40607        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40618        | 2              |
| Hedinger Phönix            | Glycerol 85%     | 40626        | 1              |
| Hedinger Phönix            | Glycerol 85%     | 40632        | 2              |
| Hedinger Phönix            | Glycerol 85%     | 40647        | 2              |
| Hedinger Phönix            | Glycerol 85%     | 40649        | 1              |
| Hedinger Sanacorp 24.07... | Glycerol 85%     | 40665        | 1              |
| Hedinger Sanacorp          | Glycerol 85%     | 40632        | 1              |
| Hedinger Sanacorp          | Glycerol 85%     | 40683        | 1              |
| Hedinger Sanacorp          | Glycerol 85%     | 40690        | 1              |
| Hedinger, Stuttgart / P... | Glycerol 85%     | 40673        | 1              |
| Hedinger, Stuttgart        | Glycerol 85%     | 40695        | 2              |
| Hedinger/ VDL              | Glycerol 85%     | 40683        | 1              |
| Hedinger/ AHD              | Glycerol 85%     | 40620        | 1              |
| Hedinger/ AHD              | Glycerol 85%     | 40642        | 1              |
| Hedinger/ AHD              | Glycerol 85%     | 40691        | 1              |
| Hedinger/ Alliance Heal... | Glycerol 85%     | 40649        | 1              |
| Hedinger/ Alliance Heal... | Glycerol 85%     | 40655        | 2              |
| Hedinger/ Anzag            | Glycerol 85%     | 166(040632)  | 1              |
| Hedinger/ Anzag            | Glycerol 85%     | 167(040665)  | 1              |
| Hedinger/ Anzag            | Glycerol 85%     | 40491        | 1              |
| Hedinger/ Anzag            | Glycerol 85%     | 40632        | 1              |
| Hedinger/ Anzag            | Glycerol 85%     | 40684        | 1              |
| Hedinger/ Anzag            | Glycerol 85%     | 40691        | 2              |
| Hedinger/ Gehe             | Glycerol 85%     | 40566        | 1              |
| Hedinger/ Jenne            | Glycerol 85%     | 40688        | 2              |
| Hedinger/ Jenne            | Glycerol 85%     | 4095         | 1              |
| Hedinger/ Noweda           | Glycerol 85%     | 40515        | 1              |
| Hedinger/ Noweda           | Glycerol 85%     | 40574        | 1              |
| Hedinger/ Noweda           | Glycerol 85%     | 40620        | 1              |
| hedinger/ noweda           | Glycerol 85%     | 40664        | 1              |
| Hedinger/ Noweda           | Glycerol 85%     | 40683        | 2              |
| Hedinger/ Noweda           | Glycerol 85%     | 40697        | 1              |
| Hedinger/ Phoenix          | Glycerol 85%     | 40628        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40479        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40480        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40499        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40501        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40531-1      | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40538        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40546        | 2              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40559        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40567        | 1              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40584        | 2              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40599        | 2              |
| Hedinger/ Sanacorp         | Glycerol 85%     | 40612        | 1              |
| Hedinger/ sanacorp         | Glycerol 85%     | 40683        | 2              |
| Hedinger/ VDL              | Glycerol 85%     | 40671        | 1              |
| Hedinger/                  | Glycerol 85%     | 40680        | 1              |
| Hedinger/4                 | Glycerol 85%     | 40599        | 1              |
| Hedinger/AEP               | Glycerol 85%     | 40670        | 1              |
| Hedinger/AHD               | Glycerol 85%     | 164(040620)  | 1              |
| Hedinger/AHD               | Glycerol 85%     | 165(0406209) | 1              |
| Hedinger/AHD               | Glycerol 85%     | 40586        | 1              |
| Hedinger/AHD               | Glycerol 85%     | 40652        | 1              |
| Hedinger/AHD               | Glycerol 85%     | 40671        | 1              |
| Hedinger/AHD               | Glycerol 85%     | 40675        | 1              |
| Hedinger/AHD               | Glycerol 85%     | 40695        | 1              |
| Hedinger/AHD               | Glycerol 85%     | 40697        | 3              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Hedinger/AHD               | Glycerol 85%     | 40708        | 1              |
| Hedinger/AHD               | Glycerol 85%     | 40716        | 1              |
| Hedinger/Allia             | Glycerol 85%     | 40691        | 1              |
| Hedinger/Alliance Healt... | Glycerol 85%     | 394353       | 1              |
| Hedinger/Alliance Healt... | Glycerol 85%     | 40626        | 1              |
| Hedinger/Alliance          | Glycerol 85%     | 40584        | 1              |
| Hedinger/Alliance          | Glycerol 85%     | 40626        | 1              |
| Hedinger/Alliance          | Glycerol 85%     | 40632        | 1              |
| Hedinger/Alliance          | Glycerol 85%     | 40671        | 1              |
| Hedinger/Alliance          | Glycerol 85%     | 40678        | 1              |
| Hedinger/Alliance          | Glycerol 85%     | 40716        | 1              |
| Hedinger/Anzag             | Glycerol 85%     | 40483        | 2              |
| Hedinger/Anzag             | Glycerol 85%     | 40665        | 1              |
| Hedinger/Anzag             | Glycerol 85%     | 40667        | 1              |
| hedinger/anzag             | Glycerol 85%     | 5538401      | 1              |
| Hedinger/Ebert             | Glycerol 85%     | 40483        | 1              |
| Hedinger/Ebert             | Glycerol 85%     | 40574        | 1              |
| Hedinger/Ebert             | Glycerol 85%     | 40576        | 1              |
| Hedinger/Ebert             | Glycerol 85%     | 40612        | 1              |
| Hedinger/Ebert             | Glycerol 85%     | 40628        | 2              |
| Hedinger/Ebert             | Glycerol 85%     | 40642        | 1              |
| Hedinger/Ebert             | Glycerol 85%     | 40646        | 1              |
| Hedinger/Ebert             | Glycerol 85%     | 40652        | 2              |
| Hedinger/Ebert             | Glycerol 85%     | 40665        | 2              |
| Hedinger/Fiebig            | Glycerol 85%     | 40607        | 1              |
| Hedinger/Fiebig            | Glycerol 85%     | 40629        | 1              |
| Hedinger/Fiebig            | Glycerol 85%     | 40644        | 1              |
| HEDINGER/Fiebig            | Glycerol 85%     | 40655        | 1              |
| Hedinger/Fiebig            | Glycerol 85%     | 40667        | 1              |
| Hedinger/Fiebig            | Glycerol 85%     | 40678        | 1              |
| Hedinger/Gehe/28.28.19     | Glycerol 85%     | 40664        | 1              |
| Hedinger/Gehe/29.08.19     | Glycerol 85%     | 40667        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 3112Q-01589  | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40473        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40483        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40491        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40497        | 2              |
| hedinger/Gehe              | Glycerol 85%     | 40501        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40519        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40524        | 1              |
| hedinger/Gehe              | Glycerol 85%     | 40529        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 4052B        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40540        | 2              |
| Hedinger/Gehe              | Glycerol 85%     | 40548        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40557        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40559        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40566        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40576        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40584        | 3              |
| Hedinger/Gehe              | Glycerol 85%     | 40586        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40599        | 2              |
| Hedinger/Gehe              | Glycerol 85%     | 40620        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40628        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40629        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40632        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40635        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40647        | 4              |
| Hedinger/Gehe              | Glycerol 85%     | 40652        | 3              |
| Hedinger/Gehe              | Glycerol 85%     | 40655        | 1              |
| Hedinger/Gehe              | Glycerol 85%     | 40670        | 4              |

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| <b>Supplier</b>           | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|------------------|--------------|----------------|
| Hedinger/Gehe             | Glycerol 85%     | 40671        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40673        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40680        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40683        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40690        | 4              |
| Hedinger/Gehe             | Glycerol 85%     | 40691        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40697        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40708        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40716        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 40724        | 1              |
| Hedinger/Gehe             | Glycerol 85%     | 4091         | 1              |
| Hedinger/Geibo            | Glycerol 85%     | 40467        | 1              |
| Hedinger/Geibo            | Glycerol 85%     | 40540        | 1              |
| Hedinger/Geibo            | Glycerol 85%     | 40566        | 1              |
| Hedinger/Geibo            | Glycerol 85%     | 40599        | 1              |
| Hedinger/Geibo            | Glycerol 85%     | 40620        | 1              |
| Hedinger/Geibo            | Glycerol 85%     | 40678        | 1              |
| Hedinger/Holdermann 18... | Glycerol 85%     | 40452        | 1              |
| Hedinger/Jenne/04.06.20   | Glycerol 85%     | 40690        | 1              |
| Hedinger/Jenne            | Glycerol 85%     | 40683        | 1              |
| Hedinger/Jenne            | Glycerol 85%     | 40690        | 2              |
| Hedinger/Krieger          | Glycerol 85%     | 40618        | 1              |
| Hedinger/Krieger          | Glycerol 85%     | 40635        | 1              |
| HEDINGER/Lusanum          | Glycerol 85%     | 40644        | 1              |
| Hedinger/Novatis          | Glycerol 85%     | 40695        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40478        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40515        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40522        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40538        | 2              |
| Hedinger/Noweda           | Glycerol 85%     | 40542        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40557        | 2              |
| Hedinger/Noweda           | Glycerol 85%     | 40559        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40567        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40574        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40579        | 2              |
| Hedinger/Noweda           | Glycerol 85%     | 40583        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40596        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40599        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40607        | 3              |
| Hedinger/Noweda           | Glycerol 85%     | 40612        | 2              |
| Hedinger/Noweda           | Glycerol 85%     | 40618        | 5              |
| Hedinger/Noweda           | Glycerol 85%     | 40620        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40626        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40628        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40629        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40649        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40655        | 3              |
| Hedinger/Noweda           | Glycerol 85%     | 40664        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40671        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40673        | 3              |
| Hedinger/Noweda           | Glycerol 85%     | 40675        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40678        | 3              |
| Hedinger/Noweda           | Glycerol 85%     | 40683        | 1              |
| Hedinger/Noweda           | Glycerol 85%     | 40691        | 2              |
| Hedinger/Ph               | Glycerol 85%     | 40646        | 1              |
| Hedinger/Ph               | Glycerol 85%     | 40670        | 1              |
| Hedinger/Phö              | Glycerol 85%     | 40618        | 3              |
| Hedinger/Phö              | Glycerol 85%     | 40626        | 2              |
| Hedinger/Phö              | Glycerol 85%     | 40652        | 1              |
| Hedinger/Phö              | Glycerol 85%     | 40665        | 1              |

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| <b>Supplier</b>   | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-------------------|------------------|------------------|----------------|
| Hedinger/Phoenix  | Glycerol 85%     | 40515            | 1              |
| Hedinger/Phoenix  | Glycerol 85%     | 40542            | 1              |
| Hedinger/Phoenix  | Glycerol 85%     | 40546            | 1              |
| Hedinger/Phoenix  | Glycerol 85%     | 40559            | 1              |
| Hedinger/Phoenix  | Glycerol 85%     | 40579            | 1              |
| Hedinger/Phoenix  | Glycerol 85%     | 40596            | 1              |
| Hedinger/Phoenix  | Glycerol 85%     | 40635            | 1              |
| Hedinger/Phoenix  | Glycerol 85%     | 40644            | 3              |
| hedinger/Phoenix  | Glycerol 85%     | 40665            | 1              |
| hedinger/Phoenix  | Glycerol 85%     | 40673            | 2              |
| Hedinger/Phoenix  | Glycerol 85%     | 40678            | 4              |
| hedinger/Phoenix  | Glycerol 85%     | 4067B            | 1              |
| hedinger/Phoenix  | Glycerol 85%     | 40680            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 1808009-01       | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40481            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40483            | 2              |
| Hedinger/Phönix   | Glycerol 85%     | 40531-1          | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40546            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40559            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40567            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40574            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40576            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40583            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40596            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40598            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40599            | 2              |
| Hedinger/Phönix   | Glycerol 85%     | 40607            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40612            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40620            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40626            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40628            | 3              |
| Hedinger/Phönix   | Glycerol 85%     | 40629            | 3              |
| Hedinger/Phönix   | Glycerol 85%     | 40652            | 2              |
| Hedinger/Phönix   | Glycerol 85%     | 40673            | 1              |
| Hedinger/Phönix   | Glycerol 85%     | 40678            | 2              |
| Hedinger/Phönix   | Glycerol 85%     | 40695            | 1              |
| Hedinger/PX       | Glycerol 85%     | 40547            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40499-3354319071 | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40501            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40507            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40546            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40548            | 2              |
| Hedinger/Sanacorp | Glycerol 85%     | 40557            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40559            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40566            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40576            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40579            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40620            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40628            | 2              |
| Hedinger/Sanacorp | Glycerol 85%     | 40629            | 2              |
| Hedinger/Sanacorp | Glycerol 85%     | 40635            | 3              |
| Hedinger/Sanacorp | Glycerol 85%     | 40644            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40647            | 2              |
| Hedinger/Sanacorp | Glycerol 85%     | 40652            | 4              |
| Hedinger/Sanacorp | Glycerol 85%     | 40667            | 3              |
| Hedinger/Sanacorp | Glycerol 85%     | 40671            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40678            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40690            | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 40691            | 4              |
| Hedinger/Sanacorp | Glycerol 85%     | 40711            | 1              |

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| <b>Supplier</b>   | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|-------------------|------------------|---------------|----------------|
| Hedinger/Sanacorp | Glycerol 85%     | 40716         | 1              |
| Hedinger/Sanacorp | Glycerol 85%     | 61016B        | 1              |
| Hedinger/Titz     | Glycerol 85%     | 40678         | 1              |
| Hedinger/VDL      | Glycerol 85%     | 40599         | 1              |
| Hedinger          | Glycerol 85%     | 25082015B     | 1              |
| Hedinger          | Glycerol 85%     | 40447         | 1              |
| Hedinger          | Glycerol 85%     | 40452         | 1              |
| Hedinger          | Glycerol 85%     | 40464         | 2              |
| HEDINGER          | Glycerol 85%     | 40467         | 1              |
| Hedinger          | Glycerol 85%     | 40471         | 2              |
| Hedinger          | Glycerol 85%     | 40473         | 1              |
| HEDINGER          | Glycerol 85%     | 40475         | 1              |
| Hedinger          | Glycerol 85%     | 40478         | 1              |
| Hedinger          | Glycerol 85%     | 40481         | 1              |
| hedinger          | Glycerol 85%     | 40483         | 1              |
| Hedinger          | Glycerol 85%     | 40483         | 2              |
| Hedinger          | Glycerol 85%     | 40486         | 2              |
| HEDINGER          | Glycerol 85%     | 40491         | 1              |
| hedinger          | Glycerol 85%     | 40494         | 1              |
| Hedinger          | Glycerol 85%     | 40497         | 2              |
| HEDINGER          | Glycerol 85%     | 40497         | 1              |
| Hedinger          | Glycerol 85%     | 40499         | 3              |
| HEDINGER          | Glycerol 85%     | 40501         | 1              |
| Hedinger          | Glycerol 85%     | 40502         | 1              |
| Hedinger          | Glycerol 85%     | 40506         | 2              |
| Hedinger          | Glycerol 85%     | 40507         | 1              |
| Hedinger          | Glycerol 85%     | 40515         | 1              |
| Hedinger          | Glycerol 85%     | 40519         | 3              |
| Hedinger          | Glycerol 85%     | 40522         | 1              |
| Hedinger          | Glycerol 85%     | 40524         | 1              |
| Hedinger          | Glycerol 85%     | 40528         | 1              |
| Hedinger          | Glycerol 85%     | 40529         | 3              |
| Hedinger          | Glycerol 85%     | 40531         | 2              |
| Hedinger          | Glycerol 85%     | 40531-1       | 3              |
| hedinger          | Glycerol 85%     | 40538         | 1              |
| Hedinger          | Glycerol 85%     | 40538         | 4              |
| Hedinger          | Glycerol 85%     | 40540         | 1              |
| Hedinger          | Glycerol 85%     | 40541         | 2              |
| Hedinger          | Glycerol 85%     | 40542         | 1              |
| Hedinger          | Glycerol 85%     | 40546         | 1              |
| Hedinger          | Glycerol 85%     | 40548         | 2              |
| Hedinger          | Glycerol 85%     | 40556         | 2              |
| Hedinger          | Glycerol 85%     | 40557         | 5              |
| Hedinger          | Glycerol 85%     | 40559         | 2              |
| Hedinger          | Glycerol 85%     | 40566         | 5              |
| Hedinger          | Glycerol 85%     | 40567         | 3              |
| Hedinger          | Glycerol 85%     | 40574         | 3              |
| Hedinger          | Glycerol 85%     | 40576         | 6              |
| Hedinger          | Glycerol 85%     | 40578         | 1              |
| Hedinger          | Glycerol 85%     | 40579         | 5              |
| Hedinger          | Glycerol 85%     | 4057907474853 | 1              |
| Hedinger          | Glycerol 85%     | 40583         | 4              |
| Hedinger          | Glycerol 85%     | 40584         | 4              |
| Hedinger          | Glycerol 85%     | 40586         | 5              |
| Hedinger          | Glycerol 85%     | 40596         | 4              |
| Hedinger          | Glycerol 85%     | 40598         | 9              |
| Hedinger          | Glycerol 85%     | 40599         | 15             |
| Hedinger          | Glycerol 85%     | 40607         | 9              |
| Hedinger          | Glycerol 85%     | 40612         | 9              |
| Hedinger          | Glycerol 85%     | 40618         | 2              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Hedinger                   | Glycerol 85%     | 40620        | 11             |
| Hedinger                   | Glycerol 85%     | 406205369    | 1              |
| Hedinger                   | Glycerol 85%     | 40625        | 1              |
| Hedinger                   | Glycerol 85%     | 40626        | 7              |
| Hedinger                   | Glycerol 85%     | 40628        | 11             |
| Hedinger                   | Glycerol 85%     | 40629        | 5              |
| Hedinger                   | Glycerol 85%     | 40632        | 3              |
| Hedinger                   | Glycerol 85%     | 40635        | 5              |
| Hedinger                   | Glycerol 85%     | 40639        | 2              |
| Hedinger                   | Glycerol 85%     | 40644        | 3              |
| Hedinger                   | Glycerol 85%     | 40646        | 3              |
| Hedinger                   | Glycerol 85%     | 40647        | 4              |
| hedinger                   | Glycerol 85%     | 40652        | 1              |
| Hedinger                   | Glycerol 85%     | 40652        | 8              |
| Hedinger                   | Glycerol 85%     | 40655        | 4              |
| Hedinger                   | Glycerol 85%     | 40660        | 2              |
| Hedinger                   | Glycerol 85%     | 40664        | 1              |
| Hedinger                   | Glycerol 85%     | 40665        | 4              |
| Hedinger                   | Glycerol 85%     | 40667        | 3              |
| Hedinger                   | Glycerol 85%     | 406678       | 1              |
| Hedinger                   | Glycerol 85%     | 40670        | 1              |
| Hedinger                   | Glycerol 85%     | 40671        | 2              |
| Hedinger                   | Glycerol 85%     | 40673        | 1              |
| Hedinger                   | Glycerol 85%     | 40678        | 6              |
| Hedinger                   | Glycerol 85%     | 40680        | 2              |
| Hedinger                   | Glycerol 85%     | 40683        | 5              |
| HEDINGER                   | Glycerol 85%     | 40683        | 1              |
| Hedinger                   | Glycerol 85%     | 40684        | 1              |
| Hedinger                   | Glycerol 85%     | 40685        | 1              |
| hedinger                   | Glycerol 85%     | 40690        | 1              |
| Hedinger                   | Glycerol 85%     | 40690        | 2              |
| Hedinger                   | Glycerol 85%     | 40691        | 4              |
| Hedinger                   | Glycerol 85%     | 40695(1)     | 1              |
| Hedinger                   | Glycerol 85%     | 40695(2)     | 1              |
| Hedinger                   | Glycerol 85%     | 40697        | 3              |
| Hedinger                   | Glycerol 85%     | 40697-2      | 1              |
| Hedinger                   | Glycerol 85%     | 40708        | 3              |
| Hedingere                  | Glycerol 85%     | 40678        | 2              |
| Heedinger/Noweda           | Glycerol 85%     | 40576        | 1              |
| Heidinger/Sanaccorp        | Glycerol 85%     | 40683        | 2              |
| heidringer                 | Glycerol 85%     | 40559        | 1              |
| Hendiger/Sanacorp          | Glycerol 85%     | 40599        | 1              |
| Hendinger/Anzag 20.12.2... | Glycerol 85%     | 40467        | 2              |
| Henry Lamotte / Anzag      | Glycerol 85%     | 125545       | 1              |
| Henry Lamotte / Anzag      | Glycerol 85%     | 8001116001   | 1              |
| Henry Lamotte / Noweda     | Glycerol 85%     | 1000006424   | 1              |
| Henry Lamotte / Noweda     | Glycerol 85%     | 125545       | 1              |
| Henry Lamotte GmbH Bremen  | Glycerol 85%     | 5142501      | 1              |
| Henry Lamotte OHLS GMBH... | Glycerol 85%     | 8006785001   | 2              |
| Henry Lamotte Oils GmbH... | Glycerol 85%     | 8006785001   | 1              |
| Henry Lamotte Oils GmbH... | Glycerol 85%     | 1000013286   | 1              |
| Henry Lamotte Oils GmbH... | Glycerol 85%     | 1000013541   | 1              |
| Henry Lamotte Oils GmbH... | Glycerol 85%     | 8002208001   | 1              |
| Henry Lamotte Oils GmbH... | Glycerol 85%     | 8005437001   | 1              |
| Henry Lamotte oils GmbH... | Glycerol 85%     | 8002208001   | 2              |
| Henry Lamotte Oils GmbH    | Glycerol 85%     | 1000013286   | 1              |
| Henry Lamotte Oils GmbH    | Glycerol 85%     | 125545       | 1              |
| HENRY LAMOTTE OILS GmbH    | Glycerol 85%     | 8006785001   | 1              |
| Henry Lamotte Oils/ Gehe   | Glycerol 85%     | 1801025-01   | 1              |
| Henry Lamotte Olis GmbH    | Glycerol 85%     | 5603001      | 1              |

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| Supplier                   | Substance    | Batch        | Spectra |
|----------------------------|--------------|--------------|---------|
| Henry Lamotte Phönix       | Glycerol 85% | 123142       | 1       |
| Henry Lamotte/ Alliance... | Glycerol 85% | 8002720001   | 1       |
| Henry Lamotte/ Noweda      | Glycerol 85% | 8002208001   | 1       |
| Henry Lamotte/ Noweda      | Glycerol 85% | 8005437001   | 1       |
| Henry Lamotte/ sanacorp    | Glycerol 85% | 1000013286   | 1       |
| Henry Lamotte/             | Glycerol 85% | 1000012233   | 1       |
| Henry Lamotte/Anzag        | Glycerol 85% | 8001116001   | 1       |
| Henry Lamotte/Anzag        | Glycerol 85% | 8005437001   | 1       |
| Henry Lamotte/Jenne        | Glycerol 85% | 1000013286   | 1       |
| Henry Lamotte/Jenne        | Glycerol 85% | 123464       | 1       |
| Henry Lamotte/Noweda       | Glycerol 85% | 1000013541   | 1       |
| Henry Lamotte/Noweda       | Glycerol 85% | 8002720001   | 1       |
| Henry Lamotte/Phoenix      | Glycerol 85% | 17215501     | 1       |
| Henry Lamotte              | Glycerol 85% |              | 1       |
| Henry Lamotte              | Glycerol 85% | 1000013286   | 1       |
| HENRY LAMOTTE              | Glycerol 85% | 1000013286   | 1       |
| Henry Lamotte              | Glycerol 85% | 1000013541   | 2       |
| Henry Lamotte              | Glycerol 85% | 123142       | 1       |
| Henry Lamotte              | Glycerol 85% | 123304       | 1       |
| Henry Lamotte              | Glycerol 85% | 124654       | 1       |
| Henry Lamotte              | Glycerol 85% | 15292204     | 1       |
| Henry Lamotte              | Glycerol 85% | 1703003-01   | 1       |
| Henry Lamotte              | Glycerol 85% | 5226901      | 2       |
| Henry Lamotte              | Glycerol 85% | 5538401      | 2       |
| Henry Lamotte              | Glycerol 85% | 5603001      | 1       |
| Henry Lamotte              | Glycerol 85% | 8002208001   | 1       |
| Henry Lamotte              | Glycerol 85% | 8006785001   | 1       |
| Henry                      | Glycerol 85% | 123304       | 1       |
| HenryLamotte/Phönix        | Glycerol 85% | 1000013541   | 1       |
| Hepart                     | Glycerol 85% | 15036903     | 2       |
| Herbeta / Noweda           | Glycerol 85% |              | 2       |
| Herbeta Arzneimittel Be... | Glycerol 85% |              | 1       |
| Herbeta Arzneimittel       | Glycerol 85% |              | 2       |
| Herbeta Berlin             | Glycerol 85% |              | 1       |
| Hidinger                   | Glycerol 85% | 40691        | 1       |
| HirschApotheke             | Glycerol 85% | 40541        | 1       |
| hochhaus-Apotheke          | Glycerol 85% | 5066111      | 1       |
| Ichthyol/Noweda            | Glycerol 85% | 5068031      | 1       |
| Jenne / A. Hedinger        | Glycerol 85% | 40662        | 1       |
| Jenne / A. Hedinger        | Glycerol 85% | 40713        | 1       |
| Jenne/Lamotte              | Glycerol 85% | 5603001      | 1       |
| Jenne                      | Glycerol 85% | 40599        | 1       |
| Kehr / Fischar             | Glycerol 85% | 5061071      | 1       |
| Kehr / Lamotte             | Glycerol 85% | 290114PML04  | 1       |
| Kehr/Otto Fischar GmbH     | Glycerol 85% | 5068031      | 3       |
| Kehr/Otto Fischar GmbH     | Glycerol 85% | 5069051      | 1       |
| Kehr                       | Glycerol 85% | 1808009-02   | 1       |
| Kehr                       | Glycerol 85% | 20001473     | 1       |
| Kögl                       | Glycerol 85% | 105004171417 | 2       |
| Kögl                       | Glycerol 85% | 1700476      | 1       |
| Kögl                       | Glycerol 85% | 1800130      | 1       |
| Kögl                       | Glycerol 85% | 1800839      | 1       |
| Kögl                       | Glycerol 85% | 1802181      | 1       |
| Kögl                       | Glycerol 85% | 20302170917  | 1       |
| Kögl                       | Glycerol 85% | 258607172917 | 1       |
| kraemer/ Gehe              | Glycerol 85% | 41025        | 1       |
| L10                        | Glycerol 85% | 17197701     | 3       |
| L10                        | Glycerol 85% | 18020001     | 3       |
| L12                        | Glycerol 85% | 16347203     | 4       |
| L12                        | Glycerol 85% | 16347209     | 2       |

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*continued from previous page*

| <b>Supplier</b>          | <b>Substance</b> | <b>Batch</b>   | <b>Spectra</b> |
|--------------------------|------------------|----------------|----------------|
| L30                      | Glycerol 85%     | 18020005       | 2              |
| Laborchemie APOLDA       | Glycerol 85%     | 14149410       | 1              |
| Lamotte Noweda           | Glycerol 85%     | 1000007843     | 1              |
| Lamotte Noweda           | Glycerol 85%     | 8002720001     | 1              |
| Lamotte/ Noweda          | Glycerol 85%     | 1000012233     | 1              |
| Lamotte/ Noweda          | Glycerol 85%     | 8005158001     | 1              |
| Lamotte/ Phönix          | Glycerol 85%     | 1000013541     | 2              |
| Lamotte/ Phönix          | Glycerol 85%     | 8006785001     | 1              |
| Lamotte//AHD             | Glycerol 85%     | 125545         | 1              |
| Lamotte/AHD              | Glycerol 85%     | 1000007843     | 1              |
| Lamotte/AHD              | Glycerol 85%     | 8001116001     | 1              |
| Lamotte/AHD              | Glycerol 85%     | 8002208001     | 1              |
| Lamotte/AHD              | Glycerol 85%     | 8003194001     | 1              |
| Lamotte/AHD              | Glycerol 85%     | 8005158001     | 1              |
| Lamotte/Alliance         | Glycerol 85%     | 5603001        | 1              |
| Lamotte/Anzag            | Glycerol 85%     | 10000006424    | 1              |
| Lamotte/Anzag            | Glycerol 85%     | 1000006424     | 1              |
| Lamotte/Anzag            | Glycerol 85%     | 1000007843     | 3              |
| Lamotte/Anzag            | Glycerol 85%     | 1000012233     | 1              |
| Lamotte/Anzag            | Glycerol 85%     | 8003194000     | 1              |
| Lamotte/Anzag            | Glycerol 85%     | 8004808001     | 3              |
| Lamotte/Gehe             | Glycerol 85%     | 1000013005     | 2              |
| Lamotte/Geilenkirchen    | Glycerol 85%     | 1000013286     | 1              |
| Lamotte/Krieger/27.11.13 | Glycerol 85%     | 5538401        | 3              |
| Lamotte/Noweda           | Glycerol 85%     | 1000013005     | 1              |
| Lamotte/Noweda           | Glycerol 85%     | 123464         | 1              |
| Lamotte/Noweda           | Glycerol 85%     | 5538401        | 1              |
| LAMOTTE/NOWEDA           | Glycerol 85%     | 5538401        | 2              |
| Lamotte/Phoenix          | Glycerol 85%     | 1000012233     | 1              |
| Lamotte/Phoenix          | Glycerol 85%     | 8002720001     | 2              |
| lamotte/phönix           | Glycerol 85%     | 5538401        | 2              |
| Lamotte/Sanacorp         | Glycerol 85%     | 1000013286     | 1              |
| Lamotte/Sanacorp         | Glycerol 85%     | 1000014128     | 1              |
| Lamotte/Sanacorp         | Glycerol 85%     | 124654         | 2              |
| Lamotte                  | Glycerol 85%     | 1000013286     | 1              |
| Lamotte                  | Glycerol 85%     | 123304         | 1              |
| Lamotte                  | Glycerol 85%     | 5142501        | 1              |
| Lamotte                  | Glycerol 85%     | 5360201        | 5              |
| Lamotte                  | Glycerol 85%     | 5424101        | 2              |
| Lamotte                  | Glycerol 85%     | 5424901        | 4              |
| Lamotte                  | Glycerol 85%     | 5487801        | 2              |
| Lamotte                  | Glycerol 85%     | 5512001        | 2              |
| Lamotte                  | Glycerol 85%     | 5538401        | 2              |
| Lamotte                  | Glycerol 85%     | 5603001        | 7              |
| Lamotte                  | Glycerol 85%     | 5603002        | 1              |
| Leyh Pharma GmbH         | Glycerol 85%     | BE-08675/37460 | 1              |
| Marktapotheke            | Glycerol 85%     | 40599          | 1              |
| Midas                    | Glycerol 85%     | 40618          | 1              |
| Midas                    | Glycerol 85%     | 40632          | 1              |
| Nachprüfung              | Glycerol 85%     | 220M-01589     | 1              |
| Nachprüfung              | Glycerol 85%     | 3082019-4      | 1              |
| Nauto                    | Glycerol 85%     | 16218906       | 1              |
| Nokun                    | Glycerol 85%     | 5067061        | 1              |
| Noweda / Hedinger        | Glycerol 85%     | 40626          | 1              |
| Noweda / Hedinger        | Glycerol 85%     | 40652          | 2              |
| Noweda/ Fischar          | Glycerol 85%     | 5060036        | 2              |
| Noweda/ Fischar          | Glycerol 85%     | 5065011        | 1              |
| Noweda/ Fischar          | Glycerol 85%     | 5065061        | 2              |
| Noweda/ Hedinger         | Glycerol 85%     | 40642          | 1              |
| Noweda/ Hedinger         | Glycerol 85%     | 40652          | 1              |

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| <b>Supplier</b>           | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|------------------|--------------|----------------|
| Noweda/ Lamotte           | Glycerol 85%     | 8005437001   | 1              |
| Noweda/ Fischar           | Glycerol 85%     | 5064021      | 1              |
| Noweda/ Fischar           | Glycerol 85%     | 5067061      | 1              |
| Noweda/ Hedinger          | Glycerol 85%     | 40499        | 1              |
| Noweda/ Hedinger          | Glycerol 85%     | 40509        | 1              |
| Noweda/ Hedinger          | Glycerol 85%     | 40574        | 2              |
| Noweda/ Hedinger          | Glycerol 85%     | 40586        | 1              |
| Noweda/ Hedinger          | Glycerol 85%     | 40652        | 1              |
| Noweda/ Hedinger          | Glycerol 85%     | 40691        | 2              |
| Noweda/ Ichthyol          | Glycerol 85%     | 5064071      | 1              |
| Noweda/ Otto Fischar GmbH | Glycerol 85%     | 5066071      | 1              |
| noweda                    | Glycerol 85%     |              | 1              |
| Noweda                    | Glycerol 85%     | 1070033      | 1              |
| Noweda                    | Glycerol 85%     | 12108201     | 1              |
| noweda                    | Glycerol 85%     | 13276202     | 1              |
| noweda                    | Glycerol 85%     | 13356403     | 1              |
| Noweda                    | Glycerol 85%     | 1506036-01   | 1              |
| Noweda                    | Glycerol 85%     | 1708022-01   | 1              |
| Noweda                    | Glycerol 85%     | 18020002     | 2              |
| Noweda                    | Glycerol 85%     | 1804017-01   | 1              |
| Noweda                    | Glycerol 85%     | 18253404     | 1              |
| Noweda                    | Glycerol 85%     | 19000627     | 1              |
| Noweda                    | Glycerol 85%     | 19001        | 1              |
| Noweda                    | Glycerol 85%     | 1901041-01   | 1              |
| Noweda                    | Glycerol 85%     | 192976002    | 1              |
| Noweda                    | Glycerol 85%     | 200001747    | 1              |
| Noweda                    | Glycerol 85%     | 20000941003  | 1              |
| Noweda                    | Glycerol 85%     | 20001043005  | 1              |
| Noweda                    | Glycerol 85%     | 20001632     | 1              |
| Noweda                    | Glycerol 85%     | 2011017-01   | 1              |
| Noweda                    | Glycerol 85%     | 2011017-02   | 1              |
| Noweda                    | Glycerol 85%     | 272305       | 1              |
| Noweda                    | Glycerol 85%     | 278655       | 1              |
| Noweda                    | Glycerol 85%     | 308738       | 1              |
| Noweda                    | Glycerol 85%     | 310593       | 1              |
| Noweda                    | Glycerol 85%     | 40464        | 1              |
| Noweda                    | Glycerol 85%     | 40475        | 1              |
| Noweda                    | Glycerol 85%     | 40483        | 1              |
| Noweda                    | Glycerol 85%     | 40647        | 2              |
| Noweda                    | Glycerol 85%     | 40673        | 1              |
| Noweda                    | Glycerol 85%     | 40684        | 1              |
| Noweda                    | Glycerol 85%     | 5060012      | 1              |
| Noweda                    | Glycerol 85%     | 5062121      | 2              |
| Noweda                    | Glycerol 85%     | 5066071      | 1              |
| Noweda                    | Glycerol 85%     | 5067061      | 1              |
| Noweda                    | Glycerol 85%     | 5068101      | 2              |
| Noweda                    | Glycerol 85%     | 5226901      | 1              |
| Noweda                    | Glycerol 85%     | BE-09161     | 1              |
| OTTO Fischar / GEHE       | Glycerol 85%     | 5060036      | 1              |
| Otto Fischar / GEHE       | Glycerol 85%     | 5065081      | 1              |
| Otto Fischar / GEHE       | Glycerol 85%     | 5066021      | 2              |
| Otto Fischar / gehe       | Glycerol 85%     | 5067111      | 1              |
| Otto Fischar / Gehe       | Glycerol 85%     | 5068031      | 1              |
| Otto Fischar / Gehe       | Glycerol 85%     | 5068081      | 1              |
| Otto Fischar GmbH & Co KG | Glycerol 85%     | 5069081      | 1              |
| Otto Fischar GmbH & Co... | Glycerol 85%     | 5068012      | 1              |
| Otto Fischar GmbH & Co... | Glycerol 85%     | 5060041      | 1              |
| Otto Fischar GmbH & Co... | Glycerol 85%     | 1077011      | 1              |
| Otto Fischar GmbH & Co... | Glycerol 85%     | 5060012      | 1              |
| Otto Fischar GmbH & Co... | Glycerol 85%     | 5060032      | 3              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|----------------------------|------------------|---------------|----------------|
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5060033       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5060041       | 2              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5060111       | 2              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5061071       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5065012       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5065061       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5066071       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5067111       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5069021       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 50068031      | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5060011       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5068012       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5068121       | 1              |
| Otto Fischar GmbH & Co...  | Glycerol 85%     | 5069021       | 1              |
| Otto Fischar GmbH & Co.KG  | Glycerol 85%     | 5065031       | 1              |
| Otto Fischar GmbH & Co.KG  | Glycerol 85%     | 5066021       | 1              |
| Otto Fischar GmbH & Co.KG  | Glycerol 85%     | 5066061       | 1              |
| Otto Fischar GmbH & Co.KG  | Glycerol 85%     | 5066111       | 3              |
| Otto Fischar GmbH & Co.KG  | Glycerol 85%     | 5067061       | 1              |
| Otto Fischar GmbH & Co.KG  | Glycerol 85%     | 5068012       | 1              |
| Otto Fischar GmbH / All... | Glycerol 85%     | 5067031       | 1              |
| Otto Fischar GmbH / All... | Glycerol 85%     | 5067061       | 1              |
| Otto Fischar GmbH / All... | Glycerol 85%     | 5067081       | 1              |
| Otto Fischar GmbH / All... | Glycerol 85%     | 5067111       | 1              |
| Otto Fischar GmbH / All... | Glycerol 85%     | 5068081       | 1              |
| Otto Fischar GmbH / Gehe   | Glycerol 85%     | 1076021       | 1              |
| Otto Fischar GmbH / Gehe   | Glycerol 85%     | 5066071       | 1              |
| Otto Fischar GmbH / Pho... | Glycerol 85%     | 5068081       | 2              |
| Otto- Fischar GmbH und ... | Glycerol 85%     | 5067011       | 1              |
| Otto Fischar GmbH& Co KG   | Glycerol 85%     | 5060036       | 1              |
| Otto Fischar GmbH&Co KG    | Glycerol 85%     | 5067091       | 1              |
| Otto Fischar GmbH&Co KG    | Glycerol 85%     | 5068021       | 1              |
| Otto Fischar GmbH&Co KG    | Glycerol 85%     | 5068101       | 1              |
| Otto Fischar GmbH&Co KG    | Glycerol 85%     | 5069081       | 1              |
| Otto Fischar GmbH&Co.KG    | Glycerol 85%     | 5060041       | 1              |
| Otto Fischar GmbH&Co.KG    | Glycerol 85%     | 506041        | 1              |
| Otto Fischar GmbH&Co.KG    | Glycerol 85%     | 5069081       | 1              |
| Otto Fischar GmbH&Co       | Glycerol 85%     | 5060042       | 1              |
| Otto Fischar GmbH&Co       | Glycerol 85%     | 5060091       | 1              |
| Otto Fischar GmbH&CoKG     | Glycerol 85%     | 5068012       | 1              |
| Otto Fischar GmbH/ Noweda  | Glycerol 85%     | 5066011       | 4              |
| Otto Fischar GmbH/ Sana... | Glycerol 85%     | 5067091       | 1              |
| Otto Fischar GmbH/ Sana... | Glycerol 85%     | 5068012       | 1              |
| Otto Fischar GmbH/ Sana... | Glycerol 85%     | 5068081       | 1              |
| Otto Fischar GmbH/ Sana... | Glycerol 85%     | 5068101       | 1              |
| Otto Fischar GmbH/Gehe     | Glycerol 85%     | 5066011       | 1              |
| Otto Fischar GmbH/Now      | Glycerol 85%     | 5068031       | 2              |
| Otto Fischar GmbH/Noweda   | Glycerol 85%     | 5060036       | 1              |
| Otto Fischar GmbH/Phoenix  | Glycerol 85%     | 5060012       | 1              |
| Otto Fischar GmbH/Phoenix  | Glycerol 85%     | 5060062       | 1              |
| Otto Fischar GmbH/Phoenix  | Glycerol 85%     | 5068012       | 1              |
| Otto Fischar GmbH/Phoenix  | Glycerol 85%     | 5068021       | 1              |
| Otto Fischar GmbH/Phoenix  | Glycerol 85%     | 5068031       | 1              |
| Otto Fischar GmbH/Phoenix  | Glycerol 85%     | 5069059       | 2              |
| Otto Fischar GmbH/Phönix   | Glycerol 85%     | 5069011       | 1              |
| Otto Fischar GmbH          | Glycerol 85%     | 1077011       | 1              |
| Otto Fischar GmbH          | Glycerol 85%     | 15092017-MW-A | 1              |
| Otto Fischar GmbH          | Glycerol 85%     | 5060011       | 1              |
| Otto Fischar GmbH          | Glycerol 85%     | 5060032       | 1              |
| Otto Fischar GmbH          | Glycerol 85%     | 5060034       | 1              |

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| <b>Supplier</b>        | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------|------------------|--------------|----------------|
| Otto Fischar GmbH      | Glycerol 85%     | 5060036      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5060041      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5060062      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5060111      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5061102      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5062051      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5062052      | 2              |
| Otto Fischar GmbH      | Glycerol 85%     | 5062121      | 2              |
| Otto Fischar GmbH      | Glycerol 85%     | 5064021      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5065031      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5065081      | 2              |
| Otto Fischar GmbH      | Glycerol 85%     | 5066061      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5066081      | 2              |
| Otto Fischar GmbH      | Glycerol 85%     | 5066101      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5067011      | 2              |
| Otto Fischar GmbH      | Glycerol 85%     | 5067021      | 2              |
| Otto Fischar GmbH      | Glycerol 85%     | 506711       | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5068012      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5068031      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5068101      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5068121      | 1              |
| Otto Fischar GmbH      | Glycerol 85%     | 5069081      | 1              |
| Otto Fischar/ Alliance | Glycerol 85%     | 1070042      | 1              |
| Otto Fischar/ Noweda   | Glycerol 85%     | 1076111      | 1              |
| Otto Fischar/ Noweda   | Glycerol 85%     | 1077111      | 1              |
| Otto Fischar/ Noweda   | Glycerol 85%     | 5060012      | 2              |
| Otto Fischar/ Noweda   | Glycerol 85%     | 5069059      | 1              |
| Otto Fischar/ Phoenix  | Glycerol 85%     | 5060063      | 1              |
| Otto Fischar/ Sanacorp | Glycerol 85%     | 5060042      | 1              |
| Otto Fischar/AHD       | Glycerol 85%     | 5068012      | 1              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5060036      | 1              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5063012      | 1              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5067011      | 1              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5067091      | 1              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5068012      | 1              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5068031      | 3              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5068081      | 1              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5068121      | 4              |
| Otto Fischar/Gehe      | Glycerol 85%     | 5069021      | 2              |
| Otto Fischar/Noweda    | Glycerol 85%     | 1070011      | 1              |
| Otto Fischar/Noweda    | Glycerol 85%     | 5060033      | 2              |
| Otto Fischar/Noweda    | Glycerol 85%     | 5060035      | 1              |
| Otto Fischar/Noweda    | Glycerol 85%     | 5067091      | 1              |
| Otto Fischar/Phoenix   | Glycerol 85%     | 5063011      | 1              |
| Otto Fischar/Phoenix   | Glycerol 85%     | 5069021      | 1              |
| Otto Fischar/Phoenix   | Glycerol 85%     | 5069051      | 1              |
| Otto Fischar/Phoenix   | Glycerol 85%     | 5096051      | 1              |
| Otto Fischar/Phönix    | Glycerol 85%     | 1079052      | 1              |
| Otto Fischar/Sanacorp  | Glycerol 85%     | 5060062      | 1              |
| Otto Fischar/Sanacorp  | Glycerol 85%     | 5068121      | 1              |
| Otto Fischar           | Glycerol 85%     | 1070033      | 4              |
| Otto Fischar           | Glycerol 85%     | 1075061      | 1              |
| otto fischar           | Glycerol 85%     | 1075111      | 1              |
| Otto Fischar           | Glycerol 85%     | 10751111     | 1              |
| Otto Fischar           | Glycerol 85%     | 1076021      | 1              |
| Otto Fischar           | Glycerol 85%     | 1078011      | 1              |
| Otto Fischar           | Glycerol 85%     | 5060012      | 1              |
| Otto Fischar           | Glycerol 85%     | 5060031      | 1              |
| Otto Fischar           | Glycerol 85%     | 5060032      | 1              |
| Otto Fischar           | Glycerol 85%     | 5060033      | 1              |

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| Supplier                   | Substance    | Batch     | Spectra |
|----------------------------|--------------|-----------|---------|
| Otto Fischar               | Glycerol 85% | 5060034   | 1       |
| otto fischar               | Glycerol 85% | 5060036   | 1       |
| Otto Fischar               | Glycerol 85% | 5060036   | 1       |
| Otto Fischar               | Glycerol 85% | 5060041   | 2       |
| Otto Fischar               | Glycerol 85% | 5060062   | 1       |
| Otto Fischar               | Glycerol 85% | 5060091   | 1       |
| Otto Fischar               | Glycerol 85% | 5060121   | 1       |
| Otto Fischar               | Glycerol 85% | 5062011   | 2       |
| Otto Fischar               | Glycerol 85% | 5062051   | 1       |
| Otto Fischar               | Glycerol 85% | 5064021   | 1       |
| Otto Fischar               | Glycerol 85% | 5065012   | 1       |
| otto Fischar               | Glycerol 85% | 5065111   | 1       |
| Otto Fischar               | Glycerol 85% | 5066031   | 1       |
| Otto Fischar               | Glycerol 85% | 5066061   | 1       |
| Otto Fischar               | Glycerol 85% | 5066081   | 2       |
| Otto Fischar               | Glycerol 85% | 5066101   | 2       |
| Otto Fischar               | Glycerol 85% | 5066111   | 1       |
| Otto Fischar               | Glycerol 85% | 5067011   | 1       |
| Otto Fischar               | Glycerol 85% | 5067061   | 1       |
| Otto Fischar               | Glycerol 85% | 5068012   | 1       |
| Otto Fischar               | Glycerol 85% | 5068031   | 3       |
| Otto Fischar               | Glycerol 85% | 5068081   | 1       |
| Otto Fischar               | Glycerol 85% | 5069051   | 4       |
| otto fischar               | Glycerol 85% | P2018/108 | 1       |
| Otto Fischbar GmbH&Co. KG  | Glycerol 85% | 5060035   | 2       |
| Otto Fischer GmbH & Co...  | Glycerol 85% | 5068081   | 1       |
| Otto Fischer GmbH & Co...  | Glycerol 85% | 5069111   | 1       |
| Otto Fischer GmbH & nCo.KG | Glycerol 85% | 5067011   | 1       |
| Otto Fischer GmbH & nCo.KG | Glycerol 85% | 5069051   | 1       |
| Otto Fischer GmbH / San... | Glycerol 85% | 5060032   | 1       |
| Otto Fischer GmbH&Co.KG    | Glycerol 85% | 5060012   | 1       |
| Otto Fischer GmbH&Co.KG    | Glycerol 85% | 5060062   | 1       |
| Otto Fischer GmbH&Co.KG    | Glycerol 85% | 5067031   | 1       |
| otto fischer gmbh/ Phoe... | Glycerol 85% | 5068031   | 3       |
| otto fischer gmbh/ Phoe... | Glycerol 85% | 5067111   | 1       |
| Otto Fischer GmbH          | Glycerol 85% | 1070033   | 1       |
| Otto Fischer GmbH          | Glycerol 85% | 5062121   | 1       |
| Otto Fischer GmbH          | Glycerol 85% | 5066031   | 1       |
| Otto Fischer GmbH          | Glycerol 85% | 5068031   | 2       |
| Otto Fischer GmbH          | Glycerol 85% | 5069051   | 1       |
| Otto Fischer GmH/Sanacorp  | Glycerol 85% | 5060041   | 1       |
| Otto Fischer/Gehe          | Glycerol 85% | 5066101   | 1       |
| Otto Fischer/Krieger       | Glycerol 85% | 5066061   | 1       |
| Otto Fischer/Krieger       | Glycerol 85% | 5067091   | 1       |
| Otto Fischer/Krieger       | Glycerol 85% | 5068012   | 1       |
| Otto Fischer/Noweda        | Glycerol 85% | 5063012   | 1       |
| Otto Fischer/Röntgen       | Glycerol 85% | 560111    | 1       |
| otto fischer               | Glycerol 85% | 23081604  | 1       |
| Otto Fischer               | Glycerol 85% | 5060012   | 1       |
| Otto Fischer               | Glycerol 85% | 5064011   | 1       |
| Otto Fischer               | Glycerol 85% | 5065081   | 1       |
| Otto Fischer               | Glycerol 85% | 5065111   | 1       |
| Otto Fischer               | Glycerol 85% | 5067011   | 1       |
| Otto Fischer               | Glycerol 85% | 5067111   | 1       |
| Otto Fischer               | Glycerol 85% | 5068021   | 1       |
| Otto Fschar GmbH & Co. KG  | Glycerol 85% | 5067081   | 1       |
| Otto                       | Glycerol 85% |           | 1       |
| OttoFischer                | Glycerol 85% | 5060062   | 1       |
| Paul W. Beyvers GmbH/ A... | Glycerol 85% | 17003     | 1       |
| Paul W. Beyvers GmbH/ P... | Glycerol 85% | 19002     | 1       |

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| <b>Supplier</b>             | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------------------|------------------|--------------|----------------|
| Paul W. Beyvers GmbH        | Glycerol 85%     | 17001        | 1              |
| Paul W. Beyvers GmbH        | Glycerol 85%     | 17003        | 1              |
| Paul W. Beyvers GmbH        | Glycerol 85%     | 18001        | 1              |
| Paul W. Beyvers GmbH        | Glycerol 85%     | 18002        | 1              |
| paul w. beyvers gmbh        | Glycerol 85%     | 19001        | 1              |
| Perrigo/Phönix              | Glycerol 85%     | 284401       | 1              |
| Ph.Eur./Noweda              | Glycerol 85%     | 5060041      | 1              |
| Ph.Eur.                     | Glycerol 85%     | 5060111      | 2              |
| Ph.Eur.7.0                  | Glycerol 85%     | 14148106     | 1              |
| Ph/Hedinger                 | Glycerol 85%     | 40629        | 1              |
| Ph/Hedinger                 | Glycerol 85%     | 40632        | 1              |
| Ph/Hedinger                 | Glycerol 85%     | 40644        | 1              |
| Ph/Hedinger                 | Glycerol 85%     | 40660        | 1              |
| Ph/Hedinger                 | Glycerol 85%     | 40680        | 1              |
| Pharmachem/ Phönix          | Glycerol 85%     | 1607037-01   | 2              |
| Phoenix 5.3.14              | Glycerol 85%     | 13144606     | 1              |
| PHOENIX am 14.01.2014       | Glycerol 85%     | 13060007     | 1              |
| Phoenix Leipzig / 23.06.... | Glycerol 85%     | 5066101      | 1              |
| Phoenix Leipzig 18.08.17    | Glycerol 85%     | 5067031      | 1              |
| Phoenix/ Hedinger           | Glycerol 85%     | 40673        | 1              |
| Phoenix/ Otto Fischer G...  | Glycerol 85%     | 5067081      | 1              |
| Phoenix/Otto Fischar        | Glycerol 85%     | 5060033      | 1              |
| Phoenix/Otto Fischar        | Glycerol 85%     | 5060041      | 1              |
| Phoenix/Otto Fischer        | Glycerol 85%     | 5068031      | 1              |
| Phoenix/Otto Fischer        | Glycerol 85%     | 5068101      | 1              |
| Phoenix/Otto Fischer        | Glycerol 85%     | 5069021      | 2              |
| Phoenix                     | Glycerol 85%     | 12273604     | 1              |
| Phoenix                     | Glycerol 85%     | 13039203     | 2              |
| Phoenix                     | Glycerol 85%     | 13144607     | 2              |
| Phoenix                     | Glycerol 85%     | 1405021-01   | 1              |
| Phoenix                     | Glycerol 85%     | 15036903     | 1              |
| Phoenix                     | Glycerol 85%     | 17157702     | 1              |
| Phoenix                     | Glycerol 85%     | 1801025-01   | 1              |
| Phoenix                     | Glycerol 85%     | 1808009-02   | 1              |
| Phoenix                     | Glycerol 85%     | 18327003     | 1              |
| Phoenix                     | Glycerol 85%     | 19004186     | 1              |
| Phoenix                     | Glycerol 85%     | 19011201     | 2              |
| Phoenix                     | Glycerol 85%     | 19011202     | 1              |
| Phoenix                     | Glycerol 85%     | 19011203     | 2              |
| Phoenix                     | Glycerol 85%     | 19188301     | 1              |
| Phoenix                     | Glycerol 85%     | 20011017-01  | 1              |
| Phoenix                     | Glycerol 85%     | 200703901    | 1              |
| Phoenix                     | Glycerol 85%     | 2011017-01   | 1              |
| Phoenix                     | Glycerol 85%     | 3047         | 1              |
| Phoenix                     | Glycerol 85%     | 310592       | 1              |
| Phoenix                     | Glycerol 85%     | 3109         | 1              |
| Phoenix                     | Glycerol 85%     | 3227         | 1              |
| Phoenix                     | Glycerol 85%     | 3360         | 1              |
| Phoenix                     | Glycerol 85%     | 40586        | 1              |
| Phoenix                     | Glycerol 85%     | 40596        | 1              |
| Phoenix                     | Glycerol 85%     | 40713        | 2              |
| Phoenix                     | Glycerol 85%     | 5068031      | 1              |
| Phoenix                     | Glycerol 85%     | 5068101      | 1              |
| Phoenix                     | Glycerol 85%     | 5069081      | 1              |
| Phönix Hedinger             | Glycerol 85%     | 40620        | 1              |
| Phönix / Lamotte            | Glycerol 85%     | 8002720001   | 1              |
| Phönix 14.01.2014           | Glycerol 85%     | 13060001     | 1              |
| Phönix 17.06.2019           | Glycerol 85%     | 19011201     | 1              |
| Phönix 28.10.2019           | Glycerol 85%     | 19124401     | 1              |
| Phönix Gotha                | Glycerol 85%     | 15146301     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Phönix Gotha               | Glycerol 85%     | 1804017-01   | 1              |
| Phönix Gotha               | Glycerol 85%     | 275075       | 1              |
| Phönix Gotha               | Glycerol 85%     | 5060012      | 1              |
| Phönix Gotha               | Glycerol 85%     | 5060032      | 1              |
| Phönix Göttingen 19.03...  | Glycerol 85%     | 40652        | 1              |
| Phönix/ Fischar            | Glycerol 85%     | 5067031      | 1              |
| Phönix/ Fischar            | Glycerol 85%     | 5068101      | 1              |
| Phönix/ HEDINGER           | Glycerol 85%     | 4067B        | 1              |
| Phönix/Fischar             | Glycerol 85%     | 5067091      | 1              |
| Phönix/Fischer             | Glycerol 85%     | 50600313     | 1              |
| Phönix/Hedinger            | Glycerol 85%     | 40673        | 2              |
| Phönix/Hedinger            | Glycerol 85%     | 40695        | 1              |
| Phönix/Hedinger            | Glycerol 85%     | 40708        | 1              |
| Phönix/Henry Lamotte/Ph... | Glycerol 85%     | 8005158001   | 1              |
| Phönix/Henry Lamotte       | Glycerol 85%     | 1000007843   | 2              |
| Phönix/Henry Lamotte       | Glycerol 85%     | 8005437001   | 1              |
| Phönix                     | Glycerol 85%     | 106063702    | 1              |
| Phönix                     | Glycerol 85%     | 12108201     | 2              |
| Phönix                     | Glycerol 85%     | 12273604     | 1              |
| Phönix                     | Glycerol 85%     | 13039203     | 1              |
| Phönix                     | Glycerol 85%     | 13356406     | 1              |
| Phönix                     | Glycerol 85%     | 14149403     | 1              |
| phönix                     | Glycerol 85%     | 16218907     | 1              |
| Phönix                     | Glycerol 85%     | 18240901     | 1              |
| Phönix                     | Glycerol 85%     | 19004187     | 1              |
| Phönix                     | Glycerol 85%     | 19011201     | 1              |
| Phönix                     | Glycerol 85%     | 1906019-01   | 1              |
| Phönix                     | Glycerol 85%     | 20001043003  | 1              |
| Phönix                     | Glycerol 85%     | 20001043004  | 1              |
| Phönix                     | Glycerol 85%     | 20004357001  | 1              |
| Phönix                     | Glycerol 85%     | 2007039-01   | 2              |
| Phönix                     | Glycerol 85%     | 201093010    | 1              |
| PHÖNIX                     | Glycerol 85%     | 21001879003  | 1              |
| Phönix                     | Glycerol 85%     | 40478        | 1              |
| Phönix                     | Glycerol 85%     | 40481        | 1              |
| Phönix                     | Glycerol 85%     | 40501        | 1              |
| Phönix                     | Glycerol 85%     | 40507        | 1              |
| phönix                     | Glycerol 85%     | 40586        | 1              |
| Phönix                     | Glycerol 85%     | 40596        | 1              |
| phönix                     | Glycerol 85%     | 40598        | 1              |
| Phönix                     | Glycerol 85%     | 40599        | 1              |
| phönix                     | Glycerol 85%     | 40612        | 1              |
| PHÖNIX                     | Glycerol 85%     | 40626        | 3              |
| Phönix                     | Glycerol 85%     | 40628        | 1              |
| PHÖNIX                     | Glycerol 85%     | 40632        | 1              |
| PHÖNIX                     | Glycerol 85%     | 40660        | 1              |
| PHÖNIX                     | Glycerol 85%     | 40695        | 1              |
| PHÖNIX                     | Glycerol 85%     | 5060041      | 1              |
| Phönix                     | Glycerol 85%     | 5060042      | 1              |
| Phönix                     | Glycerol 85%     | 5063011      | 1              |
| Phönix                     | Glycerol 85%     | 5066081      | 1              |
| Phönix                     | Glycerol 85%     | 8001116001   | 1              |
| Phönix                     | Glycerol 85%     | 8006785001   | 1              |
| Rondell Apotheke           | Glycerol 85%     | 40576        | 1              |
| Röntgen                    | Glycerol 85%     | 5060041      | 1              |
| Roth Chemical              | Glycerol 85%     | 40291599     | 1              |
| Sana                       | Glycerol 85%     | 40647        | 1              |
| Sanacop                    | Glycerol 85%     | 15036903     | 1              |
| Sanacop                    | Glycerol 85%     | 15292204     | 1              |

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| <b>Supplier</b>              | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|------------------------------|------------------|--------------|----------------|
| Sanacorp 09.12.15            | Glycerol 85%     | 152902202    | 1              |
| Sanacorp 09.11.21, 14,50EUR  | Glycerol 85%     | 211125       | 1              |
| Sanacorp 25.10.2017          | Glycerol 85%     | 16347202     | 1              |
| sanacorp, 7,66EUR, 17.09.... | Glycerol 85%     | 16063701     | 1              |
| Sanacorp/ Heddinge           | Glycerol 85%     | 400473       | 1              |
| Sanacorp/ Heddinge           | Glycerol 85%     | 4071         | 1              |
| Sanacorp/ Hedinger           | Glycerol 85%     | 40502        | 1              |
| Sanacorp/Fischar             | Glycerol 85%     | 1076021      | 1              |
| Sanacorp/Fischar             | Glycerol 85%     | 5060035      | 1              |
| Sanacorp/Fischar             | Glycerol 85%     | 5067061      | 1              |
| Sanacorp/Hedinger            | Glycerol 85%     | 40683        | 1              |
| Sanacorp/Otto Fischar        | Glycerol 85%     | 1079021      | 1              |
| Sanacorp                     | Glycerol 85%     |              | 1              |
| Sanacorp                     | Glycerol 85%     | 12273604     | 3              |
| Sanacorp                     | Glycerol 85%     | 13039204     | 1              |
| Sanacorp                     | Glycerol 85%     | 13276205     | 1              |
| Sanacorp                     | Glycerol 85%     | 14149410     | 2              |
| sanacorp                     | Glycerol 85%     | 14149411     | 1              |
| Sanacorp                     | Glycerol 85%     | 15036902     | 1              |
| Sanacorp                     | Glycerol 85%     | 15292205     | 2              |
| Sanacorp                     | Glycerol 85%     | 16347208     | 1              |
| Sanacorp                     | Glycerol 85%     | 17157702     | 2              |
| Sanacorp                     | Glycerol 85%     | 17215501     | 1              |
| Sanacorp                     | Glycerol 85%     | 17322101     | 1              |
| Sanacorp                     | Glycerol 85%     | 17322104     | 1              |
| Sanacorp                     | Glycerol 85%     | 173222104    | 1              |
| Sanacorp                     | Glycerol 85%     | 18002        | 1              |
| Sanacorp                     | Glycerol 85%     | 1801025-01   | 1              |
| Sanacorp                     | Glycerol 85%     | 1804017-01   | 2              |
| Sanacorp                     | Glycerol 85%     | 18153702     | 1              |
| Sanacorp                     | Glycerol 85%     | 18253402     | 1              |
| Sanacorp                     | Glycerol 85%     | 18253404     | 1              |
| Sanacorp                     | Glycerol 85%     | 19002        | 1              |
| Sanacorp                     | Glycerol 85%     | 19124401     | 4              |
| Sanacorp                     | Glycerol 85%     | 192976002    | 1              |
| Sanacorp                     | Glycerol 85%     | 20001043003  | 1              |
| Sanacorp                     | Glycerol 85%     | 273719       | 1              |
| Sanacorp                     | Glycerol 85%     | 278655       | 1              |
| Sanacorp                     | Glycerol 85%     | 280855       | 2              |
| Sanacorp                     | Glycerol 85%     | 282731       | 1              |
| Sanacorp                     | Glycerol 85%     | 40480        | 1              |
| Sanacorp                     | Glycerol 85%     | 40495        | 1              |
| Sanacorp                     | Glycerol 85%     | 40506        | 1              |
| Sanacorp                     | Glycerol 85%     | 40652        | 1              |
| Sanacorp                     | Glycerol 85%     | 40683        | 1              |
| Sanacorp                     | Glycerol 85%     | 40691        | 1              |
| Sanacorp                     | Glycerol 85%     | 72/AKD1      | 1              |
| Sanacorp                     | Glycerol 85%     | 78/AKD7      | 1              |
| Sanacorp                     | Glycerol 85%     | 79/AKD12     | 1              |
| Sanacorp                     | Glycerol 85%     | 19188301     | 1              |
| sancorp                      | Glycerol 85%     | 19011203     | 1              |
| Spangro 31.07.2018           | Glycerol 85%     | 17322104     | 1              |
| Spinnrad GmbH/Sanacorp       | Glycerol 85%     | 917409013    | 1              |
| Spinnrad GmbH                | Glycerol 85%     | 919409014    | 1              |
| Spinnrad/Phoenix             | Glycerol 85%     | 418409012    | 1              |
| Spinnrad                     | Glycerol 85%     | 1116409015   | 1              |
| Spinnrad                     | Glycerol 85%     | 713048084    | 1              |
| spinnrad                     | Glycerol 85%     | 914409013    | 1              |
| Stumpf / Hedinger            | Glycerol 85%     | 40557        | 1              |
| Stumpf/Hedinger              | Glycerol 85%     | 40531        | 1              |

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| Supplier               | Substance    | Batch          | Spectra |
|------------------------|--------------|----------------|---------|
| Stumpf/Hedinger        | Glycerol 85% | 40576          | 1       |
| Taoasis/Sanacorp       | Glycerol 85% | 17197702       | 1       |
| Taoasis                | Glycerol 85% | 40628          | 2       |
| Taoasis                | Glycerol 85% | 40647          | 1       |
| Taoasis                | Glycerol 85% | 40655          | 1       |
| Test                   | Glycerol 85% | Test           | 1       |
| VDL;16.3.16;7,57EUR    | Glycerol 85% | 15292205       | 1       |
| Verbio AG/Gehe         | Glycerol 85% | 1708022-01     | 1       |
| Verbio AG              | Glycerol 85% | Be-08675/37460 | 1       |
| Verbio AG              | Glycerol 85% | BE-08912/38366 | 1       |
| WE:23.03.2016 Sanacorp | Glycerol 85% | 15292205       | 1       |

- 282 191 spectra from 1292 *Apo-Ident* customers from a total of 50 997 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Glycerol 85%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Glycerol 85%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 580           | 0              | 66 579        |
| <b>Type B</b> | 0              | 1590          | 0              | 105 773       |
| <b>Type C</b> | 0              | 6506          | 12             | 282 191       |

The substance/substance group *Glycerol 85%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.9655 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.6226 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.8159 % (> 99.7699 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Glycerol 85%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                      | Distance in<br>main model | Distance in<br>second-stage model |
|--------------------------------|---------------------------|-----------------------------------|
| Glycerine ointment (conserved) | 36.61                     | —                                 |
| Honey                          | 53.40                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Glycerol 85%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30886     | 31737                  | 2.15                            | 47.60                              |
| 30980     | 31737                  | 1.70                            | 48.50                              |
| 31360     | 31956                  | 1.39                            | 47.81                              |
| 31377     | 31737                  | 1.27                            | 49.23                              |
| 31588     | 31588                  | 0.00                            | 47.72                              |
| 31719     | 31719                  | 0.00                            | 49.18                              |
| 31737     | 31737                  | 0.00                            | 49.69                              |
| 31956     | 31956                  | 0.00                            | 49.06                              |
| 34031     | 34031                  | 0.00                            | 47.83                              |
| 35136     | 35136                  | 0.00                            | 51.61                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Glycolic acid 70%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30491-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Glycolic acid 70%; Acidum glycolicum 70%

### Special notes

When selecting the *Glycolic acid 70%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Glycolic acid 70%         | 4      | 3      | 24     |

## Second-stage model

For differentiation of the substance/substance group *Glycolic acid 70%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Glycolic acid 70%*:

| Supplier | Substance         | Batch      | Sample ID | Spectra | Certificate |
|----------|-------------------|------------|-----------|---------|-------------|
| Euro OTC | Glycolic acid 70% | 1406006-01 | 31620     | 60      | 20140708    |
| Euro OTC | Glycolic acid 70% | 1406006-01 | 31647     | 60      | 20140708    |
| Euro OTC | Glycolic acid 70% | 1604050    | 32281     | 40      | 20160510*   |
| Euro OTC | Glycolic acid 70% | 1604050-03 | 34184     | 40      | 20180315    |
| Euro OTC | Glycolic acid 70% | 2109005    | 35904     | 50      | 20211029*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 250 spectra of 5 reference samples from the substance/substance group *Glycolic acid 70%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 909 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Glycolic acid 70%*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance         | Batch      | Sample ID | Spectra |
|----------|-------------------|------------|-----------|---------|
| Euro OTC | Glycolic acid 70% | 1604050-01 | 33225     | 40      |
| Euro OTC | Glycolic acid 70% | 2007032    | 35083     | 40      |
| Euro OTC | Glycolic acid 70% | 2103013    | 35268     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 55 spectra from 24 *Apo-Ident* customers from 25 batches from the substance/substance group *Glycolic acid 70%*.
- Among them are spectra of independent samples from 24 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance         | Batch       | Spectra |
|-----------|-------------------|-------------|---------|
| Caelo     | Glycolic acid 70% | 121002201   | 1       |
| Caelo     | Glycolic acid 70% | 1604050-03  | 1       |
| Caelo     | Glycolic acid 70% | 18912183    | 1       |
| Eu Rho/XX | Glycolic acid 70% | 2007032-01  | 1       |
| Euro OTC  | Glycolic acid 70% | 1109027-01  | 1       |
| Euro OTC  | Glycolic acid 70% | 1210022-01  | 2       |
| Euro OTC  | Glycolic acid 70% | 1401014-01  | 1       |
| Euro OTC  | Glycolic acid 70% | 160405001   | 4       |
| Euro OTC  | Glycolic acid 70% | 1604050-01  | 7       |
| Euro OTC  | Glycolic acid 70% | 160405002   | 1       |
| Euro OTC  | Glycolic acid 70% | 1604050-02  | 3       |
| Euro OTC  | Glycolic acid 70% | 160405003   | 2       |
| Euro OTC  | Glycolic acid 70% | 1604050-03  | 5       |
| Euro OTC  | Glycolic acid 70% | 16040501-01 | 1       |
| Euro OTC  | Glycolic acid 70% | 164050-01   | 1       |
| Euro OTC  | Glycolic acid 70% | 1907018-01  | 6       |
| Euro OTC  | Glycolic acid 70% | 200703201   | 1       |
| Euro OTC  | Glycolic acid 70% | 2007032-01  | 3       |
| Euro OTC  | Glycolic acid 70% | 210301301   | 1       |
| Euro OTC  | Glycolic acid 70% | 2103013-01  | 1       |
| Euro OTC  | Glycolic acid 70% | 3079344     | 1       |
| Euro OTC  | Glycolic acid 70% | S7735962    | 1       |
| Euro OTC  | Glycolic acid 70% | S7920462    | 1       |
| Euro OTC  | Glycolic acid 70% | S8041062    | 1       |
| Merck     | Glycolic acid 70% | S7410686    | 1       |
| Merck     | Glycolic acid 70% | S7638586    | 3       |
| Phoenix   | Glycolic acid 70% | 1205037-01  | 1       |
| Th. Geyer | Glycolic acid 70% | 1604050-01  | 2       |

- 288 654 spectra from 1294 *Apo-Ident* customers from a total of 51 863 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#),



the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Glycolic acid 70%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Glycolic acid 70%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 250           | 0              | 66 909        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 54            | 1              | 288 654       |

The substance/substance group *Glycolic acid 70%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.6000 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6872 %) | 98.1818 % (> 92.7273 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Glycolic acid 70%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                               | Distance in main model | Distance in second-stage model |
|-----------------------------------------|------------------------|--------------------------------|
| Anionic hydrophilic cream SR (NRF p.27) | 98.05                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Glycolic acid 70%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31620     | 32281               | 1.61                         | 77.47                           |
| 31647     | 32281               | 4.10                         | 73.79                           |
| 32281     | 32281               | 0.00                         | 77.61                           |
| 34184     | 32281               | 8.28                         | 73.79                           |
| 35904     | 35904               | 0.00                         | 73.75                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Guaiazulene 25%, water-soluble**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30857-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Guaiazulene 25%, water-soluble

### Special notes

When selecting the *Guaiazulene 25%, water-soluble* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group      | Type A | Type B | Type C |
|--------------------------------|--------|--------|--------|
| Guaiazulene 25%, water-soluble | 5      | 3      | 55     |

## Second-stage model

For differentiation of the substance/substance group *Guaiazulene 25%, water-soluble* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Guaiazulene 25%, water-soluble*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Guaiazulene 25%,... | 12246703 | 30857     | 40      | 20120831    |
| Caelo    | Guaiazulene 25%,... | 13334401 | 31157     | 40      | 1411565     |
| Caelo    | Guaiazulene 25%,... | 14130601 | 31462     | 60      | 20140423    |
| Caelo    | Guaiazulene 25%,... | 190157   | 34455     | 40      | 20190131*   |
| Caelo    | Guaiazulene 25%,... | 21002160 | 35835     | 50      | 20210813*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 230 spectra of 5 reference samples from the substance/substance group *Guaiazulene 25%, water-soluble*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 929 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Guaiazulene 25%, water-soluble*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                      | Batch    | Sample ID | Spectra |
|----------|--------------------------------|----------|-----------|---------|
| Caelo    | Guaiazulene 25%, water-soluble | 161905   | 32321     | 40      |
| Caelo    | Guaiazulene 25%, water-soluble | 173365   | 34100     | 40      |
| Caelo    | Guaiazulene 25%, water-soluble | 20001542 | 34997     | 40      |

- 107243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 313 spectra from 171 *Apo-Ident* customers from 59 batches from the substance/substance group *Guaiazulene 25%, water-soluble*.
- Among them are spectra of independent samples from 55 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance                      | Batch            | Spectra |
|---------------------|--------------------------------|------------------|---------|
|                     | Guaiazulene 25%, water-soluble | 14B12-B07-292053 | 1       |
| Alliance Healthcare | Guaiazulene 25%, water-soluble | 13044901         | 1       |
| Alliance Healthcare | Guaiazulene 25%, water-soluble | 19015703         | 1       |
| anzag               | Guaiazulene 25%, water-soluble | 14G24-B03-301884 | 1       |
| Caelo               | Guaiazulene 25%, water-soluble |                  | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 11060603         | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 11303702         | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 11303703         | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 117I-03150       | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 12019802         | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 12158701         | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 12246701         | 2       |
| Caelo               | Guaiazulene 25%, water-soluble | 12246703         | 3       |
| Caelo               | Guaiazulene 25%, water-soluble | 12246704         | 6       |
| Caelo               | Guaiazulene 25%, water-soluble | 12G31-N03        | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 13044901         | 8       |
| Caelo               | Guaiazulene 25%, water-soluble | 13044904         | 7       |
| Caelo               | Guaiazulene 25%, water-soluble | 13044906         | 4       |
| Caelo               | Guaiazulene 25%, water-soluble | 13334401         | 6       |
| Caelo               | Guaiazulene 25%, water-soluble | 13334406         | 4       |
| Caelo               | Guaiazulene 25%, water-soluble | 13334407         | 4       |
| Caelo               | Guaiazulene 25%, water-soluble | 14130601         | 10      |
| Caelo               | Guaiazulene 25%, water-soluble | 14130605         | 8       |
| Caelo               | Guaiazulene 25%, water-soluble | 14252102         | 6       |
| Caelo               | Guaiazulene 25%, water-soluble | 14252104         | 7       |
| Caelo               | Guaiazulene 25%, water-soluble | 15075501         | 15      |
| Caelo               | Guaiazulene 25%, water-soluble | 15075503         | 11      |
| Caelo               | Guaiazulene 25%, water-soluble | 1514U-03150      | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 1515M-03150      | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 154022302        | 1       |
| Caelo               | Guaiazulene 25%, water-soluble | 15402302         | 11      |
| Caelo               | Guaiazulene 25%, water-soluble | 15402306         | 7       |
| Caelo               | Guaiazulene 25%, water-soluble | 16190502         | 13      |
| Caelo               | Guaiazulene 25%, water-soluble | 16190504         | 11      |
| Caelo               | Guaiazulene 25%, water-soluble | 17021503         | 8       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Caelo                      | Guaiiazulene 25%, water-soluble | 17021508         | 5       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 17041405         | 1       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 17192601         | 22      |
| Caelo                      | Guaiiazulene 25%, water-soluble | 17336503         | 10      |
| Caelo                      | Guaiiazulene 25%, water-soluble | 17336504         | 12      |
| Caelo                      | Guaiiazulene 25%, water-soluble | 17336510         | 1       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 18176704         | 7       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 18176712         | 3       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 19015702         | 1       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 19015703         | 8       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 19015709         | 2       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 192795004        | 21      |
| Caelo                      | Guaiiazulene 25%, water-soluble | 20001542002      | 6       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 20002288004      | 1       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 2011905          | 1       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 21002160001      | 1       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 516Q-03150       | 1       |
| Caelo                      | Guaiiazulene 25%, water-soluble | 5217M-03150      | 1       |
| Caecol/ Noweda             | Guaiiazulene 25%, water-soluble | 15402302         | 1       |
| Caesar & Loretz GmbH / ... | Guaiiazulene 25%, water-soluble | 20002288004      | 1       |
| Caesar & Loretz GmbH Hi... | Guaiiazulene 25%, water-soluble | 15402306         | 1       |
| Caesar & Loretz GmbH/ N... | Guaiiazulene 25%, water-soluble | 19015703         | 1       |
| Caesar & Loretz GmbH/Je... | Guaiiazulene 25%, water-soluble | 19015703         | 1       |
| Caesar & Loretz GmbH/Je... | Guaiiazulene 25%, water-soluble | 21002160006      | 1       |
| Caesar & Loretz GmbH/Ph... | Guaiiazulene 25%, water-soluble | 19015703         | 1       |
| Caesar & Loretz GmbH       | Guaiiazulene 25%, water-soluble | 19015703         | 4       |
| Caesar & Loretz GmbH       | Guaiiazulene 25%, water-soluble | 192795004        | 2       |
| Caesar & Loretz GmbH       | Guaiiazulene 25%, water-soluble | 20001542002      | 2       |
| Ebert & Jacobi             | Guaiiazulene 25%, water-soluble | 17336503         | 1       |
| Euro OTC                   | Guaiiazulene 25%, water-soluble | 13334406         | 1       |
| Euro OTC                   | Guaiiazulene 25%, water-soluble | 17192601         | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 11H30-N03        | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 12G31-N03        | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 13g31-n03        | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 14B12-B07-292053 | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 14G24B03         | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 152716-0001      | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 17021503         | 1       |
| Fagron                     | Guaiiazulene 25%, water-soluble | 513936           | 1       |
| Gehe                       | Guaiiazulene 25%, water-soluble | 13334401         | 1       |
| Gehe                       | Guaiiazulene 25%, water-soluble | 13334406         | 1       |
| gehe                       | Guaiiazulene 25%, water-soluble | 17021503         | 1       |
| Gehe                       | Guaiiazulene 25%, water-soluble | 17021503         | 1       |
| Noweda                     | Guaiiazulene 25%, water-soluble | 13044901         | 1       |
| Noweda                     | Guaiiazulene 25%, water-soluble | 17021508         | 1       |
| Noweda                     | Guaiiazulene 25%, water-soluble | 18176704         | 1       |
| Noweda                     | Guaiiazulene 25%, water-soluble | 19015703         | 1       |
| Phoenix                    | Guaiiazulene 25%, water-soluble | 17021503         | 1       |
| Phoenix                    | Guaiiazulene 25%, water-soluble | 18176704         | 1       |
| Phönix                     | Guaiiazulene 25%, water-soluble | 17336504         | 1       |
| Phönix                     | Guaiiazulene 25%, water-soluble | 192795004        | 1       |
| Sanacorp                   | Guaiiazulene 25%, water-soluble | 12246701         | 2       |
| Sanacorp                   | Guaiiazulene 25%, water-soluble | 14252102         | 1       |
| sanacorp                   | Guaiiazulene 25%, water-soluble | 14G24-B03        | 1       |
| Sanacorp                   | Guaiiazulene 25%, water-soluble | 4/AKD2           | 1       |

- 288 396 spectra from 1294 *Apo-Ident* customers from a total of 51 831 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are docu-

mented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Guaiazulene 25%, water-soluble* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Guaiazulene 25%, water-soluble* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 230           | 0              | 66 929        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 309           | 4              | 288 396       |

The substance/substance group *Guaiazulene 25%, water-soluble* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.3913 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 98.7220 % (> 97.7636 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Guaiazulene 25%, water-soluble* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                 | Distance in main model | Distance in second-stage model |
|---------------------------|------------------------|--------------------------------|
| Pasta Cordes <sup>®</sup> | 41.58                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Guaiazulene 25%, water-soluble* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30857     | 31157               | 2.67                         | 57.33                           |
| 31157     | 31157               | 0.00                         | 58.30                           |
| 31462     | 31157               | 4.39                         | 60.65                           |
| 34455     | 34455               | 0.00                         | 92.78                           |
| 35835     | 35835               | 0.00                         | 58.63                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Honeys**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30761-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Honeys; Honey; Mel; Mel rosatum; Rose honey

### Special notes

When selecting the *Honeys* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Honeys                    | 9      | 3      | 77     |

### Second-stage model

For differentiation of the substance/substance group *Honeys* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Honeys*:

| Supplier | Substance  | Batch    | Sample ID | Spectra | Certificate |
|----------|------------|----------|-----------|---------|-------------|
| Caelo    | Honey      | 12132005 | 30761     | 40      | 1402562     |
| Caelo    | Honey      | 13269412 | 31341     | 40      | 20130913    |
| Caelo    | Honey      | 150791   | 32214     | 40      | 20150508*   |
| Caelo    | Honey      | 162659   | 32698     | 40      | 20161026*   |
| Caelo    | Honey      | 21001397 | 35548     | 50      | 20210507*   |
| Caelo    | Rose honey | 15406006 | 31957     | 60      | 20160120    |
| Caelo    | Rose honey | 16104802 | 32988     | 40      | 1708304     |
| Caelo    | Rose honey | 171208   | 33333     | 40      | 20170619*   |
| Caelo    | Rose honey | 20003441 | 35297     | 40      | 20201116*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 390 spectra of 9 reference samples from the substance/substance group *Honeys*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 9 different batches.
- 66 769 spectra from a total of 1370 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 200 spectra of 5 reference samples from the substance/substance group *Honeys*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance  | Batch  | Sample ID | Spectra |
|----------|------------|--------|-----------|---------|
| Caelo    | Honey      | 171325 | 33718     | 40      |
| Caelo    | Honey      | 171332 | 33719     | 40      |
| Caelo    | Rose honey | 181215 | 34050     | 40      |
| Caelo    | Honey      | 171325 | 33720     | 40      |
| Caelo    | Rose honey | 171208 | 33721     | 40      |

- 107 163 spectra from a total of 2497 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 146 spectra from 49 *Apo-Ident* customers from 80 batches from the substance/substance group *Honeys*.
- Among them are spectra of independent samples from 76 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance  | Batch    | Spectra |
|----------|------------|----------|---------|
| AHD      | Honey      | 18026703 | 1       |
| apomix   | Honey      | 13269401 | 1       |
| Caelo    | Rose honey |          | 1       |
| Caelo    | Rose honey | 11258901 | 1       |
| Caelo    | Rose honey | 12105302 | 1       |
| Caelo    | Rose honey | 12105305 | 2       |
| Caelo    | Honey      | 12132007 | 1       |
| Caelo    | Honey      | 12132012 | 1       |
| Caelo    | Rose honey | 12315005 | 1       |
| Caelo    | Honey      | 12382406 | 1       |
| Caelo    | Rose honey | 13170902 | 2       |
| Caelo    | Rose honey | 13170904 | 1       |
| Caelo    | Rose honey | 13170906 | 1       |
| Caelo    | Honey      | 13269403 | 4       |
| Caelo    | Honey      | 13269405 | 2       |
| Caelo    | Honey      | 13269412 | 3       |
| Caelo    | Honey      | 13269413 | 1       |
| Caelo    | Rose honey | 14125603 | 1       |
| Caelo    | Rose honey | 14125605 | 1       |
| Caelo    | Rose honey | 14125607 | 1       |
| Caelo    | Honey      | 15079102 | 1       |
| Caelo    | Honey      | 15079103 | 1       |
| Caelo    | Honey      | 15079110 | 1       |
| Caelo    | Honey      | 15079111 | 1       |
| Caelo    | Rose honey | 15406004 | 2       |
| Caelo    | Rose honey | 15406005 | 1       |
| Caelo    | Rose honey | 15406006 | 5       |
| Caelo    | Honey      | 15417703 | 1       |
| Caelo    | Honey      | 15417707 | 4       |
| Caelo    | Honey      | 15417714 | 1       |
| Caelo    | Rose honey | 16104801 | 1       |
| Caelo    | Rose honey | 16104803 | 1       |
| Caelo    | Rose honey | 16104805 | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caelo                      | Honey            | 16265901     | 2              |
| Caelo                      | Honey            | 16265908     | 2              |
| Caelo                      | Rose honey       | 17120802     | 1              |
| Caelo                      | Rose honey       | 17120803     | 3              |
| Caelo                      | Rose honey       | 1712803      | 1              |
| Caelo                      | Honey            | 17132502     | 2              |
| Caelo                      | Honey            | 18026702     | 3              |
| Caelo                      | Honey            | 18026703     | 4              |
| Caelo                      | Rose honey       | 18121501     | 3              |
| Caelo                      | Rose honey       | 18121502     | 1              |
| Caelo                      | Rose honey       | 18121503     | 2              |
| Caelo                      | Rose honey       | 1812501      | 1              |
| Caelo                      | Honey            | 18173504     | 3              |
| Caelo                      | Honey            | 18173506     | 1              |
| Caelo                      | Rose honey       | 18314201     | 1              |
| Caelo                      | Rose honey       | 18314202     | 1              |
| Caelo                      | Rose honey       | 18314203     | 1              |
| Caelo                      | Rose honey       | 18314205     | 2              |
| Caelo                      | Honey            | 19114702     | 3              |
| Caelo                      | Honey            | 19114705     | 1              |
| Caelo                      | Rose honey       | 192745001    | 1              |
| Caelo                      | Honey            | 20000367006  | 1              |
| Caelo                      | Rose honey       | 20002889002  | 1              |
| Caelo                      | Rose honey       | 20003441001  | 1              |
| Caelo                      | Honey            | 2000445503   | 1              |
| Caelo                      | Rose honey       | 4811M-02884  | 1              |
| Caelo                      | Rose honey       | 5091401      | 1              |
| Caelo                      | Honey            | 9011902      | 1              |
| Caelo                      | Honey            | L051150      | 1              |
| Caelo                      | Honey            | L064168      | 1              |
| Caesar & Loretz GmbH, 4... | Honey            | 12132011     | 2              |
| Caesar & Loretz GmbH, 4... | Honey            | 12382405     | 3              |
| Caesar & Loretz GmbH, 4... | Honey            | 12382410     | 2              |
| Caesar & Loretz GmbH, 4... | Honey            | 13269401     | 3              |
| Caesar & Loretz GmbH, 4... | Honey            | 13269404     | 1              |
| Caesar & Loretz GmbH       | Rose honey       | 18121501     | 1              |
| Caesar & Loretz GmbH       | Honey            | 18173504     | 2              |
| Caesar & Loretz GmbH       | Honey            | 19114705     | 2              |
| Caesar & Loretz GmbH       | Honey            | 20000367006  | 2              |
| Caesar & Loretz GmbH       | Honey            | 20000367011  | 1              |
| Caesar & Loretz GmbH       | Honey            | 20004455003  | 1              |
| Caesar & Loretz GmbH       | Honey            | 21001397005  | 1              |
| Caesar/Fiebig              | Honey            | 18173506     | 1              |
| Ebert & Jacobi 02.08.16    | Rose honey       | 15406006     | 1              |
| Fagron                     | Rose honey       | 16104802     | 1              |
| Hedinger/Phönix            | Rose honey       | 17120803     | 1              |
| L12                        | Honey            | 16265909     | 3              |
| L30                        | Honey            | 15417714     | 4              |
| L30                        | Honey            | 17132502     | 1              |
| L30                        | Honey            | 17133201     | 2              |
| L30                        | Honey            | 18173501     | 2              |
| L30                        | Honey            | 3024337      | 1              |
| Midas                      | Honey            | 16265906     | 1              |
| Noweda                     | Honey            | 15079102     | 1              |
| Noweda                     | Honey            | 16265911     | 1              |
| Noweda                     | Honey            | 18173508     | 2              |
| Noweda                     | Honey            | 19114704     | 1              |
| Noweda                     | Honey            | 19114706     | 1              |
| Noweda                     | Honey            | 20000367005  | 2              |
| Phönix                     | Honey            | 13269403     | 1              |

*continued on the next page*

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| Supplier | Substance | Batch    | Spectra |
|----------|-----------|----------|---------|
| PHÖNIX   | Honey     | 16265901 | 1       |

- 288 563 spectra from 1294 *Apo-Ident* customers from a total of 51 809 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Honeys* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Honeys* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 390           | 0              | 66 769        |
| <b>Type B</b> | 0              | 200           | 0              | 107 163       |
| <b>Type C</b> | 0              | 146           | 0              | 288 561       |

The substance/substance group *Honeys* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.4615 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 97.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6866 %) | 100.0000 % (> 95.8904 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Honeys* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                            | Distance in main model | Distance in second-stage model |
|--------------------------------------|------------------------|--------------------------------|
| Fennel honey (conserved)             | 17.60                  | —                              |
| Glycerine ointment (conserved)       | 22.54                  | —                              |
| Sorbitol, liquid (non crystallising) | 27.19                  | —                              |
| Glucose syrup                        | 32.30                  | —                              |
| Raspberry syrup (conserved)          | 44.61                  | —                              |
| Ipecacuanha syrup (NRF 19.1)         | 50.41                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Honeys* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30761     | 30761               | 0.00                         | 32.10                           |
| 31341     | 30761               | 7.60                         | 17.60                           |
| 31957     | 32988               | 2.49                         | 26.69                           |
| 32214     | 32214               | 0.00                         | 39.44                           |
| 32698     | 32698               | 0.00                         | 22.15                           |
| 32988     | 32988               | 0.00                         | 25.81                           |
| 33333     | 33333               | 0.00                         | 26.32                           |
| 35297     | 35297               | 0.00                         | 43.96                           |
| 35548     | 35548               | 0.00                         | 63.62                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Hydrophilic base emulsion (NRF p.25)**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30709-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Hydrophilic base emulsion (NRF p.25); Emulsio basalis hydrophilica

### Special notes

When selecting the *Hydrophilic base emulsion (NRF p.25)* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group            | Type A | Type B | Type C |
|--------------------------------------|--------|--------|--------|
| Hydrophilic base emulsion (NRF p.25) | 17     | 29     | 340    |

## Second-stage model

For differentiation of the substance/substance group *Hydrophilic base emulsion (NRF p.25)* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Hydrophilic base emulsion (NRF p.25)*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Hydrophilic base... | 12173002 | 30709     | 40      | 20120628    |
| Caelo    | Hydrophilic base... | 13305501 | 31176     | 40      | 1403535     |
| Caelo    | Hydrophilic base... | 14063502 | 31340     | 20      | 20140307    |
| Caelo    | Hydrophilic base... | 161156   | 32290     | 40      | 20160415*   |
| Caelo    | Hydrophilic base... | 161155   | 32291     | 40      | 20160415*   |
| Caelo    | Hydrophilic base... | 161154   | 32292     | 40      | 20160415*   |
| Caelo    | Hydrophilic base... | 170444   | 33154     | 40      | 20170217*   |
| Caelo    | Hydrophilic base... | 170443   | 33155     | 40      | 20170217*   |
| Caelo    | Hydrophilic base... | 163400   | 33156     | 40      | 20161215*   |
| Caelo    | Hydrophilic base... | 163398   | 33157     | 40      | 20161215*   |
| Caelo    | Hydrophilic base... | 183112   | 34536     | 40      | 20181220*   |
| Caelo    | Hydrophilic base... | 183113   | 34537     | 40      | 20181220*   |
| Caelo    | Hydrophilic base... | 190281   | 34538     | 40      | 20190306*   |
| Caelo    | Hydrophilic base... | 190282   | 34539     | 40      | 20190306*   |
| Caelo    | Hydrophilic base... | 21002117 | 35595     | 50      | 20210805*   |
| Caelo    | Hydrophilic base... | 21003960 | 35949     | 40      | 20220111*   |
| Caelo    | Hydrophilic base... | 21003961 | 35950     | 40      | 20220111*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 670 spectra of 17 reference samples from the substance/substance group *Hydrophilic base emulsion (NRF p.25)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 17 different batches.
- 66 489 spectra from a total of 1362 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 1240 spectra of 30 reference samples from the substance/substance group *Hydrophilic base emulsion (NRF p.25)*.
- Among them are spectra of independent samples from 29 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch    | Sample ID          | Spectra |
|----------|---------------------------------|----------|--------------------|---------|
| Caelo    | Hydrophilic base emulsion (N... | 163399   | 33158              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 171184   | 33412              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 171247   | 33413              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 171182   | 33414              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 171183   | 33415              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 171702   | 33573              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 171703   | 33574              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 173421   | 33971              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 180316   | 34133              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 181075   | 34134              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 181806   | 34248              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 182588   | 34313              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 191402   | 34769              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 191809   | 34770              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 192047   | 34774              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 20000295 | 34971              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 20001762 | 34972              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 20002078 | 35115              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 21000737 | 35304              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 21000345 | 35305              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 21000346 | 35306              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 21000347 | 35481              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 21001238 | 35516              | 50      |
| Caelo    | Hydrophilic base emulsion (N... | 21001239 | 35517              | 50      |
| Caelo    | Hydrophilic base emulsion (N... | 21002118 | 35596              | 50      |
| Caelo    | Hydrophilic base emulsion (N... | 21002119 | 35597              | 50      |
| Caelo    | Hydrophilic base emulsion (N... | 21003084 | 35792              | 50      |
| Caelo    | Hydrophilic base emulsion (N... | 21003085 | 35793              | 50      |
| Caelo    | Hydrophilic base emulsion (N... | 21003962 | 35951              | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 14063502 | 31340 <sup>†</sup> | 20      |

- 106 123 spectra from a total of 2471 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information

<sup>†</sup>These spectra were recorded from material of the same package as the corresponding calibration spectra (*Type A*). Hence, these spectra are not independent and are not of *Type B*.

provided by the customer regarding manufacturer and batch number.

- 3712 spectra from 661 *Apo-Ident* customers from 345 batches from the substance/substance group *Hydrophilic base emulsion (NRF p.25)*.
- Among them are spectra of independent samples from 339 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
|                            | Hydrophilic base emulsion (N... | 20002079001 | 1       |
| 06,15                      | Hydrophilic base emulsion (N... | 13394302    | 1       |
| AEP                        | Hydrophilic base emulsion (N... | 18031601    | 2       |
| AHC 15.08.13 EK4,56        | Hydrophilic base emulsion (N... | 13107703    | 1       |
| AHD                        | Hydrophilic base emulsion (N... | 14063502    | 2       |
| aliance healthcare 5.12... | Hydrophilic base emulsion (N... | 13305501    | 1       |
| Allianc. Health. /ca       | Hydrophilic base emulsion (N... | 16264202    | 1       |
| Alliance H.                | Hydrophilic base emulsion (N... | 16340001    | 1       |
| Alliance Health 23.01.2... | Hydrophilic base emulsion (N... | 13394302    | 2       |
| Alliance health            | Hydrophilic base emulsion (N... | 14360201    | 2       |
| Allianz Healthcare         | Hydrophilic base emulsion (N... | 16340001    | 1       |
| Anzag 03.04.13 ek: 4,56EUR | Hydrophilic base emulsion (N... | 13039701    | 4       |
| Anzag 19.12.12 ek:4,33     | Hydrophilic base emulsion (N... | 12310102    | 3       |
| Anzag 27.11.12 ek:4,33     | Hydrophilic base emulsion (N... | 12230301    | 1       |
| Anzag                      | Hydrophilic base emulsion (N... | 14239103    | 1       |
| Anzag                      | Hydrophilic base emulsion (N... | 16115602    | 1       |
| Anzag                      | Hydrophilic base emulsion (N... | 17044401    | 1       |
| Anzag                      | Hydrophilic base emulsion (N... | 17170301    | 1       |
| Anzag                      | Hydrophilic base emulsion (N... | 18258801    | 1       |
| Anzag                      | Hydrophilic base emulsion (N... | 19181001    | 1       |
| Anzag                      | Hydrophilic base emulsion (N... | 19181101    | 1       |
| Apotheke Lützelbach        | Hydrophilic base emulsion (N... | 2718Q-03325 | 1       |
| Bayvers                    | Hydrophilic base emulsion (N... | 17124702    | 2       |
| Bombastus                  | Hydrophilic base emulsion (N... | 1288103     | 1       |
| Bombastus                  | Hydrophilic base emulsion (N... | 17227001    | 1       |
| Bombastus                  | Hydrophilic base emulsion (N... | 1825801     | 1       |
| Caello/Phönix              | Hydrophilic base emulsion (N... | 16249302    | 6       |
| Caelo                      | Hydrophilic base emulsion (N... |             | 3       |
| Caelo                      | Hydrophilic base emulsion (N... | 10051303    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 10071203    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 10082013A   | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 1071602     | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 10831701    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 11031504    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 11274001    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 11274003    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 12071901    | 4       |
| Caelo                      | Hydrophilic base emulsion (N... | 12072002    | 2       |
| Caelo                      | Hydrophilic base emulsion (N... | 12091802    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 12121308    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 12128401    | 5       |
| Caelo                      | Hydrophilic base emulsion (N... | 1213003     | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 12173002    | 5       |
| Caelo                      | Hydrophilic base emulsion (N... | 12173003    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 1218401     | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 12230203    | 5       |
| Caelo                      | Hydrophilic base emulsion (N... | 12230301    | 8       |
| Caelo                      | Hydrophilic base emulsion (N... | 12230302    | 4       |
| Caelo                      | Hydrophilic base emulsion (N... | 12288103    | 2       |
| Caelo                      | Hydrophilic base emulsion (N... | 12295002    | 1       |
| Caelo                      | Hydrophilic base emulsion (N... | 12310101    | 11      |
| Caelo                      | Hydrophilic base emulsion (N... | 12310102    | 16      |

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| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Hydrophilic base emulsion (N... | 13039701    | 15      |
| Caelo    | Hydrophilic base emulsion (N... | 13039702    | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 1306801     | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 13076702    | 12      |
| Caelo    | Hydrophilic base emulsion (N... | 13076801    | 18      |
| Caelo    | Hydrophilic base emulsion (N... | 13076802    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 13076803    | 19      |
| Caelo    | Hydrophilic base emulsion (N... | 13107702    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 13107703    | 18      |
| Caelo    | Hydrophilic base emulsion (N... | 1310773     | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 1316Q-03325 | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 13195801    | 10      |
| Caelo    | Hydrophilic base emulsion (N... | 13195901    | 20      |
| Caelo    | Hydrophilic base emulsion (N... | 13195902    | 4       |
| Caelo    | Hydrophilic base emulsion (N... | 13196001    | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 13305401    | 32      |
| Caelo    | Hydrophilic base emulsion (N... | 13305501    | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 13305503    | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 13305601    | 10      |
| Caelo    | Hydrophilic base emulsion (N... | 13394302    | 10      |
| Caelo    | Hydrophilic base emulsion (N... | 13394303    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 13394304    | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 13394402    | 4       |
| Caelo    | Hydrophilic base emulsion (N... | 13397601    | 46      |
| Caelo    | Hydrophilic base emulsion (N... | 13730153    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 14063502    | 14      |
| Caelo    | Hydrophilic base emulsion (N... | 14063503    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 14063601    | 27      |
| Caelo    | Hydrophilic base emulsion (N... | 14063702    | 12      |
| Caelo    | Hydrophilic base emulsion (N... | 14140901    | 12      |
| Caelo    | Hydrophilic base emulsion (N... | 14141003    | 4       |
| Caelo    | Hydrophilic base emulsion (N... | 14141004    | 15      |
| Caelo    | Hydrophilic base emulsion (N... | 14238101    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 14238701    | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 14238702    | 4       |
| Caelo    | Hydrophilic base emulsion (N... | 14238801    | 19      |
| Caelo    | Hydrophilic base emulsion (N... | 14238802    | 6       |
| Caelo    | Hydrophilic base emulsion (N... | 14238901    | 34      |
| Caelo    | Hydrophilic base emulsion (N... | 14239002    | 3       |
| Caelo    | Hydrophilic base emulsion (N... | 14239103    | 7       |
| Caelo    | Hydrophilic base emulsion (N... | 1428901     | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 14351202    | 7       |
| Caelo    | Hydrophilic base emulsion (N... | 14360201    | 17      |
| Caelo    | Hydrophilic base emulsion (N... | 14360202    | 4       |
| Caelo    | Hydrophilic base emulsion (N... | 14360301    | 32      |
| Caelo    | Hydrophilic base emulsion (N... | 14360401    | 3       |
| Caelo    | Hydrophilic base emulsion (N... | 14360403    | 7       |
| Caelo    | Hydrophilic base emulsion (N... | 1463502     | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15029901    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15061302    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1507002     | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15076803    | 9       |
| Caelo    | Hydrophilic base emulsion (N... | 15076901    | 14      |
| Caelo    | Hydrophilic base emulsion (N... | 15077002    | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 15077003    | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 1507702     | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15077101    | 32      |
| Caelo    | Hydrophilic base emulsion (N... | 15081402    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1514U-03325 | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1515J-03325 | 1       |

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| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Hydrophilic base emulsion (N... | 152009902            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15209801             | 23      |
| Caelo    | Hydrophilic base emulsion (N... | 15209901             | 14      |
| Caelo    | Hydrophilic base emulsion (N... | 15209902             | 8       |
| Caelo    | Hydrophilic base emulsion (N... | 152100001            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15210001             | 19      |
| Caelo    | Hydrophilic base emulsion (N... | 15255816             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 153337801            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15337301             | 34      |
| Caelo    | Hydrophilic base emulsion (N... | 15337601             | 15      |
| Caelo    | Hydrophilic base emulsion (N... | 15337602             | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 15337701             | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 15337801             | 30      |
| Caelo    | Hydrophilic base emulsion (N... | 1537301              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15439801             | 37      |
| Caelo    | Hydrophilic base emulsion (N... | 15439901             | 10      |
| Caelo    | Hydrophilic base emulsion (N... | 15440001             | 30      |
| Caelo    | Hydrophilic base emulsion (N... | 15440002             | 8       |
| Caelo    | Hydrophilic base emulsion (N... | 15440101             | 25      |
| Caelo    | Hydrophilic base emulsion (N... | 154401014            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 15440102             | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 15442001             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16071701             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16091701             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 161115401            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16115302             | 14      |
| Caelo    | Hydrophilic base emulsion (N... | 16115303             | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 16115401             | 9       |
| Caelo    | Hydrophilic base emulsion (N... | 16115602             | 53      |
| Caelo    | Hydrophilic base emulsion (N... | 1624101              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1624202              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 162433201            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16244101             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16249201             | 24      |
| Caelo    | Hydrophilic base emulsion (N... | 16249202             | 6       |
| Caelo    | Hydrophilic base emulsion (N... | 16249301             | 18      |
| Caelo    | Hydrophilic base emulsion (N... | 16249302             | 7       |
| Caelo    | Hydrophilic base emulsion (N... | 162640101            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16264101             | 42      |
| Caelo    | Hydrophilic base emulsion (N... | 16264101/1310117     | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16264201             | 6       |
| Caelo    | Hydrophilic base emulsion (N... | 16264202             | 9       |
| Caelo    | Hydrophilic base emulsion (N... | 16264203             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16325801             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1633901              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 16339801             | 14      |
| Caelo    | Hydrophilic base emulsion (N... | 16339901             | 66      |
| Caelo    | Hydrophilic base emulsion (N... | 16340001             | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 16340002             | 4       |
| Caelo    | Hydrophilic base emulsion (N... | 1634001              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1634002              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1704401              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 17044301             | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 17044401             | 41      |
| Caelo    | Hydrophilic base emulsion (N... | 17061705             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1710301              | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 17118301             | 36      |
| Caelo    | Hydrophilic base emulsion (N... | 17118401             | 12      |
| Caelo    | Hydrophilic base emulsion (N... | 17124701             | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 17124701-20170818Ma9 | 1       |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Hydrophilic base emulsion (N... | 17124702         | 29      |
| Caelo    | Hydrophilic base emulsion (N... | 17124703         | 7       |
| Caelo    | Hydrophilic base emulsion (N... | 17170101         | 9       |
| Caelo    | Hydrophilic base emulsion (N... | 17170201         | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 17170301         | 62      |
| Caelo    | Hydrophilic base emulsion (N... | 17226801         | 66      |
| Caelo    | Hydrophilic base emulsion (N... | 172268021        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 17226903         | 29      |
| Caelo    | Hydrophilic base emulsion (N... | 17227001         | 14      |
| Caelo    | Hydrophilic base emulsion (N... | 173420101        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 17342101         | 65      |
| Caelo    | Hydrophilic base emulsion (N... | 17342202         | 33      |
| Caelo    | Hydrophilic base emulsion (N... | 17342203         | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 17342301         | 16      |
| Caelo    | Hydrophilic base emulsion (N... | 1762001          | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 17A007           | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1801702          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18031601         | 16      |
| Caelo    | Hydrophilic base emulsion (N... | 18031701         | 72      |
| Caelo    | Hydrophilic base emulsion (N... | 18031802         | 17      |
| Caelo    | Hydrophilic base emulsion (N... | 18081512         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 181007602        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 181070602        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18107501         | 76      |
| Caelo    | Hydrophilic base emulsion (N... | 18107601         | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 18107602         | 33      |
| Caelo    | Hydrophilic base emulsion (N... | 18107603         | 26      |
| Caelo    | Hydrophilic base emulsion (N... | 18107604         | 4       |
| Caelo    | Hydrophilic base emulsion (N... | 18107701         | 16      |
| Caelo    | Hydrophilic base emulsion (N... | 18111307         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18180601         | 40      |
| Caelo    | Hydrophilic base emulsion (N... | 18180603         | 3       |
| Caelo    | Hydrophilic base emulsion (N... | 1818061          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18180701         | 26      |
| Caelo    | Hydrophilic base emulsion (N... | 18180702         | 12      |
| Caelo    | Hydrophilic base emulsion (N... | 18258801         | 56      |
| Caelo    | Hydrophilic base emulsion (N... | 18258901         | 23      |
| Caelo    | Hydrophilic base emulsion (N... | 18258902         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18258903         | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 18258901         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18259001         | 12      |
| Caelo    | Hydrophilic base emulsion (N... | 18289001         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1831102          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18311030         | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 18311202         | 17      |
| Caelo    | Hydrophilic base emulsion (N... | 18311301         | 9       |
| Caelo    | Hydrophilic base emulsion (N... | 18311302         | 41      |
| Caelo    | Hydrophilic base emulsion (N... | 18311303         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 185259001        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 18724210003461   | 3       |
| Caelo    | Hydrophilic base emulsion (N... | 1874210003461    | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19021803         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1902801          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19028101         | 60      |
| Caelo    | Hydrophilic base emulsion (N... | 1902810119225601 | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19028201         | 21      |
| Caelo    | Hydrophilic base emulsion (N... | 19028202         | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 19041711         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19091204         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 1911001          | 2       |

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| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Hydrophilic base emulsion (N... | 19140001            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19140101            | 33      |
| Caelo    | Hydrophilic base emulsion (N... | 19140102            | 45      |
| Caelo    | Hydrophilic base emulsion (N... | 191401020           | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19140120            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 191401202           | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19140201            | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 1918001             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19180901            | 19      |
| Caelo    | Hydrophilic base emulsion (N... | 19181001            | 65      |
| Caelo    | Hydrophilic base emulsion (N... | 19181101            | 17      |
| Caelo    | Hydrophilic base emulsion (N... | 19204701            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 19225501            | 12      |
| Caelo    | Hydrophilic base emulsion (N... | 19225601            | 51      |
| Caelo    | Hydrophilic base emulsion (N... | 1928203             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 192827001           | 39      |
| Caelo    | Hydrophilic base emulsion (N... | 192827002           | 7       |
| Caelo    | Hydrophilic base emulsion (N... | 19282701            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 200000295001        | 3       |
| Caelo    | Hydrophilic base emulsion (N... | 20000090001         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 200001763002        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 200002950001        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20000295001         | 54      |
| Caelo    | Hydrophilic base emulsion (N... | 20000296001         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20000296002         | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 200002985001        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20000918001         | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 20000919001         | 3       |
| Caelo    | Hydrophilic base emulsion (N... | 20000920001         | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 2000092001          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20000921001         | 43      |
| Caelo    | Hydrophilic base emulsion (N... | 2000092101          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20000922001         | 27      |
| Caelo    | Hydrophilic base emulsion (N... | 20000922002         | 5       |
| Caelo    | Hydrophilic base emulsion (N... | 20000922003         | 19      |
| Caelo    | Hydrophilic base emulsion (N... | 2000092202          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 2000092203          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 200009222003        | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 200009296002        | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 2000095001          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20001762001         | 6       |
| Caelo    | Hydrophilic base emulsion (N... | 20001763001         | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 20001763002         | 31      |
| Caelo    | Hydrophilic base emulsion (N... | 20002078002         | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 20002079001         | 10      |
| Caelo    | Hydrophilic base emulsion (N... | 20002079002         | 17      |
| Caelo    | Hydrophilic base emulsion (N... | 20002079003         | 2       |
| Caelo    | Hydrophilic base emulsion (N... | 2000314002          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20003313001         | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20003314001         | 25      |
| Caelo    | Hydrophilic base emulsion (N... | 2000331400106138395 | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20003314002         | 11      |
| Caelo    | Hydrophilic base emulsion (N... | 2000919001          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 2000922001          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 2002079002          | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20031306            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 20061407            | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 2061501             | 1       |
| Caelo    | Hydrophilic base emulsion (N... | 21000345001         | 8       |
| Caelo    | Hydrophilic base emulsion (N... | 21000346001         | 36      |

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| Supplier             | Substance                       | Batch        | Spectra |
|----------------------|---------------------------------|--------------|---------|
| Caelo                | Hydrophilic base emulsion (N... | 21000347001  | 5       |
| Caelo                | Hydrophilic base emulsion (N... | 21000737002  | 9       |
| Caelo                | Hydrophilic base emulsion (N... | 21001238002  | 18      |
| Caelo                | Hydrophilic base emulsion (N... | 21001239001  | 2       |
| Caelo                | Hydrophilic base emulsion (N... | 21001239002  | 7       |
| Caelo                | Hydrophilic base emulsion (N... | 21002117001  | 3       |
| Caelo                | Hydrophilic base emulsion (N... | 210021180001 | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 21002118001  | 13      |
| Caelo                | Hydrophilic base emulsion (N... | 21002119002  | 5       |
| Caelo                | Hydrophilic base emulsion (N... | 21002119003  | 2       |
| Caelo                | Hydrophilic base emulsion (N... | 21003084001  | 8       |
| Caelo                | Hydrophilic base emulsion (N... | 21003085002  | 3       |
| Caelo                | Hydrophilic base emulsion (N... | 21003085003  | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2100346001   | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 21003960001  | 3       |
| Caelo                | Hydrophilic base emulsion (N... | 2101304      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 21031403     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 21031704     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 21081705     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 22042015A    | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 23011503     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 23051803     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 23062015D    | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 23071507     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 23101202     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 24011403     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 25041803     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2517M-03325  | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 26031302     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2737         | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2811         | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 28111203     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 28111808     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 28121206     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2897         | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 29041406     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 29041502     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 29101402     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2x18107602   | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2x18258901   | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 2x192827001  | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 30011504     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 30041304     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 30051501     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 30081803     | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 3140817      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 3310         | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 6051304      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 6115401      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 6121702      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 9061831      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 9081301      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 914E-03325   | 1       |
| Caelo                | Hydrophilic base emulsion (N... | 9225601      | 1       |
| Caelo                | Hydrophilic base emulsion (N... | CH-B17342101 | 1       |
| Caelo/Noweda         | Hydrophilic base emulsion (N... | 15440001     | 1       |
| Caesar & Lorenz GmbH | Hydrophilic base emulsion (N... | 17342101     | 1       |
| Caesar & Lorenz GmbH | Hydrophilic base emulsion (N... | 192827001    | 1       |
| Caesar & Lorenz      | Hydrophilic base emulsion (N... | 13195901     | 1       |
| Caesar & Lorenz      | Hydrophilic base emulsion (N... | 14238901     | 1       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 19140102     | 1       |
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 16339901     | 1       |
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 17342101     | 1       |
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 18311302     | 1       |
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 18311302     | 1       |
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 21001238002  | 1       |
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 16264201     | 2       |
| Caesar & Loretz GmbH / ... | Hydrophilic base emulsion (N... | 18258901     | 2       |
| Caesar & Loretz GmbH Hi... | Hydrophilic base emulsion (N... | 15439801     | 1       |
| Caesar & Loretz GmbH Hi... | Hydrophilic base emulsion (N... | 16115602     | 1       |
| Caesar & Loretz GmbH Hi... | Hydrophilic base emulsion (N... | 16151602     | 1       |
| Caesar & Loretz GmbH, 4... | Hydrophilic base emulsion (N... | 12310101     | 1       |
| Caesar & Loretz GmbH, 4... | Hydrophilic base emulsion (N... | 13107703     | 1       |
| Caesar & Loretz GmbH/ G... | Hydrophilic base emulsion (N... | 20000922001  | 1       |
| Caesar & Loretz GmbH/ G... | Hydrophilic base emulsion (N... | 20002079001  | 2       |
| Caesar & Loretz GmbH/ G... | Hydrophilic base emulsion (N... | 21000737003  | 1       |
| Caesar & Loretz GmbH/ P... | Hydrophilic base emulsion (N... | 19181001     | 1       |
| Caesar & Loretz GmbH/AHD   | Hydrophilic base emulsion (N... | 20000922001  | 1       |
| Caesar & Loretz GmbH/AHD   | Hydrophilic base emulsion (N... | 20002078002  | 1       |
| Caesar & Loretz GmbH/AHD   | Hydrophilic base emulsion (N... | 21000347001  | 1       |
| Caesar & Loretz GmbH/Al... | Hydrophilic base emulsion (N... | 19225601     | 3       |
| Caesar & Loretz GmbH/Al... | Hydrophilic base emulsion (N... | 20001762001  | 1       |
| Caesar & Loretz GmbH/Fi... | Hydrophilic base emulsion (N... | 19180901     | 1       |
| Caesar & Loretz GmbH/Fi... | Hydrophilic base emulsion (N... | 19181101     | 1       |
| Caesar & Loretz GmbH/Fi... | Hydrophilic base emulsion (N... | 19225501     | 1       |
| Caesar & Loretz GmbH/Fi... | Hydrophilic base emulsion (N... | 20001762001  | 1       |
| Caesar & Loretz GmbH/Fi... | Hydrophilic base emulsion (N... | 20001763002  | 1       |
| Caesar & Loretz GmbH/Fi... | Hydrophilic base emulsion (N... | 20003314001  | 2       |
| Caesar & Loretz GmbH/Fi... | Hydrophilic base emulsion (N... | 21001239001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 18258901     | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 18311202     | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 19028101     | 5       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 19028201     | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 19028202     | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 19140102     | 4       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 19181001     | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 19225601     | 8       |
| Caesar & Loretz GmbH/GEHE  | Hydrophilic base emulsion (N... | 19225601     | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 192827001    | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 192827002    | 3       |
| Caesar & Loretz GmbH/GEHE  | Hydrophilic base emulsion (N... | 200002921001 | 1       |
| Caesar & Loretz GmbH/GEHE  | Hydrophilic base emulsion (N... | 20000295001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 20000296002  | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 20000921001  | 2       |
| Caesar & Loretz GmbH/GEHE  | Hydrophilic base emulsion (N... | 20000921001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 20000922002  | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 20001762001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 20001763002  | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 20003314001  | 9       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic base emulsion (N... | 21001239001  | 1       |
| Caesar & Loretz GmbH/GEHE  | Hydrophilic base emulsion (N... | 21002118001  | 1       |
| Caesar & Loretz GmbH/Ge... | Hydrophilic base emulsion (N... | 20000921001  | 1       |
| Caesar & Loretz GmbH/Je... | Hydrophilic base emulsion (N... | 20000922001  | 1       |
| Caesar & Loretz GmbH/Kehr  | Hydrophilic base emulsion (N... | 19225601     | 2       |
| Caesar & Loretz GmbH/kehr  | Hydrophilic base emulsion (N... | 20002079001  | 1       |
| Caesar & Loretz GmbH/Kehr  | Hydrophilic base emulsion (N... | 21002118001  | 1       |
| Caesar & Loretz GmbH/Mi... | Hydrophilic base emulsion (N... | 19028101     | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic base emulsion (N... | 19181001     | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic base emulsion (N... | 20000919001  | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic base emulsion (N... | 20000922001  | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/No... | Hydrophilic base emulsion (N... | 21000345001 | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic base emulsion (N... | 21000737002 | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic base emulsion (N... | 21002117001 | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic base emulsion (N... | 21003084001 | 2       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic base emulsion (N... | 19180901    | 2       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic base emulsion (N... | 19225601    | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic base emulsion (N... | 19140102    | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic base emulsion (N... | 19181001    | 4       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic base emulsion (N... | 20000922003 | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic base emulsion (N... | 20003314001 | 2       |
| caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 13394304    | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 15077002    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18107501    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18180601    | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18180701    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18180702    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18258801    | 11      |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18258901    | 3       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18259001    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18311202    | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18311301    | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18311302    | 8       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 18311303    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19028101    | 10      |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19028201    | 4       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19028202    | 5       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19140101    | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19140102    | 7       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19140201    | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19180901    | 9       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19181001    | 12      |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19181101    | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19225501    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19225601    | 6       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 192827001   | 5       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 192827002   | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 19282703    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000295001 | 18      |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000296002 | 3       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000919001 | 6       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000920001 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000921001 | 16      |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000922001 | 5       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000922002 | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20000922003 | 3       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20001762001 | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20001763002 | 8       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20002078002 | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20002079001 | 4       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20002079002 | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20002079003 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20003313002 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20003314001 | 7       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 20003314002 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 2002079001  | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21000345001 | 3       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21000346001 | 5       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21000347001 | 3       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21000737002 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21001238002 | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21001239001 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21001239002 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21002117001 | 4       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21002118001 | 10      |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21003084001 | 4       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21003085002 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21003085003 | 2       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21003960001 | 1       |
| Caesar & Loretz GmbH       | Hydrophilic base emulsion (N... | 21003961003 | 1       |
| Caesar & Loretz/AHD        | Hydrophilic base emulsion (N... | 16249201    | 1       |
| Caesar & Loretz/AHD        | Hydrophilic base emulsion (N... | 20000922001 | 2       |
| Caesar & Loretz            | Hydrophilic base emulsion (N... | 13195801    | 1       |
| caesar & loretz            | Hydrophilic base emulsion (N... | 16115302    | 1       |
| Caesar & Loretz            | Hydrophilic base emulsion (N... | 19028101    | 1       |
| Caesar & Loretz            | Hydrophilic base emulsion (N... | 19140102    | 2       |
| Caesar&Loretz GmbH/ All... | Hydrophilic base emulsion (N... | 16264202    | 1       |
| Caesar&Loretz GmbH/ Gehe   | Hydrophilic base emulsion (N... | 15439801    | 1       |
| Caesar&Loretz GmbH/ San... | Hydrophilic base emulsion (N... | 18107602    | 1       |
| Caesar&Loretz GmbH/AHD     | Hydrophilic base emulsion (N... | 19028201    | 1       |
| Caesar&Loretz GmbH/Anzag   | Hydrophilic base emulsion (N... | 13195901    | 1       |
| Caesar&Loretz GmbH/Anzag   | Hydrophilic base emulsion (N... | 13397601    | 1       |
| Caesar&Loretz GmbH/Anzag   | Hydrophilic base emulsion (N... | 15077101    | 2       |
| Caesar&Loretz GmbH         | Hydrophilic base emulsion (N... | 15337301    | 1       |
| Caesar&Loretz GmbH         | Hydrophilic base emulsion (N... | 15439801    | 1       |
| Caesar&Loretz GmbH         | Hydrophilic base emulsion (N... | 18180601    | 1       |
| Caesar&Loretz GmbH         | Hydrophilic base emulsion (N... | 20002079002 | 1       |
| Caesar&loretz,AHC          | Hydrophilic base emulsion (N... | 14063601    | 1       |
| Caesar/Lorenz              | Hydrophilic base emulsion (N... | 13076702    | 1       |
| Caesar/Noweda              | Hydrophilic base emulsion (N... | 12071901    | 1       |
| Caesar/Noweda              | Hydrophilic base emulsion (N... | 15440101    | 1       |
| Caesar/Noweda              | Hydrophilic base emulsion (N... | 5011E-03325 | 1       |
| Cealeo/Phönix              | Hydrophilic base emulsion (N... | 17342101    | 1       |
| Cealo/ Anzag               | Hydrophilic base emulsion (N... | 19225601    | 1       |
| Cealo/Gehe                 | Hydrophilic base emulsion (N... | 18311302    | 1       |
| cealo/noveda               | Hydrophilic base emulsion (N... | 15209901    | 1       |
| Cealo/Sana                 | Hydrophilic base emulsion (N... | 18031601    | 1       |
| Cealo                      | Hydrophilic base emulsion (N... | 15077101    | 3       |
| Cealo                      | Hydrophilic base emulsion (N... | 17170201    | 1       |
| Celo                       | Hydrophilic base emulsion (N... | 19181001    | 1       |
| Ebert & Jacobi             | Hydrophilic base emulsion (N... | 17226903    | 1       |
| Ebert & Jacobi             | Hydrophilic base emulsion (N... | 192827001   | 1       |
| Ebert 12.09.2016           | Hydrophilic base emulsion (N... | 16115602    | 1       |
| Eigen/Defektur             | Hydrophilic base emulsion (N... | 15337602    | 1       |
| Eigene Herstellung         | Hydrophilic base emulsion (N... | 13305601    | 1       |
| EuRho/Sanac                | Hydrophilic base emulsion (N... | 13305601    | 3       |
| Euro OTC                   | Hydrophilic base emulsion (N... | 13196001    | 1       |
| Euro OTC                   | Hydrophilic base emulsion (N... | 16115602    | 1       |
| Euro OTC                   | Hydrophilic base emulsion (N... | 16249302    | 2       |
| Euro OTC                   | Hydrophilic base emulsion (N... | 19028201    | 1       |
| euro//Noweda               | Hydrophilic base emulsion (N... | 18258801    | 1       |
| Fagron                     | Hydrophilic base emulsion (N... | 13195901    | 1       |
| Fagron                     | Hydrophilic base emulsion (N... | 13305401    | 5       |
| Fagron                     | Hydrophilic base emulsion (N... | 15439801    | 2       |
| Fagron                     | Hydrophilic base emulsion (N... | 16115302    | 1       |
| Fagron                     | Hydrophilic base emulsion (N... | 16264101    | 1       |
| Fagron                     | Hydrophilic base emulsion (N... | 17118401    | 1       |
| Fagron                     | Hydrophilic base emulsion (N... | 17226801    | 1       |
| Fagron                     | Hydrophilic base emulsion (N... | 18107701    | 4       |
| Fagron                     | Hydrophilic base emulsion (N... | 18180601    | 1       |
| Fiebig ek:4,26EUR 18.09.12 | Hydrophilic base emulsion (N... | 12173003    | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Fiebig                     | Hydrophilic base emulsion (N... | 15210001    | 1       |
| Fiebig                     | Hydrophilic base emulsion (N... | 17044401    | 2       |
| GEHE 10.03.2014            | Hydrophilic base emulsion (N... | 14063502    | 2       |
| Gehe 21-01-2019            | Hydrophilic base emulsion (N... | 18180601    | 1       |
| GEHE 29.01.2019            | Hydrophilic base emulsion (N... | 18180601    | 1       |
| Gehe am 6.03.2014          | Hydrophilic base emulsion (N... | 13195801    | 1       |
| GEHE/ Braun                | Hydrophilic base emulsion (N... | 18180702    | 2       |
| Gehe                       | Hydrophilic base emulsion (N... | 13195801    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 13397601    | 2       |
| Gehe                       | Hydrophilic base emulsion (N... | 14140901    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 14238802    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 14239103    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 15076803    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 15076901    | 3       |
| Gehe                       | Hydrophilic base emulsion (N... | 15077003    | 2       |
| Gehe                       | Hydrophilic base emulsion (N... | 15337602    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 15337701    | 2       |
| Gehe                       | Hydrophilic base emulsion (N... | 15439901    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 15440102    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 16115401    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 16340002    | 2       |
| Gehe                       | Hydrophilic base emulsion (N... | 17118401    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 17170101    | 3       |
| Gehe                       | Hydrophilic base emulsion (N... | 17170201    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 17342301    | 2       |
| Gehe                       | Hydrophilic base emulsion (N... | 18031701    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 18031802    | 2       |
| GEHE                       | Hydrophilic base emulsion (N... | 18107501    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 18258701    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 19181001    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 19225601    | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 192827002   | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 20000295001 | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 20000922001 | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 20000922002 | 1       |
| Gehe                       | Hydrophilic base emulsion (N... | 20002079001 | 1       |
| Henry Lamotte Oils GmbH... | Hydrophilic base emulsion (N... | 13397601    | 1       |
| Herstellung                | Hydrophilic base emulsion (N... | 13305501    | 2       |
| Hubertus Apotheke          | Hydrophilic base emulsion (N... | 15209901    | 1       |
| Jenne                      | Hydrophilic base emulsion (N... | 192827002   | 1       |
| Krieger                    | Hydrophilic base emulsion (N... | 21003085002 | 1       |
| lamotte phönix             | Hydrophilic base emulsion (N... | 18107602    | 1       |
| Lamotte                    | Hydrophilic base emulsion (N... | 16264102    | 1       |
| Maros                      | Hydrophilic base emulsion (N... | 5006613     | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 12230301    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 13076801    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 15209801    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 1626402     | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 16340002    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 17044301    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 17118401    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 18107501    | 2       |
| Noweda                     | Hydrophilic base emulsion (N... | 19028101    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 19140102    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 19181001    | 1       |
| Noweda                     | Hydrophilic base emulsion (N... | 21003085002 | 2       |
| Pala                       | Hydrophilic base emulsion (N... | 180031802   | 2       |
| Pala                       | Hydrophilic base emulsion (N... | 18107701    | 1       |
| Pala                       | Hydrophilic base emulsion (N... | 20000296002 | 1       |
| PHOENIX 03.06.2014         | Hydrophilic base emulsion (N... | 14063701    | 1       |

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| <b>Supplier</b>       | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------------|---------------------------------|--------------|----------------|
| PHOENIX am 27.01.2014 | Hydrophilic base emulsion (N... | 13305401     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 13195901     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 13397601     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 14063502     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 14063701     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 16249302     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 17118301     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 17170301     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 17342101     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 17342202     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 18107501     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 18107602     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 18258801     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 18258901     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 19028101     | 1              |
| PHOENIX               | Hydrophilic base emulsion (N... | 19028101     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 19028201     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 19140101     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 19181001     | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 3045         | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 3130         | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 3233         | 1              |
| Phoenix               | Hydrophilic base emulsion (N... | 3379         | 1              |
| Phönix Gotha          | Hydrophilic base emulsion (N... | 13195801     | 1              |
| Phönix Gotha          | Hydrophilic base emulsion (N... | 17226801     | 1              |
| Phönix Gotha          | Hydrophilic base emulsion (N... | 18180601     | 1              |
| Phönix Gotha          | Hydrophilic base emulsion (N... | 18258801     | 3              |
| Phönix Gotha          | Hydrophilic base emulsion (N... | 18311302     | 2              |
| Phönix Gotha          | Hydrophilic base emulsion (N... | 19181001     | 3              |
| Phönix Gotha          | Hydrophilic base emulsion (N... | 19181101     | 1              |
| Phönix/Phönix         | Hydrophilic base emulsion (N... | 17118301     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 13039701     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 13076803     | 1              |
| Phonix                | Hydrophilic base emulsion (N... | 14063601     | 1              |
| phönix                | Hydrophilic base emulsion (N... | 16339901     | 1              |
| phönix                | Hydrophilic base emulsion (N... | 17044401     | 2              |
| PHÖNIX                | Hydrophilic base emulsion (N... | 17342101     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 17342202     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 18031701     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 18107603     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 18180601     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 18180702     | 2              |
| Phönix                | Hydrophilic base emulsion (N... | 18258801     | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 19028101     | 2              |
| Phönix                | Hydrophilic base emulsion (N... | 20000921001  | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 20001763002  | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 20003313002  | 1              |
| Phönix                | Hydrophilic base emulsion (N... | 21000737002  | 1              |
| Sanacorp              | Hydrophilic base emulsion (N... |              | 1              |
| Sanacorp              | Hydrophilic base emulsion (N... | 12128401     | 2              |
| Sanacorp              | Hydrophilic base emulsion (N... | 12230203     | 1              |
| Sanacorp              | Hydrophilic base emulsion (N... | 13039702     | 1              |
| Sanacorp              | Hydrophilic base emulsion (N... | 13195901     | 1              |
| Sanacorp              | Hydrophilic base emulsion (N... | 13305401     | 5              |
| Sanacorp              | Hydrophilic base emulsion (N... | 13397601     | 2              |
| Sanacorp              | Hydrophilic base emulsion (N... | 14063601     | 3              |
| Sanacorp              | Hydrophilic base emulsion (N... | 14141004     | 1              |
| Sanacorp              | Hydrophilic base emulsion (N... | 14238901     | 1              |
| Sanacorp              | Hydrophilic base emulsion (N... | 14360301     | 2              |
| sanacorp              | Hydrophilic base emulsion (N... | 15210001     | 2              |

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| Supplier     | Substance                       | Batch       | Spectra |
|--------------|---------------------------------|-------------|---------|
| Sanacorp     | Hydrophilic base emulsion (N... | 15337301    | 2       |
| Sanacorp     | Hydrophilic base emulsion (N... | 17124701    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 17170201    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 17227001    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 18031702    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 1810601     | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 18107501    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 18107602    | 1       |
| SANACORP     | Hydrophilic base emulsion (N... | 19028101    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 19028201    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 19140102    | 2       |
| Sanacorp     | Hydrophilic base emulsion (N... | 19181001    | 2       |
| Sanacorp     | Hydrophilic base emulsion (N... | 19181101    | 1       |
| Sanacorp     | Hydrophilic base emulsion (N... | 20000296002 | 2       |
| Spangropharm | Hydrophilic base emulsion (N... | 20000921001 | 2       |
| Spangropharm | Hydrophilic base emulsion (N... | 20001763002 | 1       |
| wepa/Sanaco  | Hydrophilic base emulsion (N... | 16115303    | 1       |

- 284 997 spectra from 1294 *Apo-Ident* customers from a total of 51 559 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Hydrophilic base emulsion (NRF p.25)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Hydrophilic base emulsion (NRF p.25)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 670           | 0              | 66 489        |
| <b>Type B</b> | 0              | 1238          | 2              | 106 123       |
| <b>Type C</b> | 0              | 3578          | 134            | 284 997       |

The substance/substance group *Hydrophilic base emulsion (NRF p.25)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.1045 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 99.8387 % (> 99.5968 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 96.3901 % (> 96.3093 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Hydrophilic base emulsion (NRF p.25)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Non-ionic hydrous liniment SR/DAC (NRF... | 17.59                     | —                                 |
| Polyhexanide solution 20%                 | 25.32                     | —                                 |
| Hydrated liniment SR/DAC (NRF p.40)       | 25.86                     | —                                 |
| Gel basis Audor <sup>®</sup>              | 29.33                     | —                                 |
| Dextrorotary lactic acid 20%              | 30.64                     | —                                 |
| Chest elixir                              | 30.76                     | —                                 |
| Hydrophilic cream, non-ionic SR (NRF p... | 35.41                     | —                                 |
| Fortified wine                            | 38.29                     | —                                 |
| Hydrophilic cream, non-ionic without p... | 40.15                     | —                                 |
| Glycolic acid 70%                         | 41.28                     | —                                 |
| Lotio Cordes <sup>®</sup>                 | 42.67                     | —                                 |
| Liquorice juice purified, diluted         | 43.71                     | —                                 |
| Anionic hydrophilic cream SR (NRF p.27)   | 43.99                     | —                                 |
| Sodium-(s)-lactate solution 50%           | 44.52                     | —                                 |
| Condurango wine                           | 45.05                     | —                                 |
| Anionic hydrophilic cream with propyle... | 45.35                     | —                                 |
| Aluminium acetotartrate solution          | 47.01                     | —                                 |
| Base cream, hydrophobic DAC               | 47.40                     | —                                 |
| Acetic acid 30%                           | 47.81                     | —                                 |
| Chlorhexidine digluconate solution        | 49.22                     | —                                 |
| Base cream, diluted                       | 49.49                     | —                                 |
| Water                                     | 50.22                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Hydrophilic base emulsion (NRF p.25)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30709     | 33157                  | 4.27                            | 31.93                              |
| 31176     | 31176                  | 0.00                            | 30.61                              |
| 31340     | 32290                  | 4.59                            | 28.28                              |
| 32290     | 32290                  | 0.00                            | 32.08                              |
| 32291     | 32291                  | 0.00                            | 33.32                              |
| 32292     | 32292                  | 0.00                            | 32.75                              |
| 33154     | 33154                  | 0.00                            | 30.92                              |
| 33155     | 33155                  | 0.00                            | 26.46                              |
| 33156     | 33156                  | 0.00                            | 28.38                              |
| 33157     | 33157                  | 0.00                            | 27.08                              |
| 34536     | 34536                  | 0.00                            | 31.06                              |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 34537            | 34537                      | 0.00                                | 31.41                                  |
| 34538            | 34538                      | 0.00                                | 29.23                                  |
| 34539            | 34539                      | 0.00                                | 30.07                                  |
| 35595            | 35595                      | 0.00                                | 31.52                                  |
| 35949            | 35949                      | 0.00                                | 30.78                                  |
| 35950            | 35950                      | 0.00                                | 31.49                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Hydrophilic ointments</b>                                     |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30631-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Hydrophilic ointments; Anionic hydrophilic cream DAB; Anionic hydrophilic cream SR (NRF p.27); Anionic hydrophilic cream with propylene glycol; Anionic hydrophilic cream without preservatives; Base cream, diluted; Base cream, hydrophobic DAC; Cremor basalis hydrophobicus; Hydrophilic cream, non-ionic SR (NRF p.26); Hydrophilic cream, non-ionic without preservatives SR; Skin care ointment W/L SR; Skin care ointment W/L SR (without preservatives); Transdermal base cream; Unguentum emulsificans aquosum cum propylenglycolum; Unguentum emulsificans aquosum DAB; Unguentum emulsificans aquosum N sine conservante SR; Unguentum emulsificans aquosum N SR (NRF S. 26); Unguentum emulsificans aquosum sine conservante; Unguentum emulsificans aquosum SR (NRF S. 27); Wolff® base half-fat cream

### Special notes

When selecting the *Hydrophilic ointments* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Hydrophilic ointments     | 118    | 352    | 6039   |

## Second-stage model

For differentiation of the substance/substance group *Hydrophilic ointments* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Hydrophilic ointments*:

| Supplier  | Substance           | Batch     | Sample ID | Spectra | Certificate        |
|-----------|---------------------|-----------|-----------|---------|--------------------|
| Caelo     | Anionic hydrophi... | 14138901  | 31440     | 40      | AR-15-FG-008131-01 |
| Caelo     | Anionic hydrophi... | 154004    | 32022     | 60      | 20151117*          |
| Caelo     | Anionic hydrophi... | 154005    | 32023     | 60      | 20151118*          |
| Caelo     | Anionic hydrophi... | 154007    | 32024     | 60      | 20151124*          |
| Caelo     | Anionic hydrophi... | 154009    | 32025     | 60      | 20151130*          |
| Caelo     | Anionic hydrophi... | 154012    | 32026     | 60      | 20151130*          |
| Caelo     | Anionic hydrophi... | 154012    | 32027     | 60      | 20151130*          |
| Caelo     | Anionic hydrophi... | 154013    | 32028     | 60      | 20151120*          |
| Caelo     | Anionic hydrophi... | 154014    | 32029     | 60      | 20151124*          |
| Caelo     | Anionic hydrophi... | 154015    | 32030     | 60      | 20151117*          |
| Caelo     | Anionic hydrophi... | 154317    | 32031     | 60      | 20151215*          |
| Caelo     | Anionic hydrophi... | 154317    | 32032     | 60      | 20151215*          |
| Caelo     | Anionic hydrophi... | 153971    | 32038     | 60      | 20151113*          |
| Caelo     | Anionic hydrophi... | 153971    | 32039     | 60      | 20151113*          |
| Caelo     | Anionic hydrophi... | 153573    | 32052     | 60      | 20151015*          |
| Caelo     | Anionic hydrophi... | 153573    | 32053     | 60      | 20151015*          |
| Caelo     | Anionic hydrophi... | 161525    | 32435     | 40      | 20160518*          |
| Caelo     | Anionic hydrophi... | 161525    | 32436     | 40      | 20160518*          |
| Caelo     | Anionic hydrophi... | 21000288  | 35383     | 40      | 20210126*          |
| Caelo     | Anionic hydrophi... | 21000289  | 35384     | 40      | 20210127*          |
| Caelo     | Anionic hydrophi... | 21000290  | 35385     | 40      | 20210128*          |
| Caelo     | Anionic hydrophi... | 21000292  | 35386     | 40      | 20210129*          |
| Caelo     | Anionic hydrophi... | 21000295  | 35389     | 40      | 20210129*          |
| Caelo     | Anionic hydrophi... | 21000374  | 35390     | 40      | 20210215*          |
| Caelo     | Anionic hydrophi... | 21000924  | 35393     | 40      | 20210331*          |
| Caelo     | Anionic hydrophi... | 21000925  | 35394     | 40      | 20210401*          |
| Caelo     | Anionic hydrophi... | 21000928  | 35397     | 40      | 20210407*          |
| Caelo     | Anionic hydrophi... | 20004461  | 35398     | 40      | 20210122*          |
| Caelo     | Anionic hydrophi... | 21000929  | 35399     | 40      | 20210412*          |
| Caelo     | Anionic hydrophi... | 21001502  | 35531     | 50      | 20210507*          |
| Caelo     | Anionic hydrophi... | 21001814  | 35535     | 50      | 20210602*          |
| Caelo     | Anionic hydrophi... | 21001494  | 35564     | 50      | 20210428*          |
| apomix    | Anionic hydrophi... | 25A210812 | 30895     | 60      | 20120821           |
| apomix    | Anionic hydrophi... | 04A050219 | 34507     | 40      | 20190205           |
| Bombastus | Anionic hydrophi... | 280574    | 31054     | 40      | 1405103            |
| Bombastus | Anionic hydrophi... | 19000650  | 34506     | 40      | 20190205           |
| Caelo     | Anionic hydrophi... | 14063303  | 31450     | 40      | 20140512           |
| Caelo     | Anionic hydrophi... | 161075    | 32115     | 40      | 20160406*          |
| Caelo     | Anionic hydrophi... | 161075    | 32116     | 40      | 20160406*          |
| Caelo     | Anionic hydrophi... | 153295    | 32123     | 40      | 20150924*          |
| Caelo     | Anionic hydrophi... | 153296    | 32124     | 40      | 20150924*          |
| Caelo     | Anionic hydrophi... | 153865    | 32125     | 40      | 20151211*          |

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| Supplier   | Substance           | Batch            | Sample ID | Spectra | Certificate        |
|------------|---------------------|------------------|-----------|---------|--------------------|
| Caelo      | Anionic hydrophi... | 153866           | 32126     | 40      | 20151211*          |
| Caelo      | Anionic hydrophi... | 160196           | 32127     | 40      | 20160127*          |
| Caelo      | Anionic hydrophi... | 160198           | 32128     | 40      | 20160127*          |
| Caelo      | Anionic hydrophi... | 161267           | 32225     | 40      | 20160504*          |
| Caelo      | Anionic hydrophi... | 162155           | 32386     | 40      | 20160728*          |
| Caelo      | Anionic hydrophi... | 162156           | 32387     | 40      | 20160728*          |
| Caelo      | Anionic hydrophi... | 191771           | 34791     | 40      | 20190705*          |
| Caelo      | Anionic hydrophi... | 21001752         | 35614     | 50      | 20210628*          |
| Caelo      | Anionic hydrophi... | 21003705         | 36036     | 40      | 20211221*          |
| Caelo      | Anionic hydrophi... | 12221002         | 30880     | 50      | 20120911           |
| Caelo      | Anionic hydrophi... | 13343401         | 31231     | 40      | 1403496            |
| Caelo      | Anionic hydrophi... | 13244401         | 31241     | 30      | 20130726           |
| Caelo      | Anionic hydrophi... | 14030701         | 31470     | 40      | 20140204           |
| Caelo      | Anionic hydrophi... | 15048501         | 31741     | 60      | 9128               |
| Caelo      | Anionic hydrophi... | 160673           | 32129     | 40      | 20160310*          |
| Caelo      | Anionic hydrophi... | 160673           | 32130     | 40      | 20160310*          |
| Caelo      | Anionic hydrophi... | 160673           | 32131     | 40      | 20160310*          |
| Caelo      | Anionic hydrophi... | 160673           | 32132     | 40      | 20160310*          |
| Caelo      | Anionic hydrophi... | 160677           | 32141     | 40      | 20160310*          |
| Caelo      | Anionic hydrophi... | 160677           | 32142     | 40      | 20160310*          |
| Caelo      | Anionic hydrophi... | 161916           | 32620     | 40      | 20160630*          |
| Caelo      | Anionic hydrophi... | 161917           | 32621     | 40      | 20160630*          |
| Caelo      | Anionic hydrophi... | 162901           | 32882     | 40      | 20161018*          |
| Caelo      | Anionic hydrophi... | 171023           | 33354     | 40      | 20170419*          |
| Caelo      | Anionic hydrophi... | 20001978         | 35099     | 40      | 20200714*          |
| Caelo      | Anionic hydrophi... | 20003308         | 35169     | 40      | 20201109*          |
| Caelo      | Anionic hydrophi... | 20003309         | 35170     | 40      | 20201109*          |
| apomix     | Anionic hydrophl... | 11B020914        | 31537     | 60      | 1411614            |
| apomix     | Anionic hydrophl... | 05B200415        | 31661     | 70      | 20150422           |
| apomix     | Anionic hydrophl... | 08B200819        | 34681     | 40      | 20190820           |
| Caelo      | Base cream, dilu... | 14242803         | 31515     | 60      | 20140813*          |
| Caelo      | Base cream, dilu... | 181758           | 34267     | 40      | 20180716*          |
| Caelo      | Base cream, dilu... | 191056           | 34544     | 40      | 20190426*          |
| Caelo      | Base cream, dilu... | 191904           | 34822     | 40      | 20190723*          |
| Caelo      | Base cream, dilu... | 20001669         | 34850     | 40      | 20200615*          |
| Caelo      | Base cream, dilu... | 20002515         | 35092     | 40      | 20200827*          |
| Caelo      | Base cream, dilu... | 21002416         | 35640     | 50      | 20210811*          |
| Caelo      | Base cream, hydr... | 12151602         | 30758     | 40      | 20120612           |
| Caelo      | Base cream, hydr... | 12308102         | 30931     | 40      | 20121031           |
| Caelo      | Base cream, hydr... | 13085601         | 31002     | 40      | 20130404           |
| Caelo      | Base cream, hydr... | 14028101         | 31478     | 40      | AR-15-FG-009038-01 |
| Caelo      | Base cream, hydr... | 15221202         | 31799     | 60      | 1605111            |
| Caelo      | Base cream, hydr... | 154212           | 31906     | 60      | 20151211*          |
| Caelo      | Base cream, hydr... | 154213           | 31907     | 60      | 20151211*          |
| Caelo      | Base cream, hydr... | 171920           | 33595     | 40      | 20170710*          |
| Caelo      | Base cream, hydr... | 21000396         | 35367     | 40      | 20210219*          |
| Caelo      | Base cream, hydr... | 21000397         | 35368     | 40      | 20210222*          |
| Fagron     | Base cream, hydr... | 17C06-T08-042287 | 33964     | 40      | 20170425           |
| Fagron     | Base cream, hydr... | 18L18-T09-062847 | 34598     | 40      | 20190213           |
| Pharmachem | Base cream, hydr... | 150404           | 31644     | 60      | 20150306           |
| Pharmachem | Base cream, hydr... | 160825           | 32303     | 40      | 20160517           |
| apomix     | Hydrophilic crea... | 12A160419        | 34525     | 40      | 20190416           |
| Bombastus  | Hydrophilic crea... | 00273130         | 30769     | 40      | 1405255            |
| Bombastus  | Hydrophilic crea... | 288882           | 31568     | 60      | 20140722           |
| Caelo      | Hydrophilic crea... | 14127002         | 31477     | 40      | 20140512           |
| Caelo      | Hydrophilic crea... | 14304902         | 31591     | 60      | 20141013           |
| Caelo      | Hydrophilic crea... | 153656           | 31996     | 40      | 20151211*          |
| Caelo      | Hydrophilic crea... | 20002461         | 35096     | 40      | 20200811*          |
| Caelo      | Hydrophilic crea... | 21002193         | 35617     | 50      | 20210818*          |
| Fagron     | Hydrophilic crea... | 14E07-M04        | 31593     | 60      | 20140513           |

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| Supplier   | Substance           | Batch            | Sample ID | Spectra | Certificate |
|------------|---------------------|------------------|-----------|---------|-------------|
| Fagron     | Hydrophilic crea... | 15A110619        | 34508     | 40      | 20190612    |
| apomix     | Hydrophilic crea... | 21B141013        | 31188     | 40      | 1405386     |
| apomix     | Hydrophilic crea... | 14B240614        | 31500     | 20      | 1411613     |
| apomix     | Hydrophilic crea... | 14B240614        | 31516     | 60      | 20140624    |
| apomix     | Hydrophilic crea... | 22B061114        | 31565     | 60      | 20141106    |
| apomix     | Hydrophilic crea... | 01B120115        | 31599     | 60      | 20150114    |
| apomix     | Hydrophilic crea... | 25B081215        | 31962     | 60      | 20151209    |
| apomix     | Hydrophilic crea... | 13B090919        | 34683     | 40      | 20190909    |
| apomix     | Skin care ointme... | 88B111212        | 31040     | 40      | 20121211    |
| apomix     | Skin care ointme... | 10A050214        | 31503     | 60      | 1412041     |
| apomix     | Skin care ointme... | 05A250221        | 35292     | 40      | 20210226    |
| Pharmachem | Skin care ointme... | 170117           | 33295     | 40      | 20180131    |
| apomix     | Skin care ointme... | 01B110113        | 31039     | 40      | 1403321     |
| apomix     | Skin care ointme... | 31B020714        | 31600     | 60      | 20140702    |
| apomix     | Skin care ointme... | 24B200617        | 33641     | 40      | 20170620    |
| apomix     | Skin care ointme... | 35A040919        | 34680     | 40      | 20190904    |
| apomix     | Skin care ointme... | 37B081220        | 35291     | 40      | 20201209    |
| Fagron     | Transdermal base... | 12H17-T02-000281 | 31008     | 40      | 1406052     |
| Fagron     | Transdermal base... | 12H17-T02-000281 | 31042     | 40      | 20130110    |
| Fagron     | Transdermal base... | 15A28-T10-018922 | 32346     | 40      | 20150804    |
| Fagron     | Transdermal base... | 1805581/1        | 34763     | 40      | 20180614    |
| Fagron     | Transdermal base... | 20003335         | 35086     | 40      | 20200423    |
| Fagron     | Transdermal base... | 20003334         | 35461     | 40      | 20200417    |
| Dr. Wolff  | Wolff® base half... | 230200           | 30631     | 40      | 20120210    |
| Dr. Wolff  | Wolff® base half... | 236420           | 30837     | 40      | 1410330     |
| Dr. Wolff  | Wolff® base half... | 331551           | 31086     | 40      | 20130221    |
| Dr. Wolff  | Wolff® base half... | 432611           | 31487     | 40      | 20140410    |
| Dr. Wolff  | Wolff® base half... | 810800           | 34689     | 40      | 20190103    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 5910 spectra of 130 reference samples from the substance/substance group *Hydrophilic ointments*. These samples are listed above in the *calibration samples* section. The reference samples come from 118 different batches.
- 61 249 spectra from a total of 1261 batches from further 217 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this *chemometric model*, the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in *Appendix A*. The samples in *Appendix A* were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

*Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a †. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 17716 spectra of 441 reference samples from the substance/substance group *Hydrophilic ointments*.
- Among them are spectra of independent samples from 352 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance                     | Batch    | Sample ID | Spectra |
|-----------|-------------------------------|----------|-----------|---------|
| Bombastus | Anionic hydrophilic cream DAB | 22001250 | 36206     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 154321   | 32033     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153529   | 32035     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153530   | 32036     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153970   | 32037     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153972   | 32040     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153973   | 32041     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153575   | 32042     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153969   | 32043     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 154281   | 32045     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 154282   | 32046     | 45      |
| Caelo     | Anionic hydrophilic cream DAB | 153531   | 32048     | 45      |
| Caelo     | Anionic hydrophilic cream DAB | 153571   | 32049     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153572   | 32050     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153574   | 32051     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 154284   | 32055     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153194   | 32057     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 154285   | 32059     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 154283   | 32061     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 153968   | 32063     | 60      |
| Caelo     | Anionic hydrophilic cream DAB | 160578   | 32145     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161031   | 32146     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161033   | 32148     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161510   | 32218     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161507   | 32220     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161508   | 32222     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161506   | 32426     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161798   | 32431     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161529   | 32437     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161526   | 32440     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161527   | 32444     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161528   | 32447     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161560   | 32450     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161561   | 32451     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161563   | 32452     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161564   | 32453     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161589   | 32644     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161796   | 32645     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161797   | 32647     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 161800   | 32648     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 162500   | 32649     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 162501   | 32651     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 162502   | 32653     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 162589   | 32654     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 162590   | 32656     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 162591   | 32658     | 40      |
| Caelo     | Anionic hydrophilic cream DAB | 162592   | 32661     | 40      |

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| Supplier | Substance                     | Batch    | Sample ID | Spectra |
|----------|-------------------------------|----------|-----------|---------|
| Caelo    | Anionic hydrophilic cream DAB | 162593   | 32663     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162594   | 32667     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162596   | 32669     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162597   | 32672     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162599   | 32674     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162600   | 32676     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162645   | 32678     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162643   | 32875     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162644   | 32876     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162646   | 32877     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162647   | 32878     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 162598   | 32879     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 163172   | 32880     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 163226   | 32881     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 170451   | 33122     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 170452   | 33123     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 163281   | 33170     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 163282   | 33171     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 163283   | 33172     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 163284   | 33173     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 170453   | 33174     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 170454   | 33175     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171421   | 33581     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171422   | 33582     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171423   | 33583     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171424   | 33584     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171427   | 33585     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171430   | 33586     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171431   | 33587     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171432   | 33588     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171433   | 33589     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171434   | 33590     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171435   | 33591     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171436   | 33592     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171437   | 33593     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 171438   | 33594     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 182434   | 34264     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 191613   | 34788     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 192060   | 34789     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 192723   | 34790     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 20000033 | 34975     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 20001676 | 34976     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 20004458 | 35379     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 20004459 | 35380     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 20004462 | 35381     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21000287 | 35382     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21000293 | 35387     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21000294 | 35388     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21000375 | 35391     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21000376 | 35392     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21000926 | 35395     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21000927 | 35396     | 40      |
| Caelo    | Anionic hydrophilic cream DAB | 21001498 | 35527     | 50      |
| Caelo    | Anionic hydrophilic cream DAB | 21001499 | 35528     | 50      |
| Caelo    | Anionic hydrophilic cream DAB | 21001500 | 35529     | 50      |
| Caelo    | Anionic hydrophilic cream DAB | 21001501 | 35530     | 50      |
| Caelo    | Anionic hydrophilic cream DAB | 21001504 | 35532     | 50      |
| Caelo    | Anionic hydrophilic cream DAB | 21001505 | 35533     | 50      |
| Caelo    | Anionic hydrophilic cream DAB | 21001810 | 35534     | 50      |
| Caelo    | Anionic hydrophilic cream DAB | 21001495 | 35565     | 50      |

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| Supplier  | Substance                       | Batch     | Sample ID | Spectra |
|-----------|---------------------------------|-----------|-----------|---------|
| Caelo     | Anionic hydrophilic cream DAB   | 21001496  | 35566     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21001497  | 35567     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21001493  | 35568     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21001812  | 35653     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21001816  | 35654     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21001813  | 35655     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002632  | 35656     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002633  | 35657     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002634  | 35658     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002635  | 35659     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002628  | 35868     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002629  | 35869     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002630  | 35870     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002631  | 35871     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002637  | 35872     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002638  | 35873     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002639  | 35874     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002640  | 35875     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002641  | 35876     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21002642  | 35877     | 50      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003745  | 35993     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003943  | 35994     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003944  | 35995     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003945  | 35996     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003946  | 35997     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003947  | 35998     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003948  | 35999     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003949  | 36007     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003950  | 36008     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003951  | 36009     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003954  | 36010     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003955  | 36011     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003956  | 36012     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 21003957  | 36013     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000345  | 36099     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000347  | 36100     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000349  | 36101     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000350  | 36102     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000351  | 36103     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000352  | 36104     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000353  | 36105     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000357  | 36106     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000359  | 36107     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000360  | 36108     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000361  | 36252     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000363  | 36253     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000365  | 36254     | 10      |
| Caelo     | Anionic hydrophilic cream DAB   | 22000355  | 36329     | 10      |
| apomix    | Anionic hydrophilic cream SR... | 09A200422 | 36235     | 40      |
| Bombastus | Anionic hydrophilic cream SR... | 22001129  | 36200     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 162157    | 32388     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 162586    | 32550     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 162587    | 32551     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 170419    | 33125     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 170418    | 33139     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 171258    | 33338     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 171442    | 33339     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 172117    | 33552     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 172118    | 33553     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 172568    | 33768     | 40      |

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| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Anionic hydrophilic cream SR... | 172569   | 33769     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 172944   | 34021     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 173195   | 34022     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 181023   | 34152     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 181475   | 34153     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 180411   | 34162     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 182181   | 34260     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 192401   | 34792     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 20001781 | 35097     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 20002423 | 35122     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 20003015 | 35223     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 20003746 | 35224     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 21000339 | 35330     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 21001436 | 35520     | 50      |
| Caelo    | Anionic hydrophilic cream SR... | 21002250 | 35613     | 50      |
| Caelo    | Anionic hydrophilic cream SR... | 21003004 | 35811     | 50      |
| Caelo    | Anionic hydrophilic cream SR... | 22000013 | 36086     | 40      |
| Caelo    | Anionic hydrophilic cream SR... | 22000014 | 36087     | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 12117002 | 30577     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 160674   | 32133     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 160675   | 32137     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 160676   | 32139     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 160678   | 32143     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 160679   | 32144     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 161918   | 32422     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 161919   | 32424     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 161915   | 32619     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 162902   | 32883     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 162903   | 32884     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 162904   | 32885     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 162905   | 32886     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 170302   | 33128     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 170303   | 33129     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 170299   | 33136     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 170300   | 33137     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 170301   | 33138     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 171021   | 33350     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 171024   | 33351     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 171020   | 33353     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 171022   | 33355     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 171565   | 33557     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 171566   | 33558     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 171854   | 33559     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 172621   | 33755     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 172619   | 33756     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 172622   | 33757     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 173353   | 34028     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 180414   | 34140     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 181808   | 34262     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 182973   | 34316     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 182483   | 34350     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 20003306 | 35221     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 20003307 | 35222     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 21000681 | 35400     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 20004291 | 35401     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 20004292 | 35402     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 20004293 | 35403     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 20004294 | 35404     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 21000683 | 35405     | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 21000684 | 35406     | 40      |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Sample ID</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|------------------|----------------|
| Caelo           | Anionic hydrophilic cream wi... | 21000685     | 35407            | 40             |
| Caelo           | Anionic hydrophilic cream wi... | 21001941     | 35660            | 50             |
| Caelo           | Anionic hydrophilic cream wi... | 21001942     | 35661            | 50             |
| Caelo           | Anionic hydrophilic cream wi... | 21001943     | 35662            | 50             |
| Caelo           | Anionic hydrophilic cream wi... | 21003798     | 35928            | 20             |
| Caelo           | Anionic hydrophilic cream wi... | 21003799     | 35929            | 10             |
| Caelo           | Anionic hydrophilic cream wi... | 21003800     | 35930            | 40             |
| Caelo           | Anionic hydrophilic cream wi... | 21004209     | 36097            | 40             |
| Caelo           | Anionic hydrophilic cream wi... | 21004210     | 36098            | 10             |
| apomix          | Anionic hydrophlic cream wit... | 05B310517    | 33516            | 40             |
| apomix          | Anionic hydrophlic cream wit... | 01B080118    | 33947            | 40             |
| apomix          | Anionic hydrophlic cream wit... | 03B160321    | 35264            | 40             |
| apomix          | Anionic hydrophlic cream wit... | 08B210921    | 35815            | 50             |
| apomix          | Anionic hydrophlic cream wit... | 02B220322    | 36228            | 40             |
| Caelo           | Base cream, diluted             | 182407       | 34268            | 40             |
| Caelo           | Base cream, diluted             | 191057       | 34543            | 40             |
| Caelo           | Base cream, diluted             | 192299       | 34821            | 40             |
| Caelo           | Base cream, diluted             | 20003510     | 35154            | 40             |
| Caelo           | Base cream, diluted             | 21001312     | 35363            | 40             |
| Caelo           | Base cream, diluted             | 21001313     | 35364            | 40             |
| Caelo           | Base cream, diluted             | 21001314     | 35365            | 40             |
| Caelo           | Base cream, diluted             | 21000785     | 35366            | 40             |
| Caelo           | Base cream, diluted             | 21001869     | 35637            | 50             |
| Caelo           | Base cream, diluted             | 21001870     | 35638            | 50             |
| Caelo           | Base cream, diluted             | 21001871     | 35639            | 50             |
| Caelo           | Base cream, diluted             | 21002417     | 35641            | 50             |
| Caelo           | Base cream, diluted             | 21002418     | 35642            | 50             |
| Caelo           | Base cream, diluted             | 21004061     | 35960            | 23             |
| Caelo           | Base cream, diluted             | 21004062     | 35961            | 10             |
| Caelo           | Base cream, diluted             | 22000373     | 36138            | 10             |
| Caelo           | Base cream, diluted             | 22000372     | 36139            | 40             |
| Caelo           | Base cream, diluted             | 22001361     | 36246            | 40             |
| Caelo           | Base cream, diluted             | 22001362     | 36247            | 10             |
| Caelo           | Base cream, hydrophobic DAC     | 12025003     | 30467            | 20             |
| Caelo           | Base cream, hydrophobic DAC     | 154214       | 31908            | 60             |
| Caelo           | Base cream, hydrophobic DAC     | 160748       | 32149            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 160749       | 32151            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 160751       | 32153            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 160750       | 32155            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 160752       | 32156            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 161654       | 32370            | 41             |
| Caelo           | Base cream, hydrophobic DAC     | 161655       | 32372            | 41             |
| Caelo           | Base cream, hydrophobic DAC     | 161656       | 32374            | 41             |
| Caelo           | Base cream, hydrophobic DAC     | 161657       | 32376            | 41             |
| Caelo           | Base cream, hydrophobic DAC     | 161742       | 32378            | 41             |
| Caelo           | Base cream, hydrophobic DAC     | 162937       | 32855            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 162938       | 32856            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 162939       | 32857            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 170732       | 33127            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 171504       | 33373            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 171505       | 33374            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 171130       | 33375            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 171129       | 33376            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 172552       | 34023            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 180512       | 34163            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 181739       | 34164            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 182398       | 34269            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 182867       | 34306            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 192048       | 34818            | 40             |
| Caelo           | Base cream, hydrophobic DAC     | 191159       | 34819            | 40             |

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| Supplier   | Substance                       | Batch     | Sample ID | Spectra |
|------------|---------------------------------|-----------|-----------|---------|
| Caelo      | Base cream, hydrophobic DAC     | 192387    | 34820     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 20001199  | 34851     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 20001592  | 34852     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 20003445  | 35225     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 20003446  | 35226     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 21000399  | 35369     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 21001222  | 35512     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21001221  | 35513     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21001223  | 35514     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21001947  | 35647     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21001948  | 35648     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21001949  | 35649     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21001950  | 35650     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21002902  | 35806     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21002903  | 35807     | 50      |
| Caelo      | Base cream, hydrophobic DAC     | 21003889  | 35957     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 21003890  | 35958     | 40      |
| Caelo      | Base cream, hydrophobic DAC     | 21003891  | 35959     | 10      |
| apomix     | Hydrophilic cream, non-ionic... | 02A020322 | 36238     | 20      |
| Bombastus  | Hydrophilic cream, non-ionic... | 21005180  | 36202     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 160175    | 31994     | 60      |
| Caelo      | Hydrophilic cream, non-ionic... | 153258    | 31995     | 60      |
| Caelo      | Hydrophilic cream, non-ionic... | 161141    | 32119     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 161142    | 32121     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 161694    | 32382     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 161695    | 32384     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 162220    | 32584     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 162221    | 32596     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 162579    | 32602     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 170097    | 33187     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 171134    | 33378     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 171140    | 33379     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 172126    | 33551     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 172610    | 33754     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 173139    | 34019     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 172940    | 34020     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 180503    | 34144     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 181752    | 34145     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 182180    | 34272     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 182595    | 34310     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 20003016  | 35158     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 21000505  | 35329     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 21001333  | 35519     | 50      |
| Caelo      | Hydrophilic cream, non-ionic... | 21003276  | 35812     | 50      |
| Caelo      | Hydrophilic cream, non-ionic... | 21003888  | 35931     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 21003885  | 35932     | 40      |
| Caelo      | Hydrophilic cream, non-ionic... | 22000034  | 36085     | 40      |
| apomix     | Hydrophilic cream, non-ionic... | 07B030417 | 33283     | 40      |
| apomix     | Hydrophilic cream, non-ionic... | 16B230817 | 33643     | 40      |
| apomix     | Hydrophilic cream, non-ionic... | 04B020321 | 35293     | 40      |
| apomix     | Hydrophilic cream, non-ionic... | 06B210322 | 36229     | 40      |
| apomix     | Skin care ointment W/L SR       | 31A130717 | 33627     | 40      |
| apomix     | Skin care ointment W/L SR       | 22B211021 | 36232     | 40      |
| Pharmachem | Skin care ointment W/L SR       | 180117    | 33294     | 40      |
| apomix     | Skin care ointment W/L SR (w... | 14B060417 | 33264     | 40      |
| apomix     | Skin care ointment W/L SR (w... | 37A021117 | 33792     | 40      |
| apomix     | Skin care ointment W/L SR (w... | 24B300821 | 35814     | 50      |
| apomix     | Skin care ointment W/L SR (w... | 10A070422 | 36233     | 40      |
| Fagron     | Transdermal base cream          | 1609813   | 33479     | 40      |
| Fagron     | Transdermal base cream          | 1802650/2 | 34204     | 40      |

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| Supplier  | Substance                       | Batch            | Sample ID | Spectra |
|-----------|---------------------------------|------------------|-----------|---------|
| Fagron    | Transdermal base cream          | 20001002         | 34847     | 40      |
| Fagron    | Transdermal base cream          | 21J15-T06-091933 | 36227     | 40      |
| Dr. Wolff | Wolff® base half-fat cream      | 702500           | 33484     | 40      |
| Dr. Wolff | Wolff® base half-fat cream      | 701451           | 33485     | 40      |
| Dr. Wolff | Wolff® base half-fat cream      | 010680           | 35456     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 154321           | 32034     | 60      |
| Caelo     | Anionic hydrophilic cream DAB   | 153969           | 32044     | 60      |
| Caelo     | Anionic hydrophilic cream DAB   | 154282           | 32047     | 45      |
| Caelo     | Anionic hydrophilic cream DAB   | 153575           | 32054     | 60      |
| Caelo     | Anionic hydrophilic cream DAB   | 154284           | 32056     | 60      |
| Caelo     | Anionic hydrophilic cream DAB   | 154281           | 32058     | 60      |
| Caelo     | Anionic hydrophilic cream DAB   | 154285           | 32060     | 60      |
| Caelo     | Anionic hydrophilic cream DAB   | 154283           | 32062     | 60      |
| Caelo     | Anionic hydrophilic cream DAB   | 161031           | 32147     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161510           | 32219     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161507           | 32221     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161506           | 32427     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161506           | 32428     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161510           | 32429     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161510           | 32430     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161798           | 32432     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161798           | 32433     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161798           | 32434     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161529           | 32438     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161529           | 32439     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161526           | 32441     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161526           | 32442     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161526           | 32443     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161527           | 32445     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161527           | 32446     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161528           | 32448     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161528           | 32449     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161561           | 32642     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161563           | 32643     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 161796           | 32646     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162500           | 32650     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162501           | 32652     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162589           | 32655     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162590           | 32657     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162591           | 32659     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162591           | 32660     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162592           | 32662     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162593           | 32664     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162593           | 32665     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162593           | 32666     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162594           | 32668     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162596           | 32670     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162596           | 32671     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162597           | 32673     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162599           | 32675     | 40      |
| Caelo     | Anionic hydrophilic cream DAB   | 162600           | 32677     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 162587           | 32552     | 40      |
| Caelo     | Anionic hydrophilic cream SR... | 162587           | 32553     | 40      |
| Caelo     | Anionic hydrophilic cream wi... | 160674           | 32134     | 40      |
| Caelo     | Anionic hydrophilic cream wi... | 160674           | 32135     | 40      |
| Caelo     | Anionic hydrophilic cream wi... | 160674           | 32136     | 40      |
| Caelo     | Anionic hydrophilic cream wi... | 160675           | 32138     | 40      |
| Caelo     | Anionic hydrophilic cream wi... | 160676           | 32140     | 40      |
| Caelo     | Anionic hydrophilic cream wi... | 161918           | 32423     | 40      |
| Caelo     | Anionic hydrophilic cream wi... | 161919           | 32425     | 40      |

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| Supplier | Substance                        | Batch     | Sample ID | Spectra |
|----------|----------------------------------|-----------|-----------|---------|
| Caelo    | Anionic hydrophilic cream wi...  | 161918    | 32622     | 40      |
| Caelo    | Anionic hydrophilic cream wi...  | 161919    | 32623     | 40      |
| Caelo    | Anionic hydrophilic cream wi...  | 170302    | 33352     | 40      |
| Caelo    | Anionic hydrophilic cream wi...  | 170299    | 33356     | 40      |
| apomix   | Anionic hydrophilic cream wit... | 05B310517 | 33517     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 160748    | 32150     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 160749    | 32152     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 160751    | 32154     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 160750    | 32226     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 161654    | 32371     | 41      |
| Caelo    | Base cream, hydrophobic DAC      | 161655    | 32373     | 41      |
| Caelo    | Base cream, hydrophobic DAC      | 161656    | 32375     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 161657    | 32377     | 41      |
| Caelo    | Base cream, hydrophobic DAC      | 161654    | 32491     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 161655    | 32492     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 161742    | 32508     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 161656    | 32509     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 161657    | 32510     | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 171504    | 33377     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 161141    | 32120     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 161142    | 32122     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 161694    | 32383     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 161695    | 32385     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 161694    | 32582     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 161695    | 32583     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162220    | 32585     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162220    | 32594     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162220    | 32595     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162221    | 32597     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162221    | 32598     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162221    | 32599     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162221    | 32600     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162221    | 32601     | 40      |
| Caelo    | Hydrophilic cream, non-ionic...  | 162579    | 32603     | 40      |

- 89 647 spectra from a total of 2149 batches from further 339 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 33 491 spectra from 1230 *Apo-Ident* customers from 5828 batches from the substance/substance group *Hydrophilic ointments*.
- Among them are spectra of independent samples from 5687 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance                       | Batch    | Spectra |
|----------|---------------------------------|----------|---------|
|          | Anionic hydrophilic cream SR... | 110913   | 1       |
|          | Base cream, hydrophobic DAC     | 12229302 | 2       |
|          | Base cream, hydrophobic DAC     | 141318   | 1       |
|          | Anionic hydrophilic cream SR... | 14182102 | 1       |

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| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
|                             | Base cream, hydrophobic DAC     | 160825      | 1       |
|                             | Base cream, hydrophobic DAC     | 162169      | 1       |
|                             | Base cream, hydrophobic DAC     | 16293901    | 1       |
|                             | Anionic hydrophilic cream SR... | 277637      | 2       |
|                             | Anionic hydrophilic cream DAB   | 285597      | 1       |
|                             | Anionic hydrophilic cream DAB   | 293437      | 1       |
| 00229352                    | Hydrophilic cream, non-ionic... | 19005193    | 1       |
| 0056373                     | Base cream, hydrophobic DAC     | 180757      | 2       |
| 06,Caesar & Loretz GmbH     | Anionic hydrophilic cream DAB   | 21000921001 | 1       |
| 13.11.18 PHARMACHEM/GEHE    | Base cream, hydrophobic DAC     | 181196      | 1       |
| 17000922                    | Anionic hydrophilic cream DAB   | 311128      | 1       |
| 20.12.2016 Sanacorp 6,00EUR | Anionic hydrophilic cream DAB   | 16259701    | 1       |
| Aallianc. Healthc. / Be...  | Anionic hydrophilic cream SR... | 24A100718   | 1       |
| Aallianc. Healthc. / Ph...  | Base cream, hydrophobic DAC     | 191489      | 3       |
| aelo                        | Anionic hydrophilic cream wi... | 14214101    | 1       |
| AEP GmbH                    | Skin care ointment W/L SR (w... | 14B140319   | 1       |
| AEP GmbH                    | Skin care ointment W/L SR (w... | 16B170419   | 1       |
| AEP                         | Anionic hydrophilic cream DAB   | 18298401    | 1       |
| AEP                         | Base cream, hydrophobic DAC     | 20001227    | 5       |
| AEP                         | Base cream, hydrophobic DAC     | 21001558    | 4       |
| AH 24.02.15                 | Base cream, hydrophobic DAC     | 14335502    | 1       |
| AHC 28.05.13 EK2,95         | Anionic hydrophilic cream DAB   | 13036301    | 1       |
| AHC                         | Anionic hydrophilic cream wi... | 20000190001 | 1       |
| AHC                         | Base cream, diluted             | 20000701002 | 2       |
| AHC                         | Anionic hydrophilic cream SR... | 2000243005  | 1       |
| AHD / Pharmachem Pößneck    | Base cream, hydrophobic DAC     | 160138      | 1       |
| AHD / Pharmachem Pößneck    | Base cream, hydrophobic DAC     | 160814      | 1       |
| AHD / Pharmachem Pößneck    | Base cream, hydrophobic DAC     | 162169      | 1       |
| AHD /Pharmachem Pößneck     | Base cream, hydrophobic DAC     | 171128      | 2       |
| AHD 05.03.15 3,33           | Anionic hydrophilic cream DAB   | 14264001    | 1       |
| AHD 08.09.14 EK 5,31        | Hydrophilic cream, non-ionic... | 287711      | 1       |
| AHD 09.03.2017 EK: 5,94     | Anionic hydrophilic cream DAB   | 16328001    | 1       |
| AHD 11.05.20                | Anionic hydrophilic cream DAB   | 20000028001 | 1       |
| AHD 12.5.14, Preis 6,00     | Anionic hydrophilic cream DAB   |             | 1       |
| AHD Pharmachem GmbH         | Base cream, hydrophobic DAC     | 190638      | 1       |
| AHD Pharmachem GmbH         | Base cream, hydrophobic DAC     | 191487      | 1       |
| AHD Pharmachem GmbH         | Base cream, hydrophobic DAC     | 191488      | 1       |
| AHD Pharmachem GmbH         | Base cream, hydrophobic DAC     | 1925661     | 3       |
| AHD, 02.04.2013             | Base cream, hydrophobic DAC     | 12308102    | 1       |
| AHD, 31.10.2013             | Anionic hydrophilic cream DAB   | 13313201    | 1       |
| AHD,15.04.2013              | Anionic hydrophilic cream DAB   | 12314701    | 1       |
| AHD/ DR Wolf                | Wolff® base half-fat cream      | 609950      | 1       |
| AHD/ Pharmachem             | Base cream, hydrophobic DAC     | 152210      | 2       |
| AHD/ Pharmachem             | Base cream, hydrophobic DAC     | 160137      | 3       |
| AHD/ Pharmachem             | Base cream, hydrophobic DAC     | 163238      | 2       |
| ahd/lamotte                 | Anionic hydrophilic cream DAB   | 14118401    | 1       |
| AHD/Lamotte                 | Anionic hydrophilic cream SR... | 18147501    | 1       |
| AHD/Pharmachem GmbH&Co.K    | Base cream, hydrophobic DAC     | 182221      | 1       |
| AHD/Pharmachem GmbH&Co.K    | Base cream, hydrophobic DAC     | 1925661     | 1       |
| AHD/Pharmachem GmbH         | Base cream, hydrophobic DAC     | 153627      | 1       |
| AHD/Pharmachem.             | Base cream, hydrophobic DAC     | 170008      | 1       |
| AHD/Pharmachem              | Base cream, hydrophobic DAC     | 150404      | 1       |
| AHD/Pharmachem              | Base cream, hydrophobic DAC     | 152210      | 1       |
| AHD/Pharmachem              | Base cream, hydrophobic DAC     | 153625      | 4       |
| AHD/Pharmachem              | Base cream, hydrophobic DAC     | 153626      | 1       |
| AHD/Pharmachem              | Base cream, hydrophobic DAC     | 162170      | 1       |
| Ahd/PharmachemPößneck       | Base cream, hydrophobic DAC     | 21013       | 1       |
| AHD                         | Base cream, hydrophobic DAC     | 14145401    | 1       |
| AHD                         | Anionic hydrophilic cream SR... | 14244702    | 1       |
| AHD                         | Anionic hydrophilic cream SR... | 14301501    | 1       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| AHD                        | Hydrophilic cream, non-ionic... | 14A300418        | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 15401301         | 2       |
| AHD                        | Anionic hydrophilic cream DAB   | 16168802         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 16180101         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 16259201         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 17083801         | 5       |
| AHD                        | Anionic hydrophilic cream DAB   | 170838601        | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 17143601         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 17143801         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 17200701         | 2       |
| AHD                        | Anionic hydrophilic cream DAB   | 17270301         | 2       |
| AHD                        | Anionic hydrophilic cream DAB   | 17A270520        | 1       |
| AHD                        | Hydrophilic cream, non-ionic... | 18005880         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 18160301         | 3       |
| AHD                        | Anionic hydrophilic cream DAB   | 1816301          | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 18243401         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 18297901         | 3       |
| AHD                        | Base cream, hydrophobic DAC     | 18G31-t09-058735 | 1       |
| AHD                        | Hydrophilic cream, non-ionic... | 19002037         | 1       |
| AHD                        | Anionic hydrophilic cream SR... | 19021401         | 2       |
| AHD                        | Hydrophilic cream, non-ionic... | 20001910         | 1       |
| AHD                        | Anionic hydrophilic cream DAB   | 20002943001      | 1       |
| AHD                        | Anionic hydrophilic cream SR... | 281866           | 1       |
| AHD                        | Anionic hydrophilic cream SR... | 292976           | 1       |
| AHD                        | Anionic hydrophilic cream SR... | 292977           | 1       |
| AHD                        | Anionic hydrophilic cream SR... | 296409           | 1       |
| AHD                        | Wolff® base half-fat cream      | 602290           | 1       |
| AHDE 12.09.2014            | Anionic hydrophilic cream DAB   | 14144301         | 1       |
| AHDE 22.05.2015            | Anionic hydrophilic cream DAB   | 14366801         | 4       |
| Ahde 27.11.17              | Anionic hydrophilic cream wi... | 310273           | 1       |
| AHL                        | Wolff® base half-fat cream      | 608180           | 1       |
| AIH                        | Anionic hydrophilic cream DAB   | 16258901         | 1       |
| ALH                        | Wolff® base half-fat cream      | 602050           | 1       |
| Allianc. Health. / Phar... | Base cream, hydrophobic DAC     | 170010           | 1       |
| Allianc. Health. /bo       | Anionic hydrophilic cream DAB   | 18001562         | 1       |
| Alliance H.                | Hydrophilic cream, non-ionic... | 19055601         | 1       |
| Alliance H.                | Anionic hydrophilic cream wi... | 19093901         | 2       |
| Alliance health            | Anionic hydrophilic cream DAB   | 14233001         | 1       |
| Alliance Health            | Anionic hydrophilic cream DAB   | 18006016         | 1       |
| Alliance Healthcare/Dr...  | Wolff® base half-fat cream      | 10680            | 1       |
| Alliance Healthcare/Pha... | Base cream, hydrophobic DAC     | 190207           | 1       |
| Alliance Healthcare        | Anionic hydrophilic cream DAB   | 13363401         | 1       |
| Alliance Healthcare        | Hydrophilic cream, non-ionic... | 14A-110619       | 1       |
| Alliance Healthcare        | Anionic hydrophilic cream DAB   | 18006025         | 1       |
| Alliance Healthcare        | Anionic hydrophilic cream DAB   | 18006026         | 2       |
| Alliance Healthcare        | Hydrophilic cream, non-ionic... | 19005187         | 1       |
| Alliance Healthcare        | Anionic hydrophilic cream DAB   | 19272601         | 1       |
| Alliance Healthcare        | Hydrophilic cream, non-ionic... | 1A030113         | 2       |
| Alliance Healthcare        | Anionic hydrophilic cream DAB   | 20000924002      | 2       |
| Alliance Healthcare        | Anionic hydrophilic cream DAB   | 21003944001      | 2       |
| alliance healthcare        | Anionic hydrophilic cream SR... | 2A020119         | 1       |
| Alliance Healthcare        | Hydrophilic cream, non-ionic... | 301627           | 1       |
| Alliance Healthcare        | Anionic hydrophilic cream SR... | 302199           | 1       |
| Alliance Healthcare        | Wolff® base half-fat cream      | 705760           | 1       |
| Alliance Healthcare        | Wolff® base half-fat cream      | 707370           | 1       |
| Alliance Healthcare        | Wolff® base half-fat cream      | 711250           | 2       |
| Alliance Healthcare        | Wolff® base half-fat cream      | 7742             | 2       |
| Alliance Healthcare        | Wolff® base half-fat cream      | 805720           | 5       |
| Alliance Healthcare        | Wolff® base half-fat cream      | 810201           | 1       |
| Alliance Healthcare        | Wolff® base half-fat cream      | 810800           | 2       |

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| Supplier            | Substance                              | Batch        | Spectra |
|---------------------|----------------------------------------|--------------|---------|
| Alliance Healthcare | Wolff <sup>®</sup> base half-fat cream | 910460       | 5       |
| Alliance Healthcare | Hydrophilic cream, non-ionic...        | 9A240418     | 1       |
| Alliance/Dr. Wolff  | Wolff <sup>®</sup> base half-fat cream | 501470       | 1       |
| Alliance/Pharmachem | Base cream, hydrophobic DAC            | 181196       | 1       |
| Alliance/Pharmachem | Base cream, hydrophobic DAC            | 1925691      | 2       |
| Alliance/Pharmachem | Base cream, hydrophobic DAC            | 20001232     | 3       |
| Alliance/Pharmachem | Base cream, hydrophobic DAC            | 20001233     | 1       |
| Alliance/Pharmachem | Base cream, hydrophobic DAC            | 20003527     | 1       |
| Alliance/Pharmachem | Base cream, hydrophobic DAC            | 20003529     | 1       |
| Alliance/Pharmachem | Base cream, hydrophobic DAC            | 21001559     | 1       |
| Alliance            | Base cream, hydrophobic DAC            | 170010       | 2       |
| alliance            | Base cream, hydrophobic DAC            | 18286702     | 1       |
| Alliance            | Hydrophilic cream, non-ionic...        | 19002036     | 1       |
| Alliance            | Hydrophilic cream, non-ionic...        | 200002461003 | 1       |
| Alliance            | Base cream, hydrophobic DAC            | 20001227     | 1       |
| Alliance            | Anionic hydrophilic cream SR...        | 20003746001  | 1       |
| Alliance            | Anionic hydrophilic cream SR...        | 21000339001  | 1       |
| Alliance            | Wolff <sup>®</sup> base half-fat cream | 901920       | 1       |
| Alliance            | Hydrophilic cream, non-ionic...        | 90714        | 1       |
| Alliance21.01.15    | Anionic hydrophilic cream DAB          | 14233101     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream DAB          | 16328001     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream DAB          | 16328401     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream wi...        | 17030301     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream DAB          | 18298301     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream wi...        | 1902701      | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream wi...        | 19027501     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream DAB          | 19071601     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream wi...        | 19093701     | 2       |
| Allianz Healthcare  | Anionic hydrophilic cream DAB          | 191611701    | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream DAB          | 19206301     | 1       |
| Allianz Healthcare  | Anionic hydrophilic cream DAB          | 19206401     | 1       |
| Allianz             | Anionic hydrophilic cream DAB          | 17299401     | 1       |
| Allianz             | Anionic hydrophilic cream DAB          | 17299601     | 1       |
| Allianz             | Anionic hydrophilic cream DAB          | 17299801     | 1       |
| Allianz             | Anionic hydrophilic cream SR...        | 18001478     | 1       |
| Allianz             | Base cream, hydrophobic DAC            | 180756       | 1       |
| Alte Apotheke       | Anionic hydrophilic cream DAB          | 16158501     | 1       |
| Alte Apotheke       | Base cream, hydrophobic DAC            | 16165701     | 1       |
| Alte Apotheke       | Anionic hydrophilic cream SR...        | 303735       | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 12A070519    | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 14A29058     | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 16A050515    | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 17A190618    | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 1A050116     | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 20A020615    | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 22A040718    | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 4A030214     | 1       |
| AMH Niemann / E     | Anionic hydrophilic cream SR...        | 6A270218     | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 10A050315    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream wit...       | 10B060814    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 11A010414    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 11A110418    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 12A030517    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 12A310315    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 13A111016    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 13A191118    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 14A300316    | 3       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 21A220617    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 29A020914    | 1       |
| AMH Niemann / G     | Anionic hydrophilic cream SR...        | 2A130114     | 1       |

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continued from previous page

| Supplier                    | Substance                       | Batch      | Spectra |
|-----------------------------|---------------------------------|------------|---------|
| AMH Niemann / G             | Anionic hydrophilic cream SR... | 31A230914  | 1       |
| AMH Niemann / G             | Anionic hydrophilic cream SR... | 33A230915  | 1       |
| AMH Niemann / G             | Anionic hydrophilic cream SR... | 3A200115   | 1       |
| AMH Niemann / G             | Anionic hydrophilic cream SR... | 41A101214  | 1       |
| AMH Niemann / G             | Anionic hydrophlic cream wit... | 4B100314   | 1       |
| AMH Niemann / G             | Anionic hydrophlic cream wit... | 4B220518   | 1       |
| AMH Niemann / G             | Anionic hydrophlic cream wit... | 6B060514   | 1       |
| AMH Niemann / G             | Anionic hydrophlic cream wit... | 6B190516   | 1       |
| AMH Niemann / G             | Anionic hydrophlic cream wit... | 7B080615   | 1       |
| AMH Niemann / G             | Anionic hydrophilic cream SR... | 9A210317   | 1       |
| AMH Niemann / K             | Anionic hydrophilic cream SR... | 13A220316  | 1       |
| AMH Niemann / K             | Anionic hydrophilic cream SR... | 22A090616  | 1       |
| AMH Niemann / K             | Anionic hydrophilic cream SR... | 36A041218  | 1       |
| AMH Niemann / K             | Anionic hydrophilic cream SR... | 3A310117   | 1       |
| AMH Niemann / K             | Anionic hydrophilic cream SR... | 5A110219   | 1       |
| AMH Niemann GmbH & Co K...  | Anionic hydrophilic cream SR... | 7A270213   | 2       |
| AMH Niemann GmbH & Co. ...  | Hydrophilic cream, non-ionic... | 3B260219   | 1       |
| AMH Niemann GmbH & Co. ...  | Hydrophilic cream, non-ionic... | 10B010719  | 1       |
| AMH Niemann GmbH & Co. KG   | Hydrophilic cream, non-ionic... | 27A150513  | 1       |
| AMH Niemann GmbH & Co. KG   | Anionic hydrophilic cream SR... | 30A0207123 | 1       |
| AMH Niemann GmbH & Co. KG   | Hydrophilic cream, non-ionic... | 34A210916  | 1       |
| AMH Niemann GmbH & Co. KG   | Hydrophilic cream, non-ionic... | 35A070813  | 1       |
| AMH Niemann GmbH & Co. K... | Hydrophilic cream, non-ionic... | 12B030613  | 1       |
| AMH Niemann GmbH & CoKG/... | Anionic hydrophlic cream wit... | 9B141019   | 1       |
| AMH Niemann GmbH & Co KG    | Hydrophilic cream, non-ionic... | 2B130114   | 1       |
| AMH Niemann GmbH & Co. KG   | Anionic hydrophilic cream SR... | 15A040413  | 1       |
| AMH Niemann GmbH & Co. KG   | Anionic hydrophlic cream wit... | 3B020315   | 1       |
| AMH Niemann Kehr            | Anionic hydrophilic cream SR... | 30A160816  | 2       |
| AMH Niemann/E               | Anionic hydrophilic cream SR... | 1A080113   | 3       |
| AMH Niemann/E               | Anionic hydrophilic cream SR... | 31A091012  | 1       |
| AMH Niemann/E               | Anionic hydrophilic cream SR... | 42A141013  | 1       |
| AMH Niemann/E               | Anionic hydrophilic cream SR... | 45A141113  | 1       |
| AMH Niemann/G               | Anionic hydrophlic cream wit... | 10B160712  | 1       |
| AMH Niemann/G               | Hydrophilic cream, non-ionic... | 15A140512  | 1       |
| AMH Niemann/G               | Anionic hydrophilic cream SR... | 18A180612  | 1       |
| AMH Niemann/G               | Anionic hydrophlic cream wit... | 1B070114   | 1       |
| AMH Niemann/G               | Hydrophilic cream, non-ionic... | 20A090413  | 1       |
| AMH Niemann/G               | Anionic hydrophilic cream SR... | 24A070812  | 1       |
| AMH Niemann/G               | Anionic hydrophilic cream SR... | 36A031115  | 1       |
| AMH Niemann/G               | Anionic hydrophilic cream SR... | 38A271112  | 1       |
| AMH Niemann/G               | Anionic hydrophilic cream SR... | 44A051113  | 1       |
| AMH Niemann/Holdermann      | Anionic hydrophlic cream wit... | 5B250521   | 1       |
| AMH Niemann/K               | Hydrophilic cream, non-ionic... | 10A190312  | 1       |
| AMH Niemann/K               | Anionic hydrophlic cream wit... | 14B161213  | 1       |
| AMH Niemann/K               | Anionic hydrophlic cream wit... | 17B271212  | 1       |
| AMH Niemann/K               | Anionic hydrophilic cream SR... | 36A270813  | 1       |
| AMH Niemann                 | Anionic hydrophilic cream SR... | 1A080113   | 1       |
| AMH Niemann                 | Hydrophilic cream, non-ionic... | 7B020413   | 2       |
| AMH/Phoenix                 | Anionic hydrophlic cream wit... | 9B021121   | 1       |
| AMH/Phönix                  | Anionic hydrophilic cream SR... | 10A260318  | 1       |
| AMH/Phönix                  | Anionic hydrophilic cream SR... | 1A070119   | 1       |
| AMH/Phönix                  | Anionic hydrophilic cream SR... | 31A021018  | 1       |
| AMH/Phönix                  | Anionic hydrophilic cream SR... | 35A211117  | 1       |
| AMH/Phönix                  | Anionic hydrophilic cream SR... | 6A020320   | 1       |
| AMH-NiemannGmbH&CO,15.0...  | Hydrophilic cream, non-ionic... | 15B010817  | 1       |
| AMW Niemann GmbH & Co. KG   | Anionic hydrophlic cream wit... | 9B150816   | 1       |
| Anzag /Pharmachem           | Base cream, hydrophobic DAC     | 160825     | 1       |
| Anzag 07.05.13 ek:12,66EUR  | Base cream, hydrophobic DAC     | 12229302   | 1       |
| Anzag 19.04.18              | Anionic hydrophilic cream wi... | 17262101   | 1       |
| Anzag 25.01.2013            | Anionic hydrophilic cream DAB   | 12266101   | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Anzag 27.03.2015           | Anionic hydrophilic cream DAB   | 14264301    | 1       |
| Anzag 30.10.12 ek:12,68EUR | Base cream, hydrophobic DAC     | 12151601    | 1       |
| Anzag ek: 5,17EUR 08.04.13 | Anionic hydrophilic cream SR... | 277636      | 3       |
| Anzag, 16.01.2019          | Anionic hydrophilic cream DAB   | 18004836    | 1       |
| Anzag/ Dr.Wolff            | Wolff® base half-fat cream      | 339140      | 1       |
| Anzag/AMH/16.05.2012       | Hydrophilic cream, non-ionic... | 14B020212   | 1       |
| Anzag/Bambastus            | Base cream, hydrophobic DAC     | 305079      | 1       |
| Anzag/Dr. Wolff            | Wolff® base half-fat cream      | 702500      | 1       |
| Anzag/Pharmachem           | Base cream, hydrophobic DAC     | 120712      | 2       |
| Anzag                      | Hydrophilic cream, non-ionic... | 114761      | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 12204601    | 2       |
| Anzag                      | Anionic hydrophilic cream DAB   | 12218501    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 12314101    | 1       |
| Anzag                      | Base cream, hydrophobic DAC     | 150405      | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 15352901    | 1       |
| Anzag                      | Base cream, hydrophobic DAC     | 160136      | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 16158701    | 4       |
| Anzag                      | Anionic hydrophilic cream DAB   | 16259801    | 1       |
| Anzag                      | Anionic hydrophilic cream SR... | 17000164    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 17083802    | 2       |
| Anzag                      | Anionic hydrophilic cream DAB   | 17084201    | 2       |
| Anzag                      | Base cream, hydrophobic DAC     | 171127      | 2       |
| Anzag                      | Anionic hydrophilic cream DAB   | 17142102    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 17142501    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 17142601    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 17142901    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 17298802    | 1       |
| Anzag                      | Base cream, hydrophobic DAC     | 18002827    | 1       |
| Anzag                      | Hydrophilic cream, non-ionic... | 19055601    | 1       |
| Anzag                      | Base cream, hydrophobic DAC     | 190638      | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 19072701    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 19206001    | 1       |
| Anzag                      | Anionic hydrophilic cream SR... | 19206201    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 19206401    | 1       |
| Anzag                      | Anionic hydrophilic cream SR... | 19240002    | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 20000319001 | 1       |
| Anzag                      | Base cream, diluted             | 20002515004 | 1       |
| Anzag                      | Base cream, diluted             | 20003510001 | 3       |
| Anzag                      | Anionic hydrophilic cream SR... | 21000339002 | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 21001499001 | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 271710      | 1       |
| anzag                      | Anionic hydrophilic cream SR... | 285899      | 1       |
| Anzag                      | Hydrophilic cream, non-ionic... | 286330      | 2       |
| Anzag                      | Anionic hydrophilic cream SR... | 286979      | 1       |
| Anzag                      | Hydrophilic cream, non-ionic... | 294311      | 1       |
| Anzag                      | Anionic hydrophilic cream SR... | 295232      | 1       |
| Anzag                      | Anionic hydrophilic cream DAB   | 297911      | 2       |
| Anzag                      | Anionic hydrophilic cream SR... | 300563      | 1       |
| Anzag                      | Anionic hydrophilic cream SR... | 305067      | 1       |
| Anzag                      | Anionic hydrophilic cream SR... | 308217      | 1       |
| Anzag                      | Anionic hydrophilic cream SR... | 6A260116    | 1       |
| api-ident                  | Anionic hydrophilic cream DAB   | 17270302    | 1       |
| api-ident                  | Base cream, hydrophobic DAC     | 18051001    | 1       |
| Apo Holzapfel              | Anionic hydrophilic cream SR... | 2018        | 1       |
| Apo Ident/ Noweda          | Anionic hydrophilic cream wi... | 18109801    | 3       |
| apo                        | Hydrophilic cream, non-ionic... | 21B171218   | 1       |
| apo                        | Hydrophilic cream, non-ionic... | 4807013     | 1       |
| apomi                      | Anionic hydrophilic cream SR... | 24A100718   | 1       |
| apomicx/Sanacorp           | Anionic hydrophilic cream SR... | 20A020615   | 1       |
| apomix                     | Hydrophilic cream, non-ionic... |             | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| apomix   | Anionic hydrophilic cream SR... | 10A010414  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 10A050315  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 10A100521  | 4       |
| apomix   | Anionic hydrophilic cream SR... | 10A220216  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 10A260318  | 4       |
| apomix   | Anionic hydrophilic cream SR... | 10A280317  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 10A310320  | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 10B010719  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 10B060514  | 2       |
| apomix   | Anionic hydrophlic cream wit... | 10B060916  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B070420  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B090621  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B10719   | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B160517  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B190516  | 2       |
| apomix   | Anionic hydrophlic cream wit... | 10B191120  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B200415  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B220513  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 10B250618  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 10B251119  | 4       |
| apomix   | Anionic hydrophlic cream wit... | 10B291117  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 11a010316  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 11A010316  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 11A010414  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 11A020419  | 10      |
| apomix   | Hydrophilic cream, non-ionic... | 11A040313  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 11A110418  | 11      |
| apomix   | Skin care ointment W/L SR       | 11A190214  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 11A190417  | 6       |
| apomix   | Anionic hydrophilic cream SR... | 11A250521  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 11A270319  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 11B090621  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 11B110515  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 11B220513  | 1       |
| apomix   | Skin care ointment W/L SR       | 11B270317  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 11b300516  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 11B300620  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 11B310517  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 128070729  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 12A030517  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 12A040313  | 4       |
| apomix   | Anionic hydrophilic cream SR... | 12A070519  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 12a080316  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 12A080316  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 12A080414  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 12A150420  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 12A160419  | 8       |
| apomix   | Hydrophilic cream, non-ionic... | 12A2500417 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 12a250417  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 12A250417  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 12A310315  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 12A3103215 | 1       |
| apomix   | Anionic hydrophlic cream wit... | 12B040912  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 12B070720  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 12B100718  | 6       |
| apomix   | Hydrophilic cream, non-ionic... | 12B120617  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 12B130819  | 1       |
| apomix   | Anionic hydrophilic cream DAB   | 12B141116  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 12B210514  | 2       |
| apomix   | Anionic hydrophlic cream wit... | 12B211015  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Anionic hydrophlic cream wit... | 12B212015 | 1       |
| apomix   | Anionic hydrophlic cream wit... | 12B220914 | 2       |
| apomix   | Skin care ointment W/L SR (w... | 12B280621 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 13A030517 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 13A030609 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 13A030619 | 5       |
| apomix   | Anionic hydrophilic cream SR... | 13A080414 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 13A190313 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 13A200420 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 13A220316 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 13A220621 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 13B020821 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 13B080615 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 13B090919 | 3       |
| apomix   | Skin care ointment W/L SR (w... | 13B120418 | 1       |
| apomix   | Anionic hydrophlic cream wit... | 13b141216 | 2       |
| apomix   | Anionic hydrophlic cream wit... | 13B141216 | 2       |
| apomix   | Anionic hydrophlic cream wit... | 13B161115 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 13B180613 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 13B200720 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 13B280616 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 13B280617 | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 13B310718 | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 148200818 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 14A050520 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 14A070514 | 3       |
| apomix   | Anionic hydrophilic cream DAB   | 14A130721 | 6       |
| apomix   | Anionic hydrophilic cream SR... | 14A150517 | 4       |
| apomix   | Anionic hydrophilic cream SR... | 14a180616 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 14A180619 | 11      |
| apomix   | Hydrophilic cream, non-ionic... | 14A220517 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 14A290518 | 7       |
| apomix   | Hydrophilic cream, non-ionic... | 14B120716 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 14B180820 | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 14B200818 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 14B240919 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 14B260821 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 14B280617 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 15A040413 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 15A050416 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 15A060416 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 15A06046  | 1       |
| apomix   | Skin care ointment W/L SR (w... | 15A080518 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 15A090620 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 15A120514 | 1       |
| apomix   | Anionic hydrophilic cream DAB   | 15A140520 | 7       |
| apomix   | Anionic hydrophilic cream SR... | 15a180619 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 15A180619 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 15A240919 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 15A270617 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 15A300518 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 15B010817 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 15B070714 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 15B070920 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 15B090620 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 15B090713 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 15B140419 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 15B141019 | 3       |
| apomix   | Skin care ointment W/L SR (w... | 15B170419 | 2       |
| apomix   | Skin care ointment W/L SR (w... | 15B220216 | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                        | Batch     | Spectra |
|----------|----------------------------------|-----------|---------|
| apomix   | Hydrophilic cream, non-ionic...  | 15B290615 | 1       |
| apomix   | Anionic hydrophilic cream wit... | 15B291214 | 1       |
| apomix   | Anionic hydrophilic cream wi...  | 16191901  | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 16A050612 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 16A060416 | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 16A060611 | 1       |
| apomix   | Skin care ointment W/L SR (w...  | 16A080518 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 16A110718 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 16A130514 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 16A170821 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 16A240413 | 3       |
| apomix   | Skin care ointment W/L SR        | 16A250314 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 16A300512 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 16A300518 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 16A310517 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 16B040918 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 16B060917 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 16B280920 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 16B290713 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 16B290816 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 16B300620 | 3       |
| apomix   | Anionic hydrophilic cream DAB    | 17001305  | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 17001699  | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 17002160  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 17009601  | 2       |
| apomix   | Anionic hydrophilic cream DAB    | 170841901 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 17A030516 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 17A030518 | 6       |
| apomix   | Anionic hydrophilic cream SR...  | 17A090719 | 4       |
| apomix   | Hydrophilic cream, non-ionic...  | 17A100315 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 17a10617  | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 17A130617 | 2       |
| apomix   | Anionic hydrophilic cream DAB    | 17A190618 | 8       |
| apomix   | Anionic hydrophilic cream SR...  | 17A240413 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 17A270520 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 17B011018 | 4       |
| apomix   | Hydrophilic cream, non-ionic...  | 17B031219 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 17b040815 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 17B040815 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 17B120814 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 17B280920 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 18001479  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 18A020719 | 8       |
| apomix   | Anionic hydrophilic cream SR...  | 18A040516 | 5       |
| apomix   | Hydrophilic cream, non-ionic...  | 18A070612 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 18A100717 | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 18A140617 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 18A160719 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 18A180612 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 18A190315 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 18A190618 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 18A210720 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 18A220518 | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 18A260514 | 4       |
| apomix   | Anionic hydrophilic cream SR...  | 18A280921 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 18B060917 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 18B190612 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 18B240815 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 18B270916 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 18B291018 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                        | Batch     | Spectra |
|----------|----------------------------------|-----------|---------|
| apomix   | Anionic hydrophilic cream SR...  | 19A030614 | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 19A030820 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 19A070513 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 19a180516 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 19A180516 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 19a200617 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 19A200617 | 5       |
| apomix   | Anionic hydrophilic cream SR...  | 19A200618 | 6       |
| apomix   | Anionic hydrophilic cream SR...  | 19A260515 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 19A300315 | 6       |
| apomix   | Anionic hydrophilic cream SR...  | 19A300719 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 19B021017 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 19B031120 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 19B100913 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 19B121118 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 19B220719 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 19B260612 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 1A020117  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A020120  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A030112  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A030113  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A030118  | 4       |
| apomix   | Anionic hydrophilic cream SR...  | 1A050116  | 1       |
| apomix   | Anionic hydrophilic cream DAB    | 1A070119  | 6       |
| apomix   | Anionic hydrophilic cream SR...  | 1A070120  | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 1A070121  | 6       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A080113  | 1       |
| apomix   | Skin care ointment W/L SR        | 1A080114  | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 1A100122  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A140114  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 1a200116  | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A200116  | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 1A210115  | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 1B070114  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 1B070116  | 4       |
| apomix   | Hydrophilic cream, non-ionic...  | 1B070119  | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 1B070120  | 4       |
| apomix   | Anionic hydrophilic cream wit... | 1B080118  | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 1B090118  | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 1B110121  | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 1B120115  | 1       |
| apomix   | Anionic hydrophilic cream wit... | 1B160117  | 2       |
| apomix   | Anionic hydrophilic cream wit... | 1B210120  | 1       |
| apomix   | Anionic hydrophilic cream wit... | 1B70119   | 1       |
| apomix   | Base cream, hydrophobic DAC      | 20003531  | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 20A020615 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 20a130819 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 20A130819 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 20A180820 | 5       |
| apomix   | Anionic hydrophilic cream SR...  | 20A200618 | 4       |
| apomix   | Hydrophilic cream, non-ionic...  | 20A220719 | 5       |
| apomix   | Hydrophilic cream, non-ionic...  | 20A280415 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 20B210915 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 20B231120 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 20B291118 | 2       |
| apomix   | Skin care ointment W/L SR        | 211112    | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 21A030718 | 4       |
| apomix   | Anionic hydrophilic cream SR...  | 21A080616 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 21A090615 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 21A180614 | 2       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Anionic hydrophilic cream SR... | 21A220617 | 6       |
| apomix   | Skin care ointment W/L SR       | 21A230414 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 21a80616  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 21B081117 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 21B081117 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 21B141013 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 21b141116 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 21B14116  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 21B151220 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 21B171218 | 2       |
| apomix   | Skin care ointment W/L SR (w... | 21B270519 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 22A020817 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 22A040717 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 22A040718 | 7       |
| apomix   | Anionic hydrophilic cream SR... | 22A090616 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 22A131221 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 22A150920 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 22A190819 | 2       |
| apomix   | Skin care ointment W/L SR       | 22A230414 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 22B060812 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 22B061114 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 22B201117 | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 22B281013 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 22B281116 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 238141113 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 23A030919 | 5       |
| apomix   | Anionic hydrophilic cream SR... | 23A040718 | 9       |
| apomix   | Anionic hydrophilic cream SR... | 23A050717 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 23A100615 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 23A130616 | 5       |
| apomix   | Anionic hydrophilic cream SR... | 23A240614 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 23A280416 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 23B101115 | 1       |
| apomix   | Skin care ointment W/L SR (w... | 23B280618 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 23B291117 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 24A061020 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 24A100718 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 24A120717 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 24A170919 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 24A270618 | 6       |
| apomix   | Anionic hydrophilic cream SR... | 24A280616 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 24A290920 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 24B121216 | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 24B180912 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 24B241115 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 24B271217 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 25A050613 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 25A070819 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 25A110718 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 25A120712 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 25A120717 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 25A141019 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 25A201020 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 25A210812 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 25A240717 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 25A240919 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 25A270618 | 7       |
| apomix   | Anionic hydrophilic cream SR... | 25A290616 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 25A300516 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 25B081215 | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Hydrophilic cream, non-ionic... | 25B161213 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 26a020817 | 1       |
| apomix   | Anionic hydrophilic cream DAB   | 26A020817 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 26A041119 | 10      |
| apomix   | Anionic hydrophilic cream SR... | 26A060814 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 26A080715 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 26A110718 | 5       |
| apomix   | Anionic hydrophilic cream SR... | 26A130716 | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 26A210616 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 26A211020 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 26A220812 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 26A270618 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 26B151012 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 26B201020 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 27A051119 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 27A130716 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 27A150513 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 27A210911 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 27A211019 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 27A220715 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 27A220817 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 27A310718 | 1       |
| apomix   | Skin care ointment W/L SR       | 27B220818 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 27B221012 | 1       |
| apomix   | Base cream, hydrophobic DAC     | 289719    | 1       |
| apomix   | Anionic hydrophilic cream SR... | 28A040815 | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 28A060815 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 28A07018  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 28A070818 | 4       |
| apomix   | Anionic hydrophilic cream SR... | 28A161219 | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 28A18018  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 28A180718 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 28A190814 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 28A220616 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 28A230817 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 28A250613 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 28A260716 | 3       |
| apomix   | Anionic hydrophilic cream DAB   | 28A271020 | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 28B221012 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 29A020816 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 29A020914 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 29a070917 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 29A070917 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 29A110815 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 29A140818 | 5       |
| apomix   | Anionic hydrophilic cream SR... | 29a160816 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 29A160816 | 1       |
| apomix   | Anionic hydrophilic cream DAB   | 29A161219 | 3       |
| apomix   | Anionic hydrophilic cream SR... | 29A191120 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 29A240912 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 29B010818 | 2       |
| apomix   | Anionic hydrophilic cream SR... | 2a030117  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 2A030117  | 6       |
| apomix   | Anionic hydrophilic cream SR... | 2A030118  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 2A040118  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 2A050116  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 2A070120  | 2       |
| apomix   | Skin care ointment W/L SR       | 2A090114  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 2A090215  | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 2A100220  | 4       |

continued on the next page

continued from previous page

| Supplier | Substance                        | Batch     | Spectra |
|----------|----------------------------------|-----------|---------|
| apomix   | Hydrophilic cream, non-ionic...  | 2A140113  | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 2A140114  | 2       |
| apomix   | Skin care ointment W/L SR        | 2A150119  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 2a160117  | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 2A280217  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B0102201 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B010221  | 2       |
| apomix   | Anionic hydrophilic cream wit... | 2B020221  | 1       |
| apomix   | Anionic hydrophilic cream wit... | 2B060317  | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B070120  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B090222  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B110219  | 3       |
| apomix   | Anionic hydrophilic cream wit... | 2B120220  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B140113  | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B160412  | 1       |
| apomix   | Anionic hydrophilic cream wit... | 2B220218  | 3       |
| apomix   | Anionic hydrophilic cream wit... | 2B220322  | 1       |
| apomix   | Anionic hydrophilic cream wit... | 2B250116  | 1       |
| apomix   | Anionic hydrophilic cream wit... | 2B250213  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 2B300117  | 3       |
| apomix   | Base cream, hydrophobic DAC      | 307766    | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 30A010818 | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 30A020713 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 30a020816 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 30A020816 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 30A030613 | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 30A140818 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 30A160816 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 30A160914 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 30A170912 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 30A190917 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 30A250815 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 30B261112 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 31A021018 | 22      |
| apomix   | Anionic hydrophilic cream SR...  | 31A030713 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 31A041017 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 31A080915 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 31A14014  | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 31A170912 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 31A230914 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 31A280818 | 1       |
| apomix   | Skin care ointment W/L SR (w...  | 31A300920 | 3       |
| apomix   | Skin care ointment W/L SR (w...  | 31B130917 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 32a010916 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 32A010916 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 32A021018 | 3       |
| apomix   | Hydrophilic cream, non-ionic...  | 32A090713 | 3       |
| apomix   | Anionic hydrophilic cream SR...  | 32a101017 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 32A101017 | 2       |
| apomix   | Anionic hydrophilic cream SR...  | 32A150915 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 32A160713 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 32A210916 | 1       |
| apomix   | Hydrophilic cream, non-ionic...  | 32A220915 | 2       |
| apomix   | Hydrophilic cream, non-ionic...  | 32A250414 | 4       |
| apomix   | Hydrophilic cream, non-ionic...  | 32A280818 | 4       |
| apomix   | Skin care ointment W/L SR (w...  | 32B231020 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 33A051118 | 4       |
| apomix   | Hydrophilic cream, non-ionic...  | 33A051211 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 33a060916 | 1       |
| apomix   | Anionic hydrophilic cream SR...  | 33A060916 | 4       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| apomix   | Hydrophilic cream, non-ionic... | 33A091120  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 33A110918  | 6       |
| apomix   | Hydrophilic cream, non-ionic... | 33A121119  | 8       |
| apomix   | Anionic hydrophilic cream SR... | 33A141014  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 33A171017  | 7       |
| apomix   | Anionic hydrophilic cream SR... | 33A220713  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 33A230915  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 33A240713  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 33A291111  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 33B110918  | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 33B271212  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 34A060813  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 34a061015  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 34A061015  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 34A101120  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 34A130916  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 34A131015  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 34A191118  | 9       |
| apomix   | Anionic hydrophilic cream SR... | 34A201117  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 34A210916  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 35A031114  | 2       |
| apomix   | Skin care ointment W/L SR (w... | 35A040919  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 35A041218  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 35A070813  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 35A081112  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 35A130514  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 35A140916  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 35A211117  | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 35A251016  | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 35a270917  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 35B101218  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 35B151220  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 36A031115  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 36A041218  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 36a051217  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 36A051217  | 7       |
| apomix   | Hydrophilic cream, non-ionic... | 36A140514  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 36A140514a | 1       |
| apomix   | Anionic hydrophilic cream SR... | 36A140616  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 36A140916  | 2       |
| apomix   | Skin care ointment W/L SR (w... | 36a170919  | 1       |
| apomix   | Skin care ointment W/L SR (w... | 36A170919  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 36A261016  | 5       |
| apomix   | Skin care ointment W/L SR (w... | 36B011117  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 36B270513  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 37A061217  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 37A071216  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 37A171115  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 37A17115   | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 37a241017  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 37A241017  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 37a270916  | 2       |
| apomix   | Skin care ointment W/L SR (w... | 37B081220  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 38A050614  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 38A051112  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 38A111016  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 38A171115  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 38A241017  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 39A011214  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 39A081116  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| apomix   | Hydrophilic cream, non-ionic... | 39A131112  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 39A160614  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 39A231115  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 3A030216   | 2       |
| apomix   | Anionic hydrophilic cream DAB   | 3a090118   | 1       |
| apomix   | Anionic hydrophilic cream SR... | 3A090118   | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 3A090215   | 2       |
| apomix   | Anionic hydrophilic cream SR... | 3A120116   | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 3A130212   | 1       |
| apomix   | Anionic hydrophilic cream SR... | 3A150113   | 1       |
| apomix   | Skin care ointment W/L SR (w... | 3A220118   | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 3A240118   | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 3A240413   | 1       |
| apomix   | Anionic hydrophilic cream SR... | 3A270120   | 1       |
| apomix   | Anionic hydrophilic cream SR... | 3A270121   | 1       |
| apomix   | Anionic hydrophilic cream SR... | 3A280114   | 1       |
| apomix   | Anionic hydrophilic cream SR... | 3A310117   | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 3B010221   | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 3B020215   | 4       |
| apomix   | Skin care ointment W/L SR       | 3B020217   | 1       |
| apomix   | Anionic hydrophlic cream wit... | 3B030320   | 3       |
| apomix   | Anionic hydrophlic cream wit... | 3B030417   | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 3B040220   | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 3B140218   | 1       |
| apomix   | Anionic hydrophlic cream wit... | 3B160321   | 1       |
| apomix   | Anionic hydrophlic cream wit... | 3B170216   | 3       |
| apomix   | Skin care ointment W/L SR       | 3B180116   | 1       |
| apomix   | Skin care ointment W/L SR (w... | 3B230120   | 2       |
| apomix   | Anionic hydrophlic cream wit... | 3B240214   | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 3B260219   | 3       |
| apomix   | Anionic hydrophlic cream wit... | 3B280318   | 2       |
| apomix   | Anionic hydrophilic cream SR... | 40A011215  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 40a071217  | 1       |
| apomix   | Skin care ointment W/L SR (w... | 40A131118  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 40A151116  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 40A160614  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 40A261112  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 40A281013  | 4       |
| apomix   | Anionic hydrophilic cream SR... | 41A021013  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 41A101214  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 41a141015  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 41A151215  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 41A151215a | 1       |
| apomix   | Anionic hydrophilic cream SR... | 41A281116  | 3       |
| apomix   | Skin care ointment W/L SR (w... | 41A281117  | 1       |
| apomix   | Skin care ointment W/L SR (w... | 41B200715  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 42A070714  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 42A171214  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 42A191212  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 42A291116  | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 43a140714  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 43A140714  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 44A051113  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 4546279    | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 47A2801015 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 47A281015  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 48A031213  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 48A081014  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 48A181115  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 49A241115  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Hydrophilic cream, non-ionic... | 4A030119  | 7       |
| apomix   | Anionic hydrophilic cream SR... | 4A030214  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 4A100321  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 4A130217  | 3       |
| apomix   | Anionic hydrophilic cream DAB   | 4A160118  | 5       |
| apomix   | Skin care ointment W/L SR (w... | 4A220118  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4a230216  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4A240215  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 4A250118  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4A250214  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 4A270115  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 4A280120  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 4B020321  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 4B020517  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4B070213  | 1       |
| apomix   | Anionic hydrophilic cream DAB   | 4B110319  | 7       |
| apomix   | Hydrophilic cream, non-ionic... | 4B120318  | 2       |
| apomix   | Anionic hydrophlic cream wit... | 4B120421  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 4B170216  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4B190319  | 2       |
| apomix   | Anionic hydrophilic cream DAB   | 4B19319   | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4B210217  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 4B210316  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 4B250315  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4B280222  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 4B290321  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 50A101114 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 50a161215 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 50A161215 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 51A171213 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 51A261114 | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 52a081214 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 52A081214 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 53A021213 | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 53A191113 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 54A021213 | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 55A181213 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 5A040220  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 5A050215  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 5A050218  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 5A080316  | 4       |
| apomix   | Anionic hydrophilic cream SR... | 5A110219  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 5A110321  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 5A200116  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 5A200212  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 5A200217  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 5A290321  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 5A300113  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 5B01816   | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 5B020419  | 5       |
| apomix   | Anionic hydrophlic cream wit... | 5B070414  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 5B080419  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 5B150317  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 5B170321  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 5B180220  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 5B190218  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 5B250213  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 5B250521  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 5B250618  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 5B280318  | 3       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Anionic hydrophlic cream wit... | 5B280420  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 5B290216  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 5B310517  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 5B310817  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 6050215   | 1       |
| apomix   | Skin care ointment W/L SR (w... | 63B230916 | 1       |
| apomix   | Skin care ointment W/L SR       | 63B231115 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 6A020320  | 3       |
| apomix   | Anionic hydrophilic cream SR... | 6A050215  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 6A100321  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 6A110320  | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 6a130318  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 6A260116  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 6A26019   | 1       |
| apomix   | Anionic hydrophilic cream SR... | 6A260219  | 4       |
| apomix   | Anionic hydrophilic cream SR... | 6A280217  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 6B020315  | 2       |
| apomix   | Anionic hydrophlic cream wit... | 6B040515  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 6B04515   | 1       |
| apomix   | Anionic hydrophlic cream wit... | 6B060514  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 6B100314  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 6B110313  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 6B150419  | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 6B180320  | 3       |
| apomix   | Anionic hydrophlic cream wit... | 6B190617  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 6B220513  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 6B230418  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 6B290321  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 6B290519  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 6B31071B  | 1       |
| apomix   | Skin care ointment W/L SR (w... | 6C250221  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 7A020414  | 4       |
| apomix   | Anionic hydrophilic cream SR... | 7A030320  | 2       |
| apomix   | Anionic hydrophilic cream SR... | 7a090216  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 7A110319  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 7A110320  | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 7A140217  | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 7-A140217 | 1       |
| apomix   | Anionic hydrophilic cream SR... | 7A140317  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 7A200318  | 10      |
| apomix   | Anionic hydrophilic cream SR... | 7a280218  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 7A280218  | 5       |
| apomix   | Hydrophilic cream, non-ionic... | 7a310316  | 1       |
| apomix   | Hydrophilic cream, non-ionic... | 7A310316  | 3       |
| apomix   | Hydrophilic cream, non-ionic... | 7B010420  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 7B010817  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 7B020413  | 2       |
| apomix   | Anionic hydrophlic cream wit... | 7B020821  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 7B030417  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 7B040918  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 7B140518  | 2       |
| apomix   | Hydrophilic cream, non-ionic... | 7B150518  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 7B160719  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 7B180613  | 1       |
| apomix   | Anionic hydrophlic cream wit... | 7B210616  | 3       |
| apomix   | Anionic hydrophlic cream wit... | 7B210720  | 4       |
| apomix   | Hydrophilic cream, non-ionic... | 8/14      | 1       |
| apomix   | Anionic hydrophlic cream wit... | 88121118  | 1       |
| apomix   | Skin care ointment W/L SR (w... | 88190220  | 1       |
| apomix   | Anionic hydrophilic cream SR... | 8A030320  | 5       |

continued on the next page



continued from previous page

| Supplier          | Substance                       | Batch            | Spectra |
|-------------------|---------------------------------|------------------|---------|
| apomix            | Anionic hydrophilic cream SR... | 8A090216         | 1       |
| apomix            | Anionic hydrophilic cream SR... | 8A120319         | 4       |
| apomix            | Hydrophilic cream, non-ionic... | 8a120416         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 8A120416         | 3       |
| apomix            | Anionic hydrophilic cream SR... | 8A140317         | 1       |
| apomix            | Skin care ointment W/L SR (w... | 8A190220         | 1       |
| apomix            | Anionic hydrophilic cream SR... | 8a200318         | 1       |
| apomix            | Anionic hydrophilic cream SR... | 8A200318         | 2       |
| apomix            | Anionic hydrophilic cream SR... | 8A200421         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 8A230418         | 6       |
| apomix            | Anionic hydrophilic cream SR... | 8A260314         | 1       |
| apomix            | Anionic hydrophilic cream SR... | 8A270213         | 2       |
| apomix            | Skin care ointment W/L SR (w... | 8A280218         | 1       |
| apomix            | Anionic hydrophilic cream SR... | 8A290311         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 8B030417         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 8B060416         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 8B070414         | 2       |
| apomix            | Anionic hydrophlic cream wit... | 8B100614         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 8B121118         | 5       |
| apomix            | Hydrophilic cream, non-ionic... | 8B150413         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 8B170615         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 8b200819         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 8B200819         | 2       |
| apomix            | Anionic hydrophlic cream wit... | 8B210716         | 2       |
| apomix            | Hydrophilic cream, non-ionic... | 8B290519         | 4       |
| apomix            | Skin care ointment W/L SR (w... | 9A0103318        | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 9A050319         | 2       |
| apomix            | Hydrophilic cream, non-ionic... | 9A060213         | 1       |
| apomix            | Anionic hydrophilic cream SR... | 9A100521         | 2       |
| apomix            | Anionic hydrophilic cream SR... | 9A160320         | 8       |
| apomix            | Anionic hydrophilic cream SR... | 9A190319         | 4       |
| apomix            | Hydrophilic cream, non-ionic... | 9a210317         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 9A210317         | 7       |
| apomix            | Anionic hydrophilic cream SR... | 9A210318         | 2       |
| apomix            | Skin care ointment W/L SR       | 9A260213         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 9A300320         | 3       |
| apomix            | Hydrophilic cream, non-ionic... | 9A30032004546291 | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 9B010719         | 4       |
| apomix            | Hydrophilic cream, non-ionic... | 9B020516         | 4       |
| apomix            | Hydrophilic cream, non-ionic... | 9B020517         | 2       |
| apomix            | Hydrophilic cream, non-ionic... | 9B050521         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 9B101218         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 9B10719          | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 9B110520         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 9B130715         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 9B141019         | 4       |
| apomix            | Anionic hydrophlic cream wit... | 9B141020         | 3       |
| apomix            | Anionic hydrophlic cream wit... | 9B181017         | 3       |
| apomix            | Hydrophilic cream, non-ionic... | 9B200415         | 1       |
| apomix            | Anionic hydrophlic cream wit... | 9B220714         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 9B250521         | 1       |
| apomix            | Hydrophilic cream, non-ionic... | 9B300413         | 3       |
| apomix            | Hydrophilic cream, non-ionic... | 9C050521         | 1       |
| Aponix            | Anionic hydrophilic cream SR... | 3A310117         | 1       |
| Aponorm/ Wepa     | Base cream, diluted             | 21004062002      | 1       |
| August Wolff GmbH | Wolff® base half-fat cream      | 711250           | 1       |
| August Wolff GmbH | Wolff® base half-fat cream      | 905120           | 1       |
| Bambustus/Noweda  | Anionic hydrophilic cream DAB   | 297662           | 5       |
| Bären Apotheke    | Anionic hydrophilic cream DAB   | 17045301         | 1       |
| Beiersdorf/Kehr   | Hydrophilic cream, non-ionic... | 294407           | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Beiersdorf/Sanacorp        | Anionic hydrophilic cream DAB   | 15319501    | 1       |
| Berkel AHK                 | Base cream, hydrophobic DAC     | 14145401    | 1       |
| Beyavers                   | Anionic hydrophilic cream SR... | 20A200618   | 1       |
| Bionorica ethics/Phoenix   | Anionic hydrophilic cream DAB   | 18010702    | 1       |
| Bionorica/ Phönix Lab      | Anionic hydrophilic cream wi... | 132615      | 1       |
| Bionorica/Kehr             | Anionic hydrophilic cream SR... | 18006628    | 1       |
| Bionorica/Kehr             | Hydrophilic cream, non-ionic... | 19000218    | 1       |
| Bobastus/ Phönix 21.03.19  | Anionic hydrophilic cream DAB   | 18004838    | 1       |
| Bobastus-Werke AG/Fiebig   | Anionic hydrophilic cream DAB   | 19006465    | 1       |
| Bobbastus/Noweda           | Hydrophilic cream, non-ionic... | 279660      | 1       |
| Bobmastus                  | Base cream, hydrophobic DAC     | 21002264    | 2       |
| Bobmastus                  | Anionic hydrophilic cream DAB   | 291657      | 1       |
| bom                        | Anionic hydrophilic cream DAB   | 20001211    | 1       |
| Bomastus/AHD               | Hydrophilic cream, non-ionic... | 21004051    | 1       |
| Bomastus/Kehr              | Hydrophilic cream, non-ionic... | 20002898    | 1       |
| Bomastus                   | Hydrophilic cream, non-ionic... | 19005185    | 1       |
| bomastus                   | Anionic hydrophilic cream SR... | 20001775    | 1       |
| Bomastus                   | Anionic hydrophilic cream SR... | 288308      | 1       |
| bomb/Alkun                 | Hydrophilic cream, non-ionic... | 310520      | 1       |
| bomb/alliance              | Hydrophilic cream, non-ionic... | 307525      | 1       |
| Bomb/Noweda                | Anionic hydrophilic cream DAB   | 18000250    | 1       |
| Bomb/Noweda                | Anionic hydrophilic cream DAB   | 308399      | 1       |
| Bomb/Phoenix               | Hydrophilic cream, non-ionic... | 18005882    | 2       |
| bomb/phönix                | Anionic hydrophilic cream SR... | 18001482    | 2       |
| bomb/phönix                | Hydrophilic cream, non-ionic... | 302691      | 1       |
| Bomb/Sanacorp              | Anionic hydrophilic cream DAB   | 18006014    | 1       |
| Bomb/Sanacorp              | Anionic hydrophilic cream DAB   | 19000617    | 1       |
| Bomb/Sanacorp              | Anionic hydrophilic cream DAB   | 308405      | 1       |
| Bomba/AHD                  | Anionic hydrophilic cream DAB   | 280410      | 1       |
| Bomba/Phönix               | Anionic hydrophilic cream DAB   | 308408      | 1       |
| Bomba                      | Anionic hydrophilic cream DAB   | 283478      | 1       |
| Bombast./Phönix            | Hydrophilic cream, non-ionic... | 18005880    | 1       |
| Bombast/Nowed              | Anionic hydrophilic cream SR... | 288308      | 1       |
| Bombast/Phoenix            | Anionic hydrophilic cream SR... | 293104      | 1       |
| Bombastis/Gehe/18.10.19    | Hydrophilic cream, non-ionic... | 19003825    | 1       |
| Bombastu/Alliance Healt... | Hydrophilic cream, non-ionic... | 309908      | 1       |
| Bombastu/Noweda            | Hydrophilic cream, non-ionic... | 18001334    | 1       |
| Bombastu/Noweda            | Hydrophilic cream, non-ionic... | 18004212    | 2       |
| Bombastus                  | Base cream, hydrophobic DAC     |             | 6       |
| Bombastus                  | Anionic hydrophilic cream SR... | 10002224    | 1       |
| Bombastus                  | Hydrophilic cream, non-ionic... | 1006523     | 1       |
| Bombastus                  | Anionic hydrophilic cream SR... | 1017Q-03327 | 1       |
| Bombastus                  | Hydrophilic cream, non-ionic... | 105019      | 1       |
| Bombastus                  | Hydrophilic cream, non-ionic... | 118005877   | 1       |
| Bombastus                  | Hydrophilic cream, non-ionic... | 119400      | 1       |
| Bombastus                  | Anionic hydrophilic cream DAB   | 120296      | 1       |
| Bombastus                  | Anionic hydrophilic cream SR... | 12121201    | 1       |
| Bombastus                  | Base cream, hydrophobic DAC     | 12229302    | 1       |
| Bombastus                  | Anionic hydrophilic cream SR... | 123test     | 1       |
| Bombastus                  | Hydrophilic cream, non-ionic... | 12B130626   | 1       |
| Bombastus                  | Anionic hydrophilic cream wi... | 14030701    | 1       |
| Bombastus                  | Hydrophilic cream, non-ionic... | 140568      | 1       |
| Bombastus                  | Anionic hydrophilic cream DAB   | 14286201    | 1       |
| Bombastus                  | Base cream, hydrophobic DAC     | 143093      | 1       |
| Bombastus                  | Anionic hydrophilic cream DAB   | 14342501    | 2       |
| Bombastus                  | Anionic hydrophilic cream SR... | 150820UEA   | 1       |
| Bombastus                  | Anionic hydrophilic cream SR... | 15121201    | 1       |
| Bombastus                  | Base cream, hydrophobic DAC     | 15221301    | 1       |
| Bombastus                  | Base cream, hydrophobic DAC     | 160136      | 1       |
| Bombastus                  | Base cream, hydrophobic DAC     | 160814      | 1       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch       | Spectra |
|-----------|---------------------------------|-------------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 160824UEASR | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 1616Q-03327 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 162168      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 16250001    | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 163237      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 170000744   | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 17000160    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 17000162    | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 17000163    | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 17000164    | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 17000165    | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 17000166    | 12      |
| Bombastus | Hydrophilic cream, non-ionic... | 17000737    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000738    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000739    | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000740    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000741    | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000742    | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000743    | 14      |
| Bombastus | Hydrophilic cream, non-ionic... | 17000744    | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000745    | 13      |
| Bombastus | Hydrophilic cream, non-ionic... | 17000746    | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000747    | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000748    | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 17000749    | 15      |
| Bombastus | Hydrophilic cream, non-ionic... | 17000750    | 25      |
| Bombastus | Base cream, hydrophobic DAC     | 170009      | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 17001093    | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 17001094    | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 17001095    | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 17001096    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001300    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001302    | 9       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001303    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001304    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001305    | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001306    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001307    | 14      |
| Bombastus | Anionic hydrophilic cream DAB   | 17001308    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001309    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001310    | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001311    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001312    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001313    | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001315    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 17001316    | 10      |
| Bombastus | Anionic hydrophilic cream SR... | 17001695    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 17001696    | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 17001697    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 17001698    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 17001699    | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 17001700    | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 17001701    | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 17001702    | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 17001703    | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 17001704    | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 17001705    | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 17001706    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 17001707    | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 17001708    | 6       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch            | Spectra |
|-----------|---------------------------------|------------------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 17002156         | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 17002158         | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 17002159         | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 17002160         | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 17006166         | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 1700750          | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 17007908         | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 170103CAH/303735 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 170313CAH/303736 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 17045101         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 17088901         | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 17101502         | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 171126           | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 171128           | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 171815           | 1       |
| Bombastus | Anionic hydrophilic cream wi... | 17335501         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 180000245        | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000243         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000244         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000245         | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000246         | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000248         | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000249         | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000250         | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000251         | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000252         | 9       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000253         | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000254         | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000255         | 9       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000256         | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18000257         | 18      |
| Bombastus | Anionic hydrophilic cream DAB   | 180004835        | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 180006017        | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001324         | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001326         | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001327         | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001328         | 10      |
| Bombastus | Hydrophilic cream, non-ionic... | 18001329         | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001330         | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001331         | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001332         | 11      |
| Bombastus | Hydrophilic cream, non-ionic... | 18001333         | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 18001334         | 23      |
| Bombastus | Anionic hydrophilic cream SR... | 18001470         | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18001471         | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18001472         | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 18001473         | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18001474         | 12      |
| Bombastus | Anionic hydrophilic cream SR... | 18001475         | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 18001476         | 9       |
| Bombastus | Anionic hydrophilic cream SR... | 18001477         | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001478         | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 180014783        | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18001479         | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 18001480         | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18001481         | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 18001482         | 15      |
| Bombastus | Anionic hydrophilic cream SR... | 18001483         | 10      |
| Bombastus | Anionic hydrophilic cream SR... | 18001484         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001544         | 3       |

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continued from previous page

| Supplier  | Substance                       | Batch    | Spectra |
|-----------|---------------------------------|----------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 18001546 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001547 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001548 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001549 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001550 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001551 | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001552 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001553 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001554 | 10      |
| Bombastus | Anionic hydrophilic cream DAB   | 18001555 | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001556 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001557 | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001558 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001559 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001560 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001561 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18001562 | 12      |
| Bombastus | Anionic hydrophilic cream SR... | 18001681 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 18001992 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 18001993 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 18001994 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 18001995 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 18001997 | 6       |
| Bombastus | Base cream, hydrophobic DAC     | 18001998 | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 18001999 | 5       |
| Bombastus | Base cream, hydrophobic DAC     | 18002000 | 12      |
| Bombastus | Base cream, hydrophobic DAC     | 18002001 | 10      |
| Bombastus | Base cream, hydrophobic DAC     | 18002002 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 18002057 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 18002059 | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 18002060 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 18002061 | 11      |
| Bombastus | Hydrophilic cream, non-ionic... | 18002062 | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 18002063 | 22      |
| Bombastus | Hydrophilic cream, non-ionic... | 18002064 | 37      |
| Bombastus | Anionic hydrophilic cream SR... | 18002222 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18002223 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18002224 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 18002225 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 18002226 | 16      |
| Bombastus | Anionic hydrophilic cream SR... | 18002227 | 11      |
| Bombastus | Anionic hydrophilic cream SR... | 18002255 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 1800226  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002352 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002354 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002355 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002356 | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002357 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002358 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002359 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002360 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002361 | 13      |
| Bombastus | Anionic hydrophilic cream DAB   | 18002362 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002363 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18002364 | 15      |
| Bombastus | Anionic hydrophilic cream DAB   | 1800250  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 1800256  | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 18002824 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 18002825 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 18002826 | 5       |

continued on the next page



continued from previous page

| Supplier  | Substance                       | Batch      | Spectra |
|-----------|---------------------------------|------------|---------|
| Bombastus | Base cream, hydrophobic DAC     | 18002827   | 8       |
| Bombastus | Base cream, hydrophobic DAC     | 18002828   | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 18002829   | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 18002830   | 13      |
| Bombastus | Base cream, hydrophobic DAC     | 18002831   | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 18003131   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003576   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003578   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003580   | 11      |
| Bombastus | Anionic hydrophilic cream DAB   | 18003581   | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003582   | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003583   | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003584   | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003585   | 9       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003586   | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003587   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003588   | 13      |
| Bombastus | Anionic hydrophilic cream DAB   | 18003592   | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18003779   | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18003780   | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18003781   | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 18003782   | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18003783   | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 18003784   | 13      |
| Bombastus | Anionic hydrophilic cream SR... | 18003785   | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 18003786   | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18003787   | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 18003788   | 20      |
| Bombastus | Hydrophilic cream, non-ionic... | 18004203   | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 18004204   | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 18004206   | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 18004207   | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 18004208   | 10      |
| Bombastus | Hydrophilic cream, non-ionic... | 18004209   | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 18004210   | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 18004211   | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 18004212   | 13      |
| Bombastus | Hydrophilic cream, non-ionic... | 18004523   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004831   | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004835   | 10      |
| Bombastus | Anionic hydrophilic cream DAB   | 18004836   | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004837   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004838   | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004839   | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004840   | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004841   | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 18004842   | 14      |
| Bombastus | Anionic hydrophilic cream SR... | 18004877   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18005153   | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 18005154   | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18005156   | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 18005157   | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 18005158   | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 18005159   | 16      |
| Bombastus | Base cream, hydrophobic DAC     | 18005484   | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 18005485   | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 180054852x | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 18005486   | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 18005487   | 13      |
| Bombastus | Base cream, hydrophobic DAC     | 18005488   | 6       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch       | Spectra |
|-----------|---------------------------------|-------------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 18005874    | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005875    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005876    | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005877    | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005878    | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005879    | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005880    | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005881    | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 18005882    | 32      |
| Bombastus | Anionic hydrophilic cream DAB   | 18006009    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006012    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006013    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006014    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 180060144x  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006015    | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006016    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006017    | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006018    | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006019    | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006020    | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006021    | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006022    | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006023    | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006024    | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006025    | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 18006026    | 11      |
| Bombastus | Anionic hydrophilic cream SR... | 18006276    | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 18006279    | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 18006280    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18006281    | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 18006282    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 18006283    | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 18006287    | 24      |
| Bombastus | Anionic hydrophilic cream SR... | 18006626    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18006628    | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 18006629    | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 18006630    | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 18006631    | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 18006632    | 16      |
| Bombastus | Base cream, hydrophobic DAC     | 18051001    | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 180515      | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 180754      | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 180756      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18147501    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 18159901    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 181721      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18218102    | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 18259501    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 18A070513   | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19000006465 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 190000651   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 190002041   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19000217    | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 19000218    | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 19000219    | 12      |
| Bombastus | Hydrophilic cream, non-ionic... | 19000220    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19000221    | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 19000222    | 24      |
| Bombastus | Base cream, hydrophobic DAC     | 190002281   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000612    | 1       |

continued on the next page



continued from previous page

| Supplier  | Substance                       | Batch     | Spectra |
|-----------|---------------------------------|-----------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 19000614  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000615  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000616  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000617  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000618  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000619  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000620  | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000621  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000622  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000623  | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000624  | 13      |
| Bombastus | Anionic hydrophilic cream SR... | 19000642  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19000643  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19000644  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19000645  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19000646  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19000647  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 19000648  | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 19000649  | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 19000650  | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 19000651  | 20      |
| Bombastus | Anionic hydrophilic cream DAB   | 19000890  | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 19001123  | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 19001124  | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 19001125  | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 19001126  | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 19001127  | 8       |
| Bombastus | Base cream, hydrophobic DAC     | 19001128  | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 19001550  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002033  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002034  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002035  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002036  | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002037  | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002038  | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002039  | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 190020398 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002040  | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 19002041  | 29      |
| Bombastus | Hydrophilic cream, non-ionic... | 1900217   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 1900218   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002185  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002187  | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002188  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002189  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002191  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002192  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002193  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002194  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002195  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002196  | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002197  | 11      |
| Bombastus | Anionic hydrophilic cream DAB   | 19002198  | 15      |
| Bombastus | Anionic hydrophilic cream DAB   | 19002199  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002200  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002201  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002202  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002203  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002204  | 18      |
| Bombastus | Anionic hydrophilic cream DAB   | 19002205  | 20      |

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| Supplier  | Substance                       | Batch            | Spectra |
|-----------|---------------------------------|------------------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 19002206         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002207         | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 19002208         | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 1900222          | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 19002275         | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 19002276         | 5       |
| Bombastus | Base cream, hydrophobic DAC     | 19002277         | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 19002278         | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 19002279         | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 19002280         | 7       |
| Bombastus | Base cream, hydrophobic DAC     | 19002281         | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 1900252          | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19002546         | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19002547         | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19002548         | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19002549         | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 19002550         | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 19002551         | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 19002552         | 9       |
| Bombastus | Anionic hydrophilic cream SR... | 19002553         | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 19002554         | 16      |
| Bombastus | Anionic hydrophilic cream SR... | 19003564s        | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19003565         | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 19003566         | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 19003567         | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19003568         | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 19003569         | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 19003570         | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003571         | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 19003572         | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 19003573         | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 19003575         | 10      |
| Bombastus | Anionic hydrophilic cream SR... | 19003576         | 24      |
| Bombastus | Anionic hydrophilic cream SR... | 19003750         | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19003819         | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19003820         | 13      |
| Bombastus | Hydrophilic cream, non-ionic... | 19003821         | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 19003822         | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 19003823         | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 19003824         | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 19003825         | 28      |
| Bombastus | Anionic hydrophilic cream DAB   | 1900392          | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003966         | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003967         | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003968         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003969         | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003971         | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003972         | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 1900397218004831 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003973         | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003974         | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003975         | 13      |
| Bombastus | Anionic hydrophilic cream DAB   | 19003976         | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003977         | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003978         | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003979         | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003980         | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003981         | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003982         | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003983         | 1       |

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| Supplier  | Substance                       | Batch      | Spectra |
|-----------|---------------------------------|------------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 19003984   | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003985   | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003986   | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003987   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19003988   | 16      |
| Bombastus | Anionic hydrophilic cream DAB   | 19003989   | 13      |
| Bombastus | Base cream, hydrophobic DAC     | 19004007   | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 19004008   | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 19004009   | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 19004874   | 12      |
| Bombastus | Anionic hydrophilic cream SR... | 19004875   | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 19004876   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19004878   | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 19004879   | 11      |
| Bombastus | Anionic hydrophilic cream SR... | 19004881   | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005007   | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005008   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005009   | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 190050092x | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005010   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005011   | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005012   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005013   | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005014   | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005015   | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 19005016   | 11      |
| Bombastus | Anionic hydrophilic cream DAB   | 19005017   | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005183   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005184   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005185   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005186   | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005187   | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005188   | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005189   | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005190   | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005191   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005192   | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005193   | 20      |
| Bombastus | Anionic hydrophilic cream SR... | 190053576  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19005487   | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 19005597   | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 19005598   | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 19005599   | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 19005600   | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 19005602   | 9       |
| Bombastus | Base cream, hydrophobic DAC     | 19005603   | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 19006459   | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 19006462   | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19006463   | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 190064631  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 19006464   | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 19006465   | 15      |
| Bombastus | Hydrophilic cream, non-ionic... | 19006521   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19006522   | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 19006523   | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 19006524   | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 19006525   | 22      |
| Bombastus | Hydrophilic cream, non-ionic... | 1901327    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 190203988  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 190241102  | 1       |

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| Supplier  | Substance                       | Batch        | Spectra |
|-----------|---------------------------------|--------------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 1903825      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 190441104    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 1905009      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 190532705    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 1906521      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 191108144652 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 191152210    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 191240111    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 192005015    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 1a070119     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 200000025    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 200000031    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 200000035    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000021     | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000022     | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000023     | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000024     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000025     | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000026     | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000027     | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000028     | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000029     | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000030     | 9       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000031     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000032     | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000033     | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000034     | 11      |
| Bombastus | Anionic hydrophilic cream DAB   | 20000035     | 15      |
| Bombastus | Base cream, hydrophobic DAC     | 20000148     | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 20000149     | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 20000150     | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 20000152     | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 20000153     | 10      |
| Bombastus | Anionic hydrophilic cream DAB   | 200002539    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 2000033      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20000716     | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 20000718     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20000719     | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 20000720     | 9       |
| Bombastus | Anionic hydrophilic cream SR... | 20000721     | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 20000722     | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 20000724     | 15      |
| Bombastus | Base cream, hydrophobic DAC     | 20000728     | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 20000806     | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001008     | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001009     | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001010     | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001011     | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001012     | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001013     | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001015     | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001016     | 12      |
| Bombastus | Anionic hydrophilic cream DAB   | 20001201     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001202     | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001205     | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001206     | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001207     | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001208     | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001209     | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001210     | 3       |

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continued from previous page

| Supplier  | Substance                       | Batch    | Spectra |
|-----------|---------------------------------|----------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 20001211 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001212 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001213 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001214 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001215 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001216 | 22      |
| Bombastus | Anionic hydrophilic cream DAB   | 20001217 | 13      |
| Bombastus | Base cream, hydrophobic DAC     | 20001230 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001534 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001535 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001536 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001537 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001538 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20001539 | 7       |
| Bombastus | Base cream, hydrophobic DAC     | 20001675 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 20001676 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 20001677 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 20001678 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 20001680 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20001773 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20001774 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 20001775 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 20001776 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20001777 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20001778 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20001779 | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 2000190  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001905 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001906 | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001907 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001908 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20001909 | 13      |
| Bombastus | Hydrophilic cream, non-ionic... | 20001910 | 19      |
| Bombastus | Base cream, hydrophobic DAC     | 20002007 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 20002218 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20002219 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 2000222  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20002220 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20002221 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 20002222 | 10      |
| Bombastus | Anionic hydrophilic cream SR... | 20002223 | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002224 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 20002225 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 20002226 | 13      |
| Bombastus | Anionic hydrophilic cream SR... | 20002227 | 12      |
| Bombastus | Anionic hydrophilic cream SR... | 2000224  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002526 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002528 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002529 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002530 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002531 | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002532 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002533 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002534 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002535 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002536 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002537 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20002538 | 10      |
| Bombastus | Anionic hydrophilic cream DAB   | 20002539 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 2000254  | 1       |

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continued from previous page

| Supplier  | Substance                       | Batch    | Spectra |
|-----------|---------------------------------|----------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 20002540 | 13      |
| Bombastus | Anionic hydrophilic cream DAB   | 20002541 | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 20002890 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 20002896 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 20002898 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20002899 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20002900 | 12      |
| Bombastus | Hydrophilic cream, non-ionic... | 20002901 | 13      |
| Bombastus | Base cream, hydrophobic DAC     | 20003018 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 20003019 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 20003022 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003255 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003257 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003258 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003260 | 12      |
| Bombastus | Anionic hydrophilic cream DAB   | 20003261 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003262 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003263 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003264 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20003265 | 10      |
| Bombastus | Anionic hydrophilic cream DAB   | 20003266 | 11      |
| Bombastus | Hydrophilic cream, non-ionic... | 20003424 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 20003555 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 20003557 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 20003558 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 20003559 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 20003560 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003874 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003875 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003876 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003877 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003878 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003879 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003882 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 20003883 | 12      |
| Bombastus | Hydrophilic cream, non-ionic... | 20003884 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 20003986 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20003987 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20003989 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20003990 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 20003992 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 20003993 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 20003994 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 20003995 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 20003996 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 20003997 | 17      |
| Bombastus | Anionic hydrophilic cream DAB   | 20004270 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004271 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004272 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 20004273 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004274 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004275 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004277 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004278 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004279 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004280 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 20004282 | 7       |
| Bombastus | Base cream, hydrophobic DAC     | 20004861 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 20004862 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 20004863 | 7       |

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| Supplier  | Substance                       | Batch       | Spectra |
|-----------|---------------------------------|-------------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 20005128    | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20005129    | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20005131    | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 20005132    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 20005505    | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 20005506    | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 20005507    | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 20005508    | 15      |
| Bombastus | Anionic hydrophilic cream SR... | 2000722     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 2001213     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 2001217     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 2001536     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 2002541     | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 2003876     | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 2003878     | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 2003882     | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 2003883     | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 2003992     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 2004279     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 2004282     | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 20113630    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 2019U-03327 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 210000053   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 210000061   | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000042    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000043    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000047    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000048    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000049    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000050    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000051    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000052    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000055    | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000056    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000057    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000058    | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000059    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000060    | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 21000061    | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 21000155    | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 21000156    | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 21000158    | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 21000159    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 21000517    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 21000519    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 21000521    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 21000522    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 21000523    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 21000524    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 21000525    | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 21001442    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 21001446    | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 21001447    | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 21001448    | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 21001449    | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 21001450    | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 21001543    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21001544    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21001545    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 21001547    | 3       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Anionic hydrophilic cream DAB   | 21001548     | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21001549     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21001550     | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21001552     | 5              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21001553     | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21001555     | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 21001780     | 2              |
| Bombastus       | Base cream, hydrophobic DAC     | 21001781     | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 21001799     | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 21001800     | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 210018008    | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 21001803     | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 21001805     | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 21001806     | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 21001807     | 12             |
| Bombastus       | Anionic hydrophilic cream DAB   | 21001808     | 6              |
| Bombastus       | Base cream, hydrophobic DAC     | 21002262     | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 21002265     | 2              |
| Bombastus       | Base cream, hydrophobic DAC     | 21002266     | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21002600     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21002602     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21002605     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21002606     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21002610     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21002611     | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21002703     | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21002705     | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21002707     | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21002710     | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 21003300     | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 21003302     | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 21003303     | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 21003304     | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 21003306     | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 21003307     | 5              |
| Bombastus       | Base cream, hydrophobic DAC     | 21003483     | 2              |
| Bombastus       | Base cream, hydrophobic DAC     | 21003485     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21003626     | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21003628     | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21003630     | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21003632     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21003633     | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21004047     | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21004050     | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21004052     | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 21004449     | 6              |
| Bombastus       | Anionic hydrophilic cream SR... | 21004451     | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 21004454     | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 21004456     | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 21004457     | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21004551     | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21004552     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21004556     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 21004557     | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 21005065     | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 21005179     | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 2100546      | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 2100805      | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 22000030     | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 22000497     | 1              |

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| Supplier  | Substance                       | Batch       | Spectra |
|-----------|---------------------------------|-------------|---------|
| Bombastus | Base cream, hydrophobic DAC     | 22000499    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 22001128    | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 22001129    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 22001250    | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 2215M-03327 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 229317      | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 229346      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 229352      | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 2293552     | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 244379      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 258517      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 261009      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 261013      | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 261112      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 262772      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 263823      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 263981      | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 264643      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 264644      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 264751      | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 264854      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 265335      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 266051      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 266175      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 267061      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 267185      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 267436      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 267442      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 267642      | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 267645      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 268347      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 268349      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 268354      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 269225      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 269227      | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 269230      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 269231      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 269234      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 269235      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 269236      | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 269276      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 269441      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 269513      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 269517      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 269711      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 269712      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 269715      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 269716      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 270704      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 270711      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 270804      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 270824      | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 270947      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 270950      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 271008      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 271009      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 271011      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 271014      | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 271091      | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 271092      | 3       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|---------------------------------|---------------|----------------|
| Bombastus       | Base cream, hydrophobic DAC     | 271093        | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 271095        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 271397        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 271473        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 271520        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 271521        | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 271522        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 271699        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 271701        | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 271702        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 271837        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 272472        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 272510        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 272511        | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 272513        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 272514        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 272515        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 272516        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 273126        | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 273128        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 273130        | 4              |
| Bombastus       | Hydrophilic cream, non-ionic... | 273132        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 273134        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 273407        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 273532        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 273534        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 273538        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 273539        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 273693        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 273694        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 273695        | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274102        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274103        | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274211        | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274212        | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274213        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274214        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274216        | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274217        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274219        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274222        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 274223        | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 274373        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 274377        | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 274378        | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 274379        | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 274381        | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 274504        | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 274505        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274592        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274593        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274594        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274595        | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274596        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274597        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274600        | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274695        | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274695/273533 | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274696        | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 274697        | 3              |

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| Supplier  | Substance                       | Batch  | Spectra |
|-----------|---------------------------------|--------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 274698 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 274765 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 275926 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 275927 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 276073 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 276074 | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 276075 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 276077 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 276085 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 276087 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 276252 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 276315 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 276316 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 276318 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 276320 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 276433 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 276593 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 276595 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 276597 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 276598 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 276599 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 276725 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 277292 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 277293 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 277295 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 277297 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 277298 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 277455 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 277457 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 277458 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 277459 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 277461 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 277462 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 277463 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 277465 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 277560 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 277563 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 277565 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 277566 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 277567 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 277568 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 277569 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 277636 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 277637 | 7       |
| Bombastus | Base cream, hydrophobic DAC     | 277696 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 277871 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 277873 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 277874 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 277877 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 277878 | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 277881 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 278025 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 278026 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 278027 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 278028 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 278029 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 278846 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 278849 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 278852 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 278853 | 1       |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Anionic hydrophilic cream DAB   | 279055       | 7              |
| Bombastus       | Anionic hydrophilic cream DAB   | 279056       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 279057       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 279059       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 279145       | 2              |
| Bombastus       | Base cream, hydrophobic DAC     | 279147       | 2              |
| Bombastus       | Base cream, hydrophobic DAC     | 279148       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 279195       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 279198       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 279199       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 279200       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 279201       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 279202       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 279323       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 279324       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 279325       | 10             |
| Bombastus       | Anionic hydrophilic cream SR... | 279326       | 10             |
| Bombastus       | Hydrophilic cream, non-ionic... | 279653       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 279655       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 279656       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 279658       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 279660       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 279661       | 9              |
| Bombastus       | Hydrophilic cream, non-ionic... | 279991       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280288       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280289       | 4              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280290       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280291       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280294       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280413       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280416       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280417       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 280418       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 280568       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 280570       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 280571       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 280572       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 280574       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 280575       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 280576       | 8              |
| Bombastus       | Anionic hydrophilic cream SR... | 280741       | 7              |
| Bombastus       | Base cream, hydrophobic DAC     | 280809       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 280811       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 280984       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 280986       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 280987       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 280993       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 281737       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 281738       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 281739       | 6              |
| Bombastus       | Anionic hydrophilic cream SR... | 281740       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 281742       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 281743       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 281744       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 281745       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 281767       | 8              |
| Bombastus       | Hydrophilic cream, non-ionic... | 281774       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 281809       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 281866       | 9              |
| Bombastus       | Anionic hydrophilic cream DAB   | 281998       | 1              |

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| Supplier  | Substance                       | Batch  | Spectra |
|-----------|---------------------------------|--------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 281999 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282001 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282002 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282003 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282004 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 282005 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282006 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 282107 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282109 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282110 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 282111 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 282112 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 282113 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 282114 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 282115 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 282161 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 282162 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 282163 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 282212 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 282213 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 282215 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 282216 | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 283279 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 283281 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 283282 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 283283 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 283285 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 283286 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 283410 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 283411 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 283412 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 283413 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 283474 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 283476 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 283477 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 283478 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 283480 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 283481 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 283482 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 283483 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 283634 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 283635 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 283636 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 283637 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 283638 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 283639 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 283692 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 283693 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 283694 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 283695 | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 284077 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 284078 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 284079 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 284080 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 284081 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 284082 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 284083 | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 284170 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 284171 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 284173 | 1       |

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| <b>Supplier</b> | <b>Substance</b>                 | <b>Batch</b> | <b>Spectra</b> |
|-----------------|----------------------------------|--------------|----------------|
| Bombastus       | Hydrophilic cream, non-ionic...  | 284891       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 284893       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 284895       | 5              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 284896       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 284897       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 284898       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 284899       | 6              |
| Bombastus       | Base cream, hydrophobic DAC      | 285434       | 1              |
| Bombastus       | Base cream, hydrophobic DAC      | 285435       | 2              |
| Bombastus       | Base cream, hydrophobic DAC      | 285437       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285589       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285591       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285592       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285593       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285594       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285595       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285596       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB    | 285597       | 1              |
| Bombastus       | Anionic hydrophilic cream wit... | 285829       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 2858899      | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285890       | 2              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285892       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285893       | 2              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285894       | 2              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285895       | 3              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285896       | 3              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285897       | 3              |
| Bombastus       | Anionic hydrophilic cream SR...  | 285898       | 11             |
| Bombastus       | Anionic hydrophilic cream SR...  | 285899       | 5              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 286323       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 286325       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 286326       | 7              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 286328       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 286329       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 286330       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB    | 286495       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB    | 286498       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB    | 286499       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB    | 286502       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB    | 286505       | 2              |
| Bombastus       | Base cream, hydrophobic DAC      | 286514       | 2              |
| Bombastus       | Base cream, hydrophobic DAC      | 286515       | 1              |
| Bombastus       | Base cream, hydrophobic DAC      | 286516       | 6              |
| Bombastus       | Hydrophilic cream, non-ionic...  | 286838       | 3              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286971       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286972       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286973       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286974       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286975       | 3              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286976       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286977       | 2              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286978       | 1              |
| Bombastus       | Anionic hydrophilic cream SR...  | 286979       | 12             |
| Bombastus       | Anionic hydrophilic cream SR...  | 286980       | 9              |
| Bombastus       | Anionic hydrophilic cream DAB    | 287432       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB    | 287433       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB    | 287435       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB    | 287436       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB    | 287557       | 6              |
| Bombastus       | Anionic hydrophilic cream DAB    | 287559       | 2              |

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| Supplier  | Substance                       | Batch   | Spectra |
|-----------|---------------------------------|---------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 287560  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 287562  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 287563  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 287564  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 287565  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 287710  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 287711  | 11      |
| Bombastus | Hydrophilic cream, non-ionic... | 287712  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 287713  | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 287715  | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 287716  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 287717  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 287761  | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 287762  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 287763  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 288227  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 288228  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 288230  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 288231  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 288233  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 288234  | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 288235  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 288307  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 288308  | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 288310  | 6       |
| Bombastus | Base cream, hydrophobic DAC     | 288497  | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 288499  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 288570  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 288573  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 288574  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 288575  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 288652  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 288655  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 288656  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 288657  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 288658  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 288659  | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 2886797 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 288720  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 288721  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 288793  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 288795  | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 288796  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 288797  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 288798  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 288882  | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 289126  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 289322  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 289323  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 289324  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 289325  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 289326  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 289327  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 289328  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 289329  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 289330  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 289331  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 289332  | 5       |
| Bombastus | Base cream, hydrophobic DAC     | 289717  | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 289718  | 3       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Base cream, hydrophobic DAC     | 289720       | 2              |
| Bombastus       | Base cream, hydrophobic DAC     | 289721       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 289937       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 289940       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 289941       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 289942       | 5              |
| Bombastus       | Hydrophilic cream, non-ionic... | 289943       | 4              |
| Bombastus       | Hydrophilic cream, non-ionic... | 289944       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290075       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290078       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290079       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290080       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290144       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290145       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290146       | 4              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290149       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290150       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290218       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 290220       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 290522       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 290523       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 290524       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 290525       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 290526       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 290527       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 290528       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 290530       | 11             |
| Bombastus       | Hydrophilic cream, non-ionic... | 291382       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 291384       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 291385       | 4              |
| Bombastus       | Hydrophilic cream, non-ionic... | 291386       | 4              |
| Bombastus       | Hydrophilic cream, non-ionic... | 291387       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 291388       | 9              |
| Bombastus       | Anionic hydrophilic cream SR... | 291522       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 291523       | 9              |
| Bombastus       | Anionic hydrophilic cream SR... | 291524       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 291525       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 291526       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 291527       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 291528       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 291529       | 9              |
| Bombastus       | Base cream, hydrophobic DAC     | 291590       | 4              |
| Bombastus       | Base cream, hydrophobic DAC     | 291593       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291650       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291655       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291656       | 4              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291657       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291658       | 4              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291659       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291729       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291731       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291732       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291822       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291823       | 6              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291824       | 6              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291825       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 291832       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 292452       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 292453       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 292736       | 1              |

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| Supplier  | Substance                       | Batch  | Spectra |
|-----------|---------------------------------|--------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 292737 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 292738 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 292739 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 292740 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 292804 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 292806 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 292807 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 292808 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 292809 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 292810 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 292811 | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 292812 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 292814 | 12      |
| Bombastus | Hydrophilic cream, non-ionic... | 292970 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 292971 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 292973 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 292975 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 292976 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 292977 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 292978 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 292979 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 292980 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 293102 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 293103 | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 293104 | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 293133 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 293134 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 293135 | 10      |
| Bombastus | Base cream, hydrophobic DAC     | 293161 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 293162 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 293163 | 5       |
| Bombastus | Base cream, hydrophobic DAC     | 293167 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 293168 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 293357 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 293358 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 293359 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 293361 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 293437 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 293440 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 293441 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 293445 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 293446 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 293447 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 293448 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 294305 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 294310 | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 294311 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 294313 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 294340 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 294390 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 294406 | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 294407 | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 294408 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 294545 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 294546 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 294547 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 294549 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 294551 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 294641 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 294642 | 2       |

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| Supplier  | Substance                       | Batch   | Spectra |
|-----------|---------------------------------|---------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 294643  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 294644  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 2946450 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 294646  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 294647  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 294648  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 294649  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 294650  | 11      |
| Bombastus | Base cream, hydrophobic DAC     | 294685  | 6       |
| Bombastus | Base cream, hydrophobic DAC     | 294686  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 295165  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 295166  | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 295167  | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 295169  | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 295170  | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 295171  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 295172  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 295232  | 10      |
| Bombastus | Anionic hydrophilic cream SR... | 295233  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 295396  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 295397  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 295399  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 295400  | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 295401  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 295403  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 295404  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 295511  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 295512  | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 2955126 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 295514  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 295515  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 295516  | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 295517  | 9       |
| Bombastus | Anionic hydrophilic cream DAB   | 295518  | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 295591  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 295644  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 295648  | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 295649  | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 295650  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 295651  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 295652  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 295653  | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 295654  | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 295655  | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 295656  | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 295657  | 11      |
| Bombastus | Anionic hydrophilic cream SR... | 296406  | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 296409  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 296410  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 296411  | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 296412  | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 296413  | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 296414  | 9       |
| Bombastus | Anionic hydrophilic cream SR... | 296415  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 296699  | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 296700  | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 296702  | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 296703  | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 296704  | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 296705  | 5       |

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| Supplier  | Substance                       | Batch  | Spectra |
|-----------|---------------------------------|--------|---------|
| Bombastus | Anionic hydrophilic cream DAB   | 296706 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 296707 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 296708 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 296781 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 296782 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 296783 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 296784 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 296785 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 296786 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 296787 | 6       |
| Bombastus | Base cream, hydrophobic DAC     | 297043 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 297044 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 297045 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 297046 | 5       |
| Bombastus | Base cream, hydrophobic DAC     | 297047 | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 297298 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 297299 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 297300 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 297302 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 297303 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 297304 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 297305 | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 297308 | 16      |
| Bombastus | Hydrophilic cream, non-ionic... | 297309 | 17      |
| Bombastus | Hydrophilic cream, non-ionic... | 297310 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 297370 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 297371 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 297372 | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 297373 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 297374 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 29739  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 297663 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 297666 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 297667 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 297668 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 297669 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 297670 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 297671 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 297672 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 297673 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 297674 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 297675 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 297676 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 297677 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 297679 | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 297680 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 297817 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 297819 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 297820 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 297821 | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 297822 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 297823 | 7       |
| Bombastus | Anionic hydrophilic cream SR... | 297908 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 297909 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 297910 | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 297911 | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 297912 | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 297913 | 10      |
| Bombastus | Base cream, hydrophobic DAC     | 298350 | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 298351 | 1       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Base cream, hydrophobic DAC     | 298353       | 8              |
| Bombastus       | Base cream, hydrophobic DAC     | 298354       | 6              |
| Bombastus       | Hydrophilic cream, non-ionic... | 298978       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 298979       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 298981       | 9              |
| Bombastus       | Hydrophilic cream, non-ionic... | 298982       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 298983       | 4              |
| Bombastus       | Hydrophilic cream, non-ionic... | 298984       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 299253       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 299254       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 299255       | 4              |
| Bombastus       | Anionic hydrophilic cream DAB   | 299256       | 9              |
| Bombastus       | Anionic hydrophilic cream SR... | 29926        | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 2A040118     | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 2x295649     | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 2x297819     | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300035       | 4              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300348       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300349       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300350       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300351       | 4              |
| Bombastus       | Base cream, hydrophobic DAC     | 300352       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300353       | 5              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300355       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300356       | 5              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300357       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300358       | 6              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300360       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300361       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300362       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300363       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300364       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 300365       | 7              |
| Bombastus       | Base cream, hydrophobic DAC     | 300417       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 300560       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 300561       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 300562       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 300563       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 300564       | 18             |
| Bombastus       | Hydrophilic cream, non-ionic... | 300756       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300758       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300759       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300760       | 5              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300761       | 4              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300762       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300763       | 5              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300764       | 5              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300764x2     | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300765       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 300766       | 11             |
| Bombastus       | Base cream, hydrophobic DAC     | 300893       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 300894       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 300946       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 300947       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 300950       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 300951       | 6              |
| Bombastus       | Anionic hydrophilic cream SR... | 300952       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 300953       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 300954       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 300955       | 4              |

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| Supplier  | Substance                        | Batch              | Spectra |
|-----------|----------------------------------|--------------------|---------|
| Bombastus | Anionic hydrophilic cream SR...  | 300956             | 15      |
| Bombastus | Anionic hydrophilic cream SR...  | 300956-20160615Ma4 | 1       |
| Bombastus | Anionic hydrophilic cream SR...  | 300957             | 11      |
| Bombastus | Anionic hydrophilic cream DAB    | 301266             | 1       |
| Bombastus | Anionic hydrophilic cream DAB    | 301267             | 5       |
| Bombastus | Anionic hydrophilic cream DAB    | 301268             | 2       |
| Bombastus | Anionic hydrophilic cream DAB    | 301269             | 7       |
| Bombastus | Anionic hydrophilic cream DAB    | 301270             | 2       |
| Bombastus | Anionic hydrophilic cream DAB    | 301271             | 5       |
| Bombastus | Anionic hydrophilic cream DAB    | 301272             | 2       |
| Bombastus | Anionic hydrophilic cream DAB    | 301349             | 3       |
| Bombastus | Anionic hydrophilic cream DAB    | 301350             | 6       |
| Bombastus | Anionic hydrophilic cream DAB    | 301351             | 4       |
| Bombastus | Anionic hydrophilic cream DAB    | 301352             | 7       |
| Bombastus | Anionic hydrophilic cream DAB    | 301353             | 4       |
| Bombastus | Anionic hydrophilic cream DAB    | 301354             | 5       |
| Bombastus | Anionic hydrophilic cream DAB    | 301355             | 1       |
| Bombastus | Anionic hydrophilic cream DAB    | 301356             | 2       |
| Bombastus | Anionic hydrophilic cream DAB    | 301357             | 4       |
| Bombastus | Anionic hydrophilic cream DAB    | 301358             | 3       |
| Bombastus | Base cream, hydrophobic DAC      | 301455             | 2       |
| Bombastus | Base cream, hydrophobic DAC      | 301457             | 6       |
| Bombastus | Hydrophilic cream, non-ionic...  | 30162              | 1       |
| Bombastus | Hydrophilic cream, non-ionic...  | 301621             | 2       |
| Bombastus | Hydrophilic cream, non-ionic...  | 301622             | 5       |
| Bombastus | Hydrophilic cream, non-ionic...  | 301623             | 6       |
| Bombastus | Hydrophilic cream, non-ionic...  | 301624             | 4       |
| Bombastus | Hydrophilic cream, non-ionic...  | 301625             | 1       |
| Bombastus | Hydrophilic cream, non-ionic...  | 301626             | 6       |
| Bombastus | Hydrophilic cream, non-ionic...  | 301627             | 14      |
| Bombastus | Anionic hydrophilic cream SR...  | 3018E-03327        | 1       |
| Bombastus | Base cream, hydrophobic DAC      | 302131             | 3       |
| Bombastus | Base cream, hydrophobic DAC      | 302133             | 1       |
| Bombastus | Base cream, hydrophobic DAC      | 302134             | 3       |
| Bombastus | Anionic hydrophilic cream SR...  | 302190             | 1       |
| Bombastus | Anionic hydrophilic cream SR...  | 302191             | 1       |
| Bombastus | Anionic hydrophilic cream SR...  | 302192             | 1       |
| Bombastus | Anionic hydrophilic cream SR...  | 302193             | 2       |
| Bombastus | Anionic hydrophilic cream SR...  | 302194             | 5       |
| Bombastus | Anionic hydrophilic cream SR...  | 302195             | 4       |
| Bombastus | Anionic hydrophilic cream SR...  | 302196             | 2       |
| Bombastus | Anionic hydrophilic cream wit... | 302197             | 1       |
| Bombastus | Anionic hydrophilic cream SR...  | 302198             | 1       |
| Bombastus | Anionic hydrophilic cream SR...  | 302199             | 6       |
| Bombastus | Anionic hydrophilic cream SR...  | 302200             | 6       |
| Bombastus | Anionic hydrophilic cream DAB    | 302452             | 3       |
| Bombastus | Anionic hydrophilic cream DAB    | 302453             | 4       |
| Bombastus | Anionic hydrophilic cream DAB    | 302454             | 4       |
| Bombastus | Anionic hydrophilic cream DAB    | 302456             | 3       |
| Bombastus | Anionic hydrophilic cream DAB    | 302457             | 1       |
| Bombastus | Anionic hydrophilic cream DAB    | 302459             | 1       |
| Bombastus | Anionic hydrophilic cream DAB    | 302460             | 7       |
| Bombastus | Anionic hydrophilic cream DAB    | 302461             | 3       |
| Bombastus | Anionic hydrophilic cream DAB    | 302462             | 5       |
| Bombastus | Anionic hydrophilic cream DAB    | 302463             | 7       |
| Bombastus | Anionic hydrophilic cream DAB    | 302464             | 3       |
| Bombastus | Anionic hydrophilic cream DAB    | 302465             | 1       |
| Bombastus | Anionic hydrophilic cream DAB    | 302466             | 3       |
| Bombastus | Anionic hydrophilic cream DAB    | 302467             | 2       |
| Bombastus | Anionic hydrophilic cream DAB    | 302468             | 2       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Anionic hydrophilic cream DAB   | 302469       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 302470       | 2              |
| Bombastus       | Anionic hydrophilic cream DAB   | 302471       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302683       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302684       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302685       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302686       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302687       | 6              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302688       | 9              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302689       | 2              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302690       | 8              |
| Bombastus       | Hydrophilic cream, non-ionic... | 302691       | 12             |
| Bombastus       | Hydrophilic cream, non-ionic... | 302764       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 303083       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 303374       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 303376       | 5              |
| Bombastus       | Base cream, hydrophobic DAC     | 303377       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 303726       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 303728       | 6              |
| Bombastus       | Anionic hydrophilic cream SR... | 303729       | 2              |
| Bombastus       | Anionic hydrophilic cream SR... | 303731       | 6              |
| Bombastus       | Anionic hydrophilic cream SR... | 303732       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 303733       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 303734       | 3              |
| Bombastus       | Hydrophilic cream, non-ionic... | 303735       | 12             |
| Bombastus       | Anionic hydrophilic cream DAB   | 303736       | 9              |
| Bombastus       | Hydrophilic cream, non-ionic... | 303764       | 5              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304089       | 6              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304090       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304093       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304094       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304095       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304096       | 1              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304097       | 7              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304098       | 15             |
| Bombastus       | Anionic hydrophilic cream DAB   | 304099       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304100       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304101       | 4              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304102       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 304105       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 304771       | 1              |
| Bombastus       | Hydrophilic cream, non-ionic... | 304773       | 10             |
| Bombastus       | Hydrophilic cream, non-ionic... | 304774       | 10             |
| Bombastus       | Hydrophilic cream, non-ionic... | 304775       | 7              |
| Bombastus       | Hydrophilic cream, non-ionic... | 304776       | 7              |
| Bombastus       | Hydrophilic cream, non-ionic... | 304777       | 4              |
| Bombastus       | Hydrophilic cream, non-ionic... | 304778       | 6              |
| Bombastus       | Hydrophilic cream, non-ionic... | 304779       | 3              |
| Bombastus       | Anionic hydrophilic cream SR... | 305062       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 305063       | 1              |
| Bombastus       | Anionic hydrophilic cream SR... | 305064       | 7              |
| Bombastus       | Anionic hydrophilic cream SR... | 305065       | 4              |
| Bombastus       | Anionic hydrophilic cream SR... | 305066       | 3              |
| Bombastus       | Anionic hydrophilic cream DAB   | 305067       | 5              |
| Bombastus       | Anionic hydrophilic cream SR... | 305068       | 12             |
| Bombastus       | Anionic hydrophilic cream SR... | 305069       | 9              |
| Bombastus       | Base cream, hydrophobic DAC     | 305080       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 305081       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 305082       | 1              |
| Bombastus       | Base cream, hydrophobic DAC     | 305083       | 8              |

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| Supplier  | Substance                       | Batch  | Spectra |
|-----------|---------------------------------|--------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 305143 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 305368 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 305369 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 30537  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 305370 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 305371 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 305373 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 305374 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 305375 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 305376 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 305377 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 305378 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 305379 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 305380 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 305381 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 305383 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 305384 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 305385 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 305386 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 305638 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 306123 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 306124 | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 306125 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 306126 | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 306127 | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 306128 | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 306129 | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 306130 | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 306131 | 21      |
| Bombastus | Base cream, hydrophobic DAC     | 306395 | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 306396 | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 306397 | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 306434 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 306435 | 10      |
| Bombastus | Anionic hydrophilic cream SR... | 306436 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 306437 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 306438 | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 306439 | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 306440 | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 30683  | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 307024 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 307025 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 307027 | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 307028 | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 307029 | 10      |
| Bombastus | Anionic hydrophilic cream DAB   | 307030 | 9       |
| Bombastus | Anionic hydrophilic cream DAB   | 307031 | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 307032 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 307033 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 307034 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 307035 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 307036 | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 307037 | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 307038 | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 307039 | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 307322 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 307323 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 307324 | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 307326 | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 307327 | 4       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch            | Spectra |
|-----------|---------------------------------|------------------|---------|
| Bombastus | Anionic hydrophilic cream SR... | 307328           | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 307329           | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 307330           | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 307331           | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 307332           | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 307332/1(intern) | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 307332/2(intern) | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 307333           | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 3073333          | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 307334           | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 307523           | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 307524           | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 307525           | 9       |
| Bombastus | Hydrophilic cream, non-ionic... | 307526           | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 307527           | 4       |
| Bombastus | Hydrophilic cream, non-ionic... | 307528           | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 307529           | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 307530           | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 307531           | 24      |
| Bombastus | Base cream, hydrophobic DAC     | 307765           | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 307766           | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 307767           | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 307768           | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 307769           | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 307770           | 4       |
| Bombastus | Base cream, hydrophobic DAC     | 307771           | 12      |
| Bombastus | Anionic hydrophilic cream SR... | 308210           | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 308213           | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 308214           | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 308215           | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 308217           | 6       |
| Bombastus | Anionic hydrophilic cream SR... | 308218           | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 308219           | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 308220           | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 308221           | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 308392           | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 308393           | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 308396           | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 308397           | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 308398           | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 308399           | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 308400           | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 308401           | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 308402           | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 308403           | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 308404           | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 308405           | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 308406           | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 308407           | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 308408           | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 308480           | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 308504           | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 308505           | 2       |
| Bombastus | Base cream, hydrophobic DAC     | 308506           | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 308507           | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 308508           | 7       |
| Bombastus | Base cream, hydrophobic DAC     | 308509           | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 309902           | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 309903           | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 309904           | 8       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch       | Spectra |
|-----------|---------------------------------|-------------|---------|
| Bombastus | Hydrophilic cream, non-ionic... | 309905      | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 309906      | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 309907      | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 309908      | 25      |
| Bombastus | Anionic hydrophilic cream SR... | 309911      | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 309912      | 3       |
| Bombastus | Anionic hydrophilic cream SR... | 310012      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 310217      | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 310218      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 310220      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 310221      | 11      |
| Bombastus | Anionic hydrophilic cream DAB   | 310222      | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 310265      | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 310266      | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 310267      | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 310269      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 310270      | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 310271      | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 310272      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 310273      | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 310513      | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 310514      | 2       |
| Bombastus | Hydrophilic cream, non-ionic... | 310515      | 6       |
| Bombastus | Hydrophilic cream, non-ionic... | 310516      | 3       |
| Bombastus | Hydrophilic cream, non-ionic... | 310517      | 7       |
| Bombastus | Hydrophilic cream, non-ionic... | 310518      | 8       |
| Bombastus | Hydrophilic cream, non-ionic... | 310519      | 5       |
| Bombastus | Hydrophilic cream, non-ionic... | 310520      | 20      |
| Bombastus | Base cream, hydrophobic DAC     | 310823      | 6       |
| Bombastus | Base cream, hydrophobic DAC     | 310824      | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 310825      | 1       |
| Bombastus | Base cream, hydrophobic DAC     | 310826      | 3       |
| Bombastus | Base cream, hydrophobic DAC     | 310827      | 13      |
| Bombastus | Base cream, hydrophobic DAC     | 310828      | 8       |
| Bombastus | Anionic hydrophilic cream SR... | 310873      | 4       |
| Bombastus | Anionic hydrophilic cream SR... | 311050      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 311051      | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 311052      | 2       |
| Bombastus | Anionic hydrophilic cream SR... | 311053      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 311054      | 5       |
| Bombastus | Anionic hydrophilic cream SR... | 311055      | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 311118      | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 311121      | 5       |
| Bombastus | Anionic hydrophilic cream DAB   | 311122      | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 311123      | 10      |
| Bombastus | Anionic hydrophilic cream DAB   | 311124      | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 311125      | 4       |
| Bombastus | Anionic hydrophilic cream DAB   | 311126      | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 311127      | 12      |
| Bombastus | Anionic hydrophilic cream DAB   | 311128      | 6       |
| Bombastus | Anionic hydrophilic cream DAB   | 311129      | 2       |
| Bombastus | Anionic hydrophilic cream DAB   | 311130      | 3       |
| Bombastus | Anionic hydrophilic cream DAB   | 311131      | 7       |
| Bombastus | Anionic hydrophilic cream DAB   | 311132      | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 311133      | 8       |
| Bombastus | Anionic hydrophilic cream DAB   | 311134      | 12      |
| Bombastus | Anionic hydrophilic cream DAB   | 320461      | 1       |
| Bombastus | Anionic hydrophilic cream SR... | 3213I-03327 | 1       |
| Bombastus | Hydrophilic cream, non-ionic... | 3x297305    | 1       |
| Bombastus | Anionic hydrophilic cream DAB   | 403099      | 1       |

continued on the next page

continued from previous page

| Supplier               | Substance                       | Batch             | Spectra |
|------------------------|---------------------------------|-------------------|---------|
| Bombastus              | Anionic hydrophilic cream SR... | 5012E-03327       | 1       |
| Bombastus              | Anionic hydrophilic cream SR... | 5B020419          | 1       |
| Bombastus              | Base cream, hydrophobic DAC     | 60080401          | 6       |
| Bombastus              | Base cream, hydrophobic DAC     | 60080402          | 2       |
| Bombastus              | Anionic hydrophilic cream DAB   | 60080601          | 2       |
| Bombastus              | Anionic hydrophilic cream DAB   | 60080602          | 7       |
| Bombastus              | Anionic hydrophilic cream SR... | 60089211          | 4       |
| Bombastus              | Anionic hydrophilic cream SR... | 60089212          | 2       |
| Bombastus              | Anionic hydrophilic cream SR... | 60089214          | 1       |
| Bombastus              | Hydrophilic cream, non-ionic... | 60089511          | 4       |
| Bombastus              | Hydrophilic cream, non-ionic... | 60089512          | 1       |
| Bombastus              | Anionic hydrophilic cream DAB   | 6080602           | 1       |
| Bombastus              | Anionic hydrophilic cream DAB   | 6861306           | 1       |
| Bombastus              | Wolff® base half-fat cream      | 701080            | 2       |
| Bombastus              | Wolff® base half-fat cream      | 707370            | 1       |
| Bombastus              | Anionic hydrophilic cream SR... | 80616-09          | 1       |
| Bombastus              | Hydrophilic cream, non-ionic... | 82216             | 1       |
| Bombastus              | Anionic hydrophilic cream SR... | 82440             | 1       |
| Bombastus              | Base cream, hydrophobic DAC     | 9001127           | 1       |
| Bombastus              | Anionic hydrophilic cream SR... | 90064651          | 1       |
| Bombastus              | Hydrophilic cream, non-ionic... | 90065             | 1       |
| Bombastus              | Anionic hydrophilic cream SR... | 91770             | 1       |
| Bombastus              | Hydrophilic cream, non-ionic... | 96914             | 1       |
| Bombastus              | Anionic hydrophilic cream SR... | 98245             | 1       |
| Bombastus              | Hydrophilic cream, non-ionic... | 99320             | 2       |
| Bombastus              | Anionic hydrophilic cream DAB   | Bombastus-WerkeAG | 1       |
| Bombastuts/Gehe        | Anionic hydrophilic cream DAB   | 308397            | 4       |
| Bombastuts/Noweda      | Anionic hydrophilic cream DAB   | 307023            | 2       |
| Bombastu-Werke AG/Gehe | Anionic hydrophilic cream SR... | 281866            | 2       |
| Bombastu-Werke AG/Gehe | Anionic hydrophilic cream SR... | 283286            | 1       |
| Bombastu-Werke AG/Gehe | Anionic hydrophilic cream SR... | 286979            | 1       |
| Bombatus/Phönix        | Hydrophilic cream, non-ionic... | 302689            | 1       |
| BOMBATUS               | Anionic hydrophilic cream SR... |                   | 1       |
| BOMBATUS               | Anionic hydrophilic cream SR... | 18001457          | 1       |
| Bombatus               | Anionic hydrophilic cream DAB   | 19002187          | 1       |
| Bombostus / Noweda     | Hydrophilic cream, non-ionic... | 295647            | 1       |
| Bombstus/ Phoenix      | Anionic hydrophilic cream DAB   | 19003986          | 1       |
| Bombstus/ Phoenix      | Hydrophilic cream, non-ionic... | 19005190          | 1       |
| Bombstus/ Phoenix      | Hydrophilic cream, non-ionic... | 20001009          | 1       |
| Bombstus/Gehe          | Anionic hydrophilic cream DAB   | 17001306          | 1       |
| Bombstus/Gehe          | Anionic hydrophilic cream DAB   | 17001311          | 1       |
| Bombstus/Gehe          | Anionic hydrophilic cream DAB   | 18001560          | 1       |
| Bombstus/Gehe          | Anionic hydrophilic cream DAB   | 18004839          | 1       |
| Bombstus/Gehe          | Anionic hydrophilic cream DAB   | 19000616          | 1       |
| Bombstus/Gehe          | Anionic hydrophilic cream DAB   | 311126            | 1       |
| Bombstus/San           | Base cream, hydrophobic DAC     | 162168            | 1       |
| Bombstus/San           | Hydrophilic cream, non-ionic... | 306131            | 1       |
| Bombstus/San           | Anionic hydrophilic cream DAB   | 308403            | 1       |
| Bombstus               | Hydrophilic cream, non-ionic... | 295654            | 1       |
| Bombstus               | Anionic hydrophilic cream SR... | 300957            | 1       |
| Bombstus               | Anionic hydrophilic cream SR... | 311055            | 1       |
| Bomstastus/Kehr        | Base cream, hydrophobic DAC     | 2001676           | 1       |
| cae                    | Anionic hydrophilic cream SR... | 14182101          | 1       |
| Caeanlo                | Anionic hydrophilic cream wi... | 16067601          | 1       |
| Caeanlo                | Anionic hydrophilic cream SR... | 16215501          | 2       |
| Caello / Gehe          | Anionic hydrophilic cream wi... | 18180901          | 1       |
| Caello / Gehe          | Anionic hydrophilic cream DAB   | 18298901          | 1       |
| Cael / GEHE            | Anionic hydrophilic cream wi... | 20000193002       | 1       |
| Cael/Sanacorp          | Base cream, hydrophobic DAC     | 15421302          | 1       |
| cael                   | Anionic hydrophilic cream wi... | 17262201          | 1       |

continued on the next page



continued from previous page

| Supplier        | Substance                       | Batch              | Spectra |
|-----------------|---------------------------------|--------------------|---------|
| Caela/ L2       | Anionic hydrophilic cream DAB   | 16249902           | 1       |
| Caele           | Anionic hydrophilic cream DAB   | 9002601            | 1       |
| Caeleo/ Krieger | Anionic hydrophilic cream SR... | 19240002           | 1       |
| Caelo           | Base cream, hydrophobic DAC     |                    | 41      |
| Caelo           | Anionic hydrophilic cream DAB   | 10000311001        | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 1000291001         | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 10002950012        | 1       |
| Caelo           | Anionic hydrophilic cream wi... | 10006820012        | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 10009200012        | 1       |
| Caelo           | Anionic hydrophilic cream SR... | 1001436002         | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 10019470012        | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 10022015F          | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 10032015B          | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 1004302            | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 10071706           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 10092013A          | 1       |
| Caelo           | Anionic hydrophilic cream SR... | 10102865           | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 1018A-03497        | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 1018E-03327        | 2       |
| Caelo           | Anionic hydrophilic cream DAB   | 104/AKD2           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 106057201          | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 106102017/17142701 | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 1061302            | 1       |
| Caelo           | Wolff® base half-fat cream      | 10680              | 2       |
| Caelo           | Anionic hydrophilic cream SR... | 1070717/17101501   | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 108/AKD16          | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 109071801          | 1       |
| Caelo           | Hydrophilic cream, non-ionic... | 10A140414          | 1       |
| Caelo           | Hydrophilic cream, non-ionic... | 10A240418          | 1       |
| Caelo           | Hydrophilic cream, non-ionic... | 10B280317          | 1       |
| Caelo           | Anionic hydrophilic cream SR... | 1101212540         | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 11038802           | 2       |
| Caelo           | Anionic hydrophilic cream SR... | 1109212540         | 1       |
| Caelo           | Anionic hydrophilic cream SR... | 11101301           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11120201           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 1114U2540          | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 11153902           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11170717           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11180201           | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 1118Q-03497        | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 1119162101         | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 1119387            | 3       |
| Caelo           | Anionic hydrophilic cream DAB   | 1119683            | 3       |
| Caelo           | Anionic hydrophilic cream DAB   | 1119720            | 1       |
| Caelo           | Anionic hydrophilic cream wi... | 1120617/17102101   | 1       |
| Caelo           | Anionic hydrophilic cream wi... | 112210016          | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 112212540          | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 11222002           | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 11222003           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11229001           | 2       |
| Caelo           | Anionic hydrophilic cream DAB   | 11253201           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11253501           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11258201           | 1       |
| Caelo           | Base cream, hydrophobic DAC     | 11289204           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11311101           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11311501           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11321101           | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11326701           | 3       |
| Caelo           | Anionic hydrophilic cream DAB   | 113313001          | 1       |
| Caelo           | Anionic hydrophilic cream DAB   | 11331501           | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 11331601         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 11332001         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 11332101         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 11332401         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 11332501         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 113401301        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 11341301         | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 11341402         | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 1180216          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 11A010414        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 11A250418        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1200717/17084201 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12010201         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12010501         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12010601         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12010801         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12010901         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12011302         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12012201         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12025002         | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 12025003         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12064047         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12064703         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12064704         | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 12064705         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 12081301         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12081405         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12083702         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12083802         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12084101         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12098801         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12099001         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12099101         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12099201         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12099301         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12100101         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12100201         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12100401         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12100501         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12100601         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 12100701         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12100901         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 12101201         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1211116          | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 1212601          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12128502         | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 1213M-07009      | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12151601         | 9       |
| Caelo    | Base cream, hydrophobic DAC     | 12151602         | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 1215601          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1218501          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12187701         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12187801         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12187901         | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 12188001         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12188101         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12195201         | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 12195301         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12195401         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12195501         | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 12195601    | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 1219A-02540 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1219Q-03497 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12204301    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12204501    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12204601    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 12216501    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12217603    | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 12217801    | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 12217901    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218001    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218201    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218301    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218401    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218501    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218601    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218701    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12218801    | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 12221002    | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 12221003    | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 1222102     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12229302    | 7       |
| Caelo    | Base cream, hydrophobic DAC     | 12229304    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12245401    | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12245501    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12245503    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12245601    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12245701    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12245801    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12264401    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12264501    | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 12264502    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12264601    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12264701    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12264801    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12264901    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265001    | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265101    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265201    | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265301    | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265401    | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265501    | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265601    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265701    | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265801    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12265901    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12266101    | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 12266201    | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 1227-11-629 | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 12283001    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 12301301    | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 12301302    | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 12308102    | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 12308103    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12308201    | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 123082011   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 12308202    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 12313202    | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 12313301    | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 12313501    | 6       |

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| Supplier | Substance                         | Batch      | Spectra |
|----------|-----------------------------------|------------|---------|
| Caelo    | Anionic hydrophilic cream DAB     | 12313601   | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 12313701   | 8       |
| Caelo    | Anionic hydrophilic cream DAB     | 12313901   | 9       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 1231401    | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314101   | 9       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314201   | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314301   | 6       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314401   | 10      |
| Caelo    | Anionic hydrophilic cream DAB     | 12314404   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314501   | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314601   | 8       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314701   | 9       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314801   | 6       |
| Caelo    | Anionic hydrophilic cream DAB     | 12314901   | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 12316001   | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 1233       | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 1234       | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 1234301    | 1       |
| Caelo    | Anionic hydrophilic cream wi. ... | 12344401   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 12345      | 2       |
| Caelo    | Anionic hydrophilic cream DAB     | 123456     | 2       |
| Caelo    | Anionic hydrophilic cream DAB     | 1234569    | 1       |
| Caelo    | Hydrophilic cream, non-ionic. ... | 123456test | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 1234test   | 1       |
| Caelo    | Anionic hydrophilic cream wi. ... | 12352701   | 5       |
| Caelo    | Anionic hydrophilic cream wi. ... | 12352702   | 4       |
| Caelo    | Anionic hydrophilic cream wi. ... | 12352703   | 2       |
| Caelo    | Base cream, hydrophobic DAC       | 123588     | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 123test    | 3       |
| Caelo    | Anionic hydrophilic cream wi. ... | 1247001    | 1       |
| Caelo    | Anionic hydrophilic cream wi. ... | 1249001    | 2       |
| Caelo    | Anionic hydrophilic cream DAB     | 1259487    | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 1260216    | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 1270417    | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 127209110  | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 12886      | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 1290318    | 1       |
| Caelo    | Anionic hydrophilic cream SR. ... | 1290916    | 1       |
| Caelo    | Anionic hydrophilic cream SR. ... | 1291015    | 1       |
| Caelo    | Hydrophilic cream, non-ionic. ... | 129711-499 | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 13012015A  | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 13019302   | 6       |
| Caelo    | Base cream, hydrophobic DAC       | 13019303   | 14      |
| Caelo    | Base cream, hydrophobic DAC       | 13019304   | 3       |
| Caelo    | Anionic hydrophilic cream DAB     | 1303312540 | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 13035901   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 13035902   | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 13036001   | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 13036301   | 6       |
| Caelo    | Anionic hydrophilic cream DAB     | 13036302   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 13038301   | 5       |
| Caelo    | Anionic hydrophilic cream wi. ... | 13067601   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 13068504   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 13070301   | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 13070401   | 2       |
| Caelo    | Anionic hydrophilic cream DAB     | 13070502   | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 13070601   | 6       |
| Caelo    | Anionic hydrophilic cream SR. ... | 13071202   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 13071304   | 1       |

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continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Anionic hydrophilic cream wi... | 13072301            | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 13072302            | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 13072303            | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 130723301           | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 13072401            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13072501            | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 13072602            | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 13085504            | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 13085601            | 13      |
| Caelo    | Base cream, hydrophobic DAC     | 13085602            | 7       |
| Caelo    | Base cream, hydrophobic DAC     | 13085701            | 21      |
| Caelo    | Base cream, hydrophobic DAC     | 13085702            | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 13086701            | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1309302             | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 13101803            | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 1310212540          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 131168901           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13121718            | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 13125901            | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 13125902            | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 13125903            | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 13127502            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13128601            | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13128701            | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 1313314401          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13154101            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13154201            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13154202            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13154301            | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13154401            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1315Q-02540         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13164901            | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 13165001            | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 13165101            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13165601            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13165701            | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 13165801            | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13165901            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13166001            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13167401            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13167501            | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 13167501-3423310192 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13167501-3439311151 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13167601            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13167701            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13167801            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13167901            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168001            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168101            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168201            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168301            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168401            | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168501            | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168601            | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 13168701            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168801            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13168901            | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13169001            | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 13169101            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13169201            | 5       |

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| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 13169301            | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 13172201            | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 13172202            | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 13172203            | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 13175901            | 15      |
| Caelo    | Base cream, hydrophobic DAC     | 13175902            | 8       |
| Caelo    | Base cream, hydrophobic DAC     | 13176002            | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 13176003            | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 1324401             | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 1324402             | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 13244201            | 9       |
| Caelo    | Anionic hydrophilic cream wi... | 13244301            | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 13244302            | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 13244401            | 14      |
| Caelo    | Anionic hydrophilic cream wi... | 13244401-3471312131 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13244402            | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 13265301            | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 13265401            | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13265501            | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 13265602            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13265701            | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 13270103            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13270701            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13271001            | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 13271101            | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 13274902            | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 13275301            | 11      |
| Caelo    | Base cream, hydrophobic DAC     | 13275302            | 7       |
| Caelo    | Base cream, hydrophobic DAC     | 13275303            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13275501            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13275601            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13277401            | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 13277501            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13280001            | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 13280101            | 19      |
| Caelo    | Anionic hydrophilic cream DAB   | 13280201            | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 13280201-3452311172 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13310001            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13312801            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13312901            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313001            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313101            | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313201            | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313301            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313401            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313501            | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313601            | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313701            | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13313901            | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 13314001            | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 1331401             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1331402             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13314101            | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 13314201            | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 13314302            | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 13314401            | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 13314601            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13314701            | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13314801            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13314901            | 2       |

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continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 13315001         | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 1331501          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 133312901        | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 1334302          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 13343301         | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 13343401         | 22      |
| Caelo    | Anionic hydrophilic cream wi... | 13343402         | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 13343501         | 9       |
| Caelo    | Anionic hydrophilic cream wi... | 13344301         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13346001         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13346101         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13346201         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13346301         | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 13346401         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13346501         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13346601         | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 13346701         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1336301          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13363201         | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 13363301         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 13363401         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13363601         | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 13363701         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 13364001         | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 13364101         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 13364201         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13364301         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 13364401         | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 13386401         | 13      |
| Caelo    | Base cream, hydrophobic DAC     | 13386403         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 13409401         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 13409501         | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 13B04-T17-001037 | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 13H13-T06-006165 | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 13k15-m09        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 14000601         | 7       |
| Caelo    | Base cream, hydrophobic DAC     | 14000701         | 21      |
| Caelo    | Base cream, hydrophobic DAC     | 1400701          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14016601         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14016602         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14016701         | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 14016801         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 14016901         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14017001         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14024901         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 14028002         | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 14028101         | 23      |
| Caelo    | Base cream, hydrophobic DAC     | 14028102         | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 14030401         | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 14030501         | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 14030601         | 5       |
| Caelo    | Anionic hydrophilic cream wi... | 14030701         | 27      |
| Caelo    | Anionic hydrophilic cream wi... | 14030702         | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 14041403         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14042201         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14042401         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14042501         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 1404251          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14042601         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 14051805         | 1       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Caelo           | Base cream, hydrophobic DAC     | 1406140      | 1              |
| Caelo           | Base cream, hydrophobic DAC     | 14061402     | 5              |
| Caelo           | Base cream, hydrophobic DAC     | 14061501     | 21             |
| Caelo           | Base cream, hydrophobic DAC     | 14061601     | 7              |
| Caelo           | Anionic hydrophilic cream DAB   | 14061801     | 9              |
| Caelo           | Anionic hydrophilic cream DAB   | 14062101     | 6              |
| Caelo           | Anionic hydrophilic cream DAB   | 14062201     | 10             |
| Caelo           | Anionic hydrophilic cream DAB   | 14062301     | 9              |
| Caelo           | Anionic hydrophilic cream DAB   | 14062401     | 4              |
| Caelo           | Anionic hydrophilic cream DAB   | 14062501     | 6              |
| Caelo           | Anionic hydrophilic cream DAB   | 14062601     | 11             |
| Caelo           | Anionic hydrophilic cream DAB   | 14062701     | 2              |
| Caelo           | Anionic hydrophilic cream DAB   | 14062801     | 2              |
| Caelo           | Anionic hydrophilic cream DAB   | 14062901     | 9              |
| Caelo           | Hydrophilic cream, non-ionic... | 14063001     | 2              |
| Caelo           | Hydrophilic cream, non-ionic... | 14063003     | 1              |
| Caelo           | Anionic hydrophilic cream SR... | 14063303     | 2              |
| Caelo           | Anionic hydrophilic cream DAB   | 14068601     | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 14070801     | 1              |
| Caelo           | Base cream, hydrophobic DAC     | 140885       | 1              |
| Caelo           | Anionic hydrophilic cream wi... | 141146101    | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 14118101     | 17             |
| Caelo           | Anionic hydrophilic cream DAB   | 14118201     | 11             |
| Caelo           | Anionic hydrophilic cream DAB   | 14118301     | 5              |
| Caelo           | Anionic hydrophilic cream DAB   | 14118401     | 11             |
| Caelo           | Anionic hydrophilic cream DAB   | 14118501     | 10             |
| Caelo           | Base cream, hydrophobic DAC     | 14120903     | 3              |
| Caelo           | Anionic hydrophilic cream DAB   | 14137002     | 6              |
| Caelo           | Anionic hydrophilic cream DAB   | 14138701     | 3              |
| Caelo           | Anionic hydrophilic cream DAB   | 14138801     | 5              |
| Caelo           | Anionic hydrophilic cream DAB   | 14138901     | 7              |
| Caelo           | Anionic hydrophilic cream DAB   | 14138902     | 5              |
| Caelo           | Anionic hydrophilic cream DAB   | 14139001     | 3              |
| Caelo           | Base cream, hydrophobic DAC     | 1414301      | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 1414401      | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 14144301     | 13             |
| Caelo           | Anionic hydrophilic cream DAB   | 14144401     | 6              |
| Caelo           | Anionic hydrophilic cream DAB   | 14144501     | 5              |
| Caelo           | Anionic hydrophilic cream DAB   | 14144601     | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 14144701     | 3              |
| Caelo           | Base cream, hydrophobic DAC     | 1414501      | 2              |
| Caelo           | Base cream, hydrophobic DAC     | 14145202     | 5              |
| Caelo           | Base cream, hydrophobic DAC     | 14145301     | 23             |
| Caelo           | Base cream, hydrophobic DAC     | 14145401     | 27             |
| Caelo           | Base cream, hydrophobic DAC     | 14145402     | 1              |
| Caelo           | Anionic hydrophilic cream wi... | 14146002     | 15             |
| Caelo           | Anionic hydrophilic cream wi... | 14146003     | 6              |
| Caelo           | Anionic hydrophilic cream DAB   | 141460201    | 1              |
| Caelo           | Anionic hydrophilic cream wi... | 14146101     | 13             |
| Caelo           | Anionic hydrophilic cream DAB   | 14146201     | 5              |
| Caelo           | Anionic hydrophilic cream DAB   | 14146301     | 4              |
| Caelo           | Anionic hydrophilic cream DAB   | 14146401     | 3              |
| Caelo           | Anionic hydrophilic cream DAB   | 14146501     | 2              |
| Caelo           | Anionic hydrophilic cream DAB   | 14146601     | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 1415034401   | 1              |
| Caelo           | Anionic hydrophilic cream wi... | 1416101      | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 1416401      | 1              |
| Caelo           | Anionic hydrophilic cream DAB   | 1418101      | 2              |
| Caelo           | Anionic hydrophilic cream SR... | 14182101     | 2              |
| Caelo           | Anionic hydrophilic cream SR... | 14182104     | 1              |

*continued on the next page*



continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 14185201  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 14185301  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 14185401  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14185501  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 14185601  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 14185701  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14185702  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14185801  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14185901  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 14186001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1418601   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14186101  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14186501  | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 14186601  | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 14186702  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 14186801  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 142/AKD51 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 14207002  | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 14214001  | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 14214101  | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 14214201  | 36      |
| Caelo    | Anionic hydrophilic cream wi... | 14214202  | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 14214301  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 142144301 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 142154    | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 14215701  | 9       |
| Caelo    | Hydrophilic cream, non-ionic... | 14221101  | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 14221102  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1423201   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14232801  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14232901  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14233001  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 1423301   | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14233101  | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 14233201  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 14233202  | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 14233301  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 14233401  | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 14233501  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 14233601  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 1423901   | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 14244701  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 14255401  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14263901  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 14264001  | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 14264101  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14264201  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 14264301  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14264302  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14267401  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 14277401  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14285501  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 14285601  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 14285701  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14285801  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14285902  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14286001  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 14286101  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 14286201  | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 14294201  | 18      |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 14294301         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 14294501         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14294601         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14294701         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14294801         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14294902         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14295001         | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 14295101         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 14295201         | 6       |
| Caelo    | Anionic hydrophilic cream SR... | 14301501         | 5       |
| Caelo    | Hydrophilic cream, non-ionic... | 14304902         | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 14334201         | 14      |
| Caelo    | Anionic hydrophilic cream wi... | 14334301         | 25      |
| Caelo    | Anionic hydrophilic cream wi... | 14334501         | 19      |
| Caelo    | Anionic hydrophilic cream wi... | 14334502         | 7       |
| Caelo    | Base cream, hydrophobic DAC     | 14335501         | 13      |
| Caelo    | Base cream, hydrophobic DAC     | 14335502         | 14      |
| Caelo    | Base cream, hydrophobic DAC     | 14335601         | 4       |
| Caelo    | Hydrophilic cream, non-ionic... | 14336001         | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 14336201         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 14336203         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 14341501         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14341601         | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 14341701         | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 14341801         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14341901         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342001         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342002         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342101         | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342201         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342301         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342501         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342601         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342701         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 14342801         | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 14342901         | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 1434301          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1435501          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14366301         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 14366801         | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 14366802         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 14367001         | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 14367401         | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 14374801         | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 14379902         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 1485401          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 14925101         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 14L18-T21-018124 | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 15/13-T01-026887 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 15001001         | 11      |
| Caelo    | Base cream, hydrophobic DAC     | 15001002         | 12      |
| Caelo    | Base cream, hydrophobic DAC     | 15001003         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 15001101         | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 15001201         | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 15001301         | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 15001401         | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 1500141          | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15011301         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 15011413         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 15014801         | 4       |

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continued from previous page

| Supplier | Substance                         | Batch     | Spectra |
|----------|-----------------------------------|-----------|---------|
| Caelo    | Anionic hydrophilic cream SR. ... | 15014804  | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 15026901  | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 15027001  | 31      |
| Caelo    | Anionic hydrophilic cream DAB     | 15027002  | 2       |
| Caelo    | Anionic hydrophilic cream DAB     | 15027101  | 6       |
| Caelo    | Anionic hydrophilic cream DAB     | 15027201  | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 15027301  | 3       |
| Caelo    | Base cream, hydrophobic DAC       | 15030702  | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 15034201  | 10      |
| Caelo    | Anionic hydrophilic cream DAB     | 15034301  | 9       |
| Caelo    | Anionic hydrophilic cream DAB     | 15034401  | 8       |
| Caelo    | Anionic hydrophilic cream DAB     | 15034501  | 2       |
| Caelo    | Anionic hydrophilic cream DAB     | 15034601  | 4       |
| Caelo    | Hydrophilic cream, non-ionic. ... | 15037703  | 8       |
| Caelo    | Anionic hydrophilic cream DAB     | 15039001  | 10      |
| Caelo    | Base cream, hydrophobic DAC       | 150405    | 2       |
| Caelo    | Transdermal base cream            | 1504065   | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 15044702  | 6       |
| Caelo    | Anionic hydrophilic cream wi. ... | 15045301  | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 15046401  | 12      |
| Caelo    | Base cream, hydrophobic DAC       | 15046402  | 6       |
| Caelo    | Anionic hydrophilic cream wi. ... | 15048301  | 16      |
| Caelo    | Anionic hydrophilic cream wi. ... | 15048401  | 6       |
| Caelo    | Anionic hydrophilic cream wi. ... | 15048501  | 18      |
| Caelo    | Anionic hydrophilic cream wi. ... | 15048502  | 12      |
| Caelo    | Base cream, hydrophobic DAC       | 15048701  | 14      |
| Caelo    | Base cream, hydrophobic DAC       | 15048702  | 3       |
| Caelo    | Anionic hydrophilic cream SR. ... | 15069403  | 1       |
| Caelo    | Anionic hydrophilic cream SR. ... | 15069404  | 1       |
| Caelo    | Anionic hydrophilic cream SR. ... | 15069501  | 3       |
| Caelo    | Anionic hydrophilic cream wi. ... | 15071702  | 1       |
| Caelo    | Anionic hydrophilic cream SR. ... | 15111306  | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 15111401  | 6       |
| Caelo    | Base cream, hydrophobic DAC       | 15111402  | 16      |
| Caelo    | Base cream, hydrophobic DAC       | 15111403  | 4       |
| Caelo    | Wolff® base half-fat cream        | 15121805  | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 151259    | 3       |
| Caelo    | Anionic hydrophilic cream wi. ... | 1512901   | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 15132502  | 6       |
| Caelo    | Base cream, hydrophobic DAC       | 15132503  | 3       |
| Caelo    | Anionic hydrophilic cream wi. ... | 15132701  | 5       |
| Caelo    | Anionic hydrophilic cream wi. ... | 15132801  | 11      |
| Caelo    | Anionic hydrophilic cream wi. ... | 15132901  | 4       |
| Caelo    | Anionic hydrophilic cream wi. ... | 15132902  | 15      |
| Caelo    | Anionic hydrophilic cream wi. ... | 15133001  | 20      |
| Caelo    | Anionic hydrophilic cream wi. ... | 1513301   | 3       |
| Caelo    | Anionic hydrophilic cream SR. ... | 15134602  | 3       |
| Caelo    | Base cream, hydrophobic DAC       | 1513502   | 1       |
| Caelo    | Hydrophilic cream, non-ionic. ... | 15155904  | 5       |
| Caelo    | Anionic hydrophilic cream SR. ... | 15172901  | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 15199801  | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 15199901  | 6       |
| Caelo    | Anionic hydrophilic cream DAB     | 15200001  | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 152000201 | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 15200101  | 8       |
| Caelo    | Anionic hydrophilic cream DAB     | 15200201  | 7       |
| Caelo    | Anionic hydrophilic cream DAB     | 15200202  | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 15200301  | 9       |
| Caelo    | Anionic hydrophilic cream DAB     | 15200401  | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 15200501  | 5       |

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continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 15200601  | 5       |
| Caelo    | Anionic hydrophilic cream SR... | 15205501  | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 15205502  | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 15210303  | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 152209    | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 15221202  | 24      |
| Caelo    | Base cream, hydrophobic DAC     | 15221301  | 27      |
| Caelo    | Base cream, hydrophobic DAC     | 15221401  | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 1522301   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 15240801  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15250201  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15258901  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15259001  | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 15259101  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 15259301  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15266901  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15267001  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15267101  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15267201  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 15267301  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 15267401  | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 15267601  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 15267701  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15267801  | 10      |
| Caelo    | Anionic hydrophilic cream SR... | 15268001  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 15268002  | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 15272901  | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 15272902  | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 15273001  | 32      |
| Caelo    | Anionic hydrophilic cream wi... | 1527301   | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 15273101  | 17      |
| Caelo    | Anionic hydrophilic cream wi... | 15273201  | 17      |
| Caelo    | Anionic hydrophilic cream wi... | 15273301  | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 15315501  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15315601  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15315701  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 15315801  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 15315901  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 15319101  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15319201  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 15319301  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 15319501  | 10      |
| Caelo    | Hydrophilic cream, non-ionic... | 15325702  | 6       |
| Caelo    | Hydrophilic cream, non-ionic... | 15325801  | 14      |
| Caelo    | Hydrophilic cream, non-ionic... | 15325802  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 15329501  | 12      |
| Caelo    | Anionic hydrophilic cream SR... | 15329601  | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 1535101   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15352901  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 15353101  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 15353201  | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 153532010 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 153552901 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15357101  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15357201  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 15357301  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15357401  | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 15357501  | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 153627    | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 15365601  | 5       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Anionic hydrophilic cream SR... | 15386502     | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 15386503     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 15386602     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 15396801     | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 15396901     | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 15397101     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15397201     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15397301     | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 15400401     | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 15400501     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15400601     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15400701     | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 154009       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15400901     | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401001     | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401101     | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401201     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401301     | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401302     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401401     | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 15401501     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401601     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15401701     | 9       |
| Caelo    | Anionic hydrophilic cream wi... | 15405201     | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 1540521      | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 15405301     | 12      |
| Caelo    | Anionic hydrophilic cream wi... | 15405302     | 9       |
| Caelo    | Anionic hydrophilic cream wi... | 15405401     | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 1541702      | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 15421201     | 36      |
| Caelo    | Base cream, hydrophobic DAC     | 15421302     | 14      |
| Caelo    | Base cream, hydrophobic DAC     | 15421303     | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 15421401     | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 1542801      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 15428102     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 15428201     | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 15428301     | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 15428401     | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 15428501     | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 15431701     | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 15431702     | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 15431801     | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 15431901     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 15432001     | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 15432101     | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 1545401      | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 1548301      | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 1580755      | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 1586503      | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 15A200416    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 16(18173902) | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 160107502    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 160130       | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 1601312540   | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 160136       | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 16017501     | 8       |
| Caelo    | Anionic hydrophilic cream SR... | 16019601     | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 16019801     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 160312A      | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 1603212540   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 16046201           | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 16046301           | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 16046501           | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 16046601           | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 16046701           | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 16046801           | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16046901           | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 160470001          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16047001           | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 16047101           | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 16047301           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 16054101           | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 16057201           | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 16057301           | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 16057401           | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 16057501           | 11      |
| Caelo    | Base cream, hydrophobic DAC     | 160575101          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16057601           | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 16057701           | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 16057801           | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16057901           | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16058001           | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 16058101           | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 16067301           | 5       |
| Caelo    | Anionic hydrophilic cream wi... | 16067401           | 12      |
| Caelo    | Anionic hydrophilic cream wi... | 16067501           | 15      |
| Caelo    | Anionic hydrophilic cream wi... | 16067601           | 50      |
| Caelo    | Anionic hydrophilic cream wi... | 16067701           | 17      |
| Caelo    | Anionic hydrophilic cream wi... | 16067801           | 9       |
| Caelo    | Anionic hydrophilic cream wi... | 16067901           | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 16071506           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 16074801           | 15      |
| Caelo    | Base cream, hydrophobic DAC     | 16074802           | 25      |
| Caelo    | Base cream, hydrophobic DAC     | 16074803           | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 16074901           | 25      |
| Caelo    | Base cream, hydrophobic DAC     | 16075003           | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 16075101           | 11      |
| Caelo    | Base cream, hydrophobic DAC     | 16075201           | 12      |
| Caelo    | Base cream, hydrophobic DAC     | 160826             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 160914UEA          | 1       |
| Caelo    | Transdermal base cream          | 1609813            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16103101           | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 16103201           | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 16103301           | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 16103401           | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 1610341            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16103501           | 5       |
| Caelo    | Anionic hydrophilic cream SR... | 16107501           | 17      |
| Caelo    | Anionic hydrophilic cream SR... | 16107502           | 13      |
| Caelo    | Anionic hydrophilic cream SR... | 16107503           | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 161101UEA/16156401 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16114102           | 9       |
| Caelo    | Hydrophilic cream, non-ionic... | 16114201           | 13      |
| Caelo    | Anionic hydrophilic cream SR... | 16126701           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 161431             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16150601           | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16150701           | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 16150702           | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 16150703           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 16150801           | 19      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 16150901  | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 16151002  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16152501  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 16152701  | 18      |
| Caelo    | Anionic hydrophilic cream DAB   | 16152801  | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 16152901  | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 1615403   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1615500   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1615501   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16156001  | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 16156101  | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 16156201  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16156301  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 1615640   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16156401  | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 16158501  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16158601  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 16158701  | 25      |
| Caelo    | Anionic hydrophilic cream DAB   | 16158802  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 16158803  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 16158901  | 20      |
| Caelo    | Base cream, hydrophobic DAC     | 16165403  | 30      |
| Caelo    | Base cream, hydrophobic DAC     | 16165501  | 57      |
| Caelo    | Base cream, hydrophobic DAC     | 16165502  | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 16165701  | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 16169401  | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 16169501  | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 16174201  | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 16179302  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16179601  | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 16179702  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 16179801  | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 16179901  | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 16180001  | 18      |
| Caelo    | Anionic hydrophilic cream DAB   | 16180101  | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 16188903  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 16191501  | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 16191601  | 50      |
| Caelo    | Anionic hydrophilic cream wi... | 16191701  | 15      |
| Caelo    | Anionic hydrophilic cream wi... | 16191801  | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 16191901  | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 16200201  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 162115501 | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 16215501  | 12      |
| Caelo    | Anionic hydrophilic cream SR... | 16215601  | 9       |
| Caelo    | Anionic hydrophilic cream SR... | 16215701  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 162168    | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 162170    | 3       |
| Caelo    | Hydrophilic cream, non-ionic... | 1622001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16220201  | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 16222001  | 16      |
| Caelo    | Hydrophilic cream, non-ionic... | 16222102  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 162259601 | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 16231701  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 16245001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1624701   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16249901  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 16249902  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 162500001 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16250001  | 41      |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 16250102             | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16250201             | 16      |
| Caelo    | Hydrophilic cream, non-ionic... | 16257902             | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 16258601             | 10      |
| Caelo    | Anionic hydrophilic cream SR... | 16258701             | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 16258901             | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 16259001             | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 1625901              | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16259101             | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 16259201             | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 16259301             | 28      |
| Caelo    | Anionic hydrophilic cream DAB   | 16259301-20170704Ma2 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16259302             | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 16259401             | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 16259601             | 13      |
| Caelo    | Anionic hydrophilic cream wi... | 1625961              | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16259701             | 19      |
| Caelo    | Anionic hydrophilic cream DAB   | 16259801             | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 16259901             | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 16259901/1200117     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1625991              | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16260001             | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 16264301             | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 16264401             | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 1626441              | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16264501             | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 16264601             | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 16264701             | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 16265401             | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 16289402             | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 16290101             | 12      |
| Caelo    | Anionic hydrophilic cream wi... | 16290201             | 10      |
| Caelo    | Hydrophilic cream, non-ionic... | 16290301             | 40      |
| Caelo    | Anionic hydrophilic cream wi... | 16290302             | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 16290401             | 16      |
| Caelo    | Anionic hydrophilic cream wi... | 16290501             | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 1629051              | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 162906301            | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 16293601             | 7       |
| Caelo    | Base cream, hydrophobic DAC     | 16293701             | 45      |
| Caelo    | Base cream, hydrophobic DAC     | 16293701/1020317     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 16293901             | 27      |
| Caelo    | Base cream, hydrophobic DAC     | 16293902             | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 163170001            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16317001             | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 16317201             | 7       |
| Caelo    | Hydrophilic cream, non-ionic... | 163210701            | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 163214701            | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 16321701             | 23      |
| Caelo    | Anionic hydrophilic cream DAB   | 16322401             | 25      |
| Caelo    | Anionic hydrophilic cream DAB   | 16322402             | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 16322501             | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 16322601             | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 16322701             | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 16322801             | 30      |
| Caelo    | Anionic hydrophilic cream DAB   | 163228801            | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 163237               | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1632401              | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16328001             | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 16328101             | 16      |

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continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 16328201           | 18      |
| Caelo    | Anionic hydrophilic cream DAB   | 16328301           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16328401           | 19      |
| Caelo    | Base cream, hydrophobic DAC     | 16330201           | 20      |
| Caelo    | Base cream, hydrophobic DAC     | 16330203           | 15      |
| Caelo    | Base cream, hydrophobic DAC     | 16330301           | 26      |
| Caelo    | Base cream, hydrophobic DAC     | 16330302           | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 16332001           | 12      |
| Caelo    | Anionic hydrophilic cream SR... | 16332101           | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 163322601          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 16359901           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 165057801          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1659801            | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 16654403           | 1       |
| Caelo    | Base cream, diluted             | 1670002            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1679601            | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 169222102          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 16E03-T02-032868   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17(19058401)       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17000162           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17000164           | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 17000166           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17000489           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17000745           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17000749           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17000750           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 170008             | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 170009             | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 170010             | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17001093           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17001096           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17001310           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17001312           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 17001315           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17001705           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17001707           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17002159           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17002160           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 1700701            | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 1700750            | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17008901           | 11      |
| Caelo    | Hydrophilic cream, non-ionic... | 17009601           | 11      |
| Caelo    | Hydrophilic cream, non-ionic... | 17009701           | 10      |
| Caelo    | Hydrophilic cream, non-ionic... | 1700971            | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 170211701          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17029901           | 34      |
| Caelo    | Anionic hydrophilic cream wi... | 170299015309       | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17029902           | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 17030001           | 18      |
| Caelo    | Anionic hydrophilic cream wi... | 17030101           | 24      |
| Caelo    | Anionic hydrophilic cream wi... | 17030202           | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 17030301           | 56      |
| Caelo    | Anionic hydrophilic cream wi... | 1703031            | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17030310           | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 170318182          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 170411AHC/16264501 | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17041701           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17041901           | 6       |
| Caelo    | Anionic hydrophilic cream SR... | 170419015272       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17041902           | 10      |

continued on the next page

continued from previous page

| Supplier | Substance                         | Batch                | Spectra |
|----------|-----------------------------------|----------------------|---------|
| Caelo    | Hydrophilic cream, non-ionic. . . | 170427NHCSR          | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17045101             | 10      |
| Caelo    | Anionic hydrophilic cream DAB     | 17045201             | 14      |
| Caelo    | Anionic hydrophilic cream DAB     | 17045301             | 22      |
| Caelo    | Anionic hydrophilic cream DAB     | 17045301/5268        | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 170453015285         | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17045401             | 22      |
| Caelo    | Anionic hydrophilic cream DAB     | 17045501             | 18      |
| Caelo    | Anionic hydrophilic cream DAB     | 170503AHC/16264501   | 1       |
| Caelo    | Anionic hydrophilic cream wi. . . | 170612187            | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 170612UEA/16264501   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17061703             | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 170729182            | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 17073103             | 4       |
| Caelo    | Base cream, hydrophobic DAC       | 17073201             | 14      |
| Caelo    | Base cream, hydrophobic DAC       | 17073202             | 31      |
| Caelo    | Anionic hydrophilic cream DAB     | 170817UEA/17088801   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17083801             | 6       |
| Caelo    | Anionic hydrophilic cream DAB     | 17083802             | 12      |
| Caelo    | Anionic hydrophilic cream DAB     | 170838025326         | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17084001             | 7       |
| Caelo    | Anionic hydrophilic cream DAB     | 17084101             | 50      |
| Caelo    | Anionic hydrophilic cream DAB     | 17084201             | 14      |
| Caelo    | Anionic hydrophilic cream DAB     | 17088501             | 5       |
| Caelo    | Anionic hydrophilic cream DAB     | 17088601             | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 17088701             | 15      |
| Caelo    | Anionic hydrophilic cream DAB     | 17088801             | 19      |
| Caelo    | Anionic hydrophilic cream DAB     | 17088901             | 14      |
| Caelo    | Hydrophilic cream, non-ionic. . . | 170909701            | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 170919UEA/17143001   | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 17097709             | 1       |
| Caelo    | Transdermal base cream            | 1709950/2            | 2       |
| Caelo    | Anionic hydrophilic cream DAB     | 17101501             | 16      |
| Caelo    | Hydrophilic cream, non-ionic. . . | 171015015313         | 1       |
| Caelo    | Anionic hydrophilic cream SR. . . | 171015015466         | 1       |
| Caelo    | Anionic hydrophilic cream SR. . . | 17101502             | 17      |
| Caelo    | Anionic hydrophilic cream SR. . . | 17101504             | 1       |
| Caelo    | Anionic hydrophilic cream wi. . . | 17102001             | 6       |
| Caelo    | Anionic hydrophilic cream wi. . . | 17102101             | 9       |
| Caelo    | Anionic hydrophilic cream wi. . . | 17102201             | 23      |
| Caelo    | Anionic hydrophilic cream wi. . . | 17102301             | 20      |
| Caelo    | Anionic hydrophilic cream wi. . . | 17102401             | 18      |
| Caelo    | Anionic hydrophilic cream DAB     | 171107UEA/17143001   | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 171117HB/17150401    | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17112014B            | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 171126               | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 171127               | 2       |
| Caelo    | Base cream, hydrophobic DAC       | 171128               | 2       |
| Caelo    | Base cream, hydrophobic DAC       | 17112903             | 10      |
| Caelo    | Base cream, hydrophobic DAC       | 17113001             | 2       |
| Caelo    | Hydrophilic cream, non-ionic. . . | 17113403             | 14      |
| Caelo    | Anionic hydrophilic cream DAB     | 171200901            | 1       |
| Caelo    | Base cream, hydrophobic DAC       | 171219HB/17150401    | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 171229UEA/17123001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17125802             | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 17141901             | 52      |
| Caelo    | Anionic hydrophilic cream DAB     | 17141901-20180112Ma5 | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 171419901            | 1       |
| Caelo    | Anionic hydrophilic cream DAB     | 17142002             | 4       |
| Caelo    | Anionic hydrophilic cream DAB     | 171420101            | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 17142101             | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 17142102             | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 17142201             | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 17142301             | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 17142401             | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 17142501             | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 17142601             | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 171426015334         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 171426015363         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17142701             | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 17142801             | 23      |
| Caelo    | Anionic hydrophilic cream DAB   | 171428015414         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17142901             | 23      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143001             | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143101             | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143201             | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143301             | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143301/1271117     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17143401             | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 17143501             | 24      |
| Caelo    | Anionic hydrophilic cream DAB   | 171435021            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17143510             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17143601             | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143701             | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143801             | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 17143802             | 32      |
| Caelo    | Anionic hydrophilic cream DAB   | 17143802/2220917     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17144001             | 10      |
| Caelo    | Hydrophilic cream, non-ionic... | 17144003             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 171443501            | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1715001              | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17150401             | 32      |
| Caelo    | Base cream, hydrophobic DAC     | 17150401/2041217     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17150402             | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 1715050              | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17150501             | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 17153001             | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17153802             | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17156501             | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 17156601             | 15      |
| Caelo    | Anionic hydrophilic cream wi... | 17156602             | 12      |
| Caelo    | Hydrophilic cream, non-ionic... | 17168500             | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17168502             | 10      |
| Caelo    | Wolff® base half-fat cream      | 17169002             | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17169301             | 13      |
| Caelo    | Hydrophilic cream, non-ionic... | 17175201             | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 171815               | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 171816               | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17183901             | 12      |
| Caelo    | Anionic hydrophilic cream SR... | 17184201             | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 17185401             | 14      |
| Caelo    | Base cream, hydrophobic DAC     | 17192002             | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 17196713             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1720001              | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 172001801            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 172003703            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 172007001            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17200701             | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 17200701-20180404Ma7 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17200702             | 1       |

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| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 17200703      | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 17200709      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17200801      | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 17200901      | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 17201001      | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 17201101      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17201102      | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 17201201      | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 17201301      | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 17201401      | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 17201501      | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 172015015495  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17201601      | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 172016015530  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17201701      | 27      |
| Caelo    | Anionic hydrophilic cream DAB   | 17201701/5578 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17201801      | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 17201901      | 24      |
| Caelo    | Anionic hydrophilic cream DAB   | 17201909      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17202001      | 26      |
| Caelo    | Anionic hydrophilic cream DAB   | 17202101      | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 17202301      | 19      |
| Caelo    | Anionic hydrophilic cream DAB   | 172031301     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17208001      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1720801       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17211701      | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 17211702      | 11      |
| Caelo    | Hydrophilic cream, non-ionic... | 17212601      | 10      |
| Caelo    | Hydrophilic cream, non-ionic... | 17212602      | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 1721401       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17218102      | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 172194        | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 172195        | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 17223103      | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17232101      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1724601       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1724801       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17248401      | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 17248501      | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 17248601      | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 17248701      | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 17248801      | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17255201      | 27      |
| Caelo    | Base cream, hydrophobic DAC     | 172552010     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17255202      | 16      |
| Caelo    | Base cream, hydrophobic DAC     | 172552201     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17255301      | 39      |
| Caelo    | Base cream, hydrophobic DAC     | 17255302      | 8       |
| Caelo    | Base cream, hydrophobic DAC     | 17255402      | 8       |
| Caelo    | Anionic hydrophilic cream SR... | 17256901      | 18      |
| Caelo    | Hydrophilic cream, non-ionic... | 17261001      | 11      |
| Caelo    | Hydrophilic cream, non-ionic... | 17261002      | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 17261901      | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 17262001      | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 17262002      | 12      |
| Caelo    | Anionic hydrophilic cream wi... | 17262101      | 58      |
| Caelo    | Anionic hydrophilic cream wi... | 17262102      | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 17262201      | 19      |
| Caelo    | Anionic hydrophilic cream wi... | 172622101     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17269601      | 11      |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 17269701         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 17269801         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 17269901         | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 17270001         | 70      |
| Caelo    | Anionic hydrophilic cream DAB   | 1727001          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17270102         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 17270301         | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 17270302         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 17270401         | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 17270501         | 25      |
| Caelo    | Hydrophilic cream, non-ionic... | 17294002         | 7       |
| Caelo    | Hydrophilic cream, non-ionic... | 17294003         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17294101         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17294401         | 7       |
| Caelo    | Anionic hydrophilic cream SR... | 172944015562     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17294402         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17294501         | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 17298801         | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 17298802         | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 17298901         | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 17299101         | 23      |
| Caelo    | Anionic hydrophilic cream DAB   | 172991015608     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17299201         | 33      |
| Caelo    | Anionic hydrophilic cream DAB   | 17299301         | 25      |
| Caelo    | Anionic hydrophilic cream DAB   | 172993015638     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17299401         | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 17299501         | 29      |
| Caelo    | Anionic hydrophilic cream DAB   | 17299601         | 35      |
| Caelo    | Anionic hydrophilic cream DAB   | 17299701         | 35      |
| Caelo    | Anionic hydrophilic cream DAB   | 17299801         | 29      |
| Caelo    | Anionic hydrophilic cream DAB   | 172999101        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 17313902         | 4       |
| Caelo    | Hydrophilic cream, non-ionic... | 17313903         | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 17319502         | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 17319503         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 17330401         | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 173335401        | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17335301         | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 17335401         | 34      |
| Caelo    | Anionic hydrophilic cream wi... | 17335402         | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 17335501         | 23      |
| Caelo    | Anionic hydrophilic cream wi... | 17335601         | 16      |
| Caelo    | Anionic hydrophilic cream wi... | 17335701         | 28      |
| Caelo    | Anionic hydrophilic cream wi... | 1733601          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17339401         | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17355701         | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 17362201         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1742701          | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 1744001          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 1756501          | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 1794002          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 17A190618        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 17C06-T08-042287 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18(19058401)     | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 18/AKD1511       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18000252         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18000257         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 18001            | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18001330         | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 18001331         | 1       |

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| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Hydrophilic cream, non-ionic... | 18001332     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18001334     | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 18001472     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18001473     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18001474     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18001475     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18001482     | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 18001483     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18001562     | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 18002002     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18002063     | 4       |
| Caelo    | Hydrophilic cream, non-ionic... | 18002064     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18002223     | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 18002226     | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 18002227     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18002356     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18002360     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18002361     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18002828     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18002830     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18002831     | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 18003588     | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 18003778     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18003781     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18003783     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18003784     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1800401      | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 18004207     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18004208     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18004212     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18004835     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18004840     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18004842     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18005158     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18005488     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18005874     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18005877     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18006018     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18006019     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18006024     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18006025     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18006283     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18007201     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010302     | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010401     | 59      |
| Caelo    | Anionic hydrophilic cream DAB   | 18010402     | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010501     | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010601     | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010701     | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010702     | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 180107020    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 180107025721 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 180107025746 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1801072      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010801     | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 180109001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18010901     | 41      |
| Caelo    | Anionic hydrophilic cream DAB   | 180110001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18011001     | 34      |
| Caelo    | Anionic hydrophilic cream DAB   | 18011011     | 1       |

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continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 18011101           | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 180111015761       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18011201           | 7       |
| Caelo    | Anionic hydrophilic cream SR... | 180167801          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 180220UEA/17200801 | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 180259502          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18029102           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 180306UEN/17313902 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 180308HB/17255301  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18031505           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18040401           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18041104           | 44      |
| Caelo    | Anionic hydrophilic cream SR... | 18041104           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18041105           | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 18041106           | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 18041401           | 42      |
| Caelo    | Anionic hydrophilic cream DAB   | 18041402           | 16      |
| Caelo    | Anionic hydrophilic cream wi... | 18041501           | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 18041502           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18041601           | 27      |
| Caelo    | Anionic hydrophilic cream DAB   | 180418MM           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18045903           | 3       |
| Caelo    | Hydrophilic cream, non-ionic... | 18050303           | 19      |
| Caelo    | Hydrophilic cream, non-ionic... | 18050304           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18050401           | 8       |
| Caelo    | Hydrophilic cream, non-ionic... | 18050501           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18051001           | 55      |
| Caelo    | Base cream, hydrophobic DAC     | 18051101           | 82      |
| Caelo    | Base cream, hydrophobic DAC     | 18051301           | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 18051401           | 13      |
| Caelo    | Base cream, hydrophobic DAC     | 180515             | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 1805401            | 2       |
| Caelo    | Transdermal base cream          | 1805581/1          | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 18061805           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18066601           | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 18066701           | 47      |
| Caelo    | Anionic hydrophilic cream DAB   | 18066703           | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 18066802           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18066803           | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 18066901           | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 18066902           | 9       |
| Caelo    | Hydrophilic cream, non-ionic... | 18067801           | 48      |
| Caelo    | Anionic hydrophilic cream SR... | 180678015614       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 180678015671       | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 180755             | 8       |
| Caelo    | Base cream, hydrophobic DAC     | 180756             | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 180860             | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 18100801           | 70      |
| Caelo    | Base cream, hydrophobic DAC     | 18100901           | 11      |
| Caelo    | Base cream, hydrophobic DAC     | 18100902           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 1810402            | 1       |
| Caelo    | Base cream, diluted             | 18106601           | 2       |
| Caelo    | Base cream, diluted             | 18106602           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18106801           | 7       |
| Caelo    | Hydrophilic cream, non-ionic... | 18106901           | 13      |
| Caelo    | Hydrophilic cream, non-ionic... | 181069015670       | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18106903           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18107001           | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 1810801            | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 18108901           | 1       |

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continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Anionic hydrophilic cream wi... | 18109601  | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 18109701  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18109702  | 18      |
| Caelo    | Anionic hydrophilic cream DAB   | 18109801  | 86      |
| Caelo    | Anionic hydrophilic cream wi... | 18109802  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18109901  | 24      |
| Caelo    | Anionic hydrophilic cream wi... | 181102184 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18111101  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18111701  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18116801  | 41      |
| Caelo    | Anionic hydrophilic cream DAB   | 18116802  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18116901  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 181169301 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18117001  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 18117101  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18117102  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 18117201  | 17      |
| Caelo    | Base cream, hydrophobic DAC     | 181194    | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 181197    | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 181198    | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 18119901  | 23      |
| Caelo    | Anionic hydrophilic cream wi... | 18120901  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18121202  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18129301  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18139001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18139401  | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 18139501  | 25      |
| Caelo    | Anionic hydrophilic cream DAB   | 18139701  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18139901  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 18140001  | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 18147501  | 30      |
| Caelo    | Anionic hydrophilic cream SR... | 18147502  | 30      |
| Caelo    | Anionic hydrophilic cream DAB   | 1814E2540 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18159901  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 18160001  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 181600010 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18160101  | 47      |
| Caelo    | Anionic hydrophilic cream DAB   | 18160201  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18160202  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 18160301  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 18160302  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 18160402  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 181669301 | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 1816801   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18168501  | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 18168601  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 18168701  | 28      |
| Caelo    | Anionic hydrophilic cream DAB   | 18168801  | 19      |
| Caelo    | Anionic hydrophilic cream DAB   | 18168901  | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 18169001  | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 18169101  | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 18169201  | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 18169301  | 19      |
| Caelo    | Anionic hydrophilic cream DAB   | 18169401  | 27      |
| Caelo    | Anionic hydrophilic cream DAB   | 18169501  | 16      |
| Caelo    | Hydrophilic cream, non-ionic... | 18172501  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18173902  | 23      |
| Caelo    | Base cream, hydrophobic DAC     | 18173903  | 57      |
| Caelo    | Base cream, hydrophobic DAC     | 18174002  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18174101  | 13      |

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continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Hydrophilic cream, non-ionic... | 18175201          | 20      |
| Caelo    | Hydrophilic cream, non-ionic... | 18175301          | 13      |
| Caelo    | Anionic hydrophilic cream SR... | 18176103          | 27      |
| Caelo    | Anionic hydrophilic cream wi... | 18180801          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18180802          | 13      |
| Caelo    | Anionic hydrophilic cream wi... | 18180901          | 35      |
| Caelo    | Anionic hydrophilic cream wi... | 18180902          | 22      |
| Caelo    | Anionic hydrophilic cream wi... | 18181001          | 24      |
| Caelo    | Anionic hydrophilic cream wi... | 18189901          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18193301          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 1819801           | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 1820802           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18210702          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18212501          | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18218001          | 18      |
| Caelo    | Hydrophilic cream, non-ionic... | 18218002          | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 18218101          | 18      |
| Caelo    | Anionic hydrophilic cream SR... | 18218102          | 18      |
| Caelo    | Anionic hydrophilic cream SR... | 18218103          | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 182220            | 1       |
| Caelo    | Base cream, diluted             | 18240802          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18242501          | 26      |
| Caelo    | Base cream, hydrophobic DAC     | 18242502          | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 18242601          | 33      |
| Caelo    | Base cream, hydrophobic DAC     | 18242601P190225-2 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18242603          | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 18242901          | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 18243001          | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 18243101          | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 18243201          | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 18243301          | 43      |
| Caelo    | Anionic hydrophilic cream DAB   | 18243401          | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 18243402          | 59      |
| Caelo    | Anionic hydrophilic cream DAB   | 1824340202        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18243501          | 31      |
| Caelo    | Anionic hydrophilic cream DAB   | 182443402         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1824501           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1824502           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1824601           | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 18248101          | 53      |
| Caelo    | Anionic hydrophilic cream wi... | 18248102          | 5       |
| Caelo    | Anionic hydrophilic cream wi... | 18248201          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 18248202          | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 18248301          | 18      |
| Caelo    | Hydrophilic cream, non-ionic... | 1825901           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 18259501          | 21      |
| Caelo    | Hydrophilic cream, non-ionic... | 18259502          | 28      |
| Caelo    | Hydrophilic cream, non-ionic... | 18259504          | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 18274102          | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 18286701          | 39      |
| Caelo    | Base cream, hydrophobic DAC     | 18286702          | 30      |
| Caelo    | Base cream, hydrophobic DAC     | 18286802          | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 18292401          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18296301          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18297301          | 26      |
| Caelo    | Anionic hydrophilic cream DAB   | 18297401          | 20      |
| Caelo    | Anionic hydrophilic cream wi... | 18297501          | 49      |
| Caelo    | Anionic hydrophilic cream wi... | 18297502          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 18297901          | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 18297902          | 46      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 18297903         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18298001         | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298101         | 27      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298201         | 24      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298301         | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298401         | 29      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298502         | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 18298601         | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298601int2205C | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18298701         | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298801         | 25      |
| Caelo    | Anionic hydrophilic cream DAB   | 18298901         | 35      |
| Caelo    | Anionic hydrophilic cream DAB   | 18299001         | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 18299101         | 24      |
| Caelo    | Anionic hydrophilic cream SR... | 18302501         | 23      |
| Caelo    | Anionic hydrophilic cream SR... | 18302503         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 183139501        | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 18320801         | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 18320802         | 24      |
| Caelo    | Anionic hydrophilic cream wi... | 18320901         | 27      |
| Caelo    | Anionic hydrophilic cream DAB   | 18330004         | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 184147501        | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 184248101        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 18469301         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 1847502          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18551001         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 1867801          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 18920801         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1897901          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 18A040516        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 18C23-T04-054141 | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 18G31-T09-058736 | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 190000532003     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 190002002        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 19000219         | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 19000220         | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 19000222         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 190003001        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 19000414001      | 21      |
| Caelo    | Base cream, hydrophobic DAC     | 190004150003     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 19000415001      | 31      |
| Caelo    | Base cream, hydrophobic DAC     | 19000415003      | 14      |
| Caelo    | Base cream, hydrophobic DAC     | 1900041503       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19000532003      | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 19000622         | 1       |
| Caelo    | Base cream, diluted             | 19000843001      | 3       |
| Caelo    | Base cream, diluted             | 19000843002      | 11      |
| Caelo    | Base cream, hydrophobic DAC     | 19001127         | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 19001128         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 19002001         | 22      |
| Caelo    | Base cream, hydrophobic DAC     | 19002002         | 34      |
| Caelo    | Base cream, hydrophobic DAC     | 19002003         | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 19002194         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 19002200         | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 19002502         | 18      |
| Caelo    | Anionic hydrophilic cream DAB   | 19002582         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19002601         | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 19002702         | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 19002703         | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 19002801         | 24      |

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continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 19002802           | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 19002901           | 31      |
| Caelo    | Anionic hydrophilic cream DAB   | 19003001           | 25      |
| Caelo    | Anionic hydrophilic cream SR... | 19003572           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 19003821           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19003988           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19003989           | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 19006525           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 190093001          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 190206             | 6       |
| Caelo    | Anionic hydrophilic cream SR... | 19021401           | 30      |
| Caelo    | Anionic hydrophilic cream SR... | 19021402           | 19      |
| Caelo    | Anionic hydrophilic cream SR... | 19021404           | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 19021812           | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 19021814           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 190240002          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 190240103          | 1       |
| Caelo    | Base cream, diluted             | 19025402           | 1       |
| Caelo    | Base cream, diluted             | 19025901           | 1       |
| Caelo    | Base cream, diluted             | 19025902           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 19026201           | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 19027401           | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 19027501           | 24      |
| Caelo    | Anionic hydrophilic cream wi... | 19027502           | 18      |
| Caelo    | Anionic hydrophilic cream wi... | 190275022          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 19027601           | 19      |
| Caelo    | Base cream, hydrophobic DAC     | 19032002           | 5       |
| Caelo    | Hydrophilic cream, non-ionic... | 190331203          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 190382703          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1905401            | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 19055601           | 25      |
| Caelo    | Hydrophilic cream, non-ionic... | 19055602           | 13      |
| Caelo    | Hydrophilic cream, non-ionic... | 19055603           | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 19058301           | 50      |
| Caelo    | Base cream, hydrophobic DAC     | 19058301P-190926-4 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 19058302           | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 19058401           | 32      |
| Caelo    | Base cream, hydrophobic DAC     | 19058402           | 12      |
| Caelo    | Base cream, hydrophobic DAC     | 19058501           | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 19061001           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 190637             | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 190640             | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 190702806          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19071501           | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 19071601           | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 19071701           | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 19071801           | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 19071903           | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 19071904           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19072001           | 62      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072002           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 19072101           | 25      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072102           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19072201           | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 19072301           | 28      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072401           | 36      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072501           | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072601           | 29      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072701           | 18      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072801           | 24      |

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continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 19072901          | 24      |
| Caelo    | Anionic hydrophilic cream DAB   | 19072907          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 19093001          | 25      |
| Caelo    | Anionic hydrophilic cream SR... | 19093002          | 5       |
| Caelo    | Anionic hydrophilic cream wi... | 19093601          | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 19093602          | 14      |
| Caelo    | Anionic hydrophilic cream wi... | 19093701          | 54      |
| Caelo    | Anionic hydrophilic cream wi... | 19093702          | 9       |
| Caelo    | Anionic hydrophilic cream wi... | 19093801          | 21      |
| Caelo    | Anionic hydrophilic cream wi... | 19093901          | 21      |
| Caelo    | Anionic hydrophilic cream wi... | 190950409         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19101301          | 1       |
| Caelo    | Base cream, diluted             | 19105602          | 3       |
| Caelo    | Base cream, diluted             | 19105701          | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 19115901          | 18      |
| Caelo    | Anionic hydrophilic cream wi... | 1912001           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 19123702          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 19123802          | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 1913Q-02540       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 1913R-02540       | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 19145601          | 31      |
| Caelo    | Base cream, hydrophobic DAC     | 19145602          | 25      |
| Caelo    | Base cream, hydrophobic DAC     | 19145602P200206-5 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 19145603          | 13      |
| Caelo    | Base cream, hydrophobic DAC     | 191458602         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 1914602           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 191489            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19161001          | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 19161002          | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 1916108           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19161101          | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 19161201          | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 19161301          | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 19161401          | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 19161501          | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 19161601          | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 19161701          | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 19161801          | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 19161901          | 37      |
| Caelo    | Anionic hydrophilic cream DAB   | 19162001          | 32      |
| Caelo    | Anionic hydrophilic cream DAB   | 19162201          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 19162301          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 19162401          | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 19162501          | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 19162601          | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 19167901          | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 19176501          | 16      |
| Caelo    | Hydrophilic cream, non-ionic... | 19176502          | 11      |
| Caelo    | Hydrophilic cream, non-ionic... | 19176504          | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 19177102          | 7       |
| Caelo    | Anionic hydrophilic cream SR... | 19177103          | 8       |
| Caelo    | Hydrophilic cream, non-ionic... | 19177104          | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 19182001          | 1       |
| Caelo    | Base cream, diluted             | 19190402          | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 19191901          | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 19192001          | 47      |
| Caelo    | Anionic hydrophilic cream wi... | 19192002          | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 19192101          | 17      |
| Caelo    | Anionic hydrophilic cream wi... | 19192201          | 30      |
| Caelo    | Anionic hydrophilic cream DAB   | 19192301          | 21      |

continued on the next page

continued from previous page

| Supplier | Substance                        | Batch              | Spectra |
|----------|----------------------------------|--------------------|---------|
| Caelo    | Anionic hydrophilic cream wi...  | 191923012x         | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 192005101          | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 192036301          | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 19204801           | 40      |
| Caelo    | Base cream, hydrophobic DAC      | 19204801P-200331-4 | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 19204802           | 13      |
| Caelo    | Base cream, hydrophobic DAC      | 19205003           | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 19205101           | 12      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206001           | 17      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206101           | 20      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206201           | 20      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206301           | 20      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206401           | 28      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206701           | 19      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206801           | 23      |
| Caelo    | Anionic hydrophilic cream DAB    | 19206901           | 6       |
| Caelo    | Anionic hydrophilic cream DAB    | 19207001           | 2       |
| Caelo    | Anionic hydrophilic cream DAB    | 1920701            | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 19207101           | 5       |
| Caelo    | Anionic hydrophilic cream DAB    | 19207102           | 9       |
| Caelo    | Base cream, hydrophobic DAC      | 192209001          | 1       |
| Caelo    | Base cream, diluted              | 19229801           | 1       |
| Caelo    | Base cream, diluted              | 19229902           | 5       |
| Caelo    | Anionic hydrophilic cream SR...  | 19240001           | 14      |
| Caelo    | Anionic hydrophilic cream SR...  | 19240002           | 47      |
| Caelo    | Anionic hydrophilic cream SR...  | 1924001            | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 19240103           | 7       |
| Caelo    | Base cream, diluted              | 19253701           | 8       |
| Caelo    | Base cream, hydrophobic DAC      | 1925661            | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 1925681            | 2       |
| Caelo    | Anionic hydrophilic cream DAB    | 19259301           | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 19268203           | 25      |
| Caelo    | Anionic hydrophilic cream wi...  | 19268204           | 2       |
| Caelo    | Anionic hydrophilic cream wi...  | 19268401           | 10      |
| Caelo    | Anionic hydrophilic cream wi...  | 19268502           | 3       |
| Caelo    | Anionic hydrophilic cream DAB    | 19272301           | 4       |
| Caelo    | Anionic hydrophilic cream DAB    | 19272401           | 5       |
| Caelo    | Anionic hydrophilic cream DAB    | 19272505           | 12      |
| Caelo    | Anionic hydrophilic cream DAB    | 19272601           | 24      |
| Caelo    | Anionic hydrophilic cream DAB    | 19272701           | 27      |
| Caelo    | Anionic hydrophilic cream DAB    | 19272901           | 22      |
| Caelo    | Anionic hydrophilic cream DAB    | 1927300            | 2       |
| Caelo    | Anionic hydrophilic cream DAB    | 19273001           | 4       |
| Caelo    | Anionic hydrophilic cream DAB    | 19273002           | 45      |
| Caelo    | Anionic hydrophilic cream DAB    | 19273003           | 8       |
| Caelo    | Base cream, diluted              | 19278901           | 5       |
| Caelo    | Base cream, hydrophobic DAC      | 195841             | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 196161001          | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 1968204            | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 1971501            | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 1A020119           | 2       |
| Caelo    | Anionic hydrophilic cream wit... | 1B080118           | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 200000027001       | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 200000029001       | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 20000002901        | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 200000033001       | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 200000037001       | 1       |
| Caelo    | Base cream, diluted              | 2000000701002      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 2000000927001      | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 200000190001       | 1       |

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continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Anionic hydrophilic cream wi... | 20000019002   | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 200000193001  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000026      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000027001   | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000027002   | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000028001   | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000002801    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000029001   | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000002901    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000311001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000314001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000317001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000318001  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000032001   | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000003201    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000033001   | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000037001   | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000038001   | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 200000402001  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 200000425001  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 200000427001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000046001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000046003   | 5       |
| Caelo    | Anionic hydrophilic cream SR... | 200000522001  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 200000916003  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000924001  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000924002  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000925001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000927001  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000928001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000929001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200000931001  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 200001250001  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 200001251001  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 200001592001  | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 200001593002  | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 200001781004  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 20000189001   | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 2000018901    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 20000190001   | 23      |
| Caelo    | Anionic hydrophilic cream wi... | 2000019001    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 20000191001   | 19      |
| Caelo    | Anionic hydrophilic cream wi... | 20000192001   | 25      |
| Caelo    | Anionic hydrophilic cream wi... | 20000193001   | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 20000193002   | 36      |
| Caelo    | Anionic hydrophilic cream wi... | 200001979001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200002080001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200002082001  | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 200002461003  | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 200002461004  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000027001    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2000028520001 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000029001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200002946001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200002947001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000030001    | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 200003015003  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000031001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000311001   | 22      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000312001   | 18      |

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| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 20000313001          | 19      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000314001          | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000315001          | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000316001          | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000317001          | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000318001          | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000319001          | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000320001          | 24      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000032001           | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 200003216001         | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 200003307001         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 200003445003         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000038001           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000399001          | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000400001          | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000401001          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000040101           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000402001          | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000403001          | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 20000425001          | 22      |
| Caelo    | Base cream, hydrophobic DAC     | 20000425001P-200602  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20000426001          | 59      |
| Caelo    | Base cream, hydrophobic DAC     | 20000426002          | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 20000426002P200709-7 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 200004266001         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20000427001          | 60      |
| Caelo    | Base cream, hydrophobic DAC     | 20000428001          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 200004461001         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20000448             | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000049001           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000494001          | 29      |
| Caelo    | Anionic hydrophilic cream SR... | 20000522001          | 26      |
| Caelo    | Anionic hydrophilic cream SR... | 20000522002          | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 20000522003          | 30      |
| Caelo    | Base cream, diluted             | 20000701001          | 2       |
| Caelo    | Base cream, diluted             | 20000701002          | 8       |
| Caelo    | Anionic hydrophilic cream SR... | 20000719             | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000904002          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20000916003          | 10      |
| Caelo    | Anionic hydrophilic cream SR... | 20000916004          | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000916005          | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 200009206001         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000924001          | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000924002          | 24      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000925001          | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000092501           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000926001          | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000927001          | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000928001          | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000092801           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20000929001          | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000930001          | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000931001          | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 20000932001          | 21      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000093201           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000095001           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 200010034001         | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 20001015             | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20001034001          | 9       |
| Caelo    | Anionic hydrophilic cream SR... | 2000103401           | 1       |

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| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Base cream, diluted             | 20001059001        | 7       |
| Caelo    | Base cream, diluted             | 20001059002        | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 200011979001       | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20001231           | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2000124600         | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 20001246001        | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 20001247002        | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 20001248001        | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 20001249001        | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 20001250001        | 12      |
| Caelo    | Anionic hydrophilic cream wi... | 20001251001        | 57      |
| Caelo    | Anionic hydrophilic cream DAB   | 20001452001        | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001453002        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001454001        | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 200014540010119720 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001455001        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001469001        | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001470001        | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000147001         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001471001        | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 20001474001        | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001475001        | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 20001480001        | 13      |
| Caelo    | Anionic hydrophilic cream DAB   | 20001480002        | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 20001590001        | 12      |
| Caelo    | Base cream, hydrophobic DAC     | 2000159001         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20001591001        | 16      |
| Caelo    | Base cream, hydrophobic DAC     | 20001592001        | 54      |
| Caelo    | Base cream, hydrophobic DAC     | 20001593002        | 31      |
| Caelo    | Base cream, diluted             | 20001667001        | 12      |
| Caelo    | Base cream, diluted             | 20001668001        | 3       |
| Caelo    | Base cream, diluted             | 20001670002        | 19      |
| Caelo    | Base cream, diluted             | 20001670003        | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001675001        | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001675002        | 38      |
| Caelo    | Anionic hydrophilic cream DAB   | 20001676001        | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 20001676002        | 13      |
| Caelo    | Anionic hydrophilic cream SR... | 2000178004         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20001781001        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 200017810014       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20001781003        | 10      |
| Caelo    | Anionic hydrophilic cream SR... | 20001781004        | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 2000190001         | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 2000191001         | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 2000193002         | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 20001978001        | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 20001979001        | 20      |
| Caelo    | Anionic hydrophilic cream wi... | 20001979002        | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002080001        | 19      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000208001         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002081001        | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 20002082001        | 13      |
| Caelo    | Anionic hydrophilic cream wi... | 20002257001        | 6       |
| Caelo    | Anionic hydrophilic cream SR... | 200023005          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20002423003        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20002423004        | 9       |
| Caelo    | Hydrophilic cream, non-ionic... | 20002423005        | 7       |
| Caelo    | Hydrophilic cream, non-ionic... | 20002461001        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 20002461003        | 16      |
| Caelo    | Hydrophilic cream, non-ionic... | 20002461004        | 9       |

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| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Base cream, diluted             | 20002515002  | 2       |
| Caelo    | Base cream, diluted             | 20002515003  | 1       |
| Caelo    | Base cream, diluted             | 20002515004  | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002541     | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 20002852001  | 9       |
| Caelo    | Base cream, hydrophobic DAC     | 20002853001  | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 200028540003 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20002854002  | 18      |
| Caelo    | Base cream, hydrophobic DAC     | 20002854003  | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 2000294001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002942001  | 30      |
| Caelo    | Anionic hydrophilic cream DAB   | 20002943001  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002944001  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002945002  | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 20002946001  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 20002947000  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002947001  | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 20002948001  | 14      |
| Caelo    | Anionic hydrophilic cream DAB   | 20002949001  | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 20002949002  | 7       |
| Caelo    | Anionic hydrophilic cream SR... | 20003015001  | 11      |
| Caelo    | Anionic hydrophilic cream SR... | 20003015003  | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 20003016002  | 4       |
| Caelo    | Hydrophilic cream, non-ionic... | 20003016003  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000311001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000313001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000319001   | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 20003306001  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 20003306002  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 20003307001  | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 20003308001  | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 20003309001  | 24      |
| Caelo    | Anionic hydrophilic cream wi... | 20003309002  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20003445001  | 23      |
| Caelo    | Base cream, hydrophobic DAC     | 20003445002  | 12      |
| Caelo    | Base cream, hydrophobic DAC     | 20003445003  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20003446002  | 2       |
| Caelo    | Base cream, diluted             | 20003509001  | 4       |
| Caelo    | Base cream, diluted             | 20003510001  | 11      |
| Caelo    | Base cream, diluted             | 20003510002  | 2       |
| Caelo    | Base cream, diluted             | 2000351001   | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20003746001  | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 20003746003  | 12      |
| Caelo    | Anionic hydrophilic cream SR... | 20003746004  | 16      |
| Caelo    | Hydrophilic cream, non-ionic... | 20003954002  | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 20003955001  | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 20003955002  | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 2000427001   | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 20004291001  | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 20004292001  | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 20004293001  | 25      |
| Caelo    | Anionic hydrophilic cream wi... | 20004293002  | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 20004456001  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 20004457001  | 12      |
| Caelo    | Anionic hydrophilic cream DAB   | 20004457002  | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 200044577002 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20004458001  | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 20004459001  | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 20004460001  | 10      |
| Caelo    | Anionic hydrophilic cream DAB   | 20004461001  | 8       |

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| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 20004462001   | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 2000522001    | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2000522002    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000924001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2000928001    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2001246001    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2001250001    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 200125001     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 200147001     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2001471001    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2001592001    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2001593002    | 1       |
| Caelo    | Base cream, diluted             | 2001667001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2001675002    | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2001781004    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2002082001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20021311      | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2002423005    | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 2002461003    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2002854002    | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2002949002    | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2004292001    | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20061205      | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 20071504      | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 201015        | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 2013111213    | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 20160222      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 20301012-3    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 204312540     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 2070219176501 | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 207071784201  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2091403       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 20A080513     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 20A200618     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 210000293001  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 210000396001  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 210000683001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 210000924001  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2100023001    | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000287001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000288001   | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000289001   | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000290001   | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000291001   | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000292001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000293001   | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000294001   | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000295001   | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 21000339001   | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000339002   | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000339003   | 10      |
| Caelo    | Base cream, hydrophobic DAC     | 210003455001  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 210003696002  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000372001   | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000373001   | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000374001   | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000375001   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000375002   | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000376002   | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000377001   | 19      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Base cream, hydrophobic DAC     | 210003960001         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 21000396001          | 21      |
| Caelo    | Base cream, hydrophobic DAC     | 21000396002          | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 21000397003          | 14      |
| Caelo    | Base cream, hydrophobic DAC     | 21000398001          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 21000399001          | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 2100039901           | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 210005003            | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 21000505001          | 7       |
| Caelo    | Hydrophilic cream, non-ionic... | 21000505003          | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 21000525/20003746004 | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 21000582001          | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 21000681001          | 6       |
| Caelo    | Anionic hydrophilic cream wi... | 21000682001          | 25      |
| Caelo    | Anionic hydrophilic cream wi... | 21000683001          | 8       |
| Caelo    | Anionic hydrophilic cream wi... | 21000684001          | 7       |
| Caelo    | Anionic hydrophilic cream wi... | 21000685002          | 3       |
| Caelo    | Base cream, diluted             | 21000785001          | 3       |
| Caelo    | Base cream, diluted             | 21000785002          | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 21000806003          | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 21000806004          | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000920001          | 17      |
| Caelo    | Anionic hydrophilic cream DAB   | 21000921001          | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000921002          | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000921003          | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000922001          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000924001          | 15      |
| Caelo    | Anionic hydrophilic cream DAB   | 21000925001          | 20      |
| Caelo    | Anionic hydrophilic cream DAB   | 21000926001          | 11      |
| Caelo    | Anionic hydrophilic cream DAB   | 21000927001          | 16      |
| Caelo    | Anionic hydrophilic cream DAB   | 21000928001          | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21000929001          | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001201001          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2100121001           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2100122003           | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 21001221001          | 6       |
| Caelo    | Base cream, hydrophobic DAC     | 21001222003          | 16      |
| Caelo    | Base cream, hydrophobic DAC     | 2100122203           | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 21001223001          | 21      |
| Caelo    | Base cream, hydrophobic DAC     | 21001223002          | 3       |
| Caelo    | Base cream, diluted             | 21001312001          | 1       |
| Caelo    | Base cream, diluted             | 21001313001          | 8       |
| Caelo    | Base cream, diluted             | 21001314001          | 2       |
| Caelo    | Base cream, diluted             | 21001314002          | 4       |
| Caelo    | Hydrophilic cream, non-ionic... | 21001333001          | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 210013333002         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21001436001          | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21001436002          | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001494001          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001496001          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001496002          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001497001          | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 210014972            | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001498001          | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001499001          | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001500001          | 8       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001501001          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001502001          | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001503001          | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001503002          | 3       |

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continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 21001504001 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001505001 | 5       |
| Caelo    | Anionic hydrophilic cream SR... | 2100175200  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21001752002 | 5       |
| Caelo    | Anionic hydrophilic cream SR... | 21001752003 | 9       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001811001 | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001812002 | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001813001 | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001813002 | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001813003 | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001814001 | 7       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001815001 | 6       |
| Caelo    | Anionic hydrophilic cream DAB   | 21001816001 | 8       |
| Caelo    | Base cream, diluted             | 21001869001 | 1       |
| Caelo    | Base cream, diluted             | 21001870001 | 2       |
| Caelo    | Base cream, diluted             | 21001871001 | 1       |
| Caelo    | Base cream, diluted             | 21001871002 | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 21001941002 | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 21001942001 | 3       |
| Caelo    | Anionic hydrophilic cream wi... | 21001943001 | 11      |
| Caelo    | Anionic hydrophilic cream wi... | 21001943002 | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 21001947001 | 23      |
| Caelo    | Base cream, hydrophobic DAC     | 21001947002 | 11      |
| Caelo    | Base cream, hydrophobic DAC     | 21001949001 | 5       |
| Caelo    | Base cream, hydrophobic DAC     | 21001950001 | 4       |
| Caelo    | Hydrophilic cream, non-ionic... | 21002193003 | 4       |
| Caelo    | Hydrophilic cream, non-ionic... | 21002193004 | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 21002250001 | 3       |
| Caelo    | Base cream, diluted             | 21002416001 | 1       |
| Caelo    | Base cream, diluted             | 21002417001 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002623001 | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002624001 | 5       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002626002 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002628001 | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2100263002  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002631001 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002632002 | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002633001 | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002634001 | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002635001 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002636001 | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002637001 | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002638001 | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002639001 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002640001 | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002641001 | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 21002642001 | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 21002644001 | 4       |
| Caelo    | Anionic hydrophilic cream wi... | 21002645002 | 10      |
| Caelo    | Anionic hydrophilic cream wi... | 21002646001 | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 2100289001  | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 21002902001 | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 21002902002 | 9       |
| Caelo    | Base cream, hydrophobic DAC     | 21002903002 | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 21003004002 | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 21003004003 | 8       |
| Caelo    | Base cream, diluted             | 2100313001  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21003705001 | 6       |
| Caelo    | Anionic hydrophilic cream SR... | 21003705002 | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003798001 | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Anionic hydrophilic cream wi... | 21003799001      | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 21003800002      | 3       |
| Caelo    | Hydrophilic cream, non-ionic... | 21003888001      | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 21003888002      | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 21003889001      | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 21003890003      | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 21003891001      | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 21003891003      | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003943001      | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2100394401       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003949002      | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003952001      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003954001      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003955001      | 4       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003956001      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 21003957001      | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2100499001       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2100635001       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2100806003       | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2101943001       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2103312540       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 210395101        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21041720         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21081201         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21111202         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2111201          | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 211125U          | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2111401          | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 21122013B        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2112212540       | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2114M25401       | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 2115E-03195NP    | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 212000806003     | 1       |
| Caelo    | Base cream, diluted             | 21490200016702   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 215697           | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 21A220617        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 21B141116        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 21B151220        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 22000013002      | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 22000014002      | 5       |
| Caelo    | Hydrophilic cream, non-ionic... | 22000034002      | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 22000034003      | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 22000353001      | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 22011801         | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 220329           | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 220401UEA        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 22061205         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 22091202         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2220218/17319502 | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 22A040718        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 22A050917        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 22A160615        | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 230115/2         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 23021706         | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 23021712         | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 23041307         | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 23051807         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 23051808         | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 23051810         | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 23061812         | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Anionic hydrophilic cream DAB   | 23061814   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 230713     | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 23121411   | 1       |
| Caelo    | Wolff® base half-fat cream      | 235200     | 1       |
| Caelo    | Wolff® base half-fat cream      | 238560     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 23A030919  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 24021401   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2405212540 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2413Q02540 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2414E2540  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 24A100718  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 24A120717  | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 25021413   | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2514U25401 | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 26011603   | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 26011908   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 26051807   | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 267186     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 26A020817  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 26A211020  | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 26A270618  | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 27031504   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 27041512   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2704212540 | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 27091305   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 270943     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 2729       | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 274223     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 274377     | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 2754       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 276077     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 276319     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 276409     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 276596     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2770       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 277461     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2775       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 277565     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 277636     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 277637     | 3       |
| Caelo    | Hydrophilic cream, non-ionic... | 277877     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 277878     | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2788       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 278848     | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 278851     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 2793       | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 27A130917  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 28031319   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2807       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 28072014A  | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 280991     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 281738     | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 281739     | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 281999     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 282005     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 282163     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 283478     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 283634     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 285894     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 286327     | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Base cream, hydrophobic DAC     | 286515     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 286516     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 286976     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 286979     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 286980     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 287562     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 2879       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 288235     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 288307     | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 288310     | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 2893       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 289331     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 289332     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 289720     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 289942     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 289944     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 290145     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 2906212540 | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 291388     | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2913M25401 | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 291529     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 291732     | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 293103     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 293104     | 2       |
| Caelo    | Anionic hydrophilic cream SR... | 293135     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 293162     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 293163     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 293437     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 294310     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 294645     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 294649     | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 294682     | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 294686     | 3       |
| Caelo    | Anionic hydrophilic cream SR... | 295232     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 295400     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 295649     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 296408     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 297309     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 297374     | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 297669     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 297672     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 297674     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 297677     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 297680     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 297912     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 299255     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 2B110219   | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 2B310118   | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2x18297301 | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2x18297401 | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2x19027601 | 1       |
| Caelo    | Anionic hydrophilic cream wi... | 2x19268401 | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 30011503   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 300353     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 300365     | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 300762     | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 30081303   | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 30081812   | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 30091403   | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 300956     | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Anionic hydrophilic cream SR... | 300957        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 301457        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 301627        | 4       |
| Caelo    | Base cream, hydrophobic DAC     | 302134        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 302196        | 4       |
| Caelo    | Anionic hydrophilic cream SR... | 302199        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 302200        | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 302453        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 302456        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 302461        | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 303374        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 303376        | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 303377        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 303734        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 303736        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 304017200702  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 304096        | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 304098        | 2       |
| Caelo    | Anionic hydrophilic cream DAB   | 304105        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 304118298701  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 304118299101  | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 3042200044561 | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 305066        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 305069        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 305372        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 305374        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 305378        | 2       |
| Caelo    | Base cream, hydrophobic DAC     | 305808        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 306128        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 3061302       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 3061702       | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 306439        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 307028        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 307327        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 307328        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 307332        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 307334        | 2       |
| Caelo    | Hydrophilic cream, non-ionic... | 307531        | 3       |
| Caelo    | Base cream, hydrophobic DAC     | 307771        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 308211        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 308217        | 3       |
| Caelo    | Anionic hydrophilic cream DAB   | 308397        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 308406        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 308507        | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 308508        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 309903        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 309905        | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 309906        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 309912        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 30A160816     | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 3101212540    | 1       |
| Caelo    | Hydrophilic cream, non-ionic... | 310515        | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 31071301      | 1       |
| Caelo    | Base cream, hydrophobic DAC     | 310826        | 1       |
| Caelo    | Wolff® base half-fat cream      | 31101811      | 1       |
| Caelo    | Anionic hydrophilic cream SR... | 311055        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 311128        | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 311134        | 2       |
| Caelo    | Anionic hydrophilic cream wi... | 3125902       | 1       |
| Caelo    | Anionic hydrophilic cream DAB   | 314Q2540      | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                        | Batch        | Spectra |
|----------|----------------------------------|--------------|---------|
| Caelo    | Anionic hydrophilic cream SR...  | 31A230914    | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 31A301019    | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 32/AKD2      | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 3247         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3255         | 1       |
| Caelo    | Wolff® base half-fat cream       | 3258         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3261         | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 3288         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3290         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3313U-02540  | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3321         | 1       |
| Caelo    | Wolff® base half-fat cream       | 333930       | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 33A171017    | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3413M-02540  | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 3422         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3436         | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 3446         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3447         | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 3448         | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 34A060813    | 2       |
| Caelo    | Hydrophilic cream, non-ionic...  | 36A140514    | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3713A02540   | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 37A300915    | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 38A121216    | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 38A241017    | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3960/V07/15  | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 3965/V07/15  | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 3A030119     | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 3A100320     | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 3A310117     | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 4004302      | 4       |
| Caelo    | Base cream, hydrophobic DAC      | 4004319      | 3       |
| Caelo    | Anionic hydrophilic cream DAB    | 4051506      | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 4061406      | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 410211-1-P   | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 4131I-02540  | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 413I-02540   | 1       |
| Caelo    | Wolff® base half-fat cream       | 431240       | 2       |
| Caelo    | Anionic hydrophilic cream DAB    | 4313I-02540  | 1       |
| Caelo    | Wolff® base half-fat cream       | 434360       | 3       |
| Caelo    | Anionic hydrophilic cream wi...  | 45/AKD7      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 4513E2540    | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 4513U2540    | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 46074802     | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 4617M-03327  | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 47A071014    | 1       |
| Caelo    | Anionic hydrophilic cream wit... | 4B220518     | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 5/2021       | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 5013q-03497  | 1       |
| Caelo    | Wolff® base half-fat cream       | 501470       | 6       |
| Caelo    | Base cream, hydrophobic DAC      | 5017E-03497  | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 5031508      | 1       |
| Caelo    | Wolff® base half-fat cream       | 506361       | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 50A111113    | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 51(17143601) | 1       |
| Caelo    | Wolff® base half-fat cream       | 511420       | 3       |
| Caelo    | Anionic hydrophilic cream SR...  | 518E-03327   | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 52(17299101) | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 52(17299201) | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 522001       | 1       |

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| Supplier | Substance                        | Batch        | Spectra |
|----------|----------------------------------|--------------|---------|
| Caelo    | Anionic hydrophilic cream DAB    | 53(01119683) | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 54(18298401) | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 54/AKD12     | 1       |
| Caelo    | Base cream, hydrophobic DAC      | 5421201      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 55(19002802) | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 56(19072901) | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 56/AKD15     | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 57601        | 1       |
| Caelo    | Anionic hydrophilic cream wit... | 5B250618     | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 60080604     | 1       |
| Caelo    | Wolff® base half-fat cream       | 601880       | 1       |
| Caelo    | Wolff® base half-fat cream       | 602050       | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 6021405      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 6021406      | 1       |
| Caelo    | Wolff® base half-fat cream       | 602290       | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 6051701      | 1       |
| Caelo    | Wolff® base half-fat cream       | 606050       | 4       |
| Caelo    | Anionic hydrophilic cream DAB    | 6061501      | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 6061502      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 6061805      | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 6067401      | 1       |
| Caelo    | Wolff® base half-fat cream       | 609950       | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 6121304      | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 618E-03327   | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 6259601      | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 64/AKD16     | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 654879       | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 6A130318     | 1       |
| Caelo    | Anionic hydrophilic cream wi...  | 7011403      | 1       |
| Caelo    | Wolff® base half-fat cream       | 702500       | 3       |
| Caelo    | Wolff® base half-fat cream       | 703031       | 1       |
| Caelo    | Wolff® base half-fat cream       | 704050       | 3       |
| Caelo    | Wolff® base half-fat cream       | 705760       | 1       |
| Caelo    | Wolff® base half-fat cream       | 707370       | 1       |
| Caelo    | Wolff® base half-fat cream       | 707500       | 1       |
| Caelo    | Wolff® base half-fat cream       | 71120        | 1       |
| Caelo    | Wolff® base half-fat cream       | 711240       | 1       |
| Caelo    | Wolff® base half-fat cream       | 711250       | 2       |
| Caelo    | Anionic hydrophilic cream DAB    | 714M2540     | 1       |
| Caelo    | Wolff® base half-fat cream       | 7742         | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 7A2702213    | 1       |
| Caelo    | Anionic hydrophilic cream wit... | 7B040918     | 1       |
| Caelo    | Wolff® base half-fat cream       | 801140       | 2       |
| Caelo    | Skin care ointment W/L SR        | 80115        | 1       |
| Caelo    | Wolff® base half-fat cream       | 804080       | 2       |
| Caelo    | Anionic hydrophilic cream DAB    | 8051301      | 1       |
| Caelo    | Wolff® base half-fat cream       | 805720       | 3       |
| Caelo    | Anionic hydrophilic cream SR...  | 8061203      | 1       |
| Caelo    | Wolff® base half-fat cream       | 807580       | 4       |
| Caelo    | Wolff® base half-fat cream       | 807640       | 8       |
| Caelo    | Anionic hydrophilic cream DAB    | 8111301      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 8243101      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 8696         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 8709         | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 8816-250-345 | 1       |
| Caelo    | Hydrophilic cream, non-ionic...  | 8A050319     | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 8A140317     | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 9/AKD13      | 1       |
| Caelo    | Anionic hydrophilic cream DAB    | 9/AKD15      | 1       |
| Caelo    | Anionic hydrophilic cream SR...  | 9011304      | 1       |

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| Supplier                   | Substance                              | Batch               | Spectra |
|----------------------------|----------------------------------------|---------------------|---------|
| Caelo                      | Wolff <sup>®</sup> base half-fat cream | 901920              | 4       |
| Caelo                      | Wolff <sup>®</sup> base half-fat cream | 901930              | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | 9041505             | 1       |
| Caelo                      | Wolff <sup>®</sup> base half-fat cream | 909810              | 1       |
| Caelo                      | Anionic hydrophilic cream SR...        | 9101202             | 1       |
| Caelo                      | Anionic hydrophilic cream wi...        | 9192001             | 1       |
| Caelo                      | Wolff <sup>®</sup> base half-fat cream | 9560                | 1       |
| Caelo                      | Anionic hydrophilic cream wi...        | 9771644             | 4       |
| Caelo                      | Base cream, hydrophobic DAC            | 9AKD15              | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | AKD10               | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | CH13314001          | 1       |
| Caelo                      | Anionic hydrophilic cream wi...        | CHB13343401         | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | CHB18243201         | 1       |
| Caelo                      | Anionic hydrophilic cream SR...        | CH-B18302501        | 1       |
| Caelo                      | Anionic hydrophilic cream SR...        | CHB19177102         | 1       |
| Caelo                      | Anionic hydrophilic cream SR...        | CH-B19177102        | 1       |
| Caelo                      | Anionic hydrophilic cream SR...        | CHB19240002         | 1       |
| Caelo                      | Anionic hydrophilic cream SR...        | CHB-20001034001     | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | Mh090716Lo1         | 1       |
| Caelo                      | Base cream, hydrophobic DAC            | P192712-1H          | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | P2018/107           | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | P-25111921/19161001 | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | P-624/18067801      | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | pzn01119720         | 1       |
| Caelo                      | Anionic hydrophilic cream wi...        | Test                | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | Testmessung         | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | U-030513-1          | 1       |
| Caelo                      | Anionic hydrophilic cream wi...        | U-160120-1          | 1       |
| Caelo                      | Anionic hydrophilic cream DAB          | U-310513-1          | 1       |
| Caelo/ Phoenix             | Anionic hydrophilic cream DAB          | 19072401            | 1       |
| Caelo/AHD                  | Anionic hydrophilic cream wi...        | 15405301            | 1       |
| Caelo/Noweda               | Hydrophilic cream, non-ionic...        | 18050303            | 1       |
| Caelo/Noweda               | Base cream, hydrophobic DAC            | 19058301            | 2       |
| Caelo/Phoenix              | Anionic hydrophilic cream wi...        | 16067601            | 1       |
| Caelo/Sanacorp             | Anionic hydrophilic cream DAB          | 21000375002         | 1       |
| Caelo/Sanacorp             | Base cream, hydrophobic DAC            | 2100122302          | 1       |
| Caelo/Krieger              | Base cream, hydrophobic DAC            | 16330301            | 1       |
| Caelo/Krieger              | Anionic hydrophilic cream DAB          | 17143501            | 1       |
| Caelo/Noweda               | Anionic hydrophilic cream DAB          | 17201901            | 1       |
| Caelo/Noweda               | Anionic hydrophilic cream DAB          | 17299501            | 1       |
| Caelo/Phoenix              | Hydrophilic cream, non-ionic...        | 18175201            | 1       |
| Caelo/Sanacorp             | Anionic hydrophilic cream wi...        | 18041401            | 1       |
| Caelo                      | Anionic hydrophilic cream SR...        | 16046301            | 1       |
| Caeöp                      | Base cream, diluted                    | 20003510002         | 1       |
| Caesa / Alliance Health... | Anionic hydrophilic cream DAB          | 18168701            | 1       |
| Caesa / Alliance Health... | Anionic hydrophilic cream wi...        | 18248102            | 1       |
| Caesar & Lorenz GmbH       | Anionic hydrophilic cream DAB          | 19161601            | 1       |
| Caesar & Lorenz            | Base cream, hydrophobic DAC            | 14028002            | 1       |
| Caesar & Lorenz            | Base cream, hydrophobic DAC            | 14061501            | 1       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC            | 16165501            | 2       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC            | 18242502            | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB          | 18243301            | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream wi...        | 18297401            | 1       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC            | 19115901            | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB          | 20000027002         | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB          | 20000029001         | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream wi...        | 20000190001         | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream wi...        | 20001979001         | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream SR...        | 20000916005         | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB          | 200000931001        | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream SR... | 21000339002 | 1       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC     | 18119901    | 1       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC     | 18173903    | 1       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC     | 18286702    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18297902    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18298201    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18299101    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19002703    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19072101    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19072601    | 2       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19072901    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19161601    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream wi... | 20000193002 | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 20000320001 | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19072001    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19002901    | 1       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC     | 19058402    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19072501    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19161601    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19161801    | 1       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC     | 19000414001 | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19072001    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19161901    | 2       |
| Caesar & Loretz GmbH / ... | Base cream, hydrophobic DAC     | 19205101    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 20000028001 | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 20002942001 | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 20002946001 | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18243301    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18298301    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18298701    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18298901    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 18299101    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19072301    | 2       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream wi... | 19093602    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream wi... | 19093801    | 2       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19161101    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19161201    | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19272505    | 2       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 19272901    | 2       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream SR... | 20001781004 | 1       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream SR... | 20003015001 | 2       |
| Caesar & Loretz GmbH / ... | Anionic hydrophilic cream DAB   | 21000924001 | 1       |
| Caesar & Loretz GmbH 40... | Anionic hydrophilic cream DAB   | 11253201    | 1       |
| Caesar & Loretz GmbH D...  | Anionic hydrophilic cream DAB   | 11326701    | 1       |
| Caesar & Loretz GmbH Hi... | Base cream, hydrophobic DAC     | 115421302   | 1       |
| Caesar & Loretz GmbH Hi... | Anionic hydrophilic cream DAB   | 13346401    | 1       |
| Caesar & Loretz GmbH Hi... | Anionic hydrophilic cream DAB   | 15432001    | 2       |
| Caesar & Loretz GmbH Hi... | Anionic hydrophilic cream DAB   | 280291      | 1       |
| Caesar & Loretz GmbH Hi... | Hydrophilic cream, non-ionic... | 282216      | 1       |
| Caesar & Loretz GmbH Hi... | Anionic hydrophilic cream wi... | B1334301    | 1       |
| Caesar & Loretz GmbH Je... | Anionic hydrophilic cream DAB   | 20002081001 | 2       |
| Caesar & Loretz GmbH Je... | Anionic hydrophilic cream DAB   | 20002942001 | 2       |
| Caesar & Loretz GmbH No... | Anionic hydrophilic cream DAB   | 21001814001 | 1       |
| Caesar & Loretz GmbH Ph... | Anionic hydrophilic cream DAB   | 21001501001 | 2       |
| Caesar & Loretz GmbH Ph... | Anionic hydrophilic cream wi... | 21001943001 | 1       |
| Caesar & Loretz GmbH Sa... | Anionic hydrophilic cream DAB   | 20000930001 | 2       |
| Caesar & Loretz GmbH Sa... | Base cream, hydrophobic DAC     | 20001592001 | 1       |
| Caesar & Loretz GmbH, 4... | Base cream, hydrophobic DAC     | 11289203    | 1       |
| Caesar & Loretz GmbH, 4... | Anionic hydrophilic cream DAB   | 11311101    | 3       |
| Caesar & Loretz GmbH, 4... | Anionic hydrophilic cream DAB   | 12100601    | 1       |

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| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream DAB   | 12195201    | 2       |
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream DAB   | 12264501    | 1       |
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream DAB   | 12313202    | 2       |
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream wi... | 12352702    | 1       |
| Caesar & Loretz GmbH, 4...  | Base cream, hydrophobic DAC     | 13019303    | 1       |
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream wi... | 13072302    | 3       |
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream wi... | 13125901    | 2       |
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream wi... | 13244201    | 1       |
| Caesar & Loretz GmbH, 4...  | Anionic hydrophilic cream wi... | 13244401    | 1       |
| Caesar & Loretz GmbH, A...  | Anionic hydrophilic cream SR... | 18066902    | 1       |
| Caesar & Loretz GmbH, A...  | Anionic hydrophilic cream SR... | 18168501    | 1       |
| Caesar & Loretz GmbH, P...  | Anionic hydrophilic cream SR... | 17202101    | 1       |
| Caesar & Loretz GmbH, P...  | Anionic hydrophilic cream wi... | 21000685002 | 2       |
| Caesar & Loretz GmbH, P...  | Anionic hydrophilic cream SR... | 19003001    | 1       |
| Caesar & Loretz GmbH, P...  | Anionic hydrophilic cream SR... | 18298801    | 1       |
| Caesar & Loretz GmbH, P...  | Anionic hydrophilic cream SR... | 19072701    | 2       |
| Caesar & Loretz GmbH, P...  | Anionic hydrophilic cream SR... | 18243201    | 1       |
| Caesar & Loretz GmbH, P...  | Anionic hydrophilic cream SR... | 17142801    | 1       |
| Caesar & Loretz GmbH, Ph... | Anionic hydrophilic cream SR... | 18010901    | 1       |
| Caesar & Loretz GmbH/ A...  | Anionic hydrophilic cream DAB   | 20000032001 | 1       |
| Caesar & Loretz GmbH/ A...  | Anionic hydrophilic cream DAB   | 20000930001 | 1       |
| Caesar & Loretz GmbH/ A...  | Anionic hydrophilic cream DAB   | 20002949002 | 1       |
| Caesar & Loretz GmbH/ A...  | Anionic hydrophilic cream DAB   | 19162601    | 1       |
| Caesar & Loretz GmbH/ F...  | Base cream, hydrophobic DAC     | 18174101    | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream DAB   | 18299001    | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream DAB   | 19161601    | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream wi... | 19268203    | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream DAB   | 1927505     | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream DAB   | 20000032001 | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream SR... | 20000522003 | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream DAB   | 20000928001 | 1       |
| Caesar & Loretz GmbH/ G...  | Base cream, hydrophobic DAC     | 20003446002 | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream SR... | 20003746004 | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream SR... | 21000339003 | 1       |
| Caesar & Loretz GmbH/ G...  | Anionic hydrophilic cream DAB   | 21000924001 | 1       |
| Caesar & Loretz GmbH/ J...  | Anionic hydrophilic cream DAB   | 20000403001 | 1       |
| Caesar & Loretz GmbH/ K...  | Anionic hydrophilic cream DAB   | 20000925001 | 1       |
| Caesar & Loretz GmbH/ K...  | Anionic hydrophilic cream DAB   | 19072501    | 1       |
| Caesar & Loretz GmbH/ K...  | Anionic hydrophilic cream wi... | 20001978001 | 1       |
| Caesar & Loretz GmbH/ K...  | Anionic hydrophilic cream wi... | 20004291001 | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 18299001    | 1       |
| Caesar & Loretz GmbH/ N...  | Base cream, hydrophobic DAC     | 19000415001 | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 19003001    | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 19072601    | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 19206801    | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 20000037001 | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream wi... | 20000190001 | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 20000312001 | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 20000316001 | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 20001471001 | 2       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 20002081001 | 1       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 21000921003 | 2       |
| Caesar & Loretz GmbH/ N...  | Anionic hydrophilic cream DAB   | 21001497001 | 2       |
| Caesar & Loretz GmbH/ P...  | Anionic hydrophilic cream DAB   | 20002945002 | 1       |
| Caesar & Loretz GmbH/ P...  | Anionic hydrophilic cream DAB   | 21000372001 | 1       |
| Caesar & Loretz GmbH/ P...  | Anionic hydrophilic cream DAB   | 18298101    | 1       |
| Caesar & Loretz GmbH/ P...  | Anionic hydrophilic cream DAB   | 18299101    | 1       |
| Caesar & Loretz GmbH/ P...  | Anionic hydrophilic cream wi... | 19192001    | 1       |
| Caesar & Loretz GmbH/ P...  | Anionic hydrophilic cream DAB   | 20000046003 | 1       |
| Caesar & Loretz GmbH/ P...  | Anionic hydrophilic cream wi... | 20000193002 | 1       |

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| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------------------|--------------|----------------|
| Caesar & Loretz GmbH/ P... | Anionic hydrophilic cream DAB   | 20001469001  | 2              |
| Caesar & Loretz GmbH/ P... | Base cream, hydrophobic DAC     | 20003445002  | 1              |
| Caesar & Loretz GmbH/ S... | Anionic hydrophilic cream wi... | 20000193002  | 1              |
| Caesar & Loretz GmbH/ S... | Anionic hydrophilic cream DAB   | 20001480001  | 1              |
| Caesar & Loretz GmbH/ S... | Base cream, hydrophobic DAC     | 19145602     | 1              |
| Caesar & Loretz GmbH/ S... | Anionic hydrophilic cream SR... | 19240001     | 1              |
| Caesar & Loretz GmbH/AEP   | Anionic hydrophilic cream DAB   | 20000029001  | 1              |
| Caesar & Loretz GmbH/AEP   | Anionic hydrophilic cream DAB   | 20000924002  | 6              |
| Caesar & Loretz GmbH/AHC   | Anionic hydrophilic cream wi... | 18297501     | 1              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream wi... | 19192001     | 1              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream DAB   | 19206001     | 2              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream DAB   | 19272505     | 1              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream DAB   | 19272701     | 1              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream DAB   | 20000932001  | 1              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream DAB   | 20002949002  | 2              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream DAB   | 20004461001  | 1              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream SR... | 2000522003   | 1              |
| Caesar & Loretz GmbH/AHD   | Anionic hydrophilic cream DAB   | 21000293001  | 1              |
| Caesar & Loretz GmbH/Al... | Anionic hydrophilic cream DAB   | 19206301     | 1              |
| Caesar & Loretz GmbH/Al... | Base cream, hydrophobic DAC     | 200001591001 | 1              |
| Caesar & Loretz GmbH/Al... | Base cream, hydrophobic DAC     | 20000426002  | 1              |
| Caesar & Loretz GmbH/Al... | Base cream, hydrophobic DAC     | 20002853001  | 1              |
| Caesar & Loretz GmbH/An... | Anionic hydrophilic cream DAB   | 19162001     | 3              |
| Caesar & Loretz GmbH/An... | Anionic hydrophilic cream DAB   | 20000929001  | 1              |
| Caesar & Loretz GmbH/An... | Anionic hydrophilic cream SR... | 20003746004  | 1              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream DAB   | 19072701     | 1              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream DAB   | 18298101     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream, hydrophobic DAC     | 19000414001  | 1              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream DAB   | 19002802     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream, hydrophobic DAC     | 19058501     | 2              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream DAB   | 19072301     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream, hydrophobic DAC     | 19145602     | 1              |
| Caesar & Loretz GmbH/Fi... | Base cream, hydrophobic DAC     | 1925681      | 1              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream DAB   | 20000038001  | 1              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream SR... | 20000522001  | 2              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream DAB   | 20001480001  | 1              |
| Caesar & Loretz GmbH/Fi... | Anionic hydrophilic cream DAB   | 21002623002  | 1              |
| Caesar & Loretz GmbH/G     | Anionic hydrophilic cream wi... | 18297501     | 1              |
| Caesar & Loretz GmbH/gehe  | Anionic hydrophilic cream wi... | 18248101     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream wi... | 18248101     | 1              |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream wi... | 18297501     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 19000414001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 19000415001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 19002003     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 19002802     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 19058401     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 19058402     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 19072101     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 19072701     | 1              |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream wi... | 19093701     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 19161901     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 19162001     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream wi... | 19192201     | 1              |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 19204801     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream SR... | 19240002     | 1              |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream SR... | 19240103     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream wi... | 19268401     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 19272504     | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20000028001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20000314001  | 1              |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20000320001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20000399001 | 2       |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 20000427001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream SR... | 20000916004 | 1       |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream DAB   | 20000928001 | 2       |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream DAB   | 20001470001 | 2       |
| Caesar & Loretz GmbH/Gehe  | Base cream, hydrophobic DAC     | 20001590001 | 1       |
| Caesar & Loretz GmbH/GEHE  | Base cream, hydrophobic DAC     | 20001593002 | 2       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20001675002 | 1       |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream wi... | 20001979001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20002080001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20002942001 | 1       |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream DAB   | 20002949001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream wi... | 20003309001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream wi... | 20004293001 | 2       |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream DAB   | 20004457002 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 20004459001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic cream, non-ionic... | 21000505001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 21000921003 | 1       |
| Caesar & Loretz GmbH/GEHE  | Base cream, hydrophobic DAC     | 21001223001 | 1       |
| Caesar & Loretz GmbH/GEHE  | Anionic hydrophilic cream DAB   | 21001503001 | 2       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream wi... | 21001943001 | 2       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream DAB   | 21002641001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Anionic hydrophilic cream wi... | 21003800002 | 1       |
| Caesar & Loretz GmbH/Ge... | Anionic hydrophilic cream DAB   | 19206801    | 1       |
| Caesar & Loretz GmbH/Ho... | Anionic hydrophilic cream DAB   | 20000314001 | 1       |
| Caesar & Loretz GmbH/Ho... | Anionic hydrophilic cream DAB   | 21000924001 | 1       |
| Caesar & Loretz GmbH/Ho... | Hydrophilic cream, non-ionic... | 21001333001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 19003001    | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 19072101    | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 19072701    | 2       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream wi... | 19093801    | 1       |
| Caesar & Loretz GmbH/Je... | Base cream, hydrophobic DAC     | 19145602    | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 19161701    | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 19206001    | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 19206801    | 3       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream SR... | 19240002    | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream wi... | 19268401    | 2       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 19272901    | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 20000028001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 20000038001 | 2       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 20000312001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 20000313001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 20000320001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 20000494001 | 2       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream SR... | 20000522001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 20000930001 | 1       |
| Caesar & Loretz GmbH/Je... | Base cream, diluted             | 20001667001 | 1       |
| Caesar & Loretz GmbH/je... | Anionic hydrophilic cream DAB   | 20002082001 | 1       |
| Caesar & Loretz GmbH/Je... | Base cream, diluted             | 20003510002 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream SR... | 20003746001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 21000375001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream wi... | 21000682001 | 1       |
| Caesar & Loretz GmbH/Je... | Base cream, hydrophobic DAC     | 21001222003 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 21001816001 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream wi... | 21003800002 | 1       |
| Caesar & Loretz GmbH/Je... | Anionic hydrophilic cream DAB   | 21003957001 | 2       |
| Caesar & Loretz GmbH/Kehr  | Anionic hydrophilic cream wi... | 19192001    | 1       |
| Caesar & Loretz GmbH/Kehr  | Anionic hydrophilic cream DAB   | 20001480002 | 1       |
| Caesar & Loretz GmbH/Kehr  | Anionic hydrophilic cream DAB   | 21000927001 | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Kehr  | Anionic hydrophilic cream DAB   | 21002639001 | 1       |
| Caesar & Loretz GmbH/Kr... | Base cream, hydrophobic DAC     | 19000415001 | 1       |
| Caesar & Loretz GmbH/Mi... | Anionic hydrophilic cream DAB   | 19072001    | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 18286702    | 3       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 18298701    | 2       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 19058301    | 3       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 19058401    | 2       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 19115901    | 2       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 19161401    | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 19161501    | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 19161901    | 2       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 19162001    | 2       |
| Caesar & Loretz GmbH/No... | Hydrophilic cream, non-ionic... | 19176501    | 1       |
| Caesar & Loretz GmbH/No... | Base cream, diluted             | 19190403    | 2       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 19204802    | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 19273001    | 2       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 19273002    | 1       |
| Caesar & Loretz GmbH/No... | Base cream, diluted             | 19278901    | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20000318001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20000319001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20000402001 | 2       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 20000427001 | 2       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream SR... | 20000522001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20000928001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20000929001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20001480002 | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 20001590001 | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 20001592001 | 2       |
| Caesar & Loretz GmbH/No... | Base cream, diluted             | 20001670002 | 3       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20001676002 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20002082001 | 2       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream SR... | 20002226    | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 20002854003 | 3       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 20002949002 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream wi... | 20003309001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream wi... | 2000429001  | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream wi... | 20004292001 | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 21000396001 | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 21001223001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 21001499001 | 1       |
| Caesar & Loretz GmbH/No... | Anionic hydrophilic cream DAB   | 21001812002 | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 21002902001 | 1       |
| Caesar & Loretz GmbH/No... | Base cream, hydrophobic DAC     | 21002902002 | 1       |
| Caesar & Loretz GmbH/P     | Anionic hydrophilic cream DAB   | 19072801    | 1       |
| Caesar & Loretz GmbH/P     | Anionic hydrophilic cream wi... | 19192201    | 2       |
| Caesar & Loretz GmbH/P     | Anionic hydrophilic cream wi... | 19268401    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 18297501    | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 18299101    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 19027502    | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 19058301    | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 19058401    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 19072201    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 19072701    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 19192001    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 19268203    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 19272601    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 20000313001 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream SR... | 20000522001 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 20001251001 | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 20002854002 | 3       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 20003309001 | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 21000396001 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 21000925001 | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 21001222003 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 21001502001 | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 21001947001 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 21002635001 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream SR... | 19206001    | 3       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 18248101    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 18298401    | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 19000415001 | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 19032002    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 19072501    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 19161901    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 19206101    | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 19268203    | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 19273002    | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 20000425001 | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 20000427001 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 20000932001 | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, diluted             | 20001059001 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 20001480001 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 20002942001 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 20002948001 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 20003309001 | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 20003445001 | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 20003445002 | 2       |
| Caesar & Loretz GmbH/Ph... | Base cream, diluted             | 20003510001 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream SR... | 20003746003 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 20004293001 | 1       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 20004456001 | 6       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 20004457001 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 21000372001 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 21000920001 | 3       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream DAB   | 21001813001 | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, diluted             | 21001871001 | 1       |
| Caesar & Loretz GmbH/Ph... | Base cream, hydrophobic DAC     | 21001947001 | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic cream, non-ionic... | 21002193003 | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic cream, non-ionic... | 21002193004 | 2       |
| Caesar & Loretz GmbH/Ph... | Anionic hydrophilic cream wi... | 21003800002 | 1       |
| Caesar & Loretz GmbH/Px    | Anionic hydrophilic cream wi... | 18320901    | 1       |
| Caesar & Loretz GmbH/S     | Anionic hydrophilic cream SR... | 20000522003 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream SR... | 18147501    | 2       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic cream, non-ionic... | 19055601    | 3       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 19071801    | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 19072701    | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 19072801    | 1       |
| Caesar & Loretz GmbH/Sa... | Base cream, hydrophobic DAC     | 19145601    | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 19161101    | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream SR... | 19177103    | 2       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 1920611     | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream SR... | 19240001    | 3       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream wi... | 19268203    | 2       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 19272601    | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20000038001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20000312001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20000320001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20000929001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20001475001 | 1       |
| Caesar & Loretz GmbH/Sa... | Base cream, hydrophobic DAC     | 20001593002 | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20001675002 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20001676002 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream wi... | 20001979001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream SR... | 20003015001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream wi... | 20003309001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 20004462001 | 1       |
| Caesar & Loretz GmbH/Sa... | Base cream, hydrophobic DAC     | 21000396001 | 2       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream wi... | 21000682001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 21000920001 | 2       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 21000921001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 21000924001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 21000929001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 21002635001 | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic cream, non-ionic... | 21003888002 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 21003943001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream DAB   | 21003945001 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream SR... | AP210205-01 | 1       |
| Caesar & Loretz GmbH/Sa... | Anionic hydrophilic cream wi... | AP210622-07 | 1       |
| Caesar & Loretz GmbH/Sp... | Anionic hydrophilic cream SR... | 18302501    | 1       |
| Caesar & Loretz GmbH/Sp... | Anionic hydrophilic cream SR... | 19093001    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 12101101    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 12313501    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 13275302    | 2       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 13386401    | 2       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 13409401    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 14000701    | 3       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 14016901    | 2       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 14061501    | 3       |
| caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 14061601    | 2       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 14062401    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 14185801    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 14232801    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 14294201    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 14335501    | 2       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 15027301    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 15046401    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 15048701    | 2       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 15111402    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 15221401    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 15400601    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 15421201    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 16074901    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 16174201    | 2       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 16330203    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic cream, non-ionic... | 17000750    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 17112903    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17141901    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17202001    | 1       |
| Caesar & Loretz GmbH       | Base cream, hydrophobic DAC     | 17255201    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17270001    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17270501    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17299101    | 2       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17299301    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17299601    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17299701    | 2       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream SR... | 17319502    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 17327510    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 18004840    | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 18010401    | 3       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 18010801    | 2       |

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| Supplier             | Substance                       | Batch    | Spectra |
|----------------------|---------------------------------|----------|---------|
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18041601 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18066901 | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18100801 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18109601 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18109701 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18109801 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18109901 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18116801 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18139701 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 18147501 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18160101 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18168601 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18168801 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18169001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18169101 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18169201 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18169301 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18169401 | 3       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18173903 | 2       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18174101 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18180801 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18180901 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 18218102 | 4       |
| Caesar & Loretz GmbH | Base cream, diluted             | 18240802 | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18242501 | 3       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18242502 | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18242601 | 6       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18242603 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18242901 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18243101 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18243201 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18243301 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18243402 | 8       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18243501 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18248101 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18248201 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18248202 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18248301 | 1       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 18259501 | 5       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 18259502 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 1828301  | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18286702 | 4       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 18286802 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18297301 | 6       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18297401 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18297501 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18297502 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18297902 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298101 | 8       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298201 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298301 | 8       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298401 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298502 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298701 | 6       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298801 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18298901 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18299001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 18299101 | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 18302501 | 10      |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18320801 | 1       |

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| <b>Supplier</b>      | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------|---------------------------------|--------------|----------------|
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18320802     | 14             |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18320803     | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 18320901     | 7              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 1862282      | 1              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19000414001  | 3              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19000415001  | 4              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19000415003  | 3              |
| Caesar & Loretz GmbH | Base cream, diluted             | 19000843001  | 1              |
| Caesar & Loretz GmbH | Base cream, diluted             | 19000843002  | 2              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19002001     | 8              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19002002     | 4              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19002003     | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19002502     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19002601     | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19002703     | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19002801     | 5              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19002802     | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19002901     | 5              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19003001     | 2              |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19003824     | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19021401     | 12             |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19021402     | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19021404     | 1              |
| Caesar & Loretz GmbH | Base cream, diluted             | 19025901     | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19027401     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19027501     | 5              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19027502     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19027601     | 5              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19032002     | 4              |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19055601     | 7              |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19055602     | 7              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19058301     | 19             |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19058401     | 13             |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19058402     | 4              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19058501     | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19071501     | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19071601     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19071701     | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19071801     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072001     | 8              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072101     | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072201     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072301     | 7              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072401     | 7              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072501     | 8              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072601     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072701     | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072801     | 15             |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19072901     | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19093001     | 11             |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19093002     | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19093601     | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19093602     | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19093701     | 17             |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19093702     | 5              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19093801     | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19093901     | 4              |
| Caesar & Loretz GmbH | Base cream, diluted             | 19105602     | 1              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19115901     | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19123802     | 6              |

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| Supplier             | Substance                       | Batch    | Spectra |
|----------------------|---------------------------------|----------|---------|
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19145601 | 2       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19145602 | 5       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19145603 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161101 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161201 | 6       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161301 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161401 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161501 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161601 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161701 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161801 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19161901 | 6       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19162001 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19162201 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19162301 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19162401 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19162601 | 1       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19176501 | 4       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19176502 | 7       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19176504 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19177102 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19177103 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19177104 | 1       |
| Caesar & Loretz GmbH | Base cream, diluted             | 19190401 | 1       |
| Caesar & Loretz GmbH | Base cream, diluted             | 19190403 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19191901 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19192001 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19192101 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19192201 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19192301 | 3       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19204801 | 12      |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 19204802 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206101 | 14      |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206201 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206301 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206401 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206701 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206801 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19206901 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19207001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19207101 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19207102 | 1       |
| Caesar & Loretz GmbH | Base cream, diluted             | 19229801 | 2       |
| Caesar & Loretz GmbH | Base cream, diluted             | 19229902 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19240001 | 6       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 19240002 | 8       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 19240103 | 3       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 1925661  | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19268202 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19268203 | 10      |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 19268502 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19272301 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19272401 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19272505 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 1927260  | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19272601 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19272701 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19272901 | 2       |

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| <b>Supplier</b>      | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------|---------------------------------|--------------|----------------|
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19273001     | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 19273002     | 7              |
| Caesar & Loretz GmbH | Base cream, diluted             | 19278901     | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000027001  | 2              |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20000027002  | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000028001  | 9              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 2000002801   | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000029001  | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000029100  | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000031     | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000032001  | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000033001  | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000037001  | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000038001  | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 200001675002 | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20000189001  | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20000190001  | 15             |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20000191001  | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20000192001  | 5              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20000193001  | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20000193002  | 17             |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000311001  | 7              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000312001  | 7              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000313001  | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000314001  | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000315001  | 5              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000316001  | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000317001  | 8              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000318001  | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000319001  | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000320001  | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000399001  | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000400001  | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000401001  | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000402001  | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000403001  | 1              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20000425001  | 3              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20000426001  | 9              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20000426002  | 1              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20000427001  | 7              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000494001  | 7              |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20000522001  | 7              |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20000522003  | 9              |
| Caesar & Loretz GmbH | Base cream, diluted             | 20000701002  | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20000916003  | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20000916004  | 7              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20000916005  | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000924001  | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000924002  | 2              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000925001  | 8              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000926001  | 9              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000927001  | 3              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000928001  | 4              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000929001  | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000930001  | 5              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000931001  | 9              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20000932001  | 6              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 2000094002   | 1              |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20001034001  | 1              |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20001228     | 1              |

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| Supplier             | Substance                       | Batch       | Spectra |
|----------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001247001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001248001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001249001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001250001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001251001 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001452001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001454001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001455001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001469001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001471001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001474001 | 6       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001475001 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001480001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001480002 | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20001590001 | 5       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20001591001 | 2       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20001592001 | 10      |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20001593002 | 9       |
| Caesar & Loretz GmbH | Base cream, diluted             | 20001669001 | 3       |
| Caesar & Loretz GmbH | Base cream, diluted             | 20001670002 | 2       |
| Caesar & Loretz GmbH | Base cream, diluted             | 20001670003 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001675001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001675002 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001676001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001676002 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20001781003 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20001781004 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001978001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001979001 | 9       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20001979002 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002080001 | 8       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002081001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002082001 | 6       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20002226    | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20002257001 | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20002423004 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20002423005 | 2       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20002461003 | 4       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20002461004 | 1       |
| Caesar & Loretz GmbH | Base cream, diluted             | 20002515004 | 4       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20002852001 | 3       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20002854002 | 3       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20002854003 | 8       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002942001 | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002943001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002944001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002945002 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002946001 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002947001 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002948001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002949001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20002949002 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20003015001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20003015003 | 1       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20003016002 | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20003016003 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20003307001 | 13      |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20003308001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20003309001 | 2       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20003445001 | 7       |

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| Supplier             | Substance                       | Batch         | Spectra |
|----------------------|---------------------------------|---------------|---------|
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20003445002   | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20003445003   | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 20003446002   | 2       |
| Caesar & Loretz GmbH | Base cream, diluted             | 20003510001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20003746001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 20003746003   | 6       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20003746004   | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20003955001   | 2       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 20003955002   | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20004291001   | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20004292001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20004293001   | 10      |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20004293002   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 20004294001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004456001   | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004457000   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004457001   | 5       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004457002   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004458001   | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004459001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004460001   | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004461001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 20004462001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 2018018109701 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000287001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000290001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000291001   | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000292001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000293001   | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000294001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000295001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21000339001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21000339002   | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21000339003   | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000374001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000375001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000375002   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000376002   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000377001   | 4       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21000396001   | 6       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21000397003   | 4       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21000399001   | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 21000505001   | 5       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 21000505003   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21000681001   | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21000682001   | 6       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21000683001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21000684001   | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21000685002   | 5       |
| Caesar & Loretz GmbH | Base cream, diluted             | 21000785001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21000806004   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000920001   | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000921002   | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000921003   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000922001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000923001   | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000924001   | 8       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000925001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000926001   | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000927001   | 2       |

continued on the next page

continued from previous page

| Supplier             | Substance                       | Batch       | Spectra |
|----------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000928001 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21000929001 | 4       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21001221001 | 2       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21001222003 | 5       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21001223001 | 4       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21001223002 | 1       |
| Caesar & Loretz GmbH | Base cream, diluted             | 21001314001 | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 21001333001 | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 21001333002 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21001436001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001495001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001497001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001498001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001501001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001502001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001505001 | 3       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 21001752002 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001752003 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21001808    | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001810001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001812002 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001813001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001813002 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001814001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001815001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21001816001 | 3       |
| Caesar & Loretz GmbH | Base cream, diluted             | 21001871001 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21001941002 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21001942001 | 4       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21001943001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21001943002 | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21001947001 | 5       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21001947002 | 5       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21001949001 | 4       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 21002193003 | 5       |
| Caesar & Loretz GmbH | Hydrophilic cream, non-ionic... | 21002193004 | 2       |
| Caesar & Loretz GmbH | Base cream, diluted             | 21002416001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21002624001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21002629001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21002632002 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21002637001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21002641001 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21002644001 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21002645002 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21002646001 | 2       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21002902001 | 2       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21002902002 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21003004003 | 2       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 21003705003 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21003798001 | 7       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream wi... | 21003799001 | 4       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21003890001 | 1       |
| Caesar & Loretz GmbH | Base cream, hydrophobic DAC     | 21003891003 | 3       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21003945001 | 9       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21003946001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21003947001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21003954001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21003955001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream DAB   | 21003957001 | 1       |
| Caesar & Loretz GmbH | Anionic hydrophilic cream SR... | 22000014003 | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 22000352001 | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | 22000353001 | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream SR... | 289329      | 1       |
| Caesar & Loretz GmbH       | Wolff® base half-fat cream      | 810201      | 2       |
| Caesar & Loretz GmbH       | Wolff® base half-fat cream      | 810800      | 2       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream wi... | AP210204-02 | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream SR... | AP210701-01 | 1       |
| Caesar & Loretz GmbH       | Anionic hydrophilic cream DAB   | Caelo       | 1       |
| Caesar & Loretz Hilden/... | Base cream, diluted             | 20001670002 | 1       |
| Caesar & Loretz Hilden     | Anionic hydrophilic cream DAB   | 18011001    | 1       |
| Caesar & Loretz Hilden     | Base cream, hydrophobic DAC     | 18173902    | 1       |
| Caesar & Loretz Hilden     | Base cream, hydrophobic DAC     | 1824501     | 1       |
| Caesar & Loretz Hilden     | Anionic hydrophilic cream wi... | 18248101    | 1       |
| Caesar & Loretz Hilden     | Base cream, hydrophobic DAC     | 19000415001 | 1       |
| Caesar & Loretz Hilden     | Anionic hydrophilic cream DAB   | 19072301    | 1       |
| Caesar & Loretz Hilden     | Base cream, diluted             | 19229902    | 1       |
| Caesar & Loretz Hilden     | Base cream, hydrophobic DAC     | 20000427001 | 1       |
| Caesar & Loretz Hilden2... | Base cream, hydrophobic DAC     | 20001592001 | 1       |
| Caesar & Loretz/ Noweda    | Anionic hydrophilic cream DAB   | 17299201    | 1       |
| Caesar & Loretz/AHD        | Anionic hydrophilic cream DAB   | 15319101    | 1       |
| Caesar & Loretz/AHD        | Base cream, hydrophobic DAC     | 16074901    | 1       |
| Caesar & Loretz/AHD        | Anionic hydrophilic cream DAB   | 17202001    | 1       |
| Caesar & Loretz/Gehe       | Base cream, hydrophobic DAC     | 19145601    | 1       |
| Caesar & Loretz/Gehe       | Anionic hydrophilic cream DAB   | 19206201    | 1       |
| Caesar & Loretz/Gehe       | Anionic hydrophilic cream SR... | 19240001    | 1       |
| Caesar & Loretz/Geilenk... | Anionic hydrophilic cream DAB   | 18298401    | 1       |
| Caesar & Loretz/Geilenk... | Base cream, hydrophobic DAC     | 19000415001 | 1       |
| Caesar & Loretz/Geilenk... | Anionic hydrophilic cream DAB   | 19162001    | 1       |
| Caesar & Loretz/Geilenk... | Base cream, hydrophobic DAC     | 20002854003 | 1       |
| Caesar & Loretz/Geilenk... | Anionic hydrophilic cream DAB   | 21000920001 | 1       |
| Caesar & Loretz/Noweda     | Base cream, hydrophobic DAC     | 16074802    | 1       |
| Caesar & Loretz/Noweda     | Anionic hydrophilic cream DAB   | 16158901    | 1       |
| Caesar & Loretz/Noweda     | Anionic hydrophilic cream DAB   | 17088901    | 1       |
| Caesar & Loretz/Noweda     | Anionic hydrophilic cream SR... | 19123802    | 1       |
| Caesar & Loretz/Noweda     | Hydrophilic cream, non-ionic... | 295648      | 1       |
| Caesar & Loretz/Phönix     | Anionic hydrophilic cream DAB   | 19161101    | 1       |
| Caesar & Loretz/Phönix     | Base cream, hydrophobic DAC     | 19204802    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 13313301    | 1       |
| Caesar & Loretz            | Base cream, hydrophobic DAC     | 16075201    | 1       |
| Caesar & Loretz            | Base cream, hydrophobic DAC     | 16174201    | 1       |
| Caesar & Loretz            | Base cream, hydrophobic DAC     | 16293601    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 16322801    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 16328201    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 17088801    | 1       |
| Caesar & Loretz            | Hydrophilic cream, non-ionic... | 17113403    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 17142601    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 17142801    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 17143501    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 17202101    | 1       |
| Caesar & Loretz            | Base cream, hydrophobic DAC     | 17255202    | 1       |
| Caesar & Loretz            | Hydrophilic cream, non-ionic... | 17261002    | 1       |
| Caesar & Loretz            | Hydrophilic cream, non-ionic... | 17294003    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 17299201    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 172992017   | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 18010901    | 1       |
| Caesar & Loretz            | Hydrophilic cream, non-ionic... | 18050501    | 1       |
| Caesar & Loretz            | Base cream, hydrophobic DAC     | 18051301    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 18139401    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 18169001    | 1       |
| Caesar & Loretz            | Base cream, hydrophobic DAC     | 18174101    | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz            | Anionic hydrophilic cream wi... | 18180901    | 1       |
| Caesar & Loretz            | Hydrophilic cream, non-ionic... | 18218002    | 2       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 18242901    | 1       |
| Caesar & Loretz            | Anionic hydrophilic cream DAB   | 19071501    | 1       |
| Caesar & Loretz            | Base cream, diluted             | 20001667001 | 1       |
| Caesar & Loretz            | Base cream, hydrophobic DAC     | 20002854003 | 1       |
| Caesar & Loretz7pHÖNIX     | Anionic hydrophilic cream DAB   | 18243301    | 1       |
| Caesar & Loretz GmbH       | Hydrophilic cream, non-ionic... |             | 1       |
| Caesar und Loretz GmbH     | Anionic hydrophilic cream DAB   | 19000618    | 1       |
| Caesar und Loretz          | Base cream, hydrophobic DAC     | 18100801    | 1       |
| Caesar und Loretz          | Base cream, hydrophobic DAC     | 19145602    | 1       |
| Caesar&Lorenz              | Anionic hydrophilic cream DAB   | 21002640001 | 1       |
| Caesar&Loretz GmbH /Anzag  | Base cream, hydrophobic DAC     | 15221301    | 1       |
| Caesar&Loretz GmbH,26.0... | Anionic hydrophilic cream SR... | 17045401    | 1       |
| Caesar&Loretz GmbH,Phön... | Anionic hydrophilic cream SR... | 16046501    | 1       |
| caesar&Loretz GmbH,Phön... | Base cream, hydrophobic DAC     | 16165701    | 1       |
| Caesar&Loretz GmbH,PHÖN... | Anionic hydrophilic cream SR... | 17088801    | 1       |
| Caesar&Loretz GmbH/Anzag   | Base cream, hydrophobic DAC     | 14145301    | 1       |
| Caesar&Loretz GmbH         | Base cream, hydrophobic DAC     | 15221301    | 1       |
| Caesar&Loretz GmbH         | Anionic hydrophilic cream DAB   | 15357401    | 1       |
| Caesar&Loretz GmbH         | Anionic hydrophilic cream SR... | 15386602    | 1       |
| Caesar&Loretz GmbH         | Anionic hydrophilic cream SR... | 16019601    | 1       |
| Caesar&Loretz GmbH         | Anionic hydrophilic cream SR... | 16107502    | 1       |
| caesar&lorenz GmbH         | Hydrophilic cream, non-ionic... | 18050401    | 2       |
| Caesar&Loretz GmbH         | Anionic hydrophilic cream SR... | 18176103    | 1       |
| Caesar&Loretz GmbH         | Anionic hydrophilic cream DAB   | 20004457002 | 1       |
| Caesar&lorenz,Anzag        | Anionic hydrophilic cream DAB   | 15258901    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 11320801    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 12010501    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 12314201    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 13128701    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 13363601    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 13364301    | 1       |
| Caesar&lorenz,Phoenix      | Base cream, hydrophobic DAC     | 13386401    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream wi... | 14030701    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 14118201    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 14139001    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 14233601    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 14285601    | 1       |
| Caesar&lorenz,Phoenix      | Anionic hydrophilic cream DAB   | 14294801    | 1       |
| Caesar&lorenz,Phoenix      | Base cream, hydrophobic DAC     | 14335502    | 1       |
| Caesar&lorenz,Phoenix      | Base cream, hydrophobic DAC     | 15001002    | 1       |
| Caesar&lorenz,phönix,11... | Anionic hydrophilic cream SR... | 16103101    | 3       |
| caesar&lorenz,phönix       | Anionic hydrophilic cream DAB   | 14186702    | 1       |
| caesar&lorenz,Phönix       | Anionic hydrophilic cream DAB   | 15034301    | 1       |
| Caesar&LoretzGmbH,11,03... | Anionic hydrophilic cream SR... | 16322701    | 1       |
| Caesar/Noweda              | Base cream, hydrophobic DAC     | 15001002    | 1       |
| Caeser und Loretz GmbH     | Hydrophilic cream, non-ionic... | 18259502    | 1       |
| Caeser und Loretz GmbH     | Anionic hydrophilic cream DAB   | 19161201    | 1       |
| Caleo/ Ebert               | Anionic hydrophilic cream DAB   | 18066701    | 1       |
| Caleo/ Noweda              | Hydrophilic cream, non-ionic... | 19055602    | 1       |
| Caleo/gehe                 | Anionic hydrophilic cream DAB   | 17248601    | 1       |
| Caleo                      | Anionic hydrophilic cream DAB   | 17088701    | 1       |
| caleo                      | Anionic hydrophilic cream DAB   | 17141901    | 2       |
| Caleo                      | Base cream, hydrophobic DAC     | 17150402    | 1       |
| Calo, Hilden/ Phönix       | Anionic hydrophilic cream DAB   | 19206001    | 1       |
| Calo/Sanacorp              | Anionic hydrophilic cream DAB   | 16259302    | 1       |
| calo                       | Base cream, hydrophobic DAC     | 13072602    | 3       |
| calo                       | Anionic hydrophilic cream DAB   | 17269701    | 1       |
| Caolo / Kehr               | Anionic hydrophilic cream DAB   | 20002081001 | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Cealo / Otto Geilenkirc... | Anionic hydrophilic cream wi... | 19027501     | 1       |
| Cealo / Otto Geilenkirc... | Anionic hydrophilic cream wi... | 19027601     | 1       |
| Cealo / Otto Geilenkirc... | Anionic hydrophilic cream wi... | 19093702     | 1       |
| Cealo/ AHD                 | Anionic hydrophilic cream SR... | 16258601     | 1       |
| Cealo/ Noweda              | Base cream, diluted             | 19105604     | 2       |
| Cealo/ Noweda              | Base cream, diluted             | 19190403     | 1       |
| Cealo/AHD                  | Anionic hydrophilic cream SR... | 16107501     | 1       |
| Cealo/AHD                  | Anionic hydrophilic cream DAB   | 19072401     | 1       |
| Cealo/Anzag                | Anionic hydrophilic cream DAB   | 15200401     | 1       |
| Cealo/Anzag                | Base cream, hydrophobic DAC     | 17255202     | 1       |
| Cealo/GEHE                 | Base cream, hydrophobic DAC     | 18051101     | 1       |
| Cealo/GEHE                 | Hydrophilic cream, non-ionic... | 181775301    | 1       |
| Cealo/Gehe                 | Anionic hydrophilic cream wi... | 19093901     | 1       |
| Cealo/Phönix               | Wolff® base half-fat cream      | 339140       | 1       |
| Cealo/Sanacorp             | Anionic hydrophilic cream DAB   | 13275501     | 1       |
| Cealo/Sanacorp             | Anionic hydrophilic cream DAB   | 13364201     | 1       |
| Cealo/Sanacorp             | Anionic hydrophilic cream DAB   | 17248401     | 1       |
| Cealo/Sanacorp             | Anionic hydrophilic cream wi... | 200000193002 | 1       |
| Cealo                      | Anionic hydrophilic cream SR... | 10A150517    | 1       |
| Cealo                      | Anionic hydrophilic cream SR... | 10A280317    | 1       |
| Cealo                      | Anionic hydrophilic cream wi... | 13165001     | 1       |
| cealo                      | Base cream, hydrophobic DAC     | 13274902     | 1       |
| Cealo                      | Anionic hydrophilic cream wi... | 14214201     | 1       |
| Cealo                      | Anionic hydrophilic cream DAB   | 16250001     | 1       |
| Cealo                      | Anionic hydrophilic cream wi... | 1726202      | 1       |
| cealo                      | Anionic hydrophilic cream DAB   | 18298401     | 1       |
| Cealo                      | Anionic hydrophilic cream DAB   | 19161001     | 1       |
| Cealo                      | Anionic hydrophilic cream DAB   | 20000402001  | 1       |
| Cealo                      | Anionic hydrophilic cream DAB   | 21000920001  | 1       |
| Cealo                      | Base cream, hydrophobic DAC     | 21001223001  | 1       |
| Cealo                      | Anionic hydrophilic cream SR... | 285899       | 1       |
| Cealo/Jenne                | Base cream, hydrophobic DAC     | 21001223002  | 1       |
| Cealo                      | Anionic hydrophilic cream DAB   | 16250001     | 4       |
| Chiesi / Sanacorp/EK: 6... | Wolff® base half-fat cream      | 506360       | 1       |
| Chiesi GmbH                | Wolff® base half-fat cream      | 703031       | 1       |
| Chiesi                     | Wolff® base half-fat cream      | 1455A        | 1       |
| Chiesi                     | Wolff® base half-fat cream      | 601880       | 1       |
| Chiesi                     | Wolff® base half-fat cream      | 71370A       | 1       |
| COM/Phoenix                | Anionic hydrophilic cream DAB   | 20000927001  | 1       |
| DAB 2008                   | Anionic hydrophilic cream DAB   | 12099901     | 1       |
| DAB 2008                   | Anionic hydrophilic cream DAB   | 14264001     | 1       |
| DAB                        | Anionic hydrophilic cream DAB   | 270951       | 1       |
| Defektur Erytromycin Wo... | Wolff® base half-fat cream      | K112022      | 2       |
| Defektur                   | Anionic hydrophilic cream SR... | 271711       | 1       |
| devesa/Phönix              | Wolff® base half-fat cream      | 801140       | 6       |
| Doppeleiche Apotheke       | Base cream, diluted             | 200714001    | 1       |
| Dr Wolff / Anzag           | Wolff® base half-fat cream      | 608180       | 1       |
| Dr Wolff / Phönix          | Wolff® base half-fat cream      | 801140       | 1       |
| Dr Wolff / Sanacorp        | Wolff® base half-fat cream      | 905120       | 2       |
| Dr Wolff Arzneimittel      | Wolff® base half-fat cream      | 704050       | 1       |
| Dr Wolff Arzneimittel      | Wolff® base half-fat cream      | 901920       | 1       |
| Dr Wolff/ Alliance         | Wolff® base half-fat cream      | 904880       | 1       |
| Dr Wolff/ Gehe             | Wolff® base half-fat cream      | 234791       | 1       |
| Dr Wolff/ Gehe             | Wolff® base half-fat cream      | 333930       | 1       |
| Dr Wolff/ Sanacorp         | Wolff® base half-fat cream      | 339140       | 1       |
| Dr Wolff/Noweda            | Wolff® base half-fat cream      | 511420       | 3       |
| Dr Wolff                   | Wolff® base half-fat cream      | 410400       | 1       |
| Dr Wolff                   | Wolff® base half-fat cream      | 48882171377  | 1       |
| Dr Wolff                   | Wolff® base half-fat cream      | 501080       | 1       |
| Dr Wolff                   | Wolff® base half-fat cream      | 501470       | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                              | Batch            | Spectra |
|----------------------------|----------------------------------------|------------------|---------|
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 510400           | 1       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 602050           | 1       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 606050           | 3       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 610991           | 1       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 704220           | 1       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 901920           | 3       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 905120           | 1       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 908620           | 1       |
| Dr Wolff                   | Wolff <sup>®</sup> base half-fat cream | 909810           | 1       |
| DR Wolff                   | Wolff <sup>®</sup> base half-fat cream | 909810           | 2       |
| Dr, Wolff                  | Wolff <sup>®</sup> base half-fat cream | 3542             | 1       |
| Dr. A. Wolff GmbH & Co...  | Wolff <sup>®</sup> base half-fat cream | 905120           | 1       |
| Dr. A. Wolff/Kehr          | Wolff <sup>®</sup> base half-fat cream | 438340           | 2       |
| Dr. A.Wolff GmbH/Noweda    | Wolff <sup>®</sup> base half-fat cream | 608180           | 1       |
| Dr. August Wolf GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 807640           | 1       |
| Dr. August Wolf GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 901920           | 3       |
| Dr. August Wolf/Kehr       | Wolff <sup>®</sup> base half-fat cream | 910460           | 1       |
| Dr. August Wolff / Nowe... | Wolff <sup>®</sup> base half-fat cream | 10550            | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream |                  | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream |                  | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream | 170519WBC/610991 | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream | 171113WBC/701451 | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream | 180312WB/705760  | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream | 807640           | 2       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream | 711250           | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream | 606050           | 1       |
| Dr. August Wolff GmbH &... | Wolff <sup>®</sup> base half-fat cream | 143650           | 1       |
| Dr. August Wolff GmbH /... | Wolff <sup>®</sup> base half-fat cream | 7742             | 1       |
| Dr. August Wolff GmbH /... | Wolff <sup>®</sup> base half-fat cream | 147400           | 2       |
| Dr. August Wolff GmbH /... | Wolff <sup>®</sup> base half-fat cream | 152840           | 1       |
| Dr. August Wolff GmbH /... | Wolff <sup>®</sup> base half-fat cream | 7742             | 1       |
| Dr. August Wolff GmbH /... | Wolff <sup>®</sup> base half-fat cream | 801470           | 1       |
| Dr. August Wolff GmbH B... | Wolff <sup>®</sup> base half-fat cream | 147400           | 1       |
| Dr. August Wolff GmbH/...  | Wolff <sup>®</sup> base half-fat cream | 705760           | 2       |
| Dr. August Wolff GmbH/...  | Wolff <sup>®</sup> base half-fat cream | 149110           | 2       |
| Dr. August Wolff GmbH/P... | Wolff <sup>®</sup> base half-fat cream | 10680            | 1       |
| Dr. August Wolff GmbH/S... | Wolff <sup>®</sup> base half-fat cream | 506361           | 1       |
| Dr. August Wolff GmbH/S... | Wolff <sup>®</sup> base half-fat cream | 810800           | 3       |
| Dr. August Wolff GmbH/S... | Wolff <sup>®</sup> base half-fat cream | 905120           | 2       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 10680            | 3       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 1110             | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 140340           | 2       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 141811           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 141812           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 152840           | 1       |
| DR. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 235200           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 506360           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 510400           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 511420           | 2       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 602050           | 2       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 606050           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 6480             | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 703031           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 707500           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 7742             | 4       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 805720           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 810800           | 1       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 905120           | 2       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 910460           | 4       |
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | 911220           | 1       |

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| Supplier                   | Substance                              | Batch   | Spectra |
|----------------------------|----------------------------------------|---------|---------|
| Dr. August Wolff GmbH      | Wolff <sup>®</sup> base half-fat cream | D10550  | 1       |
| Dr. August Wolff/ Phönix   | Wolff <sup>®</sup> base half-fat cream | 807640  | 1       |
| Dr. August Wolff/Gehe      | Wolff <sup>®</sup> base half-fat cream | 152840  | 2       |
| Dr. August Wolff/Noweda    | Wolff <sup>®</sup> base half-fat cream | 141811  | 1       |
| Dr. August Wolff/Noweda    | Wolff <sup>®</sup> base half-fat cream | 807580  | 1       |
| Dr. August Wolff/Noweda    | Wolff <sup>®</sup> base half-fat cream | 904880  | 1       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 10680   | 6       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 707500  | 1       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 711250  | 2       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 805720  | 5       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 810800  | 5       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 904880  | 1       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 905120  | 2       |
| Dr. August Wolff/Phönix    | Wolff <sup>®</sup> base half-fat cream | 910460  | 5       |
| Dr. August Wolff/Sanaco... | Wolff <sup>®</sup> base half-fat cream | 337260  | 1       |
| Dr. August Wolff/Sanaco... | Wolff <sup>®</sup> base half-fat cream | 901920  | 1       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 10680   | 4       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 1110    | 1       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 140340  | 1       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 141812  | 1       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 143600  | 2       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 7742    | 1       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 901140  | 1       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 90488   | 1       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 904880  | 2       |
| Dr. August Wolff/Sanacorp  | Wolff <sup>®</sup> base half-fat cream | 911220  | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 10550   | 2       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 141811  | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 332040  | 5       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 333930  | 2       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 3542    | 3       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 501080  | 2       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 510400  | 4       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 602050  | 5       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 606050  | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 608180  | 2       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 609950  | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 704050  | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 7091713 | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 804080  | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 901140  | 2       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 904880  | 4       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 906620  | 1       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 908620  | 4       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 909810  | 2       |
| Dr. August Wolff           | Wolff <sup>®</sup> base half-fat cream | 911220  | 2       |
| Dr. Augustus Wolff GmbH    | Wolff <sup>®</sup> base half-fat cream | 801140  | 1       |
| Dr. Wolf AHD               | Wolff <sup>®</sup> base half-fat cream | 438160  | 3       |
| Dr. Wolf/Phoenix           | Wolff <sup>®</sup> base half-fat cream | 704050  | 5       |
| Dr. Wolf                   | Wolff <sup>®</sup> base half-fat cream | 331551  | 1       |
| Dr. Wolf                   | Wolff <sup>®</sup> base half-fat cream | 6480    | 1       |
| Dr. Wolff / Anzag          | Wolff <sup>®</sup> base half-fat cream | 601880  | 1       |
| Dr. Wolff / Gehe           | Wolff <sup>®</sup> base half-fat cream | 801140  | 2       |
| Dr. Wolff / Gehe           | Wolff <sup>®</sup> base half-fat cream | 805720  | 1       |
| Dr. Wolff / Gehe           | Wolff <sup>®</sup> base half-fat cream | 807580  | 1       |
| Dr. Wolff / Gehe           | Wolff <sup>®</sup> base half-fat cream | 810800  | 1       |
| Dr. Wolff / Gehe           | Wolff <sup>®</sup> base half-fat cream | 901140  | 1       |
| Dr. Wolff / Gehe           | Wolff <sup>®</sup> base half-fat cream | 904670  | 1       |
| Dr. Wolff / GEHE           | Wolff <sup>®</sup> base half-fat cream | 909810  | 1       |
| Dr. Wolff / Jenne          | Wolff <sup>®</sup> base half-fat cream | 908620  | 1       |

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| Supplier                   | Substance                              | Batch  | Spectra |
|----------------------------|----------------------------------------|--------|---------|
| Dr. Wolff / Jenne          | Wolff <sup>®</sup> base half-fat cream | 911220 | 1       |
| Dr. Wolff / Kehr           | Wolff <sup>®</sup> base half-fat cream | 438160 | 1       |
| Dr. Wolff / Kehr           | Wolff <sup>®</sup> base half-fat cream | 510621 | 1       |
| Dr. Wolff / Kehr           | Wolff <sup>®</sup> base half-fat cream | 602290 | 1       |
| Dr. Wolff / Kehr           | Wolff <sup>®</sup> base half-fat cream | 605700 | 3       |
| Dr. Wolff / Noweda         | Wolff <sup>®</sup> base half-fat cream | 1110   | 1       |
| Dr. Wolff / Noweda         | Wolff <sup>®</sup> base half-fat cream | 810201 | 1       |
| Dr. Wolff / Noweda         | Wolff <sup>®</sup> base half-fat cream | 901140 | 1       |
| Dr. Wolff / Noweda         | Wolff <sup>®</sup> base half-fat cream | 901930 | 1       |
| Dr. Wolff / OG             | Wolff <sup>®</sup> base half-fat cream | 608180 | 1       |
| Dr. Wolff / Phönix         | Wolff <sup>®</sup> base half-fat cream | 3542   | 1       |
| Dr. Wolff / Phönix         | Wolff <sup>®</sup> base half-fat cream | 801140 | 1       |
| Dr. Wolff / Sanacorp       | Wolff <sup>®</sup> base half-fat cream | 810800 | 4       |
| Dr. Wolff / Sanacorp       | Wolff <sup>®</sup> base half-fat cream | 905120 | 1       |
| Dr. Wolff / Anzag          | Wolff <sup>®</sup> base half-fat cream | 232593 | 1       |
| Dr. Wolff / Anzag          | Wolff <sup>®</sup> base half-fat cream | 432611 | 1       |
| Dr. Wolff / Noweda         | Wolff <sup>®</sup> base half-fat cream | 601880 | 1       |
| Dr. Wolff GmbH/ Allianc... | Wolff <sup>®</sup> base half-fat cream | 506360 | 1       |
| Dr. Wolff GmbH/ Allianc... | Wolff <sup>®</sup> base half-fat cream | 810800 | 1       |
| Dr. Wolff GmbH/Fiebig      | Wolff <sup>®</sup> base half-fat cream | 807580 | 1       |
| Dr. Wolff GmbH/Phönix      | Wolff <sup>®</sup> base half-fat cream | 711250 | 6       |
| Dr. Wolff GmbH             | Wolff <sup>®</sup> base half-fat cream | 141811 | 1       |
| Dr. Wolff GmbH             | Wolff <sup>®</sup> base half-fat cream | 501080 | 1       |
| Dr. Wolff GmbH             | Wolff <sup>®</sup> base half-fat cream | 506360 | 3       |
| Dr. Wolff GmbH             | Wolff <sup>®</sup> base half-fat cream | 909810 | 1       |
| Dr. Wolff l/Noweda         | Wolff <sup>®</sup> base half-fat cream | 438340 | 2       |
| Dr. Wolff l/Noweda         | Wolff <sup>®</sup> base half-fat cream | 901140 | 1       |
| Dr. Wolff Spangro 26.08... | Wolff <sup>®</sup> base half-fat cream | 238560 | 1       |
| Dr. Wolff über Phönix      | Wolff <sup>®</sup> base half-fat cream | 10680  | 1       |
| Dr. Wolff über Phönix      | Wolff <sup>®</sup> base half-fat cream | 141812 | 1       |
| Dr. Wolff/ AHD             | Wolff <sup>®</sup> base half-fat cream | 143600 | 1       |
| Dr. Wolff/ Alliance        | Wolff <sup>®</sup> base half-fat cream | 511420 | 1       |
| Dr. Wolff/ Alliance        | Wolff <sup>®</sup> base half-fat cream | 608180 | 1       |
| Dr. Wolff/ Fiebig          | Wolff <sup>®</sup> base half-fat cream | 701080 | 1       |
| Dr. Wolff/ Gehe            | Wolff <sup>®</sup> base half-fat cream | 143600 | 1       |
| Dr. Wolff/ Gehe            | Wolff <sup>®</sup> base half-fat cream | 430880 | 1       |
| Dr. Wolff/ Noweda          | Wolff <sup>®</sup> base half-fat cream | 605700 | 5       |
| Dr. Wolff/ Noweda          | Wolff <sup>®</sup> base half-fat cream | 901930 | 1       |
| Dr. Wolff/ Noweda          | Wolff <sup>®</sup> base half-fat cream | 904670 | 3       |
| Dr. Wolff/ Noweda          | Wolff <sup>®</sup> base half-fat cream | 904880 | 1       |
| Dr. Wolff/ Phoenix/ 25...  | Wolff <sup>®</sup> base half-fat cream | 140340 | 1       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 141811 | 1       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 143600 | 1       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 434360 | 1       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 7742   | 1       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 810201 | 1       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 904880 | 1       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 905120 | 7       |
| Dr. Wolff/ Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 910460 | 8       |
| Dr. Wolff/AEP              | Wolff <sup>®</sup> base half-fat cream | 910460 | 1       |
| Dr. Wolff/AHD              | Wolff <sup>®</sup> base half-fat cream | 332040 | 4       |
| Dr. Wolff/Alliance         | Wolff <sup>®</sup> base half-fat cream | 511420 | 1       |
| Dr. Wolff/Alliance         | Wolff <sup>®</sup> base half-fat cream | 608180 | 1       |
| Dr. Wolff/Anzag            | Wolff <sup>®</sup> base half-fat cream | 810800 | 2       |
| Dr. Wolff/Anzag            | Wolff <sup>®</sup> base half-fat cream | 905120 | 2       |
| Dr. Wolff/Anzag            | Wolff <sup>®</sup> base half-fat cream | 910460 | 2       |
| Dr. Wolff/Gehe             | Wolff <sup>®</sup> base half-fat cream | 141811 | 1       |
| Dr. Wolff/Gehe             | Wolff <sup>®</sup> base half-fat cream | 147400 | 1       |
| Dr. Wolff/Gehe             | Wolff <sup>®</sup> base half-fat cream | 3542   | 1       |
| Dr. Wolff/Gehe             | Wolff <sup>®</sup> base half-fat cream | 436750 | 1       |

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continued from previous page

| Supplier           | Substance                              | Batch     | Spectra |
|--------------------|----------------------------------------|-----------|---------|
| Dr. Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 608180    | 1       |
| Dr. Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 707370    | 1       |
| Dr. Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 805720    | 1       |
| Dr. Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 810201    | 2       |
| Dr. Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 901140    | 1       |
| Dr. Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 910460    | 2       |
| Dr. Wolff/Kehr     | Wolff <sup>®</sup> base half-fat cream | 1110      | 2       |
| Dr. Wolff/Kehr     | Wolff <sup>®</sup> base half-fat cream | 149110    | 1       |
| Dr. Wolff/Kehr     | Wolff <sup>®</sup> base half-fat cream | 609950    | 2       |
| Dr. Wolff/Kehr     | Wolff <sup>®</sup> base half-fat cream | 702500    | 3       |
| Dr. Wolff/Kehr     | Wolff <sup>®</sup> base half-fat cream | 707370    | 2       |
| Dr. Wolff/Kehr     | Wolff <sup>®</sup> base half-fat cream | 911220    | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 1110      | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 332040    | 6       |
| Dr. wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 431240    | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 438150    | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 438160    | 10      |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 438340    | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 602290    | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 705760    | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 707500    | 1       |
| Dr. Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 904880    | 1       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 506360    | 1       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 609950    | 1       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 701080    | 1       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 702500    | 1       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 704220    | 1       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 711250    | 21      |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 807640    | 2       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 901920    | 2       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 909810    | 1       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 9560      | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 501080    | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 6480      | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 804080    | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 805720    | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 807580    | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 904670    | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 911220    | 1       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 333620    | 4       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 801140    | 2       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 910460    | 3       |
| Dr. Wolff/V.d.L.   | Wolff <sup>®</sup> base half-fat cream | 430880    | 4       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 10061711  | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 10112014F | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 1061803   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 10680     | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 1091802   | 2       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 1110      | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 11110     | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 11121703  | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 12051807  | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 141811    | 3       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 143600    | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 1436000   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 147400    | 5       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 148510    | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 19011903  | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 19011904  | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 23071801  | 1       |

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| Supplier                   | Substance                              | Batch    | Spectra |
|----------------------------|----------------------------------------|----------|---------|
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 23101701 | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 238490   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 238560   | 3       |
| Dr. Wolff                  | Anionic hydrophilic cream SR...        | 290528   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 331551   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 333930   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 337260   | 4       |
| DR. WOLFF                  | Wolff <sup>®</sup> base half-fat cream | 337260   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 3542     | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 4051701  | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 430880   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 431240   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 432611   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 436750   | 3       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 501080   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 501082   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 501470   | 6       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 506361   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 510400   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 511420   | 3       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 602050   | 3       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 605551   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 605700   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 608180   | 7       |
| DR. WOLFF                  | Wolff <sup>®</sup> base half-fat cream | 609950   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 6480     | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 701080   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 701451   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 704050   | 10      |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 704220   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 711240   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 7742     | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 801140   | 11      |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 804080   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 805720   | 3       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 807580   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 807640   | 16      |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 810201   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 810800   | 3       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 901140   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 901920   | 27      |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 901930   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 904880   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 905120   | 2       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 909810   | 13      |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 9098810  | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 910460   | 3       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 910480   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 9560     | 27      |
| DR. Wolff;VDL;20.4.16;4... | Wolff <sup>®</sup> base half-fat cream | 511420   | 3       |
| Dr. Wolff/Phönix           | Wolff <sup>®</sup> base half-fat cream | 510621   | 1       |
| Dr. Wolff                  | Wolff <sup>®</sup> base half-fat cream | 510400   | 1       |
| Dr.A. Wolff, Sanacorp      | Wolff <sup>®</sup> base half-fat cream | 511420   | 2       |
| Dr.A.Wolff/Gehe            | Wolff <sup>®</sup> base half-fat cream | 602290   | 1       |
| Dr.A.Wolff/Phoenix         | Wolff <sup>®</sup> base half-fat cream | 10680    | 1       |
| Dr.A.Wolff/Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 301920   | 1       |
| Dr.A.Wolff/Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 801140   | 2       |
| Dr.A.Wolff/Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 807640   | 1       |
| Dr.A.Wolff/Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 901920   | 1       |
| Dr.A.Wolff/Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 909810   | 1       |

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| Supplier                   | Substance                              | Batch     | Spectra |
|----------------------------|----------------------------------------|-----------|---------|
| Dr.A.Wolff                 | Wolff <sup>®</sup> base half-fat cream | 601880    | 1       |
| Dr.August Wolff / Phönix   | Wolff <sup>®</sup> base half-fat cream | 901140    | 1       |
| Dr.August Wolff / Phönix   | Wolff <sup>®</sup> base half-fat cream | 90512     | 1       |
| Dr.August Wolff / Anzag    | Wolff <sup>®</sup> base half-fat cream | 8(810800) | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 810800    | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 10680     | 2       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 1110      | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 140340    | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 6480      | 3       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 904670    | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 911220    | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 801140    | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 807640    | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 901920    | 1       |
| Dr.August Wolff GmbH&Co... | Wolff <sup>®</sup> base half-fat cream | 704050    | 2       |
| Dr.August Wolff / AHD      | Wolff <sup>®</sup> base half-fat cream | 141812    | 1       |
| Dr.August Wolff / Sanacorp | Wolff <sup>®</sup> base half-fat cream | 10550     | 1       |
| Dr.August Wolff / Sanacorp | Wolff <sup>®</sup> base half-fat cream | 10680     | 2       |
| Dr.August Wolff / Sanacorp | Wolff <sup>®</sup> base half-fat cream | 7742      | 1       |
| Dr.August Wolff / Sanacorp | Wolff <sup>®</sup> base half-fat cream | 807640    | 1       |
| Dr.August Wolff / Sanacorp | Wolff <sup>®</sup> base half-fat cream | 910460    | 1       |
| Dr.August Wolff / AHD      | Wolff <sup>®</sup> base half-fat cream | 707370    | 1       |
| Dr.August Wolff / Alliance | Wolff <sup>®</sup> base half-fat cream | 9560      | 1       |
| Dr.August Wolff / Ebert    | Wolff <sup>®</sup> base half-fat cream | 511420    | 2       |
| Dr.August Wolff / Gehe     | Wolff <sup>®</sup> base half-fat cream | 704050    | 2       |
| Dr.August Wolff / Gehe     | Wolff <sup>®</sup> base half-fat cream | 909810    | 1       |
| Dr.August Wolff / Phönix   | Wolff <sup>®</sup> base half-fat cream | 602050    | 3       |
| Dr.August Wolff / Phönix   | Wolff <sup>®</sup> base half-fat cream | 901920    | 4       |
| Dr.August Wolff / Phönix   | Wolff <sup>®</sup> base half-fat cream | 905120    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 10550     | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 143650    | 24      |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 333620    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 3542      | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 38800     | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 430880    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 434360    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 511420    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 602050    | 2       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 605700    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 801140    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 807640    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 810201    | 1       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 901140    | 2       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 904880    | 4       |
| Dr.August Wolff            | Wolff <sup>®</sup> base half-fat cream | 909810    | 1       |
| Dr.August-Wolff / Kehr     | Wolff <sup>®</sup> base half-fat cream | 711250    | 2       |
| Dr.August-Wolff / Phoenix  | Wolff <sup>®</sup> base half-fat cream | 904880    | 1       |
| Dr.Wolff / Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 711250    | 1       |
| Dr.Wolff / AEP             | Wolff <sup>®</sup> base half-fat cream | 10680     | 1       |
| Dr.Wolff / AHD             | Wolff <sup>®</sup> base half-fat cream | 608180    | 2       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 10550     | 3       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 141811    | 5       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 3542      | 3       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 705760    | 2       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 7742      | 2       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 904880    | 1       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 905120    | 3       |
| Dr.Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 908620    | 2       |
| Dr.Wolff / Jenne           | Wolff <sup>®</sup> base half-fat cream | 3542      | 3       |
| Dr.Wolff / Jenne           | Wolff <sup>®</sup> base half-fat cream | 810201    | 1       |

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| Supplier                    | Substance                              | Batch      | Spectra |
|-----------------------------|----------------------------------------|------------|---------|
| Dr. Wolff / Jenne           | Wolff <sup>®</sup> base half-fat cream | 901140     | 2       |
| Dr. Wolff / Jenne           | Wolff <sup>®</sup> base half-fat cream | 904880     | 2       |
| Dr. Wolff / Jenne           | Wolff <sup>®</sup> base half-fat cream | 905120     | 1       |
| Dr. Wolff / Jenne           | Wolff <sup>®</sup> base half-fat cream | 908620     | 4       |
| Dr. Wolff / Phoenix         | Wolff <sup>®</sup> base half-fat cream | 805720     | 1       |
| Dr. Wolff / Phoenix         | Wolff <sup>®</sup> base half-fat cream | 810800     | 4       |
| Dr. Wolff / Phoenix         | Wolff <sup>®</sup> base half-fat cream | 905120     | 3       |
| Dr. Wolff / Phoenix         | Wolff <sup>®</sup> base half-fat cream | 910460     | 2       |
| Dr. Wolff / Phönix          | Wolff <sup>®</sup> base half-fat cream | 707370     | 2       |
| Dr. Wolff / Phönix          | Wolff <sup>®</sup> base half-fat cream | 711250     | 1       |
| Dr. Wolff / Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 807640     | 2       |
| Dr. Wolff / Alliance        | Wolff <sup>®</sup> base half-fat cream | 801140     | 1       |
| Dr. Wolff / Gehe            | Wolff <sup>®</sup> base half-fat cream | 501870     | 1       |
| Dr. Wolff / Kehr            | Wolff <sup>®</sup> base half-fat cream | 810201     | 2       |
| Dr. Wolff GmbH & Co.KG /... | Wolff <sup>®</sup> base half-fat cream | 909810     | 1       |
| Dr. Wolff GmbH & Co.KG /... | Wolff <sup>®</sup> base half-fat cream | 9560       | 4       |
| Dr. Wolff GmbH & Co.KG /... | Wolff <sup>®</sup> base half-fat cream | 143650     | 2       |
| Dr. Wolff GmbH & Co.KG /... | Wolff <sup>®</sup> base half-fat cream | 911220     | 1       |
| Dr. Wolff GmbH & Co.KG A... | Wolff <sup>®</sup> base half-fat cream | 432611     | 1       |
| Dr. Wolff GmbH & Co.KG A... | Wolff <sup>®</sup> base half-fat cream | 434581     | 1       |
| Dr. Wolff GmbH & Co.KG A... | Wolff <sup>®</sup> base half-fat cream | 438160     | 1       |
| Dr. Wolff Phönix            | Wolff <sup>®</sup> base half-fat cream | 7742       | 1       |
| Dr. Wolff/ Noweda           | Wolff <sup>®</sup> base half-fat cream | 610991     | 5       |
| Dr. Wolff/ Noweda           | Wolff <sup>®</sup> base half-fat cream | 701451     | 2       |
| Dr. Wolff/ Alliance heal... | Wolff <sup>®</sup> base half-fat cream | 77420      | 1       |
| Dr. Wolff/ Alliance heal... | Wolff <sup>®</sup> base half-fat cream | 805720     | 1       |
| Dr. Wolff/ Anzag            | Wolff <sup>®</sup> base half-fat cream | 235200     | 1       |
| Dr. Wolff/ Jenne            | Wolff <sup>®</sup> base half-fat cream | 905120     | 1       |
| Dr. Wolff/ Noweda           | Wolff <sup>®</sup> base half-fat cream | 6480       | 1       |
| Dr. Wolff/ Noweda           | Wolff <sup>®</sup> base half-fat cream | 701080     | 1       |
| Dr. Wolff/ Noweda           | Wolff <sup>®</sup> base half-fat cream | 804080     | 1       |
| Dr. Wolff/ Noweda           | Wolff <sup>®</sup> base half-fat cream | 904670     | 1       |
| Dr. Wolff/ Phö              | Wolff <sup>®</sup> base half-fat cream | 801470     | 1       |
| Dr. Wolff/ Phö              | Wolff <sup>®</sup> base half-fat cream | 901140     | 1       |
| Dr. Wolff/ Phoenix          | Wolff <sup>®</sup> base half-fat cream | 501470     | 2       |
| Dr. Wolff/                  | Wolff <sup>®</sup> base half-fat cream | 605700     | 1       |
| Dr. Wolff/AEP               | Wolff <sup>®</sup> base half-fat cream | 711250     | 1       |
| Dr. Wolff/AHD 02.09.20 E... | Wolff <sup>®</sup> base half-fat cream | 909810     | 1       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 143650     | 4       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 511420     | 4       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 606050     | 1       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 7 (702500) | 1       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 704050     | 2       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 707500     | 1       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 801140     | 2       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 804080     | 1       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 901920     | 5       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 901930     | 1       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 9500       | 1       |
| Dr. Wolff/AHD               | Wolff <sup>®</sup> base half-fat cream | 9560       | 5       |
| DR.WOLFF/Alliance           | Wolff <sup>®</sup> base half-fat cream | 10550      | 1       |
| DR.WOLFF/Alliance           | Wolff <sup>®</sup> base half-fat cream | 140340     | 1       |
| Dr. Wolff/Alliance          | Wolff <sup>®</sup> base half-fat cream | 704050     | 4       |
| Dr. Wolff/Alliance          | Wolff <sup>®</sup> base half-fat cream | 909810     | 1       |
| Dr. Wolff/Anzag             | Wolff <sup>®</sup> base half-fat cream | 608180     | 1       |
| Dr. Wolff/Ebert             | Wolff <sup>®</sup> base half-fat cream | 602290     | 1       |
| Dr. Wolff/Fiebig 05.02...   | Wolff <sup>®</sup> base half-fat cream | 911220     | 1       |
| Dr. Wolff/Fiebig            | Wolff <sup>®</sup> base half-fat cream | 704050     | 1       |
| Dr. Wolff/Fiebig            | Wolff <sup>®</sup> base half-fat cream | 801140     | 1       |
| Dr. Wolff/Fiebig            | Wolff <sup>®</sup> base half-fat cream | 807640     | 2       |

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| Supplier                    | Substance                              | Batch            | Spectra |
|-----------------------------|----------------------------------------|------------------|---------|
| Dr. Wolff/Fiebig            | Wolff <sup>®</sup> base half-fat cream | 901920           | 3       |
| Dr. Wolff/Fiebig            | Wolff <sup>®</sup> base half-fat cream | 905120           | 1       |
| Dr. Wolff/Gehe 21.1.21 5... | Wolff <sup>®</sup> base half-fat cream | 143650           | 2       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream |                  | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 1110             | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 238660           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 3542             | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 506360           | 2       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 601140           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 602050           | 3       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 605551           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 608180           | 2       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 6480             | 2       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 701451           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 705760           | 2       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 810800           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 901140           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 901930           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 904880           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 908620           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 910460           | 1       |
| Dr. Wolff/Gehe              | Wolff <sup>®</sup> base half-fat cream | 911220           | 1       |
| Dr. Wolff/Jenne             | Wolff <sup>®</sup> base half-fat cream | 810201           | 2       |
| Dr. Wolff/Jenne             | Wolff <sup>®</sup> base half-fat cream | 901920           | 2       |
| Dr. Wolff/Jenne             | Wolff <sup>®</sup> base half-fat cream | 905120           | 1       |
| Dr. Wolff/Jenne             | Wolff <sup>®</sup> base half-fat cream | 909810           | 2       |
| Dr. Wolff/Jenne             | Wolff <sup>®</sup> base half-fat cream | 9560             | 2       |
| Dr. Wolff/Kehr              | Wolff <sup>®</sup> base half-fat cream | 707370           | 1       |
| Dr. Wolff/NOW               | Wolff <sup>®</sup> base half-fat cream | 10680            | 1       |
| Dr. Wolff/NOW               | Wolff <sup>®</sup> base half-fat cream | 432611           | 1       |
| Dr. Wolff/NOW               | Wolff <sup>®</sup> base half-fat cream | 434581           | 1       |
| Dr. Wolff/NOW               | Wolff <sup>®</sup> base half-fat cream | 7077370          | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream |                  | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 10680            | 2       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 1110             | 2       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 147400           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 170420WBC/605551 | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 170616WBC/610991 | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 170920WBC/610991 | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 234791           | 2       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 238660           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 333930           | 2       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 432611           | 2       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 434360           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 506360           | 3       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 610991           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 701080           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 704220           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 705760           | 6       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 7742             | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 805720           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 807580           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 810800           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 904670           | 4       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 909810           | 2       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 910460           | 2       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 911220           | 1       |
| Dr. Wolff/Noweda            | Wolff <sup>®</sup> base half-fat cream | 9560             | 1       |
| Dr. Wolff/Phoenix           | Wolff <sup>®</sup> base half-fat cream | 10550            | 1       |
| Dr. Wolff/Phoenix           | Wolff <sup>®</sup> base half-fat cream | 1110             | 1       |

continued on the next page

continued from previous page

| Supplier           | Substance                              | Batch    | Spectra |
|--------------------|----------------------------------------|----------|---------|
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 140340   | 3       |
| Dr. Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 64680    | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 10550    | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 10680    | 5       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 143600   | 5       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 6081800  | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 6480     | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 704050   | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 707370   | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 711250   | 3       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 7742     | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 801470   | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 805720   | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 807580   | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 807640   | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 810800   | 2       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 901920   | 1       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 905120   | 3       |
| Dr. Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 910460   | 3       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 1110     | 4       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 140340   | 2       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 333620   | 1       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 434360   | 1       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 608180   | 3       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 704050   | 4       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 711250   | 1       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 807640   | 1       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 909810   | 1       |
| Dr. Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 911220   | 1       |
| Dr. Wolff/Spangro  | Wolff <sup>®</sup> base half-fat cream | 807640   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream |          | 1       |
| DR. Wolff          | Wolff <sup>®</sup> base half-fat cream | 10680    | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 1110     | 2       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 12081508 | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 140340   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 141811   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 143600   | 3       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 143650   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 147400   | 2       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 236320   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 236420   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 238560   | 2       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 332040   | 11      |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 333620   | 5       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 333930   | 2       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 337260   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 339140   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 431240   | 2       |
| Dr. wolff          | Wolff <sup>®</sup> base half-fat cream | 432611   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 434581   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 438160   | 2       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 438340   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 501080   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 506360   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 510400   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 601880   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 605551   | 2       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 605700   | 1       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 606050   | 4       |
| Dr. Wolff          | Wolff <sup>®</sup> base half-fat cream | 608180   | 2       |

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| Supplier                | Substance                              | Batch              | Spectra |
|-------------------------|----------------------------------------|--------------------|---------|
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 609950-20170704Ma5 | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 610991             | 2       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 6480               | 2       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 701080             | 8       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 701451             | 2       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 702500             | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 704050             | 2       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 704220             | 4       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 707370             | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 707500             | 3       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 7075020            | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 711240             | 3       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 7741               | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 801140             | 5       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 807580             | 5       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 807640             | 5       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 810201             | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 810800             | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 901140             | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 901920             | 2       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 901930             | 2       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 904670             | 8       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 904880             | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 905120             | 2       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 909810             | 6       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 910460             | 1       |
| DR. Wolff               | Wolff <sup>®</sup> base half-fat cream | 910460             | 1       |
| Dr. Wolff               | Wolff <sup>®</sup> base half-fat cream | 9560               | 2       |
| Ebert & Jacobi          | Anionic hydrophilic cream DAB          | 18001562           | 1       |
| Ebert & Jacobi          | Base cream, hydrophobic DAC            | 18051101           | 1       |
| Ebert u. Jacobi 16.0... | Base cream, hydrophobic DAC            | 160130             | 1       |
| Ebert und Jacobi        | Anionic hydrophilic cream DAB          | 18243402           | 1       |
| Ebert und Jacobi        | Anionic hydrophilic cream wi...        | 18297501           | 2       |
| Ebert/Pharmachem        | Base cream, hydrophobic DAC            | 170008             | 1       |
| Ebert-Jacobi            | Anionic hydrophilic cream DAB          | 16259201           | 1       |
| Ebert-Jacobi            | Hydrophilic cream, non-ionic...        | 309904             | 1       |
| eigene Herstellung      | Anionic hydrophilic cream DAB          | 100214-4           | 1       |
| eigene Herstellung      | Anionic hydrophilic cream DAB          | 2/270114           | 1       |
| Eigene Herstellung      | Anionic hydrophilic cream SR...        | 2014030214         | 1       |
| Eigene                  | Hydrophilic cream, non-ionic...        | R12/0313           | 1       |
| Eigenherstellung        | Anionic hydrophilic cream SR...        | 3812E-07664        | 1       |
| Eigenherstellung        | Anionic hydrophilic cream SR...        | 4012Q-07664        | 1       |
| Eimermacher             | Anionic hydrophilic cream DAB          | 308406             | 1       |
| EuRho/Noweda            | Anionic hydrophilic cream SR...        | 18001681           | 1       |
| EuRho                   | Anionic hydrophilic cream wi...        | 17262101           | 1       |
| EuRho                   | Anionic hydrophilic cream DAB          | 18116801           | 1       |
| EuRho                   | Anionic hydrophilic cream SR...        | 29A100815          | 1       |
| EURO OGT / Anzag        | Anionic hydrophilic cream SR...        | 292977             | 1       |
| Euro OTC                | Base cream, hydrophobic DAC            |                    | 3       |
| Euro OTC                | Anionic hydrophilic cream DAB          | 135464             | 1       |
| Euro OTC                | Hydrophilic cream, non-ionic...        | 13B310718          | 2       |
| Euro OTC                | Anionic hydrophilic cream wi...        | 14030701           | 1       |
| Euro OTC                | Anionic hydrophilic cream DAB          | 14233201           | 1       |
| Euro OTC                | Anionic hydrophilic cream wi...        | 14334501           | 1       |
| Euro OTC                | Transdermal base cream                 | 1507997            | 1       |
| Euro OTC                | Anionic hydrophilic cream wi...        | 15273101           | 1       |
| Euro OTC                | Anionic hydrophilic cream DAB          | 15401302           | 1       |
| Euro OTC                | Anionic hydrophilic cream DAB          | 16046701           | 1       |
| Euro OTC                | Anionic hydrophilic cream DAB          | 16046901           | 1       |
| Euro OTC                | Anionic hydrophilic cream DAB          | 16057401           | 3       |

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continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Euro OTC | Anionic hydrophilic cream wi... | 16067801         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 16103401         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 16150801         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 16156201         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 16158901         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 16165501         | 3       |
| Euro OTC | Anionic hydrophilic cream wi... | 16191601         | 2       |
| Euro OTC | Anionic hydrophilic cream wi... | 16290301         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 16293901         | 2       |
| Euro OTC | Anionic hydrophilic cream DAB   | 16322701         | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 16332001         | 2       |
| Euro OTC | Anionic hydrophilic cream SR... | 17000161         | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 17000166         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17000489         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 17000742         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 17000743         | 3       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17001307         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17001311         | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 17001695         | 2       |
| Euro OTC | Anionic hydrophilic cream wi... | 17030301         | 1       |
| Euro OTC | Anionic hydrophilic cream wi... | 17102301         | 3       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17142002         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17142101         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17143201         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17143301         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 17150401         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 171816           | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17202101         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17202301         | 2       |
| Euro OTC | Base cream, hydrophobic DAC     | 17255401         | 1       |
| Euro OTC | Anionic hydrophilic cream wi... | 17262101         | 1       |
| Euro OTC | Anionic hydrophilic cream wi... | 17262201         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17270001         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17270401         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 17299101         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 18000257         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 18002063         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 18002830         | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 18006632         | 1       |
| Euro OTC | Anionic hydrophilic cream wi... | 18041601         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 18050303         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 18051001         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 18066901         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 180757           | 2       |
| Euro OTC | Anionic hydrophilic cream DAB   | 18168501         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 18175301         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 18242601         | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 18298201         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 19000218         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 19002041         | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 190206           | 1       |
| Euro OTC | Base cream, hydrophobic DAC     | 19H21-T08-071096 | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 1A070119         | 1       |
| Euro OTC | Hydrophilic cream, non-ionic... | 21B081117        | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 237563           | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 260416v2         | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 276074           | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 286838           | 1       |
| Euro OTC | Anionic hydrophilic cream SR... | 286975           | 1       |
| Euro OTC | Anionic hydrophilic cream DAB   | 288658           | 1       |

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| Supplier     | Substance                              | Batch            | Spectra |
|--------------|----------------------------------------|------------------|---------|
| Euro OTC     | Hydrophilic cream, non-ionic...        | 291388           | 1       |
| Euro OTC     | Hydrophilic cream, non-ionic...        | 292737           | 1       |
| Euro OTC     | Anionic hydrophilic cream SR...        | 296410           | 2       |
| Euro OTC     | Hydrophilic cream, non-ionic...        | 298983           | 3       |
| Euro OTC     | Skin care ointment W/L SR              | 300316           | 1       |
| Euro OTC     | Anionic hydrophilic cream DAB          | 300352           | 1       |
| Euro OTC     | Base cream, hydrophobic DAC            | 300415           | 1       |
| Euro OTC     | Anionic hydrophilic cream SR...        | 300563           | 1       |
| Euro OTC     | Anionic hydrophilic cream SR...        | 302199           | 1       |
| Euro OTC     | Anionic hydrophilic cream DAB          | 305372           | 1       |
| Euro OTC     | Hydrophilic cream, non-ionic...        | 306131           | 1       |
| Euro OTC     | Anionic hydrophilic cream SR...        | 306433           | 1       |
| Euro OTC     | Anionic hydrophilic cream SR...        | 308212           | 1       |
| Euro OTC     | Anionic hydrophilic cream DAB          | 310266           | 1       |
| Euro OTC     | Hydrophilic cream, non-ionic...        | 310514           | 3       |
| Euro OTC     | Anionic hydrophilic cream DAB          | 311124           | 1       |
| Euro OTC     | Wolff <sup>®</sup> base half-fat cream | 510400           | 1       |
| Euro OTC     | Wolff <sup>®</sup> base half-fat cream | 602290           | 2       |
| Euro OTC     | Wolff <sup>®</sup> base half-fat cream | 703031           | 3       |
| Euro OTC     | Wolff <sup>®</sup> base half-fat cream | 711240           | 1       |
| euro//Noweda | Anionic hydrophilic cream wi...        | 18041501         | 1       |
| EUro/AHD     | Hydrophilic cream, non-ionic...        | 277577           | 1       |
| EUro/AHD     | Hydrophilic cream, non-ionic...        | 34A240713        | 1       |
| Euro/Gehe    | Wolff <sup>®</sup> base half-fat cream | 431050           | 1       |
| EuRoh/ Gehe  | Anionic hydrophilic cream SR...        | 1A0700119        | 1       |
| Fagon/Noweda | Hydrophilic cream, non-ionic...        | 16A020518        | 1       |
| Fagro        | Transdermal base cream                 | 14J08-T12-016301 | 2       |
| Fagron       | Hydrophilic cream, non-ionic...        | 1017Q-03195      | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 10A130416        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 10A240418        | 2       |
| Fagron       | Hydrophilic cream, non-ionic...        | 11A040520        | 3       |
| Fagron       | Hydrophilic cream, non-ionic...        | 11A180416        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 11A190721        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 11A250418        | 3       |
| Fagron       | Hydrophilic cream, non-ionic...        | 12/26-M06        | 1       |
| Fagron       | Anionic hydrophilic cream DAB          | 12265501         | 1       |
| Fagron       | Anionic hydrophilic cream DAB          | 12313202         | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 12A020315        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 12A180416        | 3       |
| Fagron       | Base cream, hydrophobic DAC            | 12D10-T02        | 1       |
| Fagron       | Transdermal base cream                 | 12F19-U15-273303 | 1       |
| Fagron       | Base cream, hydrophobic DAC            | 12G026-0001      | 1       |
| Fagron       | Base cream, hydrophobic DAC            | 12G09-T03        | 2       |
| Fagron       | Transdermal base cream                 | 12H17-T02-000281 | 1       |
| Fagron       | Transdermal base cream                 | 12H17-T02-005161 | 2       |
| Fagron       | Hydrophilic cream, non-ionic...        | 12J04-M06        | 1       |
| Fagron       | Base cream, hydrophobic DAC            | 12J24-T01        | 5       |
| Fagron       | Anionic hydrophilic cream DAB          | 13168501         | 2       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13A180416        | 2       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13A250313        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13A260418        | 2       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13A30-M01        | 1       |
| Fagron       | Base cream, hydrophobic DAC            | 13B04-T17-001037 | 4       |
| Fagron       | Base cream, hydrophobic DAC            | 13B04-T17-001040 | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13B06-M08        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13D05-M07        | 2       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13D05M08         | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13D05-M08        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13D05-M09        | 1       |
| Fagron       | Hydrophilic cream, non-ionic...        | 13D05-M12        | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Fagron   | Hydrophilic cream, non-ionic... | 13D18-M06        | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 13D18-M09        | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 13D18-M10        | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 13E13T01003619   | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 13E13-T01-003619 | 6       |
| Fagron   | Base cream, hydrophobic DAC     | 13E13-T01-003620 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 13E13-T06-006    | 2       |
| Fagron   | Transdermal base cream          | 13G17-T03-005497 | 1       |
| Fagron   | Transdermal base cream          | 13G17-T03-010523 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 13H13T06         | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 13H13-T06        | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 13H13-T06-006165 | 5       |
| Fagron   | Hydrophilic cream, non-ionic... | 13K12-M04        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 13K12-M05        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 13K15-M07        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 13K15-M09        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 13K20-M09        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 13K20-M10        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 13K20-M11        | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 13T13-T06-006166 | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 14016602         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 141114a          | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 14186601         | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 14215701         | 2       |
| Fagron   | Anionic hydrophilic cream DAB   | 14232801         | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 14A06-T07-009033 | 3       |
| Fagron   | Base cream, hydrophobic DAC     | 14A06-T08-009037 | 6       |
| Fagron   | Base cream, hydrophobic DAC     | 14A06T08009038   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14A110619        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14A190416        | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 14A300148        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14a300418        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14A300418        | 3       |
| Fagron   | Transdermal base cream          | 14B27-T01-010612 | 3       |
| Fagron   | Transdermal base cream          | 14B27-T010612    | 1       |
| Fagron   | Transdermal base cream          | 14B27-To1-010612 | 1       |
| Fagron   | Transdermal base cream          | 14C14-T03        | 1       |
| Fagron   | Transdermal base cream          | 14C14-T03-011060 | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14d28-m01        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-M01        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-M02        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-M03        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-M04        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-M05        | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-M05        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-M09        | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-Mo2        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14D28-Mo9        | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 14E06-T13-01220  | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 14E06-T13-012209 | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14E07            | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14E07-M10        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 14E14-M06        | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 14H04-T05        | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 14H04-T05-014482 | 8       |
| Fagron   | Transdermal base cream          | 14H19-T07-014889 | 1       |
| Fagron   | Transdermal base cream          | 14K21-T03-017364 | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 14I18-T21-018124 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 14L18-T21-018124 | 7       |
| Fagron   | Base cream, hydrophobic DAC     | 14L18-T21-018125 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Fagron   | Base cream, hydrophobic DAC     | 14L18-T21-018127 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 15/13-T01-026887 | 3       |
| Fagron   | Transdermal base cream          | 1504065          | 20      |
| Fagron   | Transdermal base cream          | 1507997          | 9       |
| Fagron   | Anionic hydrophilic cream SR... | 15172901         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 15267401         | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 15A110619        | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 15A200416        | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 15A-200416       | 1       |
| Fagron   | Transdermal base cream          | 15A28-T08-018917 | 1       |
| Fagron   | Transdermal base cream          | 15A28-T08-018919 | 1       |
| Fagron   | Transdermal base cream          | 15A28-T10-018922 | 10      |
| Fagron   | Anionic hydrophilic cream SR... | 15c04-m05        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 15C04-M05        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 15C04-M06        | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 15D03-T05-021168 | 1       |
| Fagron   | Transdermal base cream          | 15D28-T06-02194  | 1       |
| Fagron   | Transdermal base cream          | 15D28-T06-021940 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 15J13-T01-026887 | 6       |
| Fagron   | Base cream, hydrophobic DAC     | 15J13-T01-026888 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 15J13-T01-036887 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 15J13-T02-026891 | 1       |
| Fagron   | Transdermal base cream          | 1602049          | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 16046701         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 16047301         | 1       |
| Fagron   | Anionic hydrophilic cream wi... | 16067801         | 2       |
| Fagron   | Transdermal base cream          | 1607076          | 6       |
| Fagron   | Transdermal base cream          | 1609813          | 10      |
| Fagron   | Anionic hydrophilic cream DAB   | 16103501         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 16158803         | 2       |
| Fagron   | Anionic hydrophilic cream wi... | 16191901         | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 16293601         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 16A020518        | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 16A120619        | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 16A210416        | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 16B10-T01-030202 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 16E03T02032868   | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 16E03T02-032868  | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 16E03-T02-032868 | 10      |
| Fagron   | Base cream, hydrophobic DAC     | 16E03-T02-032869 | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 16F27-T22-034684 | 3       |
| Fagron   | Base cream, hydrophobic DAC     | 16Fo3-To2-032868 | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 17000162         | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 17001698         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 17009601         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 17045401         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 17045501         | 1       |
| Fagron   | Transdermal base cream          | 1709950/2        | 8       |
| Fagron   | Base cream, hydrophobic DAC     | 171126           | 2       |
| Fagron   | Anionic hydrophilic cream DAB   | 17142501         | 3       |
| Fagron   | Anionic hydrophilic cream DAB   | 17142701         | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 171817           | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 17185401         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 17212601         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 17212603         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 17261002         | 1       |
| Fagron   | Anionic hydrophilic cream wi... | 17262101         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 17269801         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 17270001         | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 17270401         | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Fagron   | Anionic hydrophilic cream DAB   | 17299201             | 1       |
| Fagron   | Anionic hydrophilic cream wi... | 17335401             | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 17335701             | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 17A010720            | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17B03-T01-041253     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17C06                | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17C06-108-042287     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17C06-T08-04228      | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17c06-t08-042287     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17c06-T08-042287     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17C06-T08-042287     | 16      |
| Fagron   | Base cream, hydrophobic DAC     | 17C06-T08-0422870019 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17C06-T08-04287      | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 17Co6-To8-042287     | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 17Co6-To8-o42287     | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 17D19-T03-043551     | 2       |
| Fagron   | Anionic hydrophilic cream DAB   | 18000250             | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 18001329             | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 18001549             | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 18001559             | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18001997             | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 18002000             | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 18002057             | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 18002357             | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18005488             | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 18010401             | 1       |
| Fagron   | Transdermal base cream          | 1802648/2            | 1       |
| Fagron   | Transdermal base cream          | 1802650/2            | 23      |
| Fagron   | Transdermal base cream          | 18026502             | 1       |
| Fagron   | Transdermal base cream          | 1803958/2            | 6       |
| Fagron   | Transdermal base cream          | 1803958-1            | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 18041104             | 2       |
| Fagron   | Anionic hydrophilic cream wi... | 18041401             | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18051001             | 1       |
| Fagron   | Transdermal base cream          | 1805581/1            | 12      |
| Fagron   | Transdermal base cream          | 1805581-1            | 1       |
| Fagron   | Transdermal base cream          | 180958/2             | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 181008001            | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18100801             | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 18160201             | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 18160402             | 1       |
| Fagron   | Anionic hydrophilic cream wi... | 18320901             | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18A09-T01-051635     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18A09-T01-051636     | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 18A220720            | 3       |
| Fagron   | Anionic hydrophilic cream DAB   | 18B06-B03-345419     | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 18C23-T04            | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 18C23-T04-054141     | 8       |
| Fagron   | Base cream, hydrophobic DAC     | 18C23-T04-054142     | 3       |
| Fagron   | Base cream, hydrophobic DAC     | 18C31-T09-058736     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18D12-T01-054746     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18G31-T09            | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 18G31-T09_058735     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18G31-T09-058735     | 12      |
| Fagron   | Base cream, hydrophobic DAC     | 18G31-T09-058736     | 4       |
| Fagron   | Base cream, hydrophobic DAC     | 18G31-T09-58735      | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 18L18-T09-062847     | 4       |
| Fagron   | Base cream, hydrophobic DAC     | 18L18-T09-062848     | 4       |
| Fagron   | Anionic hydrophilic cream DAB   | 19003984             | 1       |
| Fagron   | Anionic hydrophilic cream wi... | 1903701              | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Base cream, hydrophobic DAC     | 19058401          | 1       |
| Fagron   | Transdermal base cream          | 1908978           | 4       |
| Fagron   | Hydrophilic cream, non-ionic... | 19A220720         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 19A280313         | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 19H21-T04-071052  | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 19H21-T08-071088  | 6       |
| Fagron   | Base cream, hydrophobic DAC     | 19H21-T08-0710906 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 19H21-T08-071096  | 9       |
| Fagron   | Base cream, hydrophobic DAC     | 19H21-T08-071101  | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 20000728          | 1       |
| Fagron   | Transdermal base cream          | 20001002          | 7       |
| Fagron   | Transdermal base cream          | 2000102           | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 20001209          | 2       |
| Fagron   | Transdermal base cream          | 20003334          | 9       |
| Fagron   | Transdermal base cream          | 20003335          | 6       |
| Fagron   | Base cream, hydrophobic DAC     | 20003527          | 1       |
| Fagron   | Transdermal base cream          | 2000730           | 1       |
| Fagron   | Transdermal base cream          | 20007370          | 2       |
| Fagron   | Transdermal base cream          | 20009439          | 1       |
| Fagron   | Transdermal base cream          | 2001002           | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 20D01-T09-078346  | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 20E12-T06-080146  | 2       |
| Fagron   | Base cream, hydrophobic DAC     | 20E12T0608045     | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 20G14-T01-081556  | 4       |
| Fagron   | Hydrophilic cream, non-ionic... | 2119I-03195       | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 21A010920         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 21A050819         | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 21A060618         | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 21B12-T16-0863707 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 21B12-T16-086378  | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 21B12-T16-86378   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 22A050819         | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 22A050917         | 1       |
| Fagron   | Wolff® base half-fat cream      | 236320            | 3       |
| Fagron   | Wolff® base half-fat cream      | 238560            | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 23A010920         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 23A060819         | 6       |
| Fagron   | Transdermal base cream          | 247191-0003       | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 24A060819         | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 24A110712         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 24A110917         | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 25A120917         | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 2617E-03327       | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 26887             | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 26A120917         | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 27A021120         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 27A130917         | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 28A02120          | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 28A130917         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 28A281019         | 2       |
| Fagron   | Anionic hydrophilic cream SR... | 291528            | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 291529            | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 297372            | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 29A140917         | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 29A291019         | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 2A010321          | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 2A020119          | 3       |
| Fagron   | Anionic hydrophilic cream SR... | 2A030118          | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 2A140114          | 2       |
| Fagron   | Anionic hydrophilic cream DAB   | 300353            | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Fagron   | Anionic hydrophilic cream DAB   | 300358      | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 300765      | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 3018E-03195 | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 302382      | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 305069      | 1       |
| Fagron   | Anionic hydrophilic cream DAB   | 307033      | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 307330      | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 307334      | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 307770      | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 308220      | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 30A041120   | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 30A291019   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 32A051120   | 1       |
| Fagron   | Anionic hydrophilic cream SR... | 32A150915   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 33A180912   | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 33A240915   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 34A290915   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 3713U-03195 | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 37A121216   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 38A121216   | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 39131216    | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 3A030119    | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 3A03119     | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 3A100320    | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 3A170117    | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 40a081015   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 40A131216   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 412062-3-P  | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 41A141216   | 3       |
| Fagron   | Hydrophilic cream, non-ionic... | 42A141216   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 4315A-03195 | 1       |
| Fagron   | Transdermal base cream          | 4315I-07039 | 1       |
| Fagron   | Wolff® base half-fat cream      | 438160      | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 43A191216   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 44A191216   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 45A201216   | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 46A061113   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 48A071113   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 4A100320    | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 4A170117    | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 5016I-03195 | 1       |
| Fagron   | Base cream, hydrophobic DAC     | 513A-03497  | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 51A121113   | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 5214I-03195 | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 55A181213   | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 5A110320    | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 5A230113    | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 6061701     | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 6A040319    | 4       |
| Fagron   | Anionic hydrophilic cream SR... | 6A280217    | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 6A310321    | 2       |
| Fagron   | Hydrophilic cream, non-ionic... | 6A40319     | 1       |
| Fagron   | Wolff® base half-fat cream      | 703031      | 1       |
| Fagron   | Wolff® base half-fat cream      | 711250      | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 7A040319    | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 8A050319    | 1       |
| Fagron   | Hydrophilic cream, non-ionic... | 8A05319     | 1       |
| Fagron   | Wolff® base half-fat cream      | 901920      | 4       |
| Fagron   | Anionic hydrophilic cream SR... | 9A130416    | 1       |
| Fagron   | Base cream, hydrophobic DAC     | T01-0815505 | 1       |

continued on the next page



*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|---------------------------------|------------------|----------------|
| Fagron                     | Base cream, hydrophobic DAC     | T06-0801406      | 1              |
| Fagron                     | Base cream, hydrophobic DAC     | T08-0710906      | 2              |
| Fagron                     | Base cream, hydrophobic DAC     | T09-0783401      | 1              |
| Faoron/anzag               | Base cream, hydrophobic DAC     | 14A06-t08-009037 | 1              |
| Faoron/Anzag               | Base cream, hydrophobic DAC     | 14A06-T08-009037 | 4              |
| Fargon/ Phönix             | Anionic hydrophilic cream DAB   | 16259801         | 1              |
| Fargon/Gehe                | Anionic hydrophilic cream DAB   | 17270102         | 1              |
| Fargon/Gehe                | Anionic hydrophilic cream SR... | 295171           | 1              |
| Fargon/Phoenix             | Hydrophilic cream, non-ionic... | 13D18-M06        | 1              |
| Fargon                     | Anionic hydrophilic cream DAB   | 15319201         | 1              |
| Faron/Sanacorp             | Hydrophilic cream, non-ionic... | 7A040319         | 1              |
| FEJ                        | Base cream, hydrophobic DAC     | 152209           | 1              |
| Fiebi 23.11.12 ek:4,70     | Anionic hydrophilic cream SR... | 274504           | 2              |
| Fiebig infectopharm        | Base cream, hydrophobic DAC     |                  | 1              |
| Fiebig/ Caesar & Loretz... | Anionic hydrophilic cream DAB   | 19072601         | 1              |
| Fiebig/ Wolff              | Wolff® base half-fat cream      | 701451           | 1              |
| Fiebig/DR.Wolf             | Wolff® base half-fat cream      | 610991           | 3              |
| Fiebig/DR.Wolf             | Wolff® base half-fat cream      | 707500           | 1              |
| Fiebig/DR.Wolf             | Wolff® base half-fat cream      | 711240           | 4              |
| Fiebig/Pharmachem          | Base cream, hydrophobic DAC     | 181198           | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 15200201         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 15400701         | 1              |
| Fiebig                     | Base cream, hydrophobic DAC     | 160136           | 2              |
| Fiebig                     | Base cream, hydrophobic DAC     | 160825           | 1              |
| Fiebig                     | Anionic hydrophilic cream SR... | 17001700         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 17045401         | 1              |
| Fiebig                     | Anionic hydrophilic cream wi... | 17102301         | 1              |
| Fiebig                     | Base cream, hydrophobic DAC     | 171815           | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 17201801         | 2              |
| Fiebig                     | Base cream, hydrophobic DAC     | 172194           | 2              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 17248401         | 2              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 17298901         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 1801101          | 1              |
| Fiebig                     | Base cream, hydrophobic DAC     | 18051101         | 2              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18066701         | 2              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18116802         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18116901         | 1              |
| Fiebig                     | Base cream, hydrophobic DAC     | 181198           | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18140001         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18169001         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18169501         | 1              |
| Fiebig                     | Base cream, hydrophobic DAC     | 18173902         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18243402         | 1              |
| Fiebig                     | Hydrophilic cream, non-ionic... | 18259501         | 2              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18298601         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 18298801         | 1              |
| Fiebig                     | Hydrophilic cream, non-ionic... | 19002041         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 19072301         | 1              |
| Fiebig                     | Hydrophilic cream, non-ionic... | 19093001         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 19272301         | 1              |
| Fiebig                     | Base cream, hydrophobic DAC     | 20001228         | 1              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 20001452001      | 1              |
| Fiebig                     | Anionic hydrophilic cream SR... | 21001807         | 2              |
| Fiebig                     | Anionic hydrophilic cream DAB   | 269445           | 1              |
| Fiebig                     | Anionic hydrophilic cream SR... | 295167           | 1              |
| Fiebig                     | Anionic hydrophilic cream SR... | 300563           | 1              |
| Fiebig                     | Anionic hydrophilic cream SR... | 308218           | 1              |
| Fiebig                     | Base cream, hydrophobic DAC     | 310828           | 3              |
| Fiebig                     | Wolff® base half-fat cream      | 605551           | 2              |
| Fiebig                     | Wolff® base half-fat cream      | 801140           | 1              |

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continued from previous page

| Supplier                  | Substance                              | Batch              | Spectra |
|---------------------------|----------------------------------------|--------------------|---------|
| Fiebig                    | Wolff <sup>®</sup> base half-fat cream | 807640             | 2       |
| Fiebig                    | Wolff <sup>®</sup> base half-fat cream | 810201             | 1       |
| Fiebig                    | Wolff <sup>®</sup> base half-fat cream | 901140             | 1       |
| fiebig                    | Wolff <sup>®</sup> base half-fat cream | 909810             | 1       |
| Fiebig                    | Wolff <sup>®</sup> base half-fat cream | 9560               | 1       |
| Finteler Apotheke         | Anionic hydrophilic cream DAB          | 16322402           | 1       |
| Finteler Apotheke         | Anionic hydrophilic cream DAB          | 17088901           | 1       |
| Fischar/ Krieger          | Anionic hydrophilic cream DAB          | 17299201           | 1       |
| Fischer/Gehe              | Anionic hydrophilic cream DAB          | 15315601           | 1       |
| Fishar                    | Anionic hydrophilic cream DAB          | 16057201           | 1       |
| Frago/Noweda              | Hydrophilic cream, non-ionic...        | 46A201216          | 1       |
| Fragron                   | Hydrophilic cream, non-ionic...        | 9A240418           | 1       |
| Galderma/Gehe             | Anionic hydrophilic cream SR...        | 18006282           | 1       |
| Gehe Chiesi               | Wolff <sup>®</sup> base half-fat cream | 506360-20160615Ma6 | 1       |
| Gehe 02.05.19             | Anionic hydrophilic cream DAB          | 18298101           | 1       |
| Gehe 08.05.19             | Anionic hydrophilic cream DAB          | 18298001           | 1       |
| Gehe 01.08.14             | Anionic hydrophilic cream DAB          | 14062501           | 1       |
| Gehe 02.09.14             | Hydrophilic cream, non-ionic...        | 287709             | 1       |
| Gehe 03.05.19             | Hydrophilic cream, non-ionic...        | 18002064           | 1       |
| Gehe 05.04.19             | Anionic hydrophilic cream SR...        | 18006287           | 1       |
| Gehe 07.12.18             | Anionic hydrophilic cream DAB          | 18169001           | 1       |
| GEHE 08.12.2014           | Base cream, hydrophobic DAC            | 14145301           | 1       |
| Gehe 10.03.15             | Base cream, hydrophobic DAC            | 143094             | 2       |
| Gehe 10.03.15             | Anionic hydrophilic cream SR...        | 42A171214          | 1       |
| GEHE 22.03.2014           | Anionic hydrophilic cream DAB          | 14062301           | 1       |
| Gehe am 21.02.14          | Anionic hydrophilic cream DAB          | 13364401           | 1       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 18002059           | 2       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 18002060           | 1       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 18004209           | 1       |
| Gehe amax                 | Anionic hydrophilic cream wi...        | 18041401           | 1       |
| Gehe amax                 | Anionic hydrophilic cream wi...        | 18109801           | 1       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 19000220           | 1       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 19000221           | 1       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 19003821           | 1       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 19005187           | 1       |
| Gehe amax                 | Hydrophilic cream, non-ionic...        | 20001908           | 1       |
| Gehe, 12.11.2019          | Hydrophilic cream, non-ionic...        | 12B130819          | 1       |
| Gehe, 9,99EUR, 29.08.2016 | Anionic hydrophilic cream SR...        | 299255             | 1       |
| gehe,08.03.19             | Anionic hydrophilic cream wi...        | 18297401           | 1       |
| Gehe,27.0415              | Base cream, hydrophobic DAC            | 15001003           | 2       |
| Gehe,Wolff Pharma         | Wolff <sup>®</sup> base half-fat cream | 506360-20160615Ma8 | 1       |
| Gehe/ Pharmachem GmbH     | Base cream, hydrophobic DAC            | 190206             | 1       |
| Gehe/ 28.12.12 Bambastus  | Anionic hydrophilic cream DAB          | 274594             | 1       |
| Gehe/ Wolff               | Wolff <sup>®</sup> base half-fat cream | 510400             | 1       |
| GEHE/AMH/22.05.2012       | Anionic hydrophilic cream SR...        | 5A200212           | 1       |
| Gehe/Bombasus             | Anionic hydrophilic cream DAB          | 18002364           | 1       |
| Gehe/Dr Wolff             | Wolff <sup>®</sup> base half-fat cream | 3542               | 1       |
| Gehe/Dr.Wolff             | Wolff <sup>®</sup> base half-fat cream | 704050             | 1       |
| Gehe/Dr.Wolff             | Wolff <sup>®</sup> base half-fat cream | 801140             | 1       |
| Gehe/Leyh                 | Hydrophilic cream, non-ionic...        | 150341             | 1       |
| Gehe/Pharmachem GmbH      | Base cream, hydrophobic DAC            | 20003531           | 4       |
| Gehe/Pharmachem Pöckneck  | Base cream, hydrophobic DAC            | 190638             | 1       |
| Gehe/Pharmachem Pöckneck  | Base cream, hydrophobic DAC            | 1925661            | 1       |
| Gehe/Pharmachem           | Base cream, hydrophobic DAC            | 160137             | 1       |
| Gehe/Pharmachem           | Base cream, hydrophobic DAC            | 172194             | 5       |
| Gehe/Pharmachem           | Base cream, hydrophobic DAC            | 180755             | 1       |
| Gehe/Pharmachem           | Base cream, hydrophobic DAC            | 19000732           | 1       |
| Gehe/Pharmachem           | Base cream, hydrophobic DAC            | 191489             | 2       |
| Gehe/Pharmachem           | Base cream, hydrophobic DAC            | 1925681            | 1       |
| Gehe/Pharmachem           | Base cream, hydrophobic DAC            | 20001228           | 1       |

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continued from previous page

| Supplier             | Substance                       | Batch     | Spectra |
|----------------------|---------------------------------|-----------|---------|
| Gehe/Pharmachem      | Anionic hydrophilic cream SR... | 240118    | 1       |
| Gehe/Pharmachen GmbH | Base cream, hydrophobic DAC     | 191489    | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 11219901  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 11311202  | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 114761    | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 120211    | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 12026001  | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 121431    | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 122131    | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 12265001  | 1       |
| GEHE                 | Anionic hydrophilic cream wi... | 12301302  | 1       |
| Gehe                 | Base cream, hydrophobic DAC     | 12308102  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 12313401  | 1       |
| GEHE                 | Anionic hydrophilic cream DAB   | 12314101  | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 125011    | 1       |
| Gehe                 | Anionic hydrophilic cream SR... | 12A070519 | 1       |
| Gehe                 | Base cream, hydrophobic DAC     | 13019304  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 13038201  | 1       |
| GEHE                 | Anionic hydrophilic cream wi... | 13072303  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 1307302   | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 131451    | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 13154201  | 2       |
| Gehe                 | Anionic hydrophilic cream DAB   | 13165701  | 1       |
| Gehe                 | Base cream, hydrophobic DAC     | 13175901  | 1       |
| Gehe                 | Base cream, hydrophobic DAC     | 13175902  | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 132331    | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 13244401  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 13280201  | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 133121    | 1       |
| Gehe                 | Base cream, hydrophobic DAC     | 13386402  | 1       |
| Gehe                 | Anionic hydrophilic cream SR... | 140161    | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 14042201  | 1       |
| Gehe                 | Hydrophilic cream, non-ionic... | 140570    | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 14062501  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 14232901  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 14264301  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 14294301  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 14334501  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 14341901  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 14342201  | 1       |
| Gehe                 | Wolff® base half-fat cream      | 143600    | 1       |
| Gehe                 | Wolff® base half-fat cream      | 143650    | 1       |
| Gehe                 | Base cream, hydrophobic DAC     | 15001002  | 1       |
| Gehe                 | Anionic hydrophilic cream SR... | 15014804  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 15027301  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 15034601  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 15048301  | 1       |
| Gehe                 | Base cream, hydrophobic DAC     | 151258    | 3       |
| Gehe                 | Anionic hydrophilic cream wi... | 15133001  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 15273101  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 15273201  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 15405301  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 15428201  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 15431702  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 15431801  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 16067301  | 1       |
| Gehe                 | Anionic hydrophilic cream wi... | 16067401  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 16150702  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 16158601  | 1       |
| Gehe                 | Anionic hydrophilic cream DAB   | 16179601  | 1       |

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continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Gehe     | Anionic hydrophilic cream wi... | 16191501         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 16191801         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 16249902         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 16250001         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 16250201         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 16290401         | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 17000163         | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 17000737         | 1       |
| GEHE     | Hydrophilic cream, non-ionic... | 17000738         | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 17000745         | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 17000746         | 1       |
| GEHE     | Hydrophilic cream, non-ionic... | 17000749         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17030001         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17030101         | 1       |
| GEHE     | Base cream, hydrophobic DAC     | 17073202         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17088901         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17102101         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17102201         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17142301         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17143301         | 2       |
| Gehe     | Anionic hydrophilic cream DAB   | 17143501         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17143802         | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 17150401         | 1       |
| GEHE     | Anionic hydrophilic cream wi... | 17156501         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17156602         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17201601         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17201901         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17202001         | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 172194           | 1       |
| gehe     | Anionic hydrophilic cream DAB   | 17248401         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17248601         | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 17255202         | 3       |
| GEHE     | Anionic hydrophilic cream wi... | 17261901         | 2       |
| Gehe     | Anionic hydrophilic cream wi... | 17262001         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17262201         | 1       |
| GEHE     | Anionic hydrophilic cream DAB   | 17270001         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17270401         | 2       |
| Gehe     | Anionic hydrophilic cream DAB   | 17299501         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 17299601         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17335501         | 1       |
| gehe     | Anionic hydrophilic cream wi... | 17335601         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17335601         | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 17335701         | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 17C06-T08-042287 | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 18000250         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 18000255         | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 18001333         | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 18001474         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 18001555         | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 18001681         | 1       |
| gehe     | Hydrophilic cream, non-ionic... | 18002063         | 2       |
| Gehe     | Anionic hydrophilic cream SR... | 18002224         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 18003575         | 3       |
| Gehe     | Anionic hydrophilic cream DAB   | 18003576         | 4       |
| Gehe     | Anionic hydrophilic cream DAB   | 18003586         | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 18004208         | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 18004209         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 18004835         | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 18004837         | 2       |
| Gehe     | Anionic hydrophilic cream DAB   | 18006019         | 1       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Gehe            | Anionic hydrophilic cream SR... | 18006629     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 18006630     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18028021     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 18041104     | 3              |
| GEHE            | Anionic hydrophilic cream SR... | 18041104     | 1              |
| Gehe            | Anionic hydrophilic cream wi... | 18041601     | 1              |
| Gehe            | Base cream, hydrophobic DAC     | 18051101     | 3              |
| GEHE            | Base cream, hydrophobic DAC     | 18051101     | 2              |
| Gehe            | Base cream, hydrophobic DAC     | 18051103     | 2              |
| GEHE            | Base cream, hydrophobic DAC     | 18051103     | 1              |
| GEHE            | Base cream, hydrophobic DAC     | 18051301     | 1              |
| GEHE            | Base cream, hydrophobic DAC     | 18051401     | 1              |
| Gehe            | Base cream, hydrophobic DAC     | 180515       | 1              |
| GEHE            | Anionic hydrophilic cream DAB   | 18066901     | 1              |
| gehe            | Anionic hydrophilic cream SR... | 18067801     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 18067801     | 1              |
| GEHE            | Anionic hydrophilic cream SR... | 18067803     | 1              |
| Gehe            | Base cream, hydrophobic DAC     | 180755       | 1              |
| Gehe            | Base cream, hydrophobic DAC     | 180756       | 4              |
| Gehe            | Base cream, hydrophobic DAC     | 18100801     | 1              |
| GEHE            | Anionic hydrophilic cream wi... | 18109601     | 1              |
| Gehe            | Anionic hydrophilic cream wi... | 18109901     | 2              |
| Gehe            | Anionic hydrophilic cream DAB   | 18117001     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18117201     | 1              |
| Gehe            | Base cream, hydrophobic DAC     | 181196       | 1              |
| GEHE            | Base cream, hydrophobic DAC     | 18119901     | 2              |
| Gehe            | Anionic hydrophilic cream DAB   | 18139501     | 1              |
| GEHE            | Anionic hydrophilic cream SR... | 18147502     | 3              |
| Gehe            | Anionic hydrophilic cream DAB   | 18160101     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18168701     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18169501     | 1              |
| GEHE            | Base cream, hydrophobic DAC     | 18174101     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 18176103     | 1              |
| Gehe            | Anionic hydrophilic cream wi... | 18180902     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 18218102     | 1              |
| Gehe            | Base cream, hydrophobic DAC     | 182221       | 3              |
| Gehe            | Anionic hydrophilic cream DAB   | 18243201     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18243301     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18243501     | 2              |
| Gehe            | Base cream, hydrophobic DAC     | 18286701     | 1              |
| GEHE            | Base cream, hydrophobic DAC     | 18286802     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18298701     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 182990001    | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 18299001     | 1              |
| GEHE            | Anionic hydrophilic cream SR... | 18302501     | 1              |
| GEHE            | Anionic hydrophilic cream wi... | 18320801     | 1              |
| Gehe            | Hydrophilic cream, non-ionic... | 18A020719    | 1              |
| Gehe            | Hydrophilic cream, non-ionic... | 18B060917    | 1              |
| Gehe            | Hydrophilic cream, non-ionic... | 19000218     | 3              |
| Gehe            | Base cream, hydrophobic DAC     | 19000414001  | 1              |
| GEHE            | Anionic hydrophilic cream DAB   | 19000619     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 19000650     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 19000651     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 19002198     | 1              |
| GEHE            | Anionic hydrophilic cream DAB   | 19002198     | 1              |
| gehe            | Anionic hydrophilic cream DAB   | 19002206     | 1              |
| Gehe            | Anionic hydrophilic cream SR... | 19002550     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 19002703     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 19003001     | 1              |
| Gehe            | Anionic hydrophilic cream DAB   | 19003571     | 1              |

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continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Gehe     | Anionic hydrophilic cream SR... | 19003573    | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 19003820    | 2       |
| Gehe     | Anionic hydrophilic cream DAB   | 19003967    | 2       |
| Gehe     | Anionic hydrophilic cream DAB   | 19003980    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 19003982    | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 19005192    | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 19005603    | 2       |
| Gehe     | Base cream, hydrophobic DAC     | 190206      | 1       |
| GEHE     | Anionic hydrophilic cream wi... | 19027401    | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 19027502    | 2       |
| Gehe     | Anionic hydrophilic cream wi... | 19027601    | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 190638      | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 190640      | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 19072501    | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 1909301     | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 19093901    | 1       |
| GEHE     | Base cream, hydrophobic DAC     | 19115901    | 2       |
| Gehe     | Base cream, hydrophobic DAC     | 191487      | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 191489      | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 19162401    | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 19192201    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 19206801    | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 19240002    | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 1925681     | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 19272301    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 19272505    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 200001009   | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 20000153    | 1       |
| Gehe     | Anionic hydrophilic cream wi... | 20000192001 | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 20000720    | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 20001013    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 20001211    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 20001217    | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 20001227    | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 20001228    | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 20001778    | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 20002221    | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 20002226    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 20002541    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 20002896    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 20003994    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 20003996    | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 2001906     | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 21000160    | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 21001800    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 21001805    | 1       |
| Gehe     | Base cream, hydrophobic DAC     | 21001947002 | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 21002633001 | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 21003302    | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 21003305    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 21004455    | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 262935      | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 267647      | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 269235      | 1       |
| Gehe     | Anionic hydrophilic cream DAB   | 270949      | 1       |
| Gehe     | Hydrophilic cream, non-ionic... | 271521      | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 271701      | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 271838      | 1       |
| Gehe     | Anionic hydrophilic cream SR... | 272515      | 3       |
| Gehe     | Anionic hydrophilic cream SR... | 273694      | 1       |

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| Supplier | Substance                              | Batch    | Spectra |
|----------|----------------------------------------|----------|---------|
| Gehe     | Hydrophilic cream, non-ionic...        | 274215   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 274216   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 274765   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 276599   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 277565   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 279057   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 280418   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 280574   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 280575   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 280988   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 280989   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 280992   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 282001   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 282111   | 2       |
| Gehe     | Hydrophilic cream, non-ionic...        | 282214   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 283637   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 288231   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 288653   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 288882   | 1       |
| Gehe     | Base cream, hydrophobic DAC            | 289721   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 290080   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 290528   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 291658   | 2       |
| Gehe     | Anionic hydrophilic cream DAB          | 291732   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 292978   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 293132   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 294650   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 295653   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 296786   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 296787   | 6       |
| Gehe     | Anionic hydrophilic cream DAB          | 297679   | 1       |
| Gehe     | Anionic hydrophilic cream wit...       | 2B100214 | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 300363   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 300365   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 301271   | 2       |
| Gehe     | Anionic hydrophilic cream DAB          | 302470   | 1       |
| GEHE     | Hydrophilic cream, non-ionic...        | 302685   | 1       |
| GEHE     | Base cream, hydrophobic DAC            | 303373   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 303725   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 303736   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 304100   | 1       |
| GEHE     | Hydrophilic cream, non-ionic...        | 306124   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 306131   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 306440   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 307040   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 307324   | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 307334   | 3       |
| GEHE     | Hydrophilic cream, non-ionic...        | 307521   | 1       |
| Gehe     | Hydrophilic cream, non-ionic...        | 307531   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 308404   | 1       |
| Gehe     | Base cream, hydrophobic DAC            | 308508   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 310267   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 310273   | 1       |
| GEHE     | Base cream, hydrophobic DAC            | 310824   | 1       |
| Gehe     | Anionic hydrophilic cream DAB          | 311129   | 1       |
| GEHE     | Anionic hydrophilic cream DAB          | 311134   | 1       |
| Gehe     | Wolff <sup>®</sup> base half-fat cream | 331551   | 2       |
| Gehe     | Wolff <sup>®</sup> base half-fat cream | 3542     | 1       |
| Gehe     | Anionic hydrophilic cream SR...        | 3A120116 | 2       |
| Gehe     | Wolff <sup>®</sup> base half-fat cream | 431050   | 1       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Gehe                       | Hydrophilic cream, non-ionic... | 5B250213     | 1       |
| Gehe                       | Wolff® base half-fat cream      | 601880       | 1       |
| Gehe                       | Wolff® base half-fat cream      | 609952       | 1       |
| Gehe                       | Wolff® base half-fat cream      | 702500       | 1       |
| Gehe                       | Wolff® base half-fat cream      | 704220       | 1       |
| Gehe                       | Wolff® base half-fat cream      | 707370       | 1       |
| GEHE                       | Wolff® base half-fat cream      | 801140       | 2       |
| Gehe                       | Wolff® base half-fat cream      | 801800       | 1       |
| Gehe                       | Wolff® base half-fat cream      | 805720       | 2       |
| gehe                       | Wolff® base half-fat cream      | 807640       | 3       |
| GEHE                       | Wolff® base half-fat cream      | 807640       | 4       |
| Gehe                       | Wolff® base half-fat cream      | 810800       | 5       |
| GEHE                       | Wolff® base half-fat cream      | 901920       | 2       |
| Gehe                       | Wolff® base half-fat cream      | 910460       | 1       |
| Gehe                       | Anionic hydrophilic cream SR... | 9A160320     | 1       |
| Gehe-Pharmachem            | Base cream, hydrophobic DAC     | 160136       | 1       |
| Gehe-Pharmachem            | Base cream, hydrophobic DAC     | 162168       | 1       |
| Geibo                      | Wolff® base half-fat cream      | 801140       | 1       |
| Geilenkirchen              | Anionic hydrophilic cream wi... | 15048501     | 2       |
| Geilenkirchen              | Anionic hydrophilic cream wi... | 20000190001  | 1       |
| GEpepharm GmbH             | Anionic hydrophilic cream DAB   | 17045101     | 1       |
| gepepharm/ Gehe            | Anionic hydrophilic cream DAB   | 1134496      | 1       |
| gepepharm/Gehe             | Anionic hydrophilic cream DAB   | 16250001     | 1       |
| GUMO                       | Hydrophilic cream, non-ionic... | 11B090621    | 2       |
| GUMO                       | Hydrophilic cream, non-ionic... | 17B121021    | 1       |
| GUMO                       | Hydrophilic cream, non-ionic... | 19006525     | 1       |
| GUMO                       | Hydrophilic cream, non-ionic... | 20001015     | 2       |
| GUMO                       | Anionic hydrophilic cream DAB   | 21001493002  | 1       |
| GUMO                       | Anionic hydrophilic cream DAB   | 21001815001  | 2       |
| Gutenberg-Apotheke         | Anionic hydrophilic cream SR... | 285890       | 1       |
| Hageda                     | Base cream, hydrophobic DAC     | 20001593002  | 1       |
| harn                       | Wolff® base half-fat cream      | 704050       | 1       |
| harn                       | Wolff® base half-fat cream      | 707500       | 2       |
| Hedinger / Noweda          | Anionic hydrophilic cream DAB   | 16264701     | 3       |
| Hedinger/ Sanacorp         | Anionic hydrophilic cream DAB   | 17299201     | 1       |
| Hedinger/Fiebig            | Hydrophilic cream, non-ionic... |              | 1       |
| Hedinger/Noweda            | Wolff® base half-fat cream      | 430880       | 2       |
| Hedinger/Sanacorp          | Wolff® base half-fat cream      | 705760       | 1       |
| Hedinger                   | Anionic hydrophilic cream DAB   | 12264501     | 1       |
| Hedinger                   | Hydrophilic cream, non-ionic... | 17000742     | 1       |
| Hedinger                   | Anionic hydrophilic cream wi... | 19093602(2x) | 1       |
| Hedinger                   | Hydrophilic cream, non-ionic... | 286326       | 1       |
| Henry Lamotte / Noweda     | Anionic hydrophilic cream SR... | 303735       | 2       |
| Henry Lamotte Oils GmbH... | Base cream, hydrophobic DAC     | 171126       | 1       |
| Henry Lamotte Oils GmbH... | Anionic hydrophilic cream SR... | 18041104     | 1       |
| Henry Lamotte Oils GmbH    | Anionic hydrophilic cream DAB   | 14341901     | 1       |
| HENRY LAMOTTE OILS GmbH    | Base cream, hydrophobic DAC     | 18051101     | 1       |
| Henry Lamotte/Noweda       | Anionic hydrophilic cream DAB   | 17299501     | 1       |
| Henry Lamotte              | Anionic hydrophilic cream DAB   | 16150702     | 1       |
| Henry Lamotte              | Anionic hydrophilic cream DAB   | 16259701     | 1       |
| Henry Lamotte              | Hydrophilic cream, non-ionic... | 19000217     | 1       |
| Henry Lamotte              | Hydrophilic cream, non-ionic... | 22B281013    | 1       |
| hepart                     | Wolff® base half-fat cream      | 15001674     | 1       |
| Hepart                     | Base cream, hydrophobic DAC     | 18002830     | 1       |
| Herbasinica                | Hydrophilic cream, non-ionic... | 284899       | 1       |
| Hirsch                     | Anionic hydrophilic cream DAB   | 12314701     | 1       |
| Hirsch                     | Base cream, hydrophobic DAC     | 12J24-T01    | 2       |
| Hochhaus-Apotheke          | Anionic hydrophilic cream DAB   | 16250001     | 2       |
| hochhaus-Apotheke          | Anionic hydrophilic cream SR... | 3016E-03195  | 1       |
| Holdermann                 | Hydrophilic cream, non-ionic... | 1B140113     | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Holdermann                 | Hydrophilic cream, non-ionic... | 287712      | 1       |
| Ichthyol / Gehe            | Anionic hydrophilic cream wi... | 17335601    | 2       |
| Ichthyol Gesellschaft      | Anionic hydrophilic cream SR... | 17294501    | 1       |
| Ichthyol Gesellschaft      | Base cream, hydrophobic DAC     | 18100801    | 2       |
| Ichthyol/Fiebig            | Hydrophilic cream, non-ionic... | 17294002    | 1       |
| Ichthyol/Phönix            | Anionic hydrophilic cream DAB   | 16150702    | 1       |
| Ichthyol-Gesellschaft C... | Hydrophilic cream, non-ionic... | 18002064    | 1       |
| Ichthyol-Gesellschaft      | Anionic hydrophilic cream SR... | 303434      | 1       |
| Infectopharm/Phönix        | Base cream, hydrophobic DAC     | S081801     | 1       |
| Infectopharm               | Base cream, hydrophobic DAC     |             | 2       |
| Infectopharm               | Anionic hydrophilic cream SR... | 14A150517   | 1       |
| Jenne 15.11.21, 22,33EUR   | Base cream, hydrophobic DAC     | 211125      | 1       |
| Jenne/Maros                | Anionic hydrophilic cream DAB   | 18298201    | 1       |
| jenne                      | Base cream, hydrophobic DAC     | 1203488     | 1       |
| Jenne                      | Anionic hydrophilic cream SR... | 17201801    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 17248401    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 17299201    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 17299601    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 17299701    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 18010401    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 18010901    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 18160302    | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 18168601    | 1       |
| Jenne                      | Base cream, hydrophobic DAC     | 18173903    | 1       |
| Jenne                      | Base cream, hydrophobic DAC     | 182221      | 1       |
| Jenne                      | Anionic hydrophilic cream DAB   | 18242901    | 1       |
| Jenne                      | Hydrophilic cream, non-ionic... | 19003821    | 1       |
| Jenne                      | Base cream, hydrophobic DAC     | 190206      | 2       |
| Jenne                      | Anionic hydrophilic cream DAB   | 20001216    | 2       |
| Jenne                      | Wolff® base half-fat cream      | 801470      | 4       |
| Jenne                      | Wolff® base half-fat cream      | 908620      | 1       |
| Kapferer                   | Anionic hydrophilic cream DAB   | 17270301    | 1       |
| Kehr / Pharmachem          | Base cream, hydrophobic DAC     | 141489      | 1       |
| Kehr /Pharmachem           | Base cream, hydrophobic DAC     | 190206      | 1       |
| Kehr.22.06.20              | Anionic hydrophilic cream DAB   | 20000029001 | 1       |
| Kehr.24.03.2020            | Anionic hydrophilic cream DAB   | 19273002    | 1       |
| Kehr/ Celo 24.01.2020      | Anionic hydrophilic cream DAB   | 19162001    | 1       |
| Kehr/Dr.August Wolff       | Wolff® base half-fat cream      | 705760      | 3       |
| Kehr/Dr.August Wolff       | Wolff® base half-fat cream      | 801470      | 1       |
| Kehr/PKH Halle             | Hydrophilic cream, non-ionic... | 29B010818   | 1       |
| Kehr/PKH Halle             | Hydrophilic cream, non-ionic... | 33B110918   | 2       |
| Kehr                       | Anionic hydrophilic cream SR... | 17000165    | 1       |
| Kehr                       | Anionic hydrophilic cream wi... | 17030301    | 1       |
| Kehr                       | Anionic hydrophilic cream DAB   | 17045101    | 1       |
| Kehr                       | Anionic hydrophilic cream DAB   | 17045501    | 1       |
| Kehr                       | Anionic hydrophilic cream DAB   | 17084201    | 1       |
| Kehr                       | Anionic hydrophilic cream DAB   | 17088801    | 1       |
| Kehr                       | Anionic hydrophilic cream wi... | 17156601    | 1       |
| Kehr                       | Anionic hydrophilic cream DAB   | 18001559    | 1       |
| Kehr                       | Anionic hydrophilic cream SR... | 18002223    | 1       |
| Kehr                       | Base cream, hydrophobic DAC     | 18002826    | 1       |
| Kehr                       | Base cream, hydrophobic DAC     | 18002827    | 1       |
| Kehr                       | Anionic hydrophilic cream DAB   | 18003576    | 1       |
| Kehr                       | Anionic hydrophilic cream SR... | 18003785    | 1       |
| Kehr                       | Anionic hydrophilic cream SR... | 18005157    | 1       |
| Kehr                       | Base cream, hydrophobic DAC     | 18051101    | 1       |
| Kehr                       | Hydrophilic cream, non-ionic... | 18106901    | 1       |
| Kehr                       | Anionic hydrophilic cream wi... | 18109801    | 2       |
| Kehr                       | Hydrophilic cream, non-ionic... | 18175201    | 1       |
| kehr                       | Anionic hydrophilic cream DAB   | 19003980    | 1       |

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continued from previous page

| Supplier                   | Substance                              | Batch        | Spectra |
|----------------------------|----------------------------------------|--------------|---------|
| Kehr                       | Anionic hydrophilic cream SR...        | 308218       | 1       |
| Kehr                       | Hydrophilic cream, non-ionic...        | 309904       | 1       |
| Kehr                       | Hydrophilic cream, non-ionic...        | 309908       | 1       |
| Kehr                       | Base cream, hydrophobic DAC            | 310825       | 1       |
| Kehr                       | Anionic hydrophilic cream SR...        | 311053       | 1       |
| Kehr                       | Anionic hydrophilic cream DAB          | 311121       | 1       |
| Klenk                      | Anionic hydrophilic cream DAB          | 16103301     | 2       |
| Klenk                      | Anionic hydrophilic cream DAB          | 17299601     | 1       |
| Klenk                      | Base cream, hydrophobic DAC            | 181198       | 1       |
| Klenk                      | Anionic hydrophilic cream DAB          | 311124       | 1       |
| Klosterring                | Wolff <sup>®</sup> base half-fat cream | 804080       | 1       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K202139      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K20220217    | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K20220331    | 3       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K211117      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K2144        | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K220112      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K220128      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K220413      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K220427      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K222123      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K292021      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K332021      | 2       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K352021      | 1       |
| Kreuzäcker Apotheke Def... | Wolff <sup>®</sup> base half-fat cream | K502021      | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | 20210204-02K | 1       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | 20210204K    | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | 202108K      | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K0221        | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K162021      | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K162021-01   | 1       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K172021      | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K211015-1    | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K2111        | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K2112        | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K212021      | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K2122        | 1       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K2321        | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K2521        | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K2521-1      | 1       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K322021      | 2       |
| Kreuzäcker Apotheke        | Wolff <sup>®</sup> base half-fat cream | K4821        | 2       |
| Krieger am 28.05.19        | Anionic hydrophilic cream DAB          | 18003585     | 1       |
| Krieger                    | Anionic hydrophilic cream DAB          | 17270401     | 1       |
| Krieger                    | Anionic hydrophilic cream SR...        | 17299701     | 1       |
| Krieger                    | Anionic hydrophilic cream wi...        | 20000191001  | 1       |
| Krieger                    | Anionic hydrophilic cream wi...        | 20004293001  | 1       |
| Krieger                    | Wolff <sup>®</sup> base half-fat cream | 705760       | 1       |
| Kurpark Apo Defektur       | Anionic hydrophilic cream DAB          | 17045301     | 1       |
| Kurpark-Apotheke           | Base cream, hydrophobic DAC            | 190638       | 1       |
| L10                        | Anionic hydrophilic cream wi...        | 16290101     | 2       |
| L10                        | Anionic hydrophilic cream DAB          | 17143401     | 1       |
| L10                        | Anionic hydrophilic cream wi...        | 17261901     | 5       |
| L10                        | Anionic hydrophilic cream wi...        | 18041501     | 1       |
| L10                        | Anionic hydrophilic cream wi...        | 18180801     | 3       |
| L11                        | Anionic hydrophilic cream wi...        | 16067401     | 1       |
| L12                        | Anionic hydrophilic cream wi...        | 16290201     | 1       |
| L12                        | Anionic hydrophilic cream wi...        | 17030202     | 1       |
| L12                        | Anionic hydrophilic cream SR...        | 17101501     | 1       |
| L12                        | Anionic hydrophilic cream wi...        | 17102001     | 2       |

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| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------------------|--------------|----------------|
| L12                        | Anionic hydrophilic cream wi... | 18109601     | 2              |
| L12                        | Anionic hydrophilic cream SR... | 18147501     | 1              |
| lamotte/gehe               | Anionic hydrophilic cream DAB   | 15200001     | 1              |
| Lamotte/Phoenix            | Anionic hydrophilic cream DAB   | 19206801     | 1              |
| Lamotte                    | Anionic hydrophilic cream DAB   | 17299101     | 1              |
| Lamotte                    | Anionic hydrophilic cream wi... | 2x19192101   | 1              |
| Leyh Pharma / Alliance ... | Hydrophilic cream, non-ionic... | 155221       | 1              |
| LEYH PHARMA / Phönix Le... | Hydrophilic cream, non-ionic... | 153621       | 1              |
| LEYH PHARMA / Phönix Le... | Hydrophilic cream, non-ionic... | 155221       | 1              |
| Leyh Pharma / Phönix       | Hydrophilic cream, non-ionic... | 142311       | 1              |
| Leyh Pharma / Phönix       | Hydrophilic cream, non-ionic... | 151711       | 1              |
| Leyh Pharma / Phönix       | Hydrophilic cream, non-ionic... | 162241       | 1              |
| Leyh Pharma / Phönix       | Hydrophilic cream, non-ionic... | 164441       | 1              |
| Leyh Pharma / Phönix       | Hydrophilic cream, non-ionic... | 184131       | 1              |
| Leyh Pharma / Phönix       | Hydrophilic cream, non-ionic... | 191021       | 1              |
| Leyh Pharma GmbH / Phönix  | Hydrophilic cream, non-ionic... | 193021       | 1              |
| Leyh Pharma GmbH / Phönix  | Hydrophilic cream, non-ionic... | 193721       | 1              |
| Leyh Pharma GmbH Brotte... | Hydrophilic cream, non-ionic... | 193021       | 1              |
| Leyh Pharma GmbH Brotte... | Hydrophilic cream, non-ionic... | 191021       | 2              |
| Leyh Pharma GmbH/Anzag     | Hydrophilic cream, non-ionic... | 133121       | 1              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 172831       | 4              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 174221       | 4              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 174911       | 1              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 180611       | 1              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 180611       | 1              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 181721       | 5              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 181721       | 1              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 182731       | 6              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 184131       | 6              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 191021       | 4              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 193021       | 4              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 193721       | 6              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 200741       | 2              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 202411       | 1              |
| Leyh Pharma GmbH           | Hydrophilic cream, non-ionic... | 206741       | 1              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 133911       | 2              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 142311       | 1              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 143011       | 1              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 144021       | 1              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 150341       | 1              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 150751       | 1              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 155221       | 1              |
| Leyh Pharma/ Phönix        | Hydrophilic cream, non-ionic... | 160651       | 1              |
| Leyh Pharma/Anzag          | Hydrophilic cream, non-ionic... | 160651       | 1              |
| Leyh Pharma/Gehe           | Hydrophilic cream, non-ionic... | 140551       | 1              |
| Leyh Pharma/Kehr           | Hydrophilic cream, non-ionic... | 16017501     | 1              |
| Leyh Pharma/Noweda         | Hydrophilic cream, non-ionic... | 162241       | 1              |
| Leyh Pharma/Noweda         | Hydrophilic cream, non-ionic... | 163611       | 1              |
| Leyh Pharma/Noweda         | Hydrophilic cream, non-ionic... | 170951       | 1              |
| Leyh Pharma/Noweda         | Hydrophilic cream, non-ionic... | 172831       | 1              |
| Leyh Pharma/Noweda         | Hydrophilic cream, non-ionic... | 202411       | 1              |
| Leyh Pharma/Phoenix        | Hydrophilic cream, non-ionic... | 172051       | 1              |
| Leyh Pharma/Phoenix        | Hydrophilic cream, non-ionic... | 180611       | 1              |
| Leyh Pharma/Phoenix        | Hydrophilic cream, non-ionic... | 181721       | 1              |
| Leyh Pharma/Phoenix        | Hydrophilic cream, non-ionic... | 191021       | 1              |
| Leyh Pharma/Phönix         | Hydrophilic cream, non-ionic... | 143011       | 1              |
| Leyh Pharma/Phönix         | Hydrophilic cream, non-ionic... | 174221       | 1              |
| Leyh Pharma/Sanacorp       | Hydrophilic cream, non-ionic... | 172051       | 1              |
| Leyh Pharma/Sanacorp       | Hydrophilic cream, non-ionic... | 181721       | 1              |
| Leyh Pharma/Sanacorp       | Hydrophilic cream, non-ionic... | 191021       | 1              |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Leyh Pharma/Sanacorp       | Hydrophilic cream, non-ionic... | 193021      | 1       |
| Leyh Pharma                | Hydrophilic cream, non-ionic... | 134841      | 1       |
| Leyh Pharma                | Hydrophilic cream, non-ionic... | 153041      | 2       |
| Leyh Pharma                | Hydrophilic cream, non-ionic... | 15521       | 1       |
| Leyh Pharma                | Hydrophilic cream, non-ionic... | 162241      | 1       |
| Leyh Pharma                | Anionic hydrophilic cream DAB   | 165231      | 1       |
| Leyh Pharma                | Hydrophilic cream, non-ionic... | 172831      | 1       |
| Leyh Pharma                | Hydrophilic cream, non-ionic... | 174221      | 1       |
| Leyh Pharma                | Hydrophilic cream, non-ionic... | 180611      | 4       |
| Leyh Pharma GmbH / Phönix  | Hydrophilic cream, non-ionic... | 180611      | 1       |
| Leyh/Gehe                  | Hydrophilic cream, non-ionic... | 143011      | 2       |
| Löwen City-Apotheke Bar... | Wolff® base half-fat cream      | 230200      | 1       |
| Maros Arznei               | Anionic hydrophilic cream DAB   | 18010302    | 1       |
| Martinus-Apotheke          | Anionic hydrophilic cream wi... | 16067801    | 1       |
| Max Jenne/Bomastus         | Hydrophilic cream, non-ionic... | 19006525    | 1       |
| Max Jenne                  | Anionic hydrophilic cream DAB   | 19003972    | 1       |
| medphano Arzneimittel      | Base cream, hydrophobic DAC     | 6510115     | 1       |
| medphano/Phönix            | Base cream, hydrophobic DAC     | 6510115     | 4       |
| Midas Göttingen            | Base cream, hydrophobic DAC     | 16293901    | 1       |
| Midas                      | Anionic hydrophilic cream DAB   | 16259601    | 1       |
| Midas                      | Hydrophilic cream, non-ionic... | 17000745    | 1       |
| Midas                      | Anionic hydrophilic cream DAB   | 17298801    | 1       |
| Midas                      | Anionic hydrophilic cream DAB   | 18010401    | 1       |
| Midas                      | Anionic hydrophilic cream DAB   | 18116801    | 3       |
| Nachprüfung 3083           | Base cream, hydrophobic DAC     | 141318      | 1       |
| Nachprüfung                | Hydrophilic cream, non-ionic... | 284899      | 1       |
| Neidhardt                  | Anionic hydrophilic cream SR... | 25A140714   | 1       |
| noveda/Pharmachem          | Base cream, hydrophobic DAC     | 20000448    | 1       |
| noveda/Pharmachem          | Base cream, hydrophobic DAC     | 20001227    | 2       |
| Noveda                     | Base cream, hydrophobic DAC     | 19002002    | 1       |
| Noveda                     | Anionic hydrophilic cream DAB   | 19002802    | 1       |
| Noveda                     | Base cream, hydrophobic DAC     | 19058301    | 1       |
| Noweda / Dr. August Wolff  | Wolff® base half-fat cream      | 1110        | 1       |
| Noweda / Dr. August Wolff  | Wolff® base half-fat cream      | 6480        | 1       |
| Noweda / Dr. Wolff         | Wolff® base half-fat cream      | 904880      | 2       |
| Noweda / Pharmachem        | Base cream, hydrophobic DAC     | 1925681     | 1       |
| Noweda 4.6.18              | Base cream, hydrophobic DAC     | 180517      | 1       |
| Noweda 8.7.2019            | Anionic hydrophilic cream SR... | 19000619    | 1       |
| Noweda am 08.07.2019       | Base cream, hydrophobic DAC     | 19002001    | 1       |
| Noweda Pharmachem          | Base cream, hydrophobic DAC     | 20001230    | 2       |
| Noweda Pharmachem          | Base cream, hydrophobic DAC     | 20001231    | 1       |
| Noweda/ Caesar&Lorenz G... | Anionic hydrophilic cream DAB   | 19162401    | 1       |
| Noweda/ Caesar&Lorenz G... | Anionic hydrophilic cream wi... | 19027401    | 1       |
| Noweda/ Caesar&Lorenz G... | Anionic hydrophilic cream wi... | 20000189001 | 1       |
| Noweda/ Ichtyol            | Base cream, hydrophobic DAC     | 12151601    | 2       |
| Noweda/ Infecto Pharm      | Anionic hydrophilic cream DAB   | 16264701    | 1       |
| Noweda/ Pharmachem         | Base cream, hydrophobic DAC     | 182220      | 1       |
| Noweda/ Pharmachem         | Base cream, hydrophobic DAC     | 18286701    | 1       |
| Noweda/ Pharmachem         | Anionic hydrophilic cream DAB   | 200000011   | 1       |
| Noweda/AMH Niemann GmbH    | Anionic hydrophilic cream SR... | 25A141019   | 1       |
| Noweda/AMH Niemann GmbH    | Anionic hydrophilic cream SR... | 36A041218   | 1       |
| Noweda/AMH Niemann GmbH    | Anionic hydrophilic cream SR... | 5A050218    | 1       |
| Noweda/AMX Niemann GmbH    | Anionic hydrophilic cream SR... | 24A100718   | 1       |
| noweda/anzag               | Base cream, hydrophobic DAC     | 190638      | 1       |
| noweda/anzag               | Base cream, hydrophobic DAC     | 191489      | 1       |
| noweda/anzag               | Hydrophilic cream, non-ionic... | 19176502    | 1       |
| Noweda/Caesar & Loretz ... | Anionic hydrophilic cream SR... | 20000522003 | 1       |
| Noweda/Dr. August Wolf     | Wolff® base half-fat cream      | 905120      | 1       |
| Noweda/Dr. Wolff           | Wolff® base half-fat cream      | 501080      | 2       |
| Noweda/Dr. Wolff           | Wolff® base half-fat cream      | 510400      | 2       |

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continued from previous page

| Supplier           | Substance                              | Batch     | Spectra |
|--------------------|----------------------------------------|-----------|---------|
| Noweda/Dr. Wolff   | Wolff <sup>®</sup> base half-fat cream | 605700    | 1       |
| Noweda/Dr. Wolff   | Wolff <sup>®</sup> base half-fat cream | 606050    | 2       |
| Noweda/Dr. Wolff   | Wolff <sup>®</sup> base half-fat cream | 7742      | 2       |
| Noweda/Hedinger    | Anionic hydrophilic cream DAB          | 17202001  | 1       |
| Noweda/Pharmachem  | Skin care ointment W/L SR              | 120416    | 1       |
| Noweda/Pharmachem  | Base cream, hydrophobic DAC            | 142154    | 1       |
| Noweda/Pharmachem  | Base cream, hydrophobic DAC            | 160137    | 1       |
| Noweda/pharmachem  | Anionic hydrophilic cream DAB          | 18066802  | 1       |
| Noweda/Pharmachem  | Base cream, hydrophobic DAC            | 180756    | 1       |
| Noweda/pharmachem  | Base cream, hydrophobic DAC            | 181196    | 1       |
| Noweda/pharmachem  | Base cream, hydrophobic DAC            | 181197    | 1       |
| Noweda/Pharmachem  | Skin care ointment W/L SR              | 270715    | 1       |
| Noweda/Pharmachem0 | Base cream, hydrophobic DAC            | 143094    | 1       |
| Noweda/Wolff GmbH  | Wolff <sup>®</sup> base half-fat cream | 602290    | 1       |
| Noweda             | Wolff <sup>®</sup> base half-fat cream | 10550     | 2       |
| Noweda             | Base cream, hydrophobic DAC            | 110413    | 2       |
| Noweda             | Base cream, hydrophobic DAC            | 11289203  | 1       |
| noweda             | Hydrophilic cream, non-ionic...        | 11B300620 | 1       |
| Noweda             | Base cream, hydrophobic DAC            | 12025002  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 1218701   | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 12217801  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 12265701  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 12313202  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 12314801  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13002705  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13035902  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13070301  | 1       |
| Noweda             | Anionic hydrophilic cream wi...        | 13072302  | 1       |
| Noweda             | Anionic hydrophilic cream wi...        | 13072401  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13154301  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13167401  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13168401  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13168601  | 1       |
| Noweda             | Anionic hydrophilic cream wi...        | 13172203  | 2       |
| Noweda             | Anionic hydrophilic cream DAB          | 13270801  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13280101  | 1       |
| Noweda             | Anionic hydrophilic cream wi...        | 13343301  | 1       |
| Noweda             | Anionic hydrophilic cream wi...        | 13343402  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 13364001  | 2       |
| Noweda             | Base cream, hydrophobic DAC            | 14028101  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 14062701  | 1       |
| Noweda             | Wolff <sup>®</sup> base half-fat cream | 143650    | 1       |
| Noweda             | Anionic hydrophilic cream SR...        | 14A180619 | 1       |
| Noweda             | Base cream, hydrophobic DAC            | 152209    | 1       |
| Noweda             | Base cream, hydrophobic DAC            | 15221301  | 4       |
| Noweda             | Anionic hydrophilic cream SR...        | 15329601  | 1       |
| Noweda             | Anionic hydrophilic cream SR...        | 15386502  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 15400501  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 15428401  | 1       |
| Noweda             | Base cream, hydrophobic DAC            | 16074901  | 2       |
| Noweda             | Anionic hydrophilic cream DAB          | 16156401  | 2       |
| Noweda             | Base cream, hydrophobic DAC            | 16165403  | 1       |
| Noweda             | Anionic hydrophilic cream wi...        | 16191601  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 16259001  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 16260001  | 1       |
| Noweda             | Anionic hydrophilic cream wi...        | 16290501  | 1       |
| Noweda             | Base cream, hydrophobic DAC            | 16293701  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 16317201  | 1       |
| Noweda             | Hydrophilic cream, non-ionic...        | 16321701  | 1       |
| Noweda             | Anionic hydrophilic cream DAB          | 16328201  | 1       |

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continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Noweda   | Anionic hydrophilic cream wi... | 17030301  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 17073103  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 17073202  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17084101  | 2       |
| Noweda   | Anionic hydrophilic cream DAB   | 17088501  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17088901  | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 17102101  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 17112903  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17143001  | 3       |
| Noweda   | Anionic hydrophilic cream DAB   | 17143101  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17143401  | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 17156601  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17201501  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17201801  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17202101  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 172194    | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17248501  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17248601  | 3       |
| Noweda   | Base cream, hydrophobic DAC     | 17255301  | 5       |
| noweda   | Hydrophilic cream, non-ionic... | 17261002  | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 17262101  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17269801  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17270302  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17270401  | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 17294002  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 17299501  | 2       |
| Noweda   | Hydrophilic cream, non-ionic... | 17313902  | 2       |
| Noweda   | Anionic hydrophilic cream SR... | 17319502  | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 17335501  | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 17A120515 | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 18001333  | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 18002061  | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 18002226  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18003583  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18010302  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18011001  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18011101  | 12      |
| Noweda   | Anionic hydrophilic cream SR... | 18041104  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 18051001  | 2       |
| Noweda   | Base cream, hydrophobic DAC     | 180515    | 3       |
| Noweda   | Base cream, hydrophobic DAC     | 18100801  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18160101  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18160301  | 3       |
| Noweda   | Anionic hydrophilic cream DAB   | 18169401  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 18173903  | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 18181001  | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 18218101  | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 18218102  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 182220    | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 18242601  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18243501  | 3       |
| Noweda   | Base cream, hydrophobic DAC     | 18286701  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 18286702  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18298101  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18298201  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18298601  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 18298701  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 19002001  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 19002003  | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 19002039  | 1       |

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continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Noweda   | Anionic hydrophilic cream DAB   | 19002194     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19003001     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19005017     | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 19006525     | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 190207       | 1       |
| noweda   | Hydrophilic cream, non-ionic... | 19055601     | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 19058401     | 2       |
| Noweda   | Base cream, hydrophobic DAC     | 190640       | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19071601     | 2       |
| Noweda   | Anionic hydrophilic cream DAB   | 19072101     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19072301     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19072901     | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 19093001     | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 19093702     | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 19145602     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19161601     | 1       |
| NOWEDA   | Base cream, diluted             | 19190401     | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 19191901     | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 19192201     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19206201     | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 19240002     | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 19268203     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 19272601     | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 1A070119     | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 1B070116     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 20000035     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 20000313001  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 20000431     | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 20000448     | 1       |
| noweda   | Anionic hydrophilic cream DAB   | 200006927001 | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 20000928001  | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 20001014     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 20001217     | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 20001230     | 1       |
| Noweda   | Anionic hydrophilic cream wi... | 20001455001  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 20001471001  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 20001475001  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 20001593002  | 1       |
| Noweda   | Base cream, diluted             | 20001667001  | 1       |
| noweda   | Anionic hydrophilic cream SR... | 20001774     | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 20002541     | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 20003015003  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 20003445002  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 20003560     | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 210000396001 | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 21000925001  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 21001222003  | 1       |
| Noweda   | Base cream, hydrophobic DAC     | 21001223002  | 2       |
| Noweda   | Anionic hydrophilic cream SR... | 21001808     | 2       |
| Noweda   | Anionic hydrophilic cream DAB   | 21001812002  | 1       |
| Noweda   | Anionic hydrophilic cream DAB   | 21001814001  | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 21A050819    | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 22A040717    | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 22A150920    | 1       |
| Noweda   | Hydrophilic cream, non-ionic... | 25A070819    | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 273695       | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 276074       | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 279326       | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 27A051119    | 1       |
| Noweda   | Anionic hydrophilic cream SR... | 280572       | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                        | Batch     | Spectra |
|----------------------------|----------------------------------|-----------|---------|
| Noweda                     | Anionic hydrophilic cream SR...  | 280741    | 2       |
| Noweda                     | Anionic hydrophilic cream DAB    | 290147    | 2       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 291385    | 1       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 292805    | 1       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 294311    | 1       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 294390    | 2       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 294408    | 1       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 295648    | 1       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 297309    | 1       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 300760    | 1       |
| Noweda                     | Base cream, hydrophobic DAC      | 307771    | 1       |
| Noweda                     | Base cream, hydrophobic DAC      | 308508    | 2       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 309908    | 1       |
| Noweda                     | Wolff® base half-fat cream       | 3542      | 2       |
| Noweda                     | Anionic hydrophilic cream SR...  | 38A171115 | 1       |
| Noweda                     | Anionic hydrophilic cream DAB    | 4208092   | 2       |
| Noweda                     | Anionic hydrophilic cream wit... | 6B040515  | 1       |
| Noweda                     | Wolff® base half-fat cream       | 702500    | 1       |
| Noweda                     | Wolff® base half-fat cream       | 705760    | 3       |
| Noweda                     | Wolff® base half-fat cream       | 711250    | 1       |
| Noweda                     | Wolff® base half-fat cream       | 801470    | 3       |
| Noweda                     | Wolff® base half-fat cream       | 805720    | 2       |
| Noweda                     | Wolff® base half-fat cream       | 810201    | 2       |
| Noweda                     | Wolff® base half-fat cream       | 810800    | 1       |
| Noweda                     | Wolff® base half-fat cream       | 901140    | 3       |
| Noweda                     | Wolff® base half-fat cream       | 904880    | 4       |
| Noweda                     | Wolff® base half-fat cream       | 905120    | 6       |
| Noweda                     | Hydrophilic cream, non-ionic...  | 90714     | 1       |
| Noweda                     | Wolff® base half-fat cream       | 908620    | 2       |
| Noweda                     | Wolff® base half-fat cream       | 910460    | 2       |
| Nowedea 15.7.17            | Anionic hydrophilic cream SR...  | 17101501  | 1       |
| Nowedwa/Dr.Wolff           | Wolff® base half-fat cream       | 436750    | 2       |
| Nowedwa/Dr.Wolff           | Wolff® base half-fat cream       | 901930    | 1       |
| Otto Fischer GmbH          | Anionic hydrophilic cream DAB    | 17201601  | 2       |
| Pala                       | Base cream, hydrophobic DAC      | 18002000  | 2       |
| Pala                       | Anionic hydrophilic cream DAB    | 19272601  | 1       |
| Pala                       | Hydrophilic cream, non-ionic...  | 306128    | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC      | 120712    | 2       |
| phar                       | Base cream, hydrophobic DAC      | 182170    | 1       |
| Pharmachem/Alliance He...  | Base cream, hydrophobic DAC      | 142154    | 1       |
| Pharmachem/Alliance He...  | Base cream, hydrophobic DAC      | 151258    | 1       |
| pharma pöckneck            | Base cream, hydrophobic DAC      | 190206    | 1       |
| pharma/phönix              | Base cream, hydrophobic DAC      | 143094    | 1       |
| Pharma/Phönix              | Base cream, hydrophobic DAC      | 153627    | 1       |
| Pharma/Phönix              | Base cream, hydrophobic DAC      | 160136    | 2       |
| Pharma/Phönix              | Base cream, hydrophobic DAC      | 162168    | 1       |
| Pharma/Phönix              | Base cream, hydrophobic DAC      | 190206    | 2       |
| Pharmaachen GmbH & Co.KG   | Base cream, hydrophobic DAC      | 191489    | 1       |
| Pharmacem                  | Base cream, hydrophobic DAC      | 172194    | 1       |
| Pharmacem                  | Base cream, hydrophobic DAC      | 21001558  | 1       |
| PharmacheGehe              | Base cream, hydrophobic DAC      | 162167    | 3       |
| PHARMACHEM / 20            | Base cream, hydrophobic DAC      | 140885    | 1       |
| Pharmachem / AHD           | Base cream, hydrophobic DAC      | 170009    | 1       |
| Pharmachem / AHD           | Base cream, hydrophobic DAC      | 182220    | 1       |
| Pharmachem / AHD           | Base cream, hydrophobic DAC      | 20000431  | 1       |
| Pharmachem / Alli          | Base cream, hydrophobic DAC      | 190639    | 1       |
| Pharmachem / Alliance HC   | Anionic hydrophilic cream SR...  | 240118    | 1       |
| Pharmachem / Alliance H... | Base cream, hydrophobic DAC      | 162168    | 2       |
| Pharmachem / Alliance H... | Base cream, hydrophobic DAC      | 170010    | 2       |
| Pharmachem / Alliance H... | Base cream, hydrophobic DAC      | 171817    | 1       |

continued on the next page



*continued from previous page*

| Supplier                   | Substance                       | Batch     | Spectra |
|----------------------------|---------------------------------|-----------|---------|
| Pharmachem / Alliance H... | Base cream, hydrophobic DAC     | 172194    | 1       |
| Pharmachem / Alliance H... | Base cream, hydrophobic DAC     | 180757    | 1       |
| Pharmachem / Alliance H... | Base cream, hydrophobic DAC     | 182221    | 2       |
| Pharmachem / Alliance H... | Base cream, hydrophobic DAC     | 190206    | 1       |
| Pharmachem / Alliance      | Base cream, hydrophobic DAC     | 181196    | 1       |
| Pharmachem / Anzag         | Base cream, hydrophobic DAC     | 171127    | 1       |
| Pharmachem / Anzag         | Base cream, hydrophobic DAC     | 230713    | 2       |
| Pharmachem / Anzag         | Hydrophilic cream, non-ionic... | 282212    | 2       |
| Pharmachem / GEHE          | Base cream, hydrophobic DAC     | 171127    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 171817    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 172195    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 172196    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 180515    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 180754    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 180860    | 3       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 181196    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 182170    | 1       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 182220    | 2       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 20000448  | 3       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 20001227  | 7       |
| Pharmachem / Gehe          | Base cream, hydrophobic DAC     | 20001233  | 1       |
| Pharmachem / Gehe          | Hydrophilic cream, non-ionic... | 90714     | 1       |
| Pharmachem / Jenne         | Base cream, hydrophobic DAC     | 190004531 | 2       |
| Pharmachem / Jenne         | Base cream, hydrophobic DAC     | 19000732  | 1       |
| Pharmachem / Jenne         | Base cream, hydrophobic DAC     | 1925691   | 1       |
| Pharmachem / Jenne         | Base cream, hydrophobic DAC     | 20001231  | 1       |
| Pharmachem / Jenne         | Base cream, hydrophobic DAC     | 20001232  | 1       |
| Pharmachem / Jenne         | Base cream, hydrophobic DAC     | 20001233  | 2       |
| Pharmachem / Jenne         | Base cream, hydrophobic DAC     | 20001234  | 3       |
| Pharmachem / Noweda        | Skin care ointment W/L SR       | 170815    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 171815    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 171816    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 180517    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 180757    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 180860    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 181196    | 3       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 181197    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 190209    | 3       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 190637    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 190639    | 2       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 190640    | 1       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 191487    | 3       |
| Pharmachem / Noweda        | Base cream, hydrophobic DAC     | 2001232   | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 172194    | 2       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 180515    | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 180755    | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 181198    | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 182170    | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 182220    | 2       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 190207    | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 190638    | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 190640    | 2       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 191488    | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 1925661   | 2       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 1925662   | 1       |
| Pharmachem / Phoenix       | Base cream, hydrophobic DAC     | 20001230  | 1       |
| Pharmachem / Phönix        | Skin care ointment W/L SR       | 110319    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 180515    | 2       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 180755    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 181198    | 1       |

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| Supplier                   | Substance                       | Batch     | Spectra |
|----------------------------|---------------------------------|-----------|---------|
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 182220    | 2       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 190004531 | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 190206    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 190640    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 191487    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 191488    | 2       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 20001227  | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 20003531  | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 21001558  | 1       |
| Pharmachem / Phönix        | Hydrophilic cream, non-ionic... | 220713    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 151259    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 152209    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 160136    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 160825    | 2       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 170010    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 171127    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 172196    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 180515    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 180755    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 191489    | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 1925681   | 2       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 1960638   | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 20001230  | 1       |
| Pharmachem / Sanacorp      | Base cream, hydrophobic DAC     | 20003527  | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 152209    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 153626    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 153627    | 1       |
| Pharmachem / Phönix        | Base cream, hydrophobic DAC     | 21003257  | 2       |
| pharmachem / sanacorp      | Base cream, hydrophobic DAC     | 20001227  | 1       |
| Pharmachem Anzag           | Base cream, hydrophobic DAC     | 141318    | 1       |
| Pharmachem Anzag           | Base cream, hydrophobic DAC     | 162168    | 1       |
| Pharmachem Anzag           | Base cream, hydrophobic DAC     | 163238    | 1       |
| Pharmachem Anzag           | Base cream, hydrophobic DAC     | 171128    | 1       |
| Pharmachem Gehe            | Base cream, hydrophobic DAC     | 180755    | 1       |
| Pharmachem Gehe            | Base cream, hydrophobic DAC     | 180756    | 1       |
| Pharmachem Gehe            | Base cream, hydrophobic DAC     | 181194    | 1       |
| Pharmachem GmbH / Jenne    | Base cream, hydrophobic DAC     | 181198    | 1       |
| Pharmachem GmbH / Jenne    | Base cream, hydrophobic DAC     | 20001230  | 1       |
| Pharmachem GmbH & Co KG... | Base cream, hydrophobic DAC     | 20001228  | 1       |
| Pharmachem GmbH & Co KG    | Skin care ointment W/L SR       | 120419    | 1       |
| Pharmachem GmbH & Co KG    | Skin care ointment W/L SR       | 180619    | 2       |
| Pharmachem GmbH & Co KG    | Base cream, hydrophobic DAC     | 190004531 | 1       |
| Pharmachem GmbH & Co KG    | Base cream, hydrophobic DAC     | 190207    | 1       |
| Pharmachem GmbH & Co KG    | Base cream, hydrophobic DAC     | 191488    | 1       |
| Pharmachem GmbH & Co KG    | Base cream, hydrophobic DAC     | 1925661   | 1       |
| Pharmachem GmbH & Co KG    | Skin care ointment W/L SR       | 280210    | 1       |
| Pharmachem GmbH & Co. K... | Base cream, hydrophobic DAC     | 17185     | 1       |
| Pharmachem GmbH & Co. K... | Base cream, hydrophobic DAC     | 1925681   | 1       |
| Pharmachem GmbH & Co. K... | Base cream, hydrophobic DAC     | 20001228  | 1       |
| Pharmachem GmbH & Co. K... | Base cream, hydrophobic DAC     | 20003531  | 1       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 160825    | 1       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 162168    | 2       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 170009    | 2       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 170010    | 1       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 171817    | 1       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 172194    | 1       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 180755    | 1       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 182220    | 1       |
| Pharmachem GmbH & Co. KG   | Base cream, hydrophobic DAC     | 20001227  | 1       |
| Pharmachem GmbH & Co.KG... | Base cream, hydrophobic DAC     | 181196    | 1       |

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| Supplier                     | Substance                       | Batch    | Spectra |
|------------------------------|---------------------------------|----------|---------|
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 180515   | 1       |
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 190206   | 2       |
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 190207   | 1       |
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 191489   | 2       |
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 1925661  | 1       |
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 1925681  | 1       |
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 20000431 | 1       |
| Pharmachem GmbH & Co.KG...   | Base cream, hydrophobic DAC     | 20001228 | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 152209   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 160130   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 162168   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 172196   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 19000732 | 1       |
| Pharmachem GmbH & Co.KG      | Hydrophilic cream, non-ionic... | 190918   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 191487   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 20000431 | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 20001233 | 1       |
| Pharmachem GmbH & Co.KG      | Hydrophilic cream, non-ionic... | 201015   | 5       |
| Pharmachem GmbH & Co.KG      | Hydrophilic cream, non-ionic... | 240217   | 8       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 140318   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 140886   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 143093   | 2       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 153627   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 1600825  | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 160136   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 160814   | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 21013    | 1       |
| Pharmachem GmbH & Co.KG      | Base cream, hydrophobic DAC     | 171817   | 1       |
| Pharmachem GmbH & Co.KG/F... | Base cream, hydrophobic DAC     | 170010   | 1       |
| Pharmachem GmbH & Co.KG/F... | Base cream, hydrophobic DAC     | 20001227 | 2       |
| Pharmachem GmbH / Allia...   | Base cream, hydrophobic DAC     | 180515   | 1       |
| Pharmachem GmbH / Allia...   | Base cream, hydrophobic DAC     | 180757   | 1       |
| Pharmachem GmbH / Allia...   | Base cream, hydrophobic DAC     | 182220   | 1       |
| Pharmachem GmbH / Allia...   | Base cream, hydrophobic DAC     | 190206   | 1       |
| Pharmachem GmbH / Anzag      | Base cream, hydrophobic DAC     | 150405   | 1       |
| Pharmachem GmbH / Anzag      | Base cream, hydrophobic DAC     | 152209   | 1       |
| Pharmachem GmbH / Anzag      | Base cream, hydrophobic DAC     | 230713   | 1       |
| Pharmachem GmbH / Phönix     | Base cream, hydrophobic DAC     | 181198   | 1       |
| Pharmachem GmbH /            | Base cream, hydrophobic DAC     | 180515   | 1       |
| Pharmachem GmbH /            | Base cream, hydrophobic DAC     | 182220   | 1       |
| Pharmachem GmbH /            | Base cream, hydrophobic DAC     | 190639   | 1       |
| Pharmachem GmbH /            | Base cream, hydrophobic DAC     | 190640   | 1       |
| Pharmachem GmbH Pößneck      | Base cream, hydrophobic DAC     | 160825   | 1       |
| Pharmachem GmbH Pößneck      | Skin care ointment W/L SR       | 81117    | 1       |
| Pharmachem GmbH u.Co.KG      | Base cream, hydrophobic DAC     | 160130   | 1       |
| Pharmachem GmbH u.Co.KG      | Base cream, hydrophobic DAC     | 162168   | 1       |
| Pharmachem GmbH u.Co.KG      | Base cream, hydrophobic DAC     | 171815   | 1       |
| Pharmachem GmbH u.Co.KG      | Base cream, hydrophobic DAC     | 172194   | 1       |
| Pharmachem GmbH u.Co.KG      | Base cream, hydrophobic DAC     | 180756   | 1       |
| Pharmachem GmbH u.Co.KG      | Base cream, hydrophobic DAC     | 181198   | 2       |
| Pharmachem GmbH und Co.KG    | Base cream, hydrophobic DAC     | 191488   | 2       |
| Pharmachem GmbH und Co.KG    | Base cream, hydrophobic DAC     | 1925661  | 1       |
| Pharmachem GmbH und Co.KG    | Base cream, hydrophobic DAC     | 20000431 | 2       |
| Pharmachem GmbH & Co. KG...  | Base cream, hydrophobic DAC     | 20001230 | 1       |
| Pharmachem GmbH & Co.KG      | Skin care ointment W/L SR (w... | 270711   | 1       |
| Pharmachem GmbH & Co.KG      | Skin care ointment W/L SR       | 230911   | 1       |
| Pharmachem GmbH & Co.KG      | Skin care ointment W/L SR (w... | 90211    | 1       |
| Pharmachem GmbH & Co.KG /... | Base cream, hydrophobic DAC     | 180755   | 3       |
| Pharmachem GmbH & Co.KG /... | Base cream, hydrophobic DAC     | 190207   | 1       |
| Pharmachem GmbH & Co.KG /... | Base cream, hydrophobic DAC     | 190640   | 1       |

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| Supplier                   | Substance                       | Batch    | Spectra |
|----------------------------|---------------------------------|----------|---------|
| Pharmachem GmbH&Co.KG /... | Base cream, hydrophobic DAC     | 20000431 | 1       |
| Pharmachem GmbH&Co.KG /... | Base cream, hydrophobic DAC     | 20001231 | 1       |
| Pharmachem GmbH&Co.KG/J... | Base cream, hydrophobic DAC     | 20003529 | 1       |
| Pharmachem GmbH&Co.KG/J... | Base cream, hydrophobic DAC     | 21001559 | 1       |
| Pharmachem GmbH&Co.KG/N... | Base cream, hydrophobic DAC     | 172194   | 1       |
| Pharmachem GmbH&Co.KG/N... | Base cream, hydrophobic DAC     | 181198   | 1       |
| Pharmachem GmbH&Co.KG/P... | Base cream, hydrophobic DAC     | 1925681  | 1       |
| Pharmachem GmbH&Co.KG      | Base cream, hydrophobic DAC     | 141489   | 1       |
| Pharmachem GmbH&Co.KG      | Base cream, hydrophobic DAC     | 160825   | 3       |
| Pharmachem GmbH&Co.KG      | Base cream, hydrophobic DAC     | 180754   | 1       |
| pharmachem GmbH&Co.KG      | Base cream, hydrophobic DAC     | 20001228 | 2       |
| Pharmachem GmbH&Co.KG      | Base cream, hydrophobic DAC     | 20003527 | 1       |
| Pharmachem GmbH&Co.KG      | Base cream, hydrophobic DAC     | 21013    | 1       |
| Pharmachem GmbH&Co.KG      | Hydrophilic cream, non-ionic... | 90714    | 1       |
| Pharmachem GmbH/ AHD       | Base cream, hydrophobic DAC     | 191489   | 1       |
| Pharmachem GmbH/ Noweda    | Base cream, hydrophobic DAC     | 180755   | 1       |
| Pharmachem GmbH/ Noweda    | Base cream, hydrophobic DAC     | 181198   | 1       |
| Pharmachem GmbH/ Noweda    | Base cream, hydrophobic DAC     | 190207   | 2       |
| Pharmachem GmbH/ Noweda    | Base cream, hydrophobic DAC     | 190640   | 1       |
| Pharmachem GmbH/ Noweda    | Base cream, hydrophobic DAC     | 20000431 | 1       |
| Pharmachem GmbH/AHD        | Base cream, hydrophobic DAC     | 171815   | 1       |
| Pharmachem GmbH/GEHE       | Base cream, hydrophobic DAC     | 182221   | 1       |
| Pharmachem GmbH/GEHE       | Base cream, hydrophobic DAC     | 190638   | 1       |
| Pharmachem GmbH/GEHE       | Base cream, hydrophobic DAC     | 1925681  | 1       |
| Pharmachem GmbH/Gehe       | Base cream, hydrophobic DAC     | 20000448 | 1       |
| Pharmachem GmbH/GEHE       | Base cream, hydrophobic DAC     | 20001227 | 1       |
| Pharmachem GmbH/Gehe       | Base cream, hydrophobic DAC     | 21003257 | 1       |
| Pharmachem GmbH/Kehr       | Base cream, hydrophobic DAC     | 191487   | 1       |
| Pharmachem GmbH/Noweda     | Base cream, hydrophobic DAC     | 150405   | 1       |
| Pharmachem GmbH/Phoenix    | Base cream, hydrophobic DAC     | 20001227 | 1       |
| Pharmachem GmbH/Phönix     | Base cream, hydrophobic DAC     | 171127   | 1       |
| Pharmachem GmbH/Phönix     | Base cream, hydrophobic DAC     | 190640   | 1       |
| Pharmachem GmbH/Phönix     | Base cream, hydrophobic DAC     | 20001227 | 1       |
| Pharmachem GmbH/Phönix     | Anionic hydrophilic cream SR... | 260712   | 3       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 120712   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 140885   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 140886   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 141489   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 142154   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 143094   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 150405   | 2       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 151259   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 153627   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 160826   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 162168   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 162169   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 17009    | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 171128   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 172194   | 2       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 180515   | 3       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 180756   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 181194   | 2       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 181196   | 1       |
| pharmachem gmbh            | Base cream, hydrophobic DAC     | 181197   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 181197   | 12      |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 181198   | 8       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 182221   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 19000732 | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 190206   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 190207   | 3       |

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| Supplier                   | Substance                       | Batch     | Spectra |
|----------------------------|---------------------------------|-----------|---------|
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 190638    | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 191488    | 3       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 191489    | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 1925681   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 1925691   | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 20000431  | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 20000448  | 3       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 20001228  | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 20001231  | 5       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 20003528  | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 20003529  | 1       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 21001558  | 1       |
| Pharmachem GmbH            | Skin care ointment W/L SR       | 220118    | 1       |
| Pharmachem GmbH            | Hydrophilic cream, non-ionic... | 220713    | 2       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 240113    | 2       |
| Pharmachem GmbH            | Base cream, hydrophobic DAC     | 261112    | 3       |
| Pharmachem GmbH            | Hydrophilic cream, non-ionic... | 50912     | 1       |
| Pharmachem Noweda          | Base cream, hydrophobic DAC     | 162168    | 1       |
| Pharmachem Pösneck/ Now... | Base cream, hydrophobic DAC     | 141318    | 1       |
| Pharmachem Pösneck/Noweda  | Skin care ointment W/L SR       | 111016    | 1       |
| Pharmachem Pösneck 004     | Base cream, hydrophobic DAC     | 261112    | 1       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 172194    | 1       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 180756    | 2       |
| Pharmachem Pösneck GmbH... | Anionic hydrophilic cream SR... | 240915    | 5       |
| Pharmachem Pösneck GmbH... | Anionic hydrophilic cream SR... | 300317    | 2       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 170008    | 1       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 171127    | 2       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 171815    | 1       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 180754    | 1       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 180755    | 2       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 181194    | 2       |
| Pharmachem Pösneck GmbH... | Base cream, hydrophobic DAC     | 181196    | 1       |
| Pharmachem Pösneck/ Now... | Base cream, hydrophobic DAC     | 1925681   | 1       |
| Pharmachem Pösneck/ Now... | Base cream, hydrophobic DAC     | 20003530  | 1       |
| Pharmachem Pösneck/AHD     | Base cream, hydrophobic DAC     | 180757    | 2       |
| Pharmachem Pösneck/AHD     | Base cream, hydrophobic DAC     | 181194    | 1       |
| Pharmachem Pösneck/AHD     | Base cream, hydrophobic DAC     | 200004493 | 1       |
| Pharmachem Pösneck/E.J     | Base cream, hydrophobic DAC     | 180756    | 1       |
| Pharmachem Pösneck/GEHE    | Base cream, hydrophobic DAC     | 180515    | 1       |
| Pharmachem Pösneck/Gehe    | Base cream, hydrophobic DAC     | 20001227  | 3       |
| Pharmachem Pösneck/Noweda  | Base cream, hydrophobic DAC     | 1925691   | 1       |
| Pharmachem Pösneck/Noweda  | Base cream, hydrophobic DAC     | 200035562 | 1       |
| Pharmachem Pösneck/Noweda  | Base cream, hydrophobic DAC     | 210014391 | 1       |
| Pharmachem Pösneck/Phoe... | Base cream, hydrophobic DAC     | 153627    | 1       |
| Pharmachem Pösneck/Phoe... | Base cream, hydrophobic DAC     | 170010    | 1       |
| Pharmachem Pösneck/Phönix  | Base cream, hydrophobic DAC     | 160825    | 1       |
| Pharmachem Pösneck/Phönix  | Base cream, hydrophobic DAC     | 191489    | 1       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 143093    | 2       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 152210    | 1       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 153625    | 1       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 153626    | 1       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 160137    | 2       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 160826    | 2       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 181198    | 1       |
| Pharmachem Pösneck/Sana... | Base cream, hydrophobic DAC     | 190638    | 2       |
| Pharmachem Pösneck         | Skin care ointment W/L SR       | 100516    | 1       |
| Pharmachem Pösneck         | Base cream, hydrophobic DAC     | 110413    | 1       |
| pharmachem Pösneck         | Base cream, hydrophobic DAC     | 143119    | 1       |
| pharmachem pösneck         | Base cream, hydrophobic DAC     | 160130    | 1       |
| Pharmachem Pösneck         | Base cream, hydrophobic DAC     | 160825    | 2       |

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| Supplier                   | Substance                       | Batch    | Spectra |
|----------------------------|---------------------------------|----------|---------|
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 162169   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 163238   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 170010   | 2       |
| pharmachem pößneck         | Base cream, hydrophobic DAC     | 171127   | 3       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 171127   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 171816   | 2       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 171817   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 172194   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 172195   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 172196   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 180517   | 2       |
| Pharmachem Pößneck         | Skin care ointment W/L SR       | 180619   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 180755   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 180757   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 180816   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 181194   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 181196   | 2       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 182220   | 3       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 182221   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 19000732 | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 190209   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 190638   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 190640   | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 1925691  | 1       |
| Pharmachem Poßneck         | Base cream, hydrophobic DAC     | 20000448 | 1       |
| Pharmachem Pößneck         | Base cream, hydrophobic DAC     | 20000448 | 1       |
| pharmachem./ Noweda        | Hydrophilic cream, non-ionic... | 190918   | 1       |
| pharmachem./ Noweda        | Hydrophilic cream, non-ionic... | 290519   | 1       |
| Pharmachem./Gehe           | Base cream, hydrophobic DAC     | 20001227 | 3       |
| Pharmachem./Gehe           | Base cream, hydrophobic DAC     | 20001228 | 2       |
| Pharmachem./Noweda         | Base cream, hydrophobic DAC     | 171817   | 1       |
| Pharmachem./Noweda         | Base cream, hydrophobic DAC     | 172196   | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 172195   | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 172196   | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 181198   | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 182220   | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 191488   | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 1925661  | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 1925682  | 1       |
| PHARMACHEM./PHOENIX        | Base cream, hydrophobic DAC     | 1925691  | 1       |
| Pharmachem.Thüringen       | Base cream, hydrophobic DAC     | 172194   | 1       |
| Pharmachem.Thüringen       | Base cream, hydrophobic DAC     | 180515   | 1       |
| Pharmachem.Thüringen       | Base cream, hydrophobic DAC     | 180756   | 1       |
| Pharmachem/ /Sanacorp      | Base cream, hydrophobic DAC     | 140885   | 1       |
| Pharmachem/ AHD            | Base cream, hydrophobic DAC     | 172196   | 1       |
| Pharmachem/ AHD            | Base cream, hydrophobic DAC     | 180757   | 1       |
| Pharmachem/ AHD            | Base cream, hydrophobic DAC     | 182220   | 1       |
| Pharmachem/ AHD            | Base cream, hydrophobic DAC     | 190209   | 2       |
| Pharmachem/ AHD            | Base cream, hydrophobic DAC     | 191488   | 1       |
| Pharmachem/ AHD            | Base cream, hydrophobic DAC     | 1923234  | 1       |
| Pharmachem/ Alliance He... | Base cream, hydrophobic DAC     | 152209   | 1       |
| Pharmachem/ Alliance He... | Base cream, hydrophobic DAC     | 181196   | 1       |
| Pharmachem/ Alliance He... | Base cream, hydrophobic DAC     | 181197   | 2       |
| Pharmachem/ Alliance He... | Base cream, hydrophobic DAC     | 190209   | 1       |
| Pharmachem/ Alliance       | Base cream, hydrophobic DAC     | 19000732 | 2       |
| Pharmachem/ Alliance       | Base cream, hydrophobic DAC     | 20003529 | 2       |
| Pharmachem/ Alliance       | Base cream, hydrophobic DAC     | 21001560 | 1       |
| Pharmachem/ Anzag          | Base cream, hydrophobic DAC     | 153627   | 1       |
| Pharmachem/ Anzag          | Base cream, hydrophobic DAC     | 163238   | 1       |
| Pharmachem/ Anzag          | Base cream, hydrophobic DAC     | 171817   | 1       |

continued on the next page

continued from previous page

| Supplier             | Substance                        | Batch     | Spectra |
|----------------------|----------------------------------|-----------|---------|
| Pharmachem/ Anzag    | Base cream, hydrophobic DAC      | 180757    | 1       |
| Pharmachem/ Anzag    | Base cream, hydrophobic DAC      | 181197    | 2       |
| Pharmachem/ Anzag    | Base cream, hydrophobic DAC      | 19000732  | 1       |
| Pharmachem/ Anzag    | Base cream, hydrophobic DAC      | 190206    | 1       |
| Pharmachem/ Anzag    | Base cream, hydrophobic DAC      | 191489    | 1       |
| Pharmachem/ Anzag    | Base cream, hydrophobic DAC      | 1925691   | 1       |
| Pharmachem/ Fiebig   | Base cream, hydrophobic DAC      | 171127    | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 150404    | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 1511258   | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 152210    | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 160814    | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 160826    | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 162169    | 1       |
| pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 180756    | 1       |
| pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 181198    | 1       |
| Pharmachem/ GEHE     | Base cream, hydrophobic DAC      | 190219    | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 1925691   | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 20000431  | 1       |
| Pharmachem/ Gehe     | Base cream, hydrophobic DAC      | 20001232  | 1       |
| Pharmachem/ Krieger  | Base cream, hydrophobic DAC      | 190207    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 141489    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 142154    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 143094    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 151259    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 152209    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 160136    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 162167    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 162169    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 172194    | 2       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 180515    | 1       |
| Pharmachem/ Noweda   | Skin care ointment W/L SR        | 180914    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 182220    | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 190640    | 2       |
| Pharmachem/ Noweda   | Anionic hydrophilic cream SR...  | 200000012 | 1       |
| Pharmachem/ Noweda   | Base cream, hydrophobic DAC      | 20000431  | 1       |
| Pharmachem/ Noweda   | Anionic hydrophilic cream SR...  | 220219    | 1       |
| Pharmachem/ Noweda   | Anionic hydrophilic cream SR...  | 240118    | 1       |
| Pharmachem/ Noweda   | Skin care ointment W/L SR        | 260814    | 1       |
| Pharmachem/ Phoenix  | Base cream, hydrophobic DAC      | 153625    | 1       |
| Pharmachem/ Phoenix  | Base cream, hydrophobic DAC      | 182220    | 1       |
| Pharmachem/ Phoenix  | Base cream, hydrophobic DAC      | 190637    | 1       |
| Pharmachem/ Phoenix  | Base cream, hydrophobic DAC      | 20000431  | 1       |
| Pharmachem/ Phoenix  | Base cream, hydrophobic DAC      | 20000448  | 1       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 160130    | 1       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 170009    | 2       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 170010    | 2       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 171127    | 1       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 171815    | 1       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 172194    | 1       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 191488    | 1       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 1925661   | 2       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 20000431  | 1       |
| Pharmachem/ Phönix   | Base cream, hydrophobic DAC      | 20001231  | 1       |
| Pharmachem/ Sanacorp | Anionic hydrophilic cream wit... | 10B060916 | 1       |
| Pharmachem/ Sanacorp | Base cream, hydrophobic DAC      | 140886    | 1       |
| Pharmachem/ Sanacorp | Skin care ointment W/L SR        | 141015    | 1       |
| Pharmachem/ Sanacorp | Base cream, hydrophobic DAC      | 160825    | 1       |
| Pharmachem/ Sanacorp | Base cream, hydrophobic DAC      | 162168    | 2       |
| Pharmachem/ Sanacorp | Skin care ointment W/L SR        | 170117    | 1       |
| Pharmachem/ Sanacorp | Base cream, hydrophobic DAC      | 182221    | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance                         | Batch     | Spectra |
|----------------------------|-----------------------------------|-----------|---------|
| Pharmachem/ Sanacorp       | Base cream, hydrophobic DAC       | 190638    | 2       |
| Pharmachem/ Sanacorp       | Base cream, hydrophobic DAC       | 191488    | 2       |
| Pharmachem/ Sanacorp       | Base cream, hydrophobic DAC       | 20001227  | 2       |
| Pharmachem/ Sanacorp       | Base cream, hydrophobic DAC       | 20001228  | 2       |
| Pharmachem/30              | Base cream, hydrophobic DAC       | 141317    | 2       |
| Pharmachem/30              | Base cream, hydrophobic DAC       | 21013     | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 110413    | 2       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 150405    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 160825    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 171127    | 5       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 172194    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 172195    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 180754    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 180757    | 4       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 181196    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 181197    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 181198    | 2       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 182220    | 2       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 190004531 | 3       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 19000732  | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 190207    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 190209    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 190638    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 190639    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 191487    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 1923234   | 3       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 1925691   | 2       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 20000448  | 2       |
| Pharmachem/AHD             | Anionic hydrophilic cream SR. ... | 220219    | 3       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 230713    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 231213    | 2       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 261112    | 1       |
| Pharmachem/AHD             | Base cream, hydrophobic DAC       | 26112     | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 190209    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 160138    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 162168    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 162170    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 170008    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 172194    | 3       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 172195    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 180756    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 181194    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 181198    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 190637    | 1       |
| Pharmachem/Alliance Hea... | Base cream, hydrophobic DAC       | 191489    | 1       |
| Pharmachem/Alliance        | Base cream, hydrophobic DAC       | 190638    | 1       |
| Pharmachem/Alliance        | Base cream, hydrophobic DAC       | 191489    | 1       |
| Pharmachem/Alliance        | Base cream, hydrophobic DAC       | 1925681   | 1       |
| Pharmachem/Alliance        | Base cream, hydrophobic DAC       | 20001227  | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 152209    | 3       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 160136    | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 171127    | 2       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 180756    | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 181198    | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 182220    | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 190206    | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 190207    | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 190640    | 1       |
| Pharmachem/Anzag           | Base cream, hydrophobic DAC       | 1925661   | 1       |
| Pharmachem/E&J             | Base cream, hydrophobic DAC       | 170009    | 1       |

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| <b>Supplier</b>          | <b>Substance</b>            | <b>Batch</b> | <b>Spectra</b> |
|--------------------------|-----------------------------|--------------|----------------|
| Pharmachem/E&J           | Base cream, hydrophobic DAC | 171816       | 1              |
| Pharmachem/E&J           | Base cream, hydrophobic DAC | 180757       | 1              |
| Pharmachem/E&J           | Base cream, hydrophobic DAC | 180860       | 1              |
| Pharmachem/Fiebi         | Base cream, hydrophobic DAC | 190638       | 1              |
| Pharmachem/Fiebig        | Base cream, hydrophobic DAC | 182221       | 1              |
| Pharmachem/Fiebig        | Base cream, hydrophobic DAC | 19000732     | 1              |
| Pharmachem/Fiebig        | Base cream, hydrophobic DAC | 20000431     | 1              |
| Pharmachem/Gehe 27.09.18 | Base cream, hydrophobic DAC | 181194       | 3              |
| Pharmachem/Gehe 31.12.18 | Base cream, hydrophobic DAC | 181197       | 3              |
| Pharmachem/Gehe          | Skin care ointment W/L SR   | 100712       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 120712       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 141318       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 141489       | 1              |
| Pharmachem/GEHE          | Base cream, hydrophobic DAC | 141489       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 151258       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 151259       | 5              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 152209       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 152211       | 3              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 153625       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 160130       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 160825       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 162168       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 162169       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 162170       | 3              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 170008       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 170010       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 171815       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 172194       | 3              |
| Pharmachem/GEHE          | Base cream, hydrophobic DAC | 172194       | 4              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 172195       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 172196       | 3              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 180517       | 4              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 180754       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 180755       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 180756       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 180860       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 181194       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 181196       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 181197       | 2              |
| Pharmachem/GEHE          | Base cream, hydrophobic DAC | 181197       | 3              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 182221       | 3              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 190209       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 190263       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 190638       | 6              |
| Pharmachem/GEHE          | Base cream, hydrophobic DAC | 190638       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 190639       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 191487       | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 191488       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 191489       | 3              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 192323       | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 1925661      | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 1925681      | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 20000431     | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 20000448     | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 20001227     | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 20001228     | 9              |
| Pharmachem/GEHE          | Base cream, hydrophobic DAC | 20001228     | 2              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 20001230     | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 20001234     | 1              |
| Pharmachem/Gehe          | Base cream, hydrophobic DAC | 20003527     | 1              |

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continued from previous page

| Supplier          | Substance                       | Batch     | Spectra |
|-------------------|---------------------------------|-----------|---------|
| Pharmachem/Gehe   | Base cream, hydrophobic DAC     | 20003528  | 1       |
| Pharmachem/GEHE   | Base cream, hydrophobic DAC     | 20003530  | 2       |
| Pharmachem/Gehe   | Base cream, hydrophobic DAC     | 21013     | 1       |
| Pharmachem/Gehe   | Base cream, hydrophobic DAC     | 231213    | 1       |
| Pharmachem/Gehe   | Base cream, hydrophobic DAC     | 240113    | 2       |
| Pharmachem/Gehe   | Base cream, hydrophobic DAC     | 6107319   | 1       |
| Pharmachem/Jenne  | Base cream, hydrophobic DAC     | 180755    | 1       |
| Pharmachem/Jenne  | Base cream, hydrophobic DAC     | 190206    | 1       |
| Pharmachem/Jenne  | Base cream, hydrophobic DAC     | 190638    | 1       |
| Pharmachem/Jenne  | Base cream, hydrophobic DAC     | 1925661   | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 153627    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 162168    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 180515    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 180745    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 180756    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 18221     | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 182220    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 182221    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 190004531 | 2       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 190206    | 2       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 190637    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 190638    | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 191489    | 2       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 1925682   | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 1925691   | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 20000431  | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 20000448  | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 20001228  | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 20001232  | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 20001233  | 1       |
| Pharmachem/Kehr   | Base cream, hydrophobic DAC     | 20003527  | 1       |
| Pharmachem/Noweda | Skin care ointment W/L SR       | 110416    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 142154    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 143093    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 143094    | 1       |
| Pharmachem/Noweda | Anionic hydrophilic cream SR... | 150716    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 151259    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 160136    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 160825    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 162168    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 163237    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 170010    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 171127    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 171128    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 171815    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 171816    | 3       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 172194    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 172196    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 180517    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 180755    | 2       |
| Pharmachem/NOWEDA | Base cream, hydrophobic DAC     | 180755    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 180756    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 180860    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 181194    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 181196    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 181197    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 182221    | 3       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 190206    | 2       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 190209    | 1       |
| Pharmachem/Noweda | Base cream, hydrophobic DAC     | 190637    | 2       |

continued on the next page

continued from previous page

| Supplier                     | Substance                         | Batch     | Spectra |
|------------------------------|-----------------------------------|-----------|---------|
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 190638    | 5       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 190639    | 1       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 191489    | 1       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 1925661   | 1       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 1925681   | 2       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 200001234 | 1       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 20000448  | 4       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 20001227  | 6       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 20001228  | 4       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 230713    | 1       |
| Pharmachem/Noweda            | Base cream, hydrophobic DAC       | 231213    | 1       |
| Pharmachem/Noweda            | Hydrophilic cream, non-ionic. . . | 240217    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 152210    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 160138    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 162168    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 162170    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 163238    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 171815    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 171816    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 172196    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 180517    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 180754    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 180755    | 2       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 180756    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 180860    | 2       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 181196    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 181198    | 2       |
| pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 182220    | 2       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 182220    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 190206    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 190207    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 190512705 | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 191041909 | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 20001231  | 1       |
| Pharmachem/Phoenix           | Hydrophilic cream, non-ionic. . . | 201015    | 3       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 21003258  | 1       |
| Pharmachem/Phoenix           | Anionic hydrophilic cream SR. . . | 220219    | 1       |
| Pharmachem/Phoenix           | Base cream, hydrophobic DAC       | 240113    | 1       |
| Pharmachem/Phoenix           | Anionic hydrophilic cream SR. . . | 240118    | 2       |
| Pharmachem/Phoenix           | Anionic hydrophilic cream SR. . . | 300317    | 3       |
| Pharmachem/Phoenix           | Hydrophilic cream, non-ionic. . . | 90714     | 1       |
| Pharmachem/Phönix 03.08. . . | Skin care ointment W/L SR         | 250418    | 1       |
| PharmaChem/Phönix            | Skin care ointment W/L SR         | 110319    | 1       |
| Pharmachem/Phönix            | Anionic hydrophilic cream SR. . . | 110913    | 1       |
| PharmaChem/Phönix            | Skin care ointment W/L SR         | 120419    | 2       |
| Pharmachem/Phönix            | Anionic hydrophilic cream SR. . . | 130814    | 1       |
| PharmaChem/Phönix            | Skin care ointment W/L SR         | 151118    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 151259    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 153625    | 2       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 153626    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 160136    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 160814    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 163238    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 170008    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 170009    | 1       |
| PharmaChem/Phönix            | Skin care ointment W/L SR         | 170119    | 2       |
| Pharmachem/Phönix            | Hydrophilic cream, non-ionic. . . | 170412    | 1       |
| PharmaChem/Phönix            | Skin care ointment W/L SR         | 170918    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 171185    | 1       |
| Pharmachem/Phönix            | Base cream, hydrophobic DAC       | 171815    | 2       |

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| Supplier            | Substance                         | Batch     | Spectra |
|---------------------|-----------------------------------|-----------|---------|
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 171817    | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 172194    | 3       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 172196    | 1       |
| PharmaChem/Phönix   | Skin care ointment W/L SR         | 180619    | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 180756    | 3       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 180757    | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 181194    | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 181197    | 2       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 190209    | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 1925661   | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 1925681   | 1       |
| pharmachem/Phönix   | Base cream, hydrophobic DAC       | 1925691   | 3       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 20001227  | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 20001230  | 1       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 20001233  | 2       |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 21001558  | 1       |
| PharmaChem/Phönix   | Skin care ointment W/L SR         | 220118    | 1       |
| Pharmachem/Phönix   | Hydrophilic cream, non-ionic. . . | 220713    | 12      |
| Pharmachem/Phönix   | Base cream, hydrophobic DAC       | 231213    | 1       |
| Pharmachem/Phönix   | Anionic hydrophilic cream SR. . . | 290413    | 1       |
| PharmaChem/Phönix   | Skin care ointment W/L SR         | 290419    | 1       |
| PharmaChem/Phönix   | Skin care ointment W/L SR         | 50718     | 1       |
| Pharmachem/Phönix   | Hydrophilic cream, non-ionic. . . | 50912     | 4       |
| Pharmachem/Sana     | Base cream, hydrophobic DAC       | 142154    | 1       |
| Pharmachem/Sana     | Base cream, hydrophobic DAC       | 152209    | 1       |
| Pharmachem/Sana     | Base cream, hydrophobic DAC       | 160825    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 143094    | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 151259    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 15221     | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 160814    | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 170010    | 3       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 171127    | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 171815    | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 172195    | 5       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 172196    | 3       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 180517    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 180755    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 180756    | 4       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 180757    | 10      |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 181194    | 4       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 181196    | 4       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 181198    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 190004531 | 5       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 190206    | 3       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 190207    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 190209    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 190637    | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 190639    | 3       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 191487    | 8       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 191488    | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 191489    | 2       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 1923234   | 9       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 1925661   | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 1925681   | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 1925682   | 10      |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 1925691   | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 20001227  | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 20001228  | 4       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 20001233  | 1       |
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC       | 20001234  | 1       |

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| <b>Supplier</b>     | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|---------------------|---------------------------------|--------------|----------------|
| Pharmachem/Sanacorp | Base cream, hydrophobic DAC     | 20003527     | 2              |
| pharmachem/spangro  | Base cream, hydrophobic DAC     | 142154       | 1              |
| pharmachem          | Base cream, hydrophobic DAC     | 110413       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 110413       | 7              |
| PharmaChem          | Base cream, hydrophobic DAC     | 110413       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 131011       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 131211       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 140885       | 2              |
| pharmachem          | Base cream, hydrophobic DAC     | 140886       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 140886       | 3              |
| Pharmachem          | Base cream, hydrophobic DAC     | 141317       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 141318       | 1              |
| PharmaChem          | Base cream, hydrophobic DAC     | 141318       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 141489       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 142154       | 7              |
| Pharmachem          | Base cream, hydrophobic DAC     | 142155       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 143093       | 6              |
| Pharmachem          | Base cream, hydrophobic DAC     | 143094       | 11             |
| Pharmachem          | Base cream, hydrophobic DAC     | 150404       | 3              |
| Pharmachem          | Base cream, hydrophobic DAC     | 150405       | 4              |
| Pharmachem          | Anionic hydrophilic cream SR... | 150716       | 2              |
| Pharmachem          | Skin care ointment W/L SR       | 151118       | 1              |
| pharmachem          | Base cream, hydrophobic DAC     | 151258       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 151258       | 6              |
| Pharmachem          | Base cream, hydrophobic DAC     | 151259       | 5              |
| Pharmachem          | Base cream, hydrophobic DAC     | 152209       | 4              |
| Pharmachem          | Base cream, hydrophobic DAC     | 152210       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 152211       | 3              |
| Pharmachem          | Base cream, hydrophobic DAC     | 153625       | 8              |
| Pharmachem          | Base cream, hydrophobic DAC     | 153626       | 5              |
| Pharmachem          | Base cream, hydrophobic DAC     | 153627       | 14             |
| pharmachem          | Base cream, hydrophobic DAC     | 160130       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 160130       | 9              |
| pharmachem          | Base cream, hydrophobic DAC     | 160136       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 160136       | 9              |
| Pharmachem          | Base cream, hydrophobic DAC     | 160137       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 160138       | 2              |
| Pharmachem          | Skin care ointment W/L SR       | 160418       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 160814       | 3              |
| pharmachem          | Base cream, hydrophobic DAC     | 160825       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 160825       | 11             |
| Pharmachem          | Base cream, hydrophobic DAC     | 160826       | 4              |
| Pharmachem          | Base cream, hydrophobic DAC     | 162167       | 7              |
| pharmachem          | Base cream, hydrophobic DAC     | 162168       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 162168       | 8              |
| Pharmachem          | Base cream, hydrophobic DAC     | 162169       | 7              |
| pharmachem          | Base cream, hydrophobic DAC     | 162170       | 1              |
| Pharmachem          | Base cream, hydrophobic DAC     | 162170       | 5              |
| Pharmachem          | Base cream, hydrophobic DAC     | 163237       | 4              |
| Pharmachem          | Base cream, hydrophobic DAC     | 163238       | 3              |
| Pharmachem          | Base cream, hydrophobic DAC     | 170008       | 5              |
| Pharmachem          | Base cream, hydrophobic DAC     | 170009       | 5              |
| Pharmachem          | Base cream, hydrophobic DAC     | 170010       | 4              |
| Pharmachem          | Hydrophilic cream, non-ionic... | 170412       | 2              |
| Pharmachem          | Base cream, hydrophobic DAC     | 171127       | 5              |
| Pharmachem          | Base cream, hydrophobic DAC     | 171128       | 8              |
| Pharmachem          | Base cream, hydrophobic DAC     | 171815       | 7              |
| Pharmachem          | Base cream, hydrophobic DAC     | 171816       | 3              |
| Pharmachem          | Base cream, hydrophobic DAC     | 171817       | 5              |
| Pharmachem          | Base cream, hydrophobic DAC     | 171817(2x)   | 2              |

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| Supplier   | Substance                       | Batch      | Spectra |
|------------|---------------------------------|------------|---------|
| Pharmachem | Base cream, hydrophobic DAC     | 17196      | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 171B16     | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 1721195    | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 172194     | 6       |
| Pharmachem | Base cream, hydrophobic DAC     | 1721945506 | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 172195     | 9       |
| Pharmachem | Base cream, hydrophobic DAC     | 172196     | 6       |
| pharmachem | Base cream, hydrophobic DAC     | 180515     | 2       |
| Pharmachem | Base cream, hydrophobic DAC     | 180515     | 11      |
| Pharmachem | Base cream, hydrophobic DAC     | 180517     | 5       |
| Pharmachem | Skin care ointment W/L SR       | 180619     | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 180755     | 10      |
| Pharmachem | Base cream, hydrophobic DAC     | 180756     | 11      |
| Pharmachem | Base cream, hydrophobic DAC     | 180757     | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 180759     | 1       |
| pharmachem | Base cream, hydrophobic DAC     | 180860     | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 180860     | 2       |
| pharmachem | Base cream, hydrophobic DAC     | 181194     | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 181194     | 3       |
| Pharmachem | Base cream, hydrophobic DAC     | 181196     | 3       |
| Pharmachem | Base cream, hydrophobic DAC     | 181197     | 2       |
| Pharmachem | Base cream, hydrophobic DAC     | 181198     | 6       |
| Pharmachem | Base cream, hydrophobic DAC     | 182170     | 2       |
| Pharmachem | Base cream, hydrophobic DAC     | 182220     | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 182221     | 7       |
| Pharmachem | Base cream, hydrophobic DAC     | 190004531  | 4       |
| pharmachem | Base cream, hydrophobic DAC     | 19000732   | 3       |
| Pharmachem | Base cream, hydrophobic DAC     | 19000732   | 4       |
| Pharmachem | Base cream, hydrophobic DAC     | 190206     | 5       |
| Pharmachem | Base cream, hydrophobic DAC     | 190207     | 3       |
| pharmachem | Base cream, hydrophobic DAC     | 190209     | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 190209     | 5       |
| Pharmachem | Base cream, hydrophobic DAC     | 190637     | 5       |
| Pharmachem | Base cream, hydrophobic DAC     | 190638     | 12      |
| Pharmachem | Base cream, hydrophobic DAC     | 190639     | 8       |
| Pharmachem | Base cream, hydrophobic DAC     | 190640     | 3       |
| Pharmachem | Hydrophilic cream, non-ionic... | 190918     | 3       |
| Pharmachem | Base cream, hydrophobic DAC     | 1914487    | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 191487     | 5       |
| pharmachem | Base cream, hydrophobic DAC     | 191488     | 2       |
| Pharmachem | Base cream, hydrophobic DAC     | 191488     | 7       |
| Pharmachem | Base cream, hydrophobic DAC     | 191489     | 5       |
| Pharmachem | Base cream, hydrophobic DAC     | 1923234    | 4       |
| Pharmachem | Base cream, hydrophobic DAC     | 1925661    | 3       |
| Pharmachem | Base cream, hydrophobic DAC     | 1925662    | 1       |
| pharmachem | Base cream, hydrophobic DAC     | 1925681    | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 1925681    | 9       |
| Pharmachem | Base cream, hydrophobic DAC     | 1925682    | 2       |
| pharmachem | Base cream, hydrophobic DAC     | 1925691    | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 1925691    | 5       |
| pharmachem | Base cream, hydrophobic DAC     | 20000431   | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 20000431   | 4       |
| Pharmachem | Base cream, hydrophobic DAC     | 20000448   | 4       |
| Pharmachem | Base cream, hydrophobic DAC     | 20001227   | 3       |
| Pharmachem | Base cream, hydrophobic DAC     | 20001228   | 1       |
| Pharmachem | Base cream, hydrophobic DAC     | 20001230   | 5       |
| pharmachem | Base cream, hydrophobic DAC     | 20001232   | 3       |
| Pharmachem | Base cream, hydrophobic DAC     | 20001232   | 4       |
| Pharmachem | Base cream, hydrophobic DAC     | 20001233   | 2       |
| Pharmachem | Base cream, hydrophobic DAC     | 20001234   | 2       |

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continued from previous page

| Supplier                   | Substance                       | Batch    | Spectra |
|----------------------------|---------------------------------|----------|---------|
| Pharmachem                 | Base cream, hydrophobic DAC     | 20003528 | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 20003531 | 3       |
| Pharmachem                 | Hydrophilic cream, non-ionic... | 201015   | 1       |
| Pharmachem                 | Skin care ointment W/L SR       | 20316    | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 21001558 | 2       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 21003257 | 3       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 21013    | 2       |
| Pharmachem                 | Anionic hydrophilic cream SR... | 220219   | 2       |
| Pharmachem                 | Hydrophilic cream, non-ionic... | 220713   | 3       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 230713   | 1       |
| pharmachem                 | Base cream, hydrophobic DAC     | 231213   | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 231213   | 2       |
| Pharmachem                 | Anionic hydrophilic cream SR... | 240118   | 5       |
| Pharmachem                 | Hydrophilic cream, non-ionic... | 240217   | 10      |
| Pharmachem                 | Anionic hydrophilic cream SR... | 240915   | 1       |
| Pharmachem                 | Hydrophilic cream, non-ionic... | 2608101  | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 261112   | 1       |
| Pharmachem                 | Skin care ointment W/L SR       | 280210   | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 2x171816 | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 2x180757 | 1       |
| Pharmachem                 | Anionic hydrophilic cream SR... | 300317   | 3       |
| Pharmachem                 | Anionic hydrophilic cream DAB   | 304104   | 1       |
| Pharmachem                 | Skin care ointment W/L SR       | 310718   | 2       |
| Pharmachem                 | Hydrophilic cream, non-ionic... | 6B150316 | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 7676     | 1       |
| Pharmachem                 | Hydrophilic cream, non-ionic... | 80611    | 1       |
| Pharmachem                 | Skin care ointment W/L SR       | 90216    | 1       |
| Pharmachem                 | Base cream, hydrophobic DAC     | 90638    | 1       |
| Pharmachem                 | Hydrophilic cream, non-ionic... | 90714    | 6       |
| Pharmachem;                | Base cream, hydrophobic DAC     | 160136   | 1       |
| PharmachemGmbH/Gehe        | Base cream, hydrophobic DAC     | 20001230 | 2       |
| PharmachemGmbH/Gehe        | Base cream, hydrophobic DAC     | 20001234 | 1       |
| PharmachemGmbH/Noweda      | Base cream, hydrophobic DAC     | 160825   | 1       |
| PharmachemGmbH/Noweda      | Base cream, hydrophobic DAC     | 162168   | 1       |
| PharmachemGmbH/Noweda      | Base cream, hydrophobic DAC     | 18002831 | 1       |
| PharmachemGmbH/Phönix      | Base cream, hydrophobic DAC     | 181198   | 2       |
| Pharmachemie Pöšneck       | Anionic hydrophilic cream SR... | 150716   | 2       |
| Pharmachemie Pöšneck       | Anionic hydrophilic cream SR... | 300317   | 1       |
| Pharmachemie Pöšneck       | Anionic hydrophilic cream SR... | 303017   | 1       |
| Pharmachemie/Phönix 30...  | Skin care ointment W/L SR       | 240418   | 2       |
| Pharmachemie               | Anionic hydrophilic cream SR... | 240915   | 1       |
| Pharmachen GmbH / Sana...  | Base cream, hydrophobic DAC     | 1925661  | 1       |
| Pharmachen GmbH / Sana...  | Base cream, hydrophobic DAC     | 20000448 | 1       |
| Pharmachen GmbH / Sana...  | Base cream, hydrophobic DAC     | 20001233 | 1       |
| Pharmachen GmbH & Co. K... | Base cream, hydrophobic DAC     | 182220   | 1       |
| pharmachen gmbh&co.kg/ ... | Base cream, hydrophobic DAC     | 181198   | 1       |
| pharmachen gmbh&co.kg/ ... | Base cream, hydrophobic DAC     | 190638   | 2       |
| pharmachen gmbh&co.kg/ ... | Base cream, hydrophobic DAC     | 191489   | 1       |
| Pharmachen GmbH&Co.KG      | Base cream, hydrophobic DAC     | 20001231 | 1       |
| Pharmachen GmbH&Co.KG      | Base cream, hydrophobic DAC     | 20003530 | 1       |
| Pharmachen GmbH/ Sanacorp  | Base cream, hydrophobic DAC     | 180755   | 1       |
| Pharmachen GmbH/Allianc... | Base cream, hydrophobic DAC     | 162169   | 1       |
| Pharmachen GmbH/Allianc... | Base cream, hydrophobic DAC     | 191488   | 2       |
| Pharmachen GmbH/Gehe       | Base cream, hydrophobic DAC     | 141318   | 1       |
| Pharmachen GmbH/Gehe       | Base cream, hydrophobic DAC     | 143094   | 3       |
| Pharmachen GmbH/Gehe       | Base cream, hydrophobic DAC     | 151258   | 2       |
| Pharmachen GmbH/Gehe       | Base cream, hydrophobic DAC     | 153625   | 2       |
| Pharmachen GmbH/Gehe       | Base cream, hydrophobic DAC     | 160130   | 2       |
| Pharmachen GmbH/Gehe       | Base cream, hydrophobic DAC     | 190206   | 1       |
| Pharmachen GmbH/Gehe       | Base cream, hydrophobic DAC     | 21013    | 1       |

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| Supplier             | Substance                         | Batch    | Spectra |
|----------------------|-----------------------------------|----------|---------|
| Pharmachen Gmbh      | Base cream, hydrophobic DAC       | 152209   | 1       |
| Pharmachen GmbH      | Base cream, hydrophobic DAC       | 160136   | 1       |
| Pharmachen GmbH      | Base cream, hydrophobic DAC       | 171815   | 1       |
| Pharmachen GmbH      | Base cream, hydrophobic DAC       | 171817   | 1       |
| Pharmachen GmbH      | Base cream, hydrophobic DAC       | 172195   | 1       |
| Pharmachen GmbH      | Hydrophilic cream, non-ionic. . . | 201015   | 7       |
| Pharmachen Pößneck   | Base cream, hydrophobic DAC       | 150405   | 2       |
| Pharmachen Pößneck   | Base cream, hydrophobic DAC       | 151258   | 1       |
| Pharmachen Pößneck   | Base cream, hydrophobic DAC       | 162167   | 1       |
| Pharmachen Pößneck   | Base cream, hydrophobic DAC       | 261112   | 1       |
| Pharmachen/ Noweda   | Base cream, hydrophobic DAC       | 20003529 | 3       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 160826   | 1       |
| Pharmachen/gehe      | Base cream, hydrophobic DAC       | 162170   | 1       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 170010   | 1       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 171815   | 4       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 172194   | 1       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 180515   | 2       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 180755   | 3       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 190638   | 1       |
| Pharmachen/Gehe      | Base cream, hydrophobic DAC       | 20001228 | 1       |
| Pharmachen/Noweda    | Base cream, hydrophobic DAC       | 171126   | 3       |
| Pharmachen/Noweda    | Base cream, hydrophobic DAC       | 20000448 | 1       |
| Pharmachen/Phoenix   | Base cream, hydrophobic DAC       | 171127   | 1       |
| Pharmachen/Sana      | Base cream, hydrophobic DAC       | 190638   | 1       |
| Pharmachen/Sana      | Base cream, hydrophobic DAC       | 2001227  | 1       |
| Pharmachen/Sanacorp  | Base cream, hydrophobic DAC       | 1925681  | 1       |
| Pharmachen/Sanacorp  | Base cream, hydrophobic DAC       | 20001227 | 3       |
| Pharmachen/Sanacorp  | Base cream, hydrophobic DAC       | 20003530 | 2       |
| Pharmachen           | Base cream, hydrophobic DAC       | 140885   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 141318   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 142154   | 3       |
| Pharmachen           | Base cream, hydrophobic DAC       | 143094   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 151258   | 2       |
| Pharmachen           | Base cream, hydrophobic DAC       | 152209   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 153637   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 160130   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 162168   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 162170   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 170009   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 171127   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 180755   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 181197   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 182220   | 2       |
| Pharmachen           | Base cream, hydrophobic DAC       | 190207   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 20001234 | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 21013    | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 231213   | 1       |
| pharmachen           | Base cream, hydrophobic DAC       | 240113   | 1       |
| Pharmachen           | Base cream, hydrophobic DAC       | 240113   | 1       |
| PharmaChin/ Anzag    | Base cream, hydrophobic DAC       | 230713   | 1       |
| Pharmamachem/ AHD    | Base cream, hydrophobic DAC       | 180515   | 1       |
| Pharmamachem/ AHD    | Base cream, hydrophobic DAC       | 180860   | 1       |
| Pharmamachem/ AHD    | Base cream, hydrophobic DAC       | 181194   | 1       |
| Pharmamachem/ AHD    | Base cream, hydrophobic DAC       | 181197   | 1       |
| Pharmamachem/ AHD    | Base cream, hydrophobic DAC       | 190639   | 1       |
| Pharmamachem/Phoenix | Base cream, hydrophobic DAC       | 180755   | 3       |
| Pharmamachem/Phoenix | Base cream, hydrophobic DAC       | 181198   | 1       |
| Pharmamachem/Phoenix | Base cream, hydrophobic DAC       | 190207   | 3       |
| Pharmamachem/Phoenix | Base cream, hydrophobic DAC       | 191488   | 2       |
| Pharmamachen/Novatis | Base cream, hydrophobic DAC       | 20001227 | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Pharmamacher GmbH/Allia... | Base cream, hydrophobic DAC     | 190640      | 1       |
| Pharmamacher GmbH/Allia... | Base cream, hydrophobic DAC     | 191488      | 1       |
| Pharmamacher/Noweda        | Base cream, hydrophobic DAC     | 181198      | 1       |
| Pharmamacher/Noweda        | Base cream, hydrophobic DAC     | 190206      | 1       |
| Pharmamacher/Noweda        | Base cream, hydrophobic DAC     | 190640      | 1       |
| Pharmarchen/Alliance       | Base cream, hydrophobic DAC     | 1925662     | 1       |
| Pharmchem / Noweda         | Base cream, hydrophobic DAC     | 180755      | 1       |
| Pharmchem / Noweda         | Base cream, hydrophobic DAC     | 190640      | 3       |
| Pharmchem / Noweda         | Base cream, hydrophobic DAC     | 1925661     | 4       |
| Pharmchem / Phönix         | Base cream, hydrophobic DAC     | 20000431    | 2       |
| Pharmchem / Phönix         | Base cream, hydrophobic DAC     | 20001231    | 2       |
| Pharmchem / Sanacorp       | Base cream, hydrophobic DAC     | 160826      | 1       |
| Pharmchem/Phönix           | Base cream, hydrophobic DAC     | 20003530    | 3       |
| Pharmchem/Sanacorp         | Base cream, hydrophobic DAC     | 162169      | 1       |
| Pharmchem                  | Base cream, hydrophobic DAC     | 181198      | 1       |
| PhCHEM/Phönix              | Base cream, hydrophobic DAC     | 162170      | 2       |
| PHK/Phönix                 | Anionic hydrophilic cream SR... | 6A260219    | 1       |
| Phoenix 20.2.2014          | Anionic hydrophilic cream DAB   | 13313501    | 1       |
| Phoenix (PKH Halle)        | Anionic hydrophilic cream SR... | 30A021012   | 1       |
| Phoenix (PKH Halle)        | Anionic hydrophilic cream SR... | 33A151012   | 1       |
| Phoenix / Dr.August Wolff  | Wolff® base half-fat cream      | 141812      | 4       |
| Phoenix 01.09.2017         | Anionic hydrophilic cream DAB   | 17142601    | 1       |
| Phoenix 04.02.2020 5,08EUR | Anionic hydrophilic cream SR... | 19003575    | 1       |
| Phoenix 07.01.2019 6,01EUR | Anionic hydrophilic cream DAB   | 18169001    | 1       |
| Phoenix 09.01.2014         | Anionic hydrophilic cream DAB   | 13313501    | 1       |
| Phoenix 11.07.2014         | Anionic hydrophilic cream DAB   | 14139001    | 2       |
| PHOENIX 11.09.2014         | Base cream, hydrophobic DAC     | 14061501    | 1       |
| Phoenix 13.09.19 6,79EUR   | Base cream, hydrophobic DAC     | 19058401    | 1       |
| Phoenix 14.01.2015 Ek: ... | Anionic hydrophilic cream DAB   | 14295101    | 1       |
| PHOENIX 22.05.2014         | Anionic hydrophilic cream DAB   | 14061801    | 1       |
| Phoenix 24.01.2014         | Anionic hydrophilic cream DAB   | 13346101    | 1       |
| Phoenix 26.11.13           | Anionic hydrophilic cream DAB   | 13265501    | 1       |
| Phoenix 27.02.18 6,09EUR   | Anionic hydrophilic cream DAB   | 17200703    | 1       |
| Phoenix 29.08.2014 5,78    | Anionic hydrophilic cream DAB   | 14186601    | 1       |
| Phoenix Calo               | Base cream, hydrophobic DAC     | 20000426001 | 1       |
| Phoenix Calo               | Base cream, hydrophobic DAC     | 20001592001 | 1       |
| Phoenix Goettin            | Anionic hydrophilic cream DAB   | 293439      | 1       |
| Phoenix Leipzig 14.08.17   | Anionic hydrophilic cream SR... | 19A200617   | 1       |
| Phoenix/Beiersdorf         | Anionic hydrophilic cream DAB   | 17143201    | 2       |
| Phoenix/Cealo              | Base cream, hydrophobic DAC     | 172194      | 1       |
| Phoenix/Dr Wolff           | Wolff® base half-fat cream      | 3542        | 1       |
| phoenix/noveda             | Anionic hydrophilic cream DAB   | 15267501    | 1       |
| Phoenix/Pharmachem         | Base cream, hydrophobic DAC     | 110413      | 1       |
| Phoenix/Pharmachem         | Base cream, hydrophobic DAC     | 191489      | 1       |
| Phoenix/Wolff              | Wolff® base half-fat cream      | 333930      | 1       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 12011001    | 1       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 12313301    | 1       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 13038201    | 1       |
| Phoenix                    | Base cream, hydrophobic DAC     | 13175902    | 1       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 13314901    | 1       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 13364201    | 1       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 14016602    | 1       |
| Phoenix                    | Base cream, hydrophobic DAC     | 14028101    | 1       |
| Phoenix                    | Anionic hydrophilic cream wi... | 14030702    | 1       |
| Phoenix                    | Base cream, hydrophobic DAC     | 14061501    | 2       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 14118201    | 1       |
| Phoenix                    | Anionic hydrophilic cream DAB   | 14139001    | 1       |
| Phoenix                    | Base cream, hydrophobic DAC     | 14145401    | 2       |
| Phoenix                    | Anionic hydrophilic cream wi... | 14146001    | 2       |
| Phoenix                    | Base cream, hydrophobic DAC     | 15001001    | 1       |

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| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Phoenix  | Base cream, hydrophobic DAC     | 16075101  | 2       |
| Phoenix  | Base cream, hydrophobic DAC     | 16174201  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 16188903  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 16322801  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 17001702  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 17001708  | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 17029901  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17045401  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17054201  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 17073202  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17143301  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17143701  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17201102  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17202301  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 17270401  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17298901  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 17299101  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18000252  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 18001475  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18001556  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18001562  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18004835  | 1       |
| Phoenix  | Hydrophilic cream, non-ionic... | 18005881  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18006023  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 18006283  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 18006628  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18010901  | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 18041401  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 18051001  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 180754    | 2       |
| Phoenix  | Anionic hydrophilic cream wi... | 18181001  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 182221    | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 18248101  | 2       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18297901  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 18297902  | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 18320802  | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 18320901  | 2       |
| Phoenix  | Anionic hydrophilic cream SR... | 18A260514 | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19000624  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 19000647  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 19002001  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 19002002  | 2       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19002197  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19002550  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19002801  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19003975  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19003980  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 190207    | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 19027501  | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 19027601  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 19058301  | 2       |
| Phoenix  | Base cream, hydrophobic DAC     | 190638    | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 190640    | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19072001  | 1       |
| phoenix  | Anionic hydrophilic cream DAB   | 19072301  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19072701  | 1       |
| phoenix  | Anionic hydrophilic cream DAB   | 19072801  | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 19093801  | 3       |
| Phoenix  | Base cream, hydrophobic DAC     | 19145601  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 19145602  | 1       |

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| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Phoenix  | Anionic hydrophilic cream DAB   | 19161801     | 2       |
| Phoenix  | Anionic hydrophilic cream wi... | 19192101     | 2       |
| Phoenix  | Anionic hydrophilic cream wi... | 19192301     | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 19268203     | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19272701     | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 19273003     | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 19B60312     | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20000031     | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20000037001  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 200000929001 | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 20000193002  | 2       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20000313001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 2000033001   | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 20000522003  | 1       |
| Phoenix  | Base cream, diluted             | 20000701002  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20000925001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20000928001  | 2       |
| Phoenix  | Hydrophilic cream, non-ionic... | 20001016     | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 20001231     | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 20001251001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20001471001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20001475001  | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 20001781003  | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 20001979001  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 20002854002  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20002945002  | 2       |
| Phoenix  | Hydrophilic cream, non-ionic... | 20003016002  | 2       |
| Phoenix  | Base cream, hydrophobic DAC     | 20003530     | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 20003531     | 1       |
| Phoenix  | Hydrophilic cream, non-ionic... | 200041301    | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 20004293001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20004457002  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20004458001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 20004461001  | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 200320904    | 1       |
| Phoenix  | Anionic hydrophilic cream SR... | 200351604    | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 200400505    | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 200431105    | 1       |
| Phoenix  | Hydrophilic cream, non-ionic... | 200461405    | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 200793107    | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 21000291001  | 3       |
| Phoenix  | Anionic hydrophilic cream DAB   | 21001498001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 21001500001  | 2       |
| Phoenix  | Anionic hydrophilic cream wi... | 21001943001  | 2       |
| Phoenix  | Hydrophilic cream, non-ionic... | 21002193004  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 21002634001  | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 270705       | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 286498       | 1       |
| Phoenix  | Hydrophilic cream, non-ionic... | 300035       | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 3030         | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 3043         | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 3050         | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 3054         | 1       |
| Phoenix  | Anionic hydrophilic cream wi... | 3057         | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 3065         | 1       |
| Phoenix  | Hydrophilic cream, non-ionic... | 3078         | 1       |
| Phoenix  | Base cream, hydrophobic DAC     | 3093         | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 3096         | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 3102         | 1       |
| Phoenix  | Anionic hydrophilic cream DAB   | 310270       | 1       |

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| Supplier                  | Substance                       | Batch     | Spectra |
|---------------------------|---------------------------------|-----------|---------|
| Phoenix                   | Hydrophilic cream, non-ionic... | 3103      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 311132    | 1       |
| Phoenix                   | Base cream, hydrophobic DAC     | 3122      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3191      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3192      | 1       |
| Phoenix                   | Anionic hydrophilic cream wi... | 3193      | 1       |
| Phoenix                   | Hydrophilic cream, non-ionic... | 31A041120 | 1       |
| Phoenix                   | Base cream, hydrophobic DAC     | 3222      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3223      | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 3225      | 1       |
| Phoenix                   | Anionic hydrophilic cream wi... | 3226      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3358      | 1       |
| Phoenix                   | Anionic hydrophilic cream wi... | 3359      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3375      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3383      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3384      | 1       |
| Phoenix                   | Base cream, hydrophobic DAC     | 3394      | 1       |
| Phoenix                   | Anionic hydrophilic cream DAB   | 3420      | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 3421      | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 434360    | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 511420    | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 602050    | 3       |
| Phoenix                   | Wolff® base half-fat cream      | 610991    | 1       |
| Phoenix                   | Hydrophilic cream, non-ionic... | 6B150419  | 2       |
| Phoenix                   | Wolff® base half-fat cream      | 702500    | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 810201    | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 901140    | 1       |
| Phoenix                   | Wolff® base half-fat cream      | 908620    | 3       |
| Phola                     | Base cream, hydrophobic DAC     | 181198    | 1       |
| Phönix / Dr. August Wolff | Wolff® base half-fat cream      | 711240    | 1       |
| Phönix / Dr. August Wolff | Wolff® base half-fat cream      | 807580    | 1       |
| Phönix / Dr. August Wolff | Wolff® base half-fat cream      | 901930    | 1       |
| Phönix / Dr. August Wolff | Wolff® base half-fat cream      | 904670    | 1       |
| Phönix / Dr. August Wolff | Wolff® base half-fat cream      | 911220    | 2       |
| Phönix / InfectoPharm     | Base cream, hydrophobic DAC     |           | 1       |
| Phönix /Dr.Wolff          | Wolff® base half-fat cream      | 910460    | 1       |
| Phönix 01.06.15           | Base cream, hydrophobic DAC     | 15048701  | 2       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 10B200415 | 1       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 10B250618 | 1       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 122131    | 2       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 122841    | 4       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 123711    | 1       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 124511    | 5       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 125011    | 3       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 12B211015 | 1       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 13065     | 1       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 130651    | 3       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 131451    | 2       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 13227701  | 1       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 132331    | 2       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 133121    | 3       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 133911    | 2       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 134841    | 2       |
| Phönix Gotha              | Wolff® base half-fat cream      | 134990    | 1       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 140551    | 4       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 141521    | 2       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 142311    | 2       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 143011    | 3       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 144811    | 5       |
| Phönix Gotha              | Hydrophilic cream, non-ionic... | 150341    | 1       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 150751           | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 151711           | 2       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 153041           | 4       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 153621           | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 15B141019        | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 18005882         | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 19002041         | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 19005193         | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 20B230913        | 2       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 20B260612        | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 21B141014        | 1       |
| Phönix Gotha               | Anionic hydrophilic cream SR... | 241111           | 1       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 25A270618        | 1       |
| Phönix Gotha               | Base cream, hydrophobic DAC     | 276087           | 2       |
| Phönix Gotha               | Base cream, hydrophobic DAC     | 277696           | 1       |
| Phönix Gotha               | Wolff® base half-fat cream      | 332040           | 2       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 4B070213         | 1       |
| Phönix Gotha               | Wolff® base half-fat cream      | 801140           | 2       |
| Phönix Gotha               | Wolff® base half-fat cream      | 807640           | 2       |
| Phönix Gotha               | Hydrophilic cream, non-ionic... | 9B010719         | 1       |
| Phönix WE: 22.09.17 EK...  | Wolff® base half-fat cream      | 702500           | 1       |
| Phönix, Caesar&Loretz G... | Anionic hydrophilic cream DAB   | 19162201         | 1       |
| Phönix, Caesar&Loretz G... | Anionic hydrophilic cream DAB   | 20000403001      | 1       |
| Phönix, Dr.Wolff,12.06...  | Wolff® base half-fat cream      | 911220           | 1       |
| Phönix/ Fargon             | Base cream, hydrophobic DAC     | 17C06-T08-042287 | 1       |
| Phönix/Apo-Ident           | Anionic hydrophilic cream DAB   | 308403           | 1       |
| Phönix/Dr.Wolff            | Wolff® base half-fat cream      | 807640           | 1       |
| Phönix/Dr.Wolff            | Wolff® base half-fat cream      | 901920           | 2       |
| Phönix/gepepharm           | Anionic hydrophilic cream wi... | 13244201         | 2       |
| Phönix/Leyh Pharma         | Hydrophilic cream, non-ionic... | 142311           | 1       |
| Phönix/Leyh Pharma         | Hydrophilic cream, non-ionic... | 182731           | 1       |
| Phönix/Leyh Pharma         | Hydrophilic cream, non-ionic... | 191021           | 2       |
| Phönix/Pharmachem          | Base cream, hydrophobic DAC     | 181198           | 1       |
| Phönix/Pharmachem          | Base cream, hydrophobic DAC     | 182221           | 1       |
| Phönix                     | Hydrophilic cream, non-ionic... |                  | 1       |
| phönix                     | Anionic hydrophilic cream SR... | 10a280317        | 1       |
| PHÖNIX                     | Hydrophilic cream, non-ionic... | 11A190721        | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 12314101         | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 1231451          | 1       |
| Phönix                     | Hydrophilic cream, non-ionic... | 124511           | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 13036001         | 1       |
| Phönix                     | Anionic hydrophilic cream wi... | 13072302         | 1       |
| Phönix                     | Base cream, hydrophobic DAC     | 13085701         | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 13164901         | 1       |
| Phönix                     | Anionic hydrophilic cream wi... | 13172203         | 1       |
| Phönix                     | Hydrophilic cream, non-ionic... | 132331           | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 13265602         | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 13346301         | 1       |
| Phönix                     | Base cream, hydrophobic DAC     | 13386402         | 2       |
| Phönix                     | Base cream, hydrophobic DAC     | 14000701         | 1       |
| Phönix                     | Base cream, hydrophobic DAC     | 14061501         | 1       |
| Phönix                     | Base cream, hydrophobic DAC     | 14145301         | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 14233401         | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 14264301         | 1       |
| phönix                     | Anionic hydrophilic cream SR... | 14a150517        | 1       |
| phönix                     | Anionic hydrophilic cream DAB   | 15267401         | 1       |
| phönix                     | Base cream, hydrophobic DAC     | 160136           | 1       |
| phönix                     | Base cream, hydrophobic DAC     | 160825           | 1       |
| Phönix                     | Anionic hydrophilic cream DAB   | 16103301         | 1       |
| phönix                     | Anionic hydrophilic cream SR... | 16158802         | 1       |

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continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Phönix   | Base cream, hydrophobic DAC     | 16165501    | 1       |
| PHÖNIX   | Base cream, hydrophobic DAC     | 16165701    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 16293901    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 16328001    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 17000749    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 17001305    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 17009701    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 17143601    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 17192002    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 17200701    | 2       |
| Phönix   | Anionic hydrophilic cream DAB   | 17201801    | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 17202301    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 17255201    | 2       |
| Phönix   | Anionic hydrophilic cream DAB   | 17270001    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 17299401    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 17299801    | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 17335402    | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 17335701    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18001475    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18001560    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 18002062    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 18002064    | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 18003782    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 18004212    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 18005487    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 18005488    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 18005882    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18006025    | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 18006632    | 1       |
| PHÖNIX   | Transdermal base cream          | 1802650/2   | 2       |
| Phönix   | Base cream, hydrophobic DAC     | 180515      | 2       |
| Phönix   | Base cream, hydrophobic DAC     | 180517      | 2       |
| Phönix   | Base cream, hydrophobic DAC     | 180756      | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 180757      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18116801    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18117201    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18168501    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 18173903    | 2       |
| Phönix   | Hydrophilic cream, non-ionic... | 18175301    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18243402    | 2       |
| Phönix   | Anionic hydrophilic cream wi... | 18297301    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18297902    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 18298701    | 1       |
| phönix   | Anionic hydrophilic cream wi... | 18320802    | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 18A140617   | 2       |
| Phönix   | Base cream, hydrophobic DAC     | 19000415003 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 19000620    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 19002041    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 19005192    | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 19006525    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 19072001    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 19072701    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 19115901    | 2       |
| Phönix   | Base cream, hydrophobic DAC     | 191488      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 19161701    | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 19192001    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 1925691     | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 1B090118    | 1       |
| phönix   | Base cream, hydrophobic DAC     | 2/AKD12     | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 20000192001 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| PHÖNIX   | Anionic hydrophilic cream DAB   | 20000313001 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 20000315001 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 20000401001 | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 20000425001 | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 20000431    | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 20000522003 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 20000927001 | 2       |
| Phönix   | Anionic hydrophilic cream DAB   | 20001216    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 20001231    | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 20001590001 | 1       |
| PHÖNIX   | Anionic hydrophilic cream DAB   | 20001675002 | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 2000193002  | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 20002423005 | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 20002900    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 20002945002 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 20002947001 | 2       |
| Phönix   | Anionic hydrophilic cream DAB   | 20003309001 | 1       |
| PHÖNIX   | Base cream, hydrophobic DAC     | 20003445002 | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 20003878    | 1       |
| PHÖNIX   | Anionic hydrophilic cream SR... | 20005508    | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 21000290001 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 21000373001 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 21000376002 | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 21000397003 | 1       |
| Phönix   | Base cream, diluted             | 21000785002 | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 21001223001 | 1       |
| Phönix   | Base cream, diluted             | 21001314001 | 3       |
| Phönix   | Anionic hydrophilic cream DAB   | 21001813003 | 1       |
| Phönix   | Base cream, diluted             | 21001871001 | 2       |
| Phönix   | Base cream, diluted             | 21002418001 | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 21003004003 | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 2100376002  | 1       |
| Phönix   | Wolff® base half-fat cream      | 238560      | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 26A120917   | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 270703      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 276433      | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 278025      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 279056      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 282005      | 2       |
| Phönix   | Anionic hydrophilic cream SR... | 284083      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 288572      | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 304778      | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 305064      | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 305066      | 1       |
| Phönix   | Anionic hydrophilic cream SR... | 305069      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 305379      | 2       |
| Phönix   | Hydrophilic cream, non-ionic... | 306128      | 1       |
| Phönix   | Hydrophilic cream, non-ionic... | 309906      | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 3135        | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 3143        | 1       |
| Phönix   | Wolff® base half-fat cream      | 3145        | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 3152        | 1       |
| Phönix   | Wolff® base half-fat cream      | 3156        | 2       |
| Phönix   | Anionic hydrophilic cream wi... | 3159        | 1       |
| Phönix   | Anionic hydrophilic cream wi... | 3160        | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 3163        | 1       |
| Phönix   | Base cream, hydrophobic DAC     | 3169        | 1       |
| Phönix   | Anionic hydrophilic cream DAB   | 3176        | 1       |
| Phönix   | Wolff® base half-fat cream      | 3183        | 1       |

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continued from previous page

| Supplier                   | Substance                        | Batch      | Spectra |
|----------------------------|----------------------------------|------------|---------|
| Phönix                     | Wolff® base half-fat cream       | 333620     | 2       |
| Phönix                     | Anionic hydrophilic cream SR...  | 36a140916  | 1       |
| Phönix                     | Anionic hydrophilic cream SR...  | 38a111016  | 1       |
| phönix                     | Anionic hydrophilic cream SR...  | 3a310117   | 1       |
| Phönix                     | Hydrophilic cream, non-ionic...  | 3B300117   | 1       |
| phönix                     | Anionic hydrophilic cream SR...  | 4a130217   | 1       |
| PHÖNIX                     | Wolff® base half-fat cream       | 704050     | 4       |
| Phönix                     | Wolff® base half-fat cream       | 7742       | 2       |
| phönix                     | Anionic hydrophilic cream SR...  | 7a090216   | 1       |
| Phönix                     | Wolff® base half-fat cream       | 904880     | 1       |
| Phönix                     | Wolff® base half-fat cream       | 909810     | 1       |
| Phönix                     | Anionic hydrophilic cream SR...  | Fiebig     | 1       |
| Phönix20005128             | Hydrophilic cream, non-ionic...  | 20005128   | 1       |
| PKH / Phoenix              | Anionic hydrophilic cream SR...  | 15A210415  | 1       |
| pkh Gehe 28:06:18          | Anionic hydrophilic cream SR...  | 16A300518  | 1       |
| PKH GmbH / GEHE            | Hydrophilic cream, non-ionic...  | 19B031120  | 1       |
| PKH GmbH Halle / Gehe      | Anionic hydrophilic cream SR...  | 30A140818  | 1       |
| PKH GmbH/ Alliance Heal... | Hydrophilic cream, non-ionic...  | 18B291018  | 1       |
| PKH GmbH/ NOWEDA           | Hydrophilic cream, non-ionic...  | 10B200415  | 1       |
| PKH GmbH/ Phönix           | Anionic hydrophilic cream SR...  | 14A030413  | 1       |
| PKH GmbH/Noweda            | Hydrophilic cream, non-ionic...  | 7B030417   | 1       |
| PKH GmbH                   | Hydrophilic cream, non-ionic...  | 12A160419  | 1       |
| PKH GmbH                   | Hydrophilic cream, non-ionic...  | 12B1306161 | 1       |
| PKH GmbH                   | Anionic hydrophilic cream SR...  | 17A030516  | 1       |
| PKH GmbH                   | Hydrophilic cream, non-ionic...  | 18A100717  | 1       |
| PKH GmbH                   | Hydrophilic cream, non-ionic...  | 21A110515  | 1       |
| PKH GmbH                   | Hydrophilic cream, non-ionic...  | 21B141116  | 2       |
| PKH GmbH                   | Anionic hydrophilic cream SR...  | 24A170919  | 1       |
| PKH GmbH                   | Anionic hydrophilic cream SR...  | 2A030117   | 1       |
| PKH GmbH                   | Hydrophilic cream, non-ionic...  | 36A261016  | 1       |
| pkh gmbh                   | Skin care ointment W/L SR (w...  | 49b171014  | 1       |
| PKH GmbH                   | Anionic hydrophilic cream SR...  | 7A280218   | 1       |
| PKH GmbH                   | Hydrophilic cream, non-ionic...  | 7B030417   | 1       |
| PKH Halle / Phoenix        | Anionic hydrophilic cream SR...  | 16A240413  | 2       |
| PKH Halle / Phoenix        | Anionic hydrophilic cream SR...  | 17A200514  | 1       |
| PKH Halle / Phoenix        | Anionic hydrophilic cream SR...  | 40A091214  | 1       |
| PKH Halle / Phoenix        | Anionic hydrophilic cream SR...  | 5A170214   | 1       |
| PKH Halle /Gehe            | Anionic hydrophilic cream SR...  | 30A140818  | 1       |
| PKH Halle/ Alliance H.     | Hydrophilic cream, non-ionic...  | 33a240713  | 1       |
| PKH Halle/ Alliance H.     | Hydrophilic cream, non-ionic...  | 33A240713  | 2       |
| PKH Halle/ Alliance Hea... | Hydrophilic cream, non-ionic...  | 12A160419  | 2       |
| PKH Halle/ Alliance Hea... | Hydrophilic cream, non-ionic...  | 34B091018  | 2       |
| PKH Halle/ Alliance Hea... | Hydrophilic cream, non-ionic...  | 4B120318   | 1       |
| PKH Halle/AHD              | Anionic hydrophilic cream wit... | 4B220518   | 2       |
| PKH Halle/Kehr             | Hydrophilic cream, non-ionic...  | 12A160419  | 1       |
| PKH Halle/Kehr             | Hydrophilic cream, non-ionic...  | 20C310820  | 1       |
| PKH Halle/Kehr             | Anionic hydrophilic cream SR...  | 24A280616  | 1       |
| PKH Halle/Kehr             | Hydrophilic cream, non-ionic...  | 35B101218  | 1       |
| PKH Halle/Kehr             | Anionic hydrophilic cream SR...  | 9A170216   | 1       |
| PKH Halle/Noweda           | Hydrophilic cream, non-ionic...  | 20A280415  | 1       |
| PKH Halle/Noweda           | Hydrophilic cream, non-ionic...  | 20B310820  | 1       |
| PKH Halle/Noweda           | Hydrophilic cream, non-ionic...  | 7A110320   | 2       |
| PKH Halle/PKH Halle        | Anionic hydrophlic cream wit...  | 4B110319   | 2       |
| PKH Halle/PKH Halle        | Anionic hydrophlic cream wit...  | 9B141019   | 1       |
| PKH Halle/Sanacorp         | Hydrophilic cream, non-ionic...  | 8A030414   | 1       |
| PKH Halle                  | Hydrophilic cream, non-ionic...  | 11A270319  | 1       |
| PKH Halle                  | Hydrophilic cream, non-ionic...  | 11B310517  | 1       |
| PKH Halle                  | Hydrophilic cream, non-ionic...  | 12A160419  | 2       |
| PKH Halle                  | Anionic hydrophilic cream SR...  | 13A010415  | 1       |
| PKH Halle                  | Anionic hydrophlic cream wit...  | 13B141216  | 1       |

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continued from previous page

| Supplier                | Substance                        | Batch     | Spectra |
|-------------------------|----------------------------------|-----------|---------|
| PKH Halle               | Hydrophilic cream, non-ionic...  | 14A050520 | 1       |
| PKH Halle               | Anionic hydrophilic cream SR...  | 14A130520 | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 15A090620 | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 15B080816 | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 17A030518 | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 1A020120  | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 20A220719 | 1       |
| PKH Halle               | Anionic hydrophilic cream SR...  | 21A150920 | 2       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 25A070819 | 1       |
| PKH Halle               | Anionic hydrophilic cream SR...  | 25A110718 | 2       |
| PKH Halle               | Anionic hydrophilic cream SR...  | 25A240919 | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 29B010818 | 1       |
| PKH Halle               | Anionic hydrophilic cream SR...  | 2A070120  | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 2A100220  | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 33A121119 | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 4A030119  | 1       |
| PKH Halle               | Anionic hydrophilic cream SR...  | 4A160118  | 1       |
| PKH Halle               | Hydrophilic cream, non-ionic...  | 4A250118  | 1       |
| PKH Halle               | Anionic hydrophilic cream wit... | 4B210316  | 1       |
| PKH Halle               | Anionic hydrophilic cream SR...  | 7A110319  | 1       |
| PKH/Alliance            | Skin care ointment W/L SR (w...  | 10B270219 | 1       |
| PKH/Alliance            | Skin care ointment W/L SR (w...  | 13B120418 | 1       |
| PKH/Alliance            | Skin care ointment W/L SR (w...  | 21B270519 | 1       |
| PKH/Alliance            | Skin care ointment W/L SR (w...  | 32B231020 | 1       |
| PKH/Alliance            | Skin care ointment W/L SR (w...  | 3B100119  | 1       |
| PKH/Fargon/Jenne        | Hydrophilic cream, non-ionic...  | 23A060819 | 1       |
| PKH/Gehe                | Anionic hydrophilic cream SR...  | 16A060416 | 1       |
| PKH/Noweda              | Hydrophilic cream, non-ionic...  | 27A220715 | 1       |
| PKH/Sanacorp            | Hydrophilic cream, non-ionic...  | 4B180220  | 1       |
| PKH                     | Hydrophilic cream, non-ionic...  | 51A301215 | 1       |
| Pönix/AMH               | Anionic hydrophilic cream SR...  | 11A070313 | 1       |
| Pöckneck Pharma / Gehe  | Base cream, hydrophobic DAC      | 162169    | 1       |
| Pöckneck/Gehe           | Base cream, hydrophobic DAC      | 153626    | 1       |
| Pöckneck/Gehe           | Base cream, hydrophobic DAC      | 170008    | 1       |
| Pöckneck/Gehe           | Base cream, hydrophobic DAC      | 181197    | 2       |
| Pöckneck Pharma / Gehe  | Base cream, hydrophobic DAC      | 151258    | 1       |
| Pöckneck Pharma / Gehe  | Base cream, hydrophobic DAC      | 152210    | 2       |
| PPL                     | Wolff® base half-fat cream       | 3542      | 3       |
| PPL                     | Wolff® base half-fat cream       | 601880    | 1       |
| PPL                     | Wolff® base half-fat cream       | 701451    | 1       |
| PPL                     | Wolff® base half-fat cream       | 705760    | 7       |
| PPL                     | Wolff® base half-fat cream       | 901140    | 3       |
| Pröckneck               | Base cream, hydrophobic DAC      | 142154    | 2       |
| Px/Phoenix              | Anionic hydrophilic cream wi...  | 17335501  | 1       |
| Raben-Apotheke Mildenau | Anionic hydrophilic cream SR...  | 11A010414 | 1       |
| Raben-Apotheke Mildenau | Hydrophilic cream, non-ionic...  | 12B210514 | 1       |
| Raben-Apotheke Mildenau | Base cream, hydrophobic DAC      | 14061501  | 4       |
| Raben-Apotheke Mildenau | Hydrophilic cream, non-ionic...  | 18B020914 | 2       |
| Raben-Apotheke Mildenau | Anionic hydrophilic cream SR...  | 19A030614 | 1       |
| Raben-Apotheke Mildenau | Anionic hydrophilic cream DAB    | 283410    | 1       |
| Raben-Apotheke Mildenau | Hydrophilic cream, non-ionic...  | 37A270514 | 1       |
| Raben-Apotheke Mildenau | Hydrophilic cream, non-ionic...  | 4B100214  | 1       |
| Rabenapothke            | Hydrophilic cream, non-ionic...  | 20B290914 | 2       |
| Rabenapothke            | Anionic hydrophilic cream DAB    | 290146    | 1       |
| Rabenapothke            | Anionic hydrophilic cream SR...  | 39A011214 | 1       |
| Reichelt                | Hydrophilic cream, non-ionic...  | 229352    | 1       |
| Rondell Apotheke        | Anionic hydrophilic cream wi...  | 15273301  | 1       |
| Röntgen                 | Anionic hydrophilic cream wi...  | 17029902  | 1       |
| Röntgen                 | Anionic hydrophilic cream DAB    | 18001558  | 1       |
| Röntgen                 | Anionic hydrophilic cream SR...  | 18003788  | 1       |

continued on the next page

continued from previous page

| Supplier                     | Substance                       | Batch       | Spectra |
|------------------------------|---------------------------------|-------------|---------|
| Röntgen                      | Anionic hydrophilic cream DAB   | 18004838    | 2       |
| Röntgen                      | Anionic hydrophilic cream wi... | 18041601    | 3       |
| Röntgen                      | Anionic hydrophilic cream wi... | 18248301    | 2       |
| Röntgen                      | Anionic hydrophilic cream SR... | 19000651    | 1       |
| Röntgen                      | Anionic hydrophilic cream SR... | 19003576    | 1       |
| Röntgen                      | Anionic hydrophilic cream wi... | 19027601    | 1       |
| Röntgen                      | Anionic hydrophilic cream wi... | 19192301    | 2       |
| Röntgen                      | Anionic hydrophilic cream DAB   | 20000026    | 1       |
| Röntgen                      | Anionic hydrophilic cream SR... | 200002226   | 1       |
| Röntgen                      | Anionic hydrophilic cream SR... | 20000724    | 1       |
| Röntgen                      | Anionic hydrophilic cream DAB   | 20001212    | 1       |
| Röntgen                      | Anionic hydrophilic cream wi... | 20001978001 | 1       |
| Röntgen                      | Anionic hydrophilic cream DAB   | 21001551    | 1       |
| Röntgen                      | Anionic hydrophilic cream DAB   | 21004554    | 1       |
| Röntgen                      | Anionic hydrophilic cream DAB   | 22001240    | 1       |
| Röntgen                      | Anionic hydrophilic cream SR... | 25A110718   | 1       |
| Röntgen                      | Anionic hydrophilic cream SR... | 36A051217   | 1       |
| Sana 08.10.14 EK 5,76        | Anionic hydrophilic cream DAB   | 14232901    | 1       |
| Sana 11.02.15 EK 5,75        | Anionic hydrophilic cream DAB   | 14294902    | 1       |
| Sana 20.11.14 EK 5,76        | Anionic hydrophilic cream DAB   | 14233101    | 1       |
| Sana 23.03.16 Ek 5,73        | Anionic hydrophilic cream DAB   | 15428401    | 1       |
| Sana/ Bomb.                  | Hydrophilic cream, non-ionic... | 20001015    | 1       |
| Sana                         | Anionic hydrophilic cream DAB   | 18298101    | 1       |
| Sana                         | Anionic hydrophilic cream DAB   | 18298901    | 1       |
| Sana                         | Hydrophilic cream, non-ionic... | 19003001    | 1       |
| Sanac.                       | Anionic hydrophilic cream DAB   | 1916201     | 1       |
| sanacorb                     | Base cream, hydrophobic DAC     | 180756      | 1       |
| sanacorb                     | Base cream, hydrophobic DAC     | 190638      | 1       |
| Sanacorp / Pharmachem        | Base cream, hydrophobic DAC     | 153627      | 1       |
| Sanacorp 06.01.20 9,95EUR    | Anionic hydrophilic cream DAB   | 19161002    | 1       |
| Sanacorp 11.07.14 EK 5,76    | Anionic hydrophilic cream DAB   | 141118401   | 1       |
| Sanacorp 19.12.14 EK 5,76    | Anionic hydrophilic cream DAB   | 14285601    | 1       |
| Sanacorp 21.01.16            | Anionic hydrophilic cream DAB   | 15400901    | 1       |
| Sanacorp 25.02.2014 Ek ...   | Anionic hydrophilic cream DAB   | 13364201    | 2       |
| Sanacorp 28.11 Ek.5,85       | Anionic hydrophilic cream DAB   | 16180001    | 1       |
| Sanacorp Ulm                 | Wolff® base half-fat cream      | 810800      | 1       |
| Sanacorp W.E: 26.01.18 ...   | Base cream, hydrophobic DAC     | 17150401    | 1       |
| Sanacorp WE 23.02.17 -1...   | Anionic hydrophilic cream wi... | 16290501    | 1       |
| Sanacorp WE 25.02.17 -1...   | Base cream, hydrophobic DAC     | 16293701    | 1       |
| Sanacorp, 16.03.17, 6,00EUR  | Anionic hydrophilic cream DAB   | 16264501    | 1       |
| sanacorp, 43,56EUR , 10.0... | Wolff® base half-fat cream      | 602050      | 4       |
| sanacorp, 5,75EUR, 12.09...  | Anionic hydrophilic cream wi... | 16191601    | 2       |
| Sanacorp,                    | Wolff® base half-fat cream      | 608180      | 2       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 10550       | 1       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 3542        | 1       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 810201      | 1       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 810800      | 2       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 904880      | 2       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 905120      | 1       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 910460      | 1       |
| SANACORP/ Dr August Wolff    | Wolff® base half-fat cream      | 9140460     | 1       |
| Sanacorp/ Noweda             | Anionic hydrophilic cream wi... | 18248101    | 2       |
| Sanacorp/ Pharmachem GmbH    | Base cream, hydrophobic DAC     | 180515      | 1       |
| Sanacorp/ Pharmachem         | Base cream, hydrophobic DAC     | 131211      | 2       |
| Sanacorp/ Pharmachem         | Base cream, hydrophobic DAC     | 142155      | 1       |
| Sanacorp/ Pharmachem         | Base cream, hydrophobic DAC     | 231213      | 2       |
| Sanacorp/ Pharmachem         | Base cream, hydrophobic DAC     | 261112      | 2       |
| Sanacorp/ Pharmachem         | Base cream, hydrophobic DAC     | 90512       | 3       |
| Sanacorp/                    | Wolff® base half-fat cream      | 10550       | 1       |
| Sanacorp/Dr Wolf             | Wolff® base half-fat cream      | 810800      | 1       |

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| <b>Supplier</b>      | <b>Substance</b>                       | <b>Batch</b> | <b>Spectra</b> |
|----------------------|----------------------------------------|--------------|----------------|
| Sanacorp/Dr. Wolf    | Wolff <sup>®</sup> base half-fat cream | 704050       | 2              |
| Sanacorp/Dr. Wolff   | Wolff <sup>®</sup> base half-fat cream | 501082       | 1              |
| Sanacorp/Leyh Pharma | Hydrophilic cream, non-ionic...        | 193721       | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 171816       | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 171817       | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 172195       | 2              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 182221       | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 190004531    | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 19000732     | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 190637       | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 190639       | 3              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 191489       | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 1925681      | 1              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 1925682      | 2              |
| Sanacorp/Pharmachem  | Base cream, hydrophobic DAC            | 20001232     | 1              |
| Sanacorp/Wolff       | Wolff <sup>®</sup> base half-fat cream | 801140       | 4              |
| Sanacorp/Wolff       | Wolff <sup>®</sup> base half-fat cream | 807640       | 2              |
| Sanacorp             | Anionic hydrophilic cream wi...        |              | 4              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 104/AKD3     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 104/AKD4     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 106/AKD12    | 1              |
| Sanacorp             | Base cream, hydrophobic DAC            | 12151602     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 12218501     | 2              |
| Sanacorp             | Base cream, hydrophobic DAC            | 12229304     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 12245701     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 12264401     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 12265301     | 1              |
| Sanacorp             | Base cream, hydrophobic DAC            | 12308102     | 2              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 12314301     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 12314401     | 1              |
| Sanacorp             | Base cream, hydrophobic DAC            | 13019303     | 1              |
| Sanacorp             | Base cream, hydrophobic DAC            | 13085701     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13154101     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13154301     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13167501     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13168001     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13168701     | 1              |
| Sanacorp             | Base cream, hydrophobic DAC            | 13175901     | 3              |
| Sanacorp             | Base cream, hydrophobic DAC            | 13175902     | 2              |
| Sanacorp             | Base cream, hydrophobic DAC            | 13275301     | 2              |
| Sanacorp             | Base cream, hydrophobic DAC            | 13275302     | 2              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13280201     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13313101     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 13313201     | 1              |
| Sanacorp             | Base cream, hydrophobic DAC            | 140885       | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 14186702     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 142/AKD52    | 1              |
| Sanacorp             | Anionic hydrophilic cream wi...        | 14214301     | 3              |
| sanacorp             | Anionic hydrophilic cream DAB          | 14233101     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 14285601     | 1              |
| Sanacorp             | Anionic hydrophilic cream wi...        | 14334401     | 1              |
| sanacorp             | Anionic hydrophilic cream DAB          | 14341601     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 15034401     | 1              |
| Sanacorp             | Hydrophilic cream, non-ionic...        | 15039001     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 15199901     | 1              |
| sanacorp             | Anionic hydrophilic cream SR...        | 15319101     | 1              |
| Sanacorp             | Hydrophilic cream, non-ionic...        | 15325702     | 1              |
| Sanacorp             | Anionic hydrophilic cream DAB          | 15401201     | 1              |
| Sanacorp             | Base cream, hydrophobic DAC            | 15421201     | 3              |
| Sanacorp             | Hydrophilic cream, non-ionic...        | 16054101     | 1              |

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| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Sanacorp | Anionic hydrophilic cream wi... | 16067901   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 16152701   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 16165501   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 16258901   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 16264501   | 1       |
| Sanacorp | Anionic hydrophilic cream wi... | 16264601   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 16293701   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 16330301   | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 17001708   | 6       |
| Sanacorp | Anionic hydrophilic cream wi... | 17030301   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 17073201   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17084201   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17143101   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17143201   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17143501   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17143601   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 171815     | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17200703   | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17201102   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17201301   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17201401   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17201801   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17202101   | 5       |
| Sanacorp | Base cream, hydrophobic DAC     | 172194     | 2       |
| Sanacorp | Base cream, hydrophobic DAC     | 17255201   | 1       |
| Sanacorp | Hydrophilic cream, non-ionic... | 17261001   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17270001   | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 17270102   | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 18001483   | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 18002227   | 2       |
| Sanacorp | Anionic hydrophilic cream SR... | 18005159   | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18010801   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18011101   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 18051101   | 2       |
| Sanacorp | Base cream, hydrophobic DAC     | 180515     | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 180755     | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18116801   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18117001   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18117201   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 181194     | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18168501   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18169501   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18242901   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 18298502   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19000621   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19002203   | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 19003576   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19003980   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 1900415001 | 1       |
| Sanacorp | Hydrophilic cream, non-ionic... | 19006525   | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 19021402   | 1       |
| SANACORP | Hydrophilic cream, non-ionic... | 19055602   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 19058301   | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19072001   | 1       |
| SANACORP | Anionic hydrophilic cream SR... | 19093001   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19161201   | 3       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19161901   | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19162001   | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 19177103   | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19206201   | 2       |

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continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Sanacorp | Anionic hydrophilic cream DAB   | 19206301    | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 1925661     | 1       |
| Sanacorp | Anionic hydrophilic cream wi... | 19268202    | 2       |
| Sanacorp | Anionic hydrophilic cream wi... | 19268502    | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19272505    | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 19272901    | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20000027    | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20000035    | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20000314001 | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 2000092001  | 1       |
| Sanacorp | Transdermal base cream          | 20001002    | 1       |
| Sanacorp | Hydrophilic cream, non-ionic... | 20001016    | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20001214    | 1       |
| Sanacorp | Anionic hydrophilic cream wi... | 20001246001 | 2       |
| Sanacorp | Base cream, hydrophobic DAC     | 20001593002 | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20002081001 | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20002531    | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20002538    | 2       |
| Sanacorp | Anionic hydrophilic cream DAB   | 20003265    | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 2004277     | 1       |
| Sanacorp | Anionic hydrophilic cream wi... | 21000682001 | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 21001505001 | 1       |
| Sanacorp | Hydrophilic cream, non-ionic... | 220713      | 4       |
| Sanacorp | Wolff® base half-fat cream      | 235200      | 2       |
| Sanacorp | Anionic hydrophilic cream wi... | 24AKD1      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 273693      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 274376      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 274505      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 277566      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 277569      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 277637      | 2       |
| Sanacorp | Anionic hydrophilic cream SR... | 279202      | 1       |
| Sanacorp | Skin care ointment W/L SR       | 27C220818   | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 281742      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 281809      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 283283      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 283284      | 1       |
| sanacorp | Anionic hydrophilic cream DAB   | 286501      | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 288573      | 1       |
| sanacorp | Anionic hydrophilic cream DAB   | 288655      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 290413      | 2       |
| Sanacorp | Anionic hydrophilic cream SR... | 290530      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 295232      | 1       |
| Sanacorp | Anionic hydrophilic cream DAB   | 297680      | 2       |
| Sanacorp | Anionic hydrophilic cream SR... | 300564      | 1       |
| Sanacorp | Anionic hydrophilic cream SR... | 306440      | 1       |
| Sanacorp | Wolff® base half-fat cream      | 3542        | 8       |
| Sanacorp | Anionic hydrophilic cream wi... | 39/AKD4     | 1       |
| Sanacorp | Skin care ointment W/L SR       | 39B191218   | 1       |
| Sanacorp | Base cream, hydrophobic DAC     | 4/AKD3      | 1       |
| Sanacorp | Anionic hydrophilic cream wi... | 41/AKD6     | 1       |
| Sanacorp | Anionic hydrophilic cream wi... | 50/AKD12    | 1       |
| Sanacorp | Wolff® base half-fat cream      | 609950      | 3       |
| Sanacorp | Wolff® base half-fat cream      | 701080      | 1       |
| Sanacorp | Wolff® base half-fat cream      | 702500      | 2       |
| Sanacorp | Wolff® base half-fat cream      | 705760      | 2       |
| Sanacorp | Wolff® base half-fat cream      | 707370      | 4       |
| Sanacorp | Wolff® base half-fat cream      | 711250      | 11      |
| Sanacorp | Wolff® base half-fat cream      | 801470      | 1       |
| Sanacorp | Wolff® base half-fat cream      | 805720      | 13      |

continued on the next page

continued from previous page

| Supplier                   | Substance                        | Batch       | Spectra |
|----------------------------|----------------------------------|-------------|---------|
| Sanacorp                   | Wolff® base half-fat cream       | 810800      | 11      |
| Sanacorp                   | Wolff® base half-fat cream       | 904880      | 3       |
| Sanacorp                   | Hydrophilic cream, non-ionic...  | 9A240418    | 1       |
| Sanacorp                   | Anionic hydrophilic cream DAB    | AKD11       | 1       |
| Sanacorp;21.04.15;9,31EUR  | Anionic hydrophilic cream SR...  | 292977      | 1       |
| SanacorpWE:01.12.2016 ...  | Hydrophilic cream, non-ionic...  | 16222001    | 1       |
| Sanacorp                   | Base cream, hydrophobic DAC      | 181198      | 1       |
| Sanacorp                   | Base cream, hydrophobic DAC      | 19000415003 | 2       |
| siehe Protokoll            | Base cream, hydrophobic DAC      | 305080      | 1       |
| Sonnen-Apotheke Wefensl... | Anionic hydrophilic cream wit... | 1B080118    | 1       |
| Sonnenapotheke             | Wolff® base half-fat cream       | 810800      | 1       |
| SONSTIGE                   | Wolff® base half-fat cream       | 910450      | 1       |
| SONSTIGE                   | Wolff® base half-fat cream       | 910460      | 1       |
| Spangro 09.05.2014         | Anionic hydrophilic cream DAB    | 285599      | 1       |
| Spangro 16.4.19            | Anionic hydrophilic cream DAB    | 18004839    | 1       |
| Spangro 22.01.2019         | Anionic hydrophilic cream DAB    | 18003586    | 1       |
| Spangro 26.04.2013         | Anionic hydrophilic cream DAB    | 12314701    | 1       |
| Spangro                    | Anionic hydrophilic cream DAB    | 18066701    | 2       |
| Spangropharm               | Anionic hydrophilic cream DAB    | 14138902    | 1       |
| Spangropharm               | Wolff® base half-fat cream       | 143650      | 1       |
| Spangropharm               | Anionic hydrophilic cream DAB    | 19162001    | 1       |
| Spangropharm               | Wolff® base half-fat cream       | 332040      | 1       |
| Spirig/Anzag               | Wolff® base half-fat cream       | 234791      | 1       |
| Taoasis/Sanacorp           | Anionic hydrophilic cream SR...  | 311127      | 2       |
| Taoasis                    | Base cream, hydrophobic DAC      | 120214-2023 | 1       |
| Taoasis                    | Base cream, hydrophobic DAC      | 120601-2137 | 1       |
| Taoasis                    | Base cream, hydrophobic DAC      | 120719-2199 | 1       |
| Taoasis                    | Base cream, hydrophobic DAC      | 121205-2276 | 1       |
| Taoasis                    | Base cream, hydrophobic DAC      | 121205-2299 | 1       |
| Taoasis                    | Base cream, hydrophobic DAC      | 130124-3021 | 1       |
| Taoasis                    | Base cream, hydrophobic DAC      | 130312-3053 | 1       |
| Taoasis                    | Base cream, hydrophobic DAC      | 130719-3198 | 1       |
| Taoasis                    | Wolff® base half-fat cream       | 602050      | 1       |
| Th. Geyer                  | Anionic hydrophilic cream DAB    | 18243402    | 1       |
| THC Noweda                 | Anionic hydrophilic cream SR...  | 18005159    | 1       |
| THC Rezeptur-Set           | Anionic hydrophilic cream DAB    | 17084101    | 2       |
| THC Rezeptur-Set           | Anionic hydrophilic cream wi...  | 17102101    | 1       |
| Tsiripidou                 | Hydrophilic cream, non-ionic...  | 17000748    | 1       |
| VDL 05.05.14 Fa.Wolff      | Wolff® base half-fat cream       | 339140      | 1       |
| VDL 28.04.2014;Preis:45... | Wolff® base half-fat cream       |             | 1       |
| vdl                        | Anionic hydrophilic cream wi...  | 12221002    | 1       |
| VDL;02.12.14;5,32EUR       | Anionic hydrophilic cream SR...  | 288310      | 1       |
| VDL;2.7.14                 | Anionic hydrophilic cream DAB    | 14118401    | 1       |
| VDL;2.7.14                 | Wolff® base half-fat cream       | 430880      | 3       |
| WE: Sanacorp 18.10.2016... | Wolff® base half-fat cream       | 601880      | 1       |
| WE:06.04.2016 Phönix ...   | Base cream, hydrophobic DAC      | 15421201    | 1       |
| WE:16.04.2016 Sanacor...   | Anionic hydrophilic cream DAB    | 14342901    | 1       |
| wepa/Sanaco                | Anionic hydrophilic cream DAB    | 16103301    | 1       |
| WEPA/WEPA                  | Wolff® base half-fat cream       | LOTAP0046   | 2       |
| Woff GmbH                  | Wolff® base half-fat cream       | 501080      | 1       |
| Wolf/Phönix                | Wolff® base half-fat cream       | 430880      | 2       |
| Wolf                       | Wolff® base half-fat cream       | 511420      | 1       |
| Wolff / AHD                | Wolff® base half-fat cream       | 10680       | 4       |
| Wolff / AHD                | Wolff® base half-fat cream       | 141811      | 1       |
| Wolff / AHD                | Wolff® base half-fat cream       | 7742        | 4       |
| Wolff / AHD                | Wolff® base half-fat cream       | 810800      | 2       |
| Wolff / AHD                | Wolff® base half-fat cream       | 905120      | 7       |
| Wolff / AHD                | Wolff® base half-fat cream       | 910460      | 3       |
| Wolff / Jenne              | Wolff® base half-fat cream       | 909810      | 1       |
| Wolff / Jenne              | Wolff® base half-fat cream       | 9560        | 1       |

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| Supplier                   | Substance                              | Batch                | Spectra |
|----------------------------|----------------------------------------|----------------------|---------|
| Wolff / Phönix             | Wolff <sup>®</sup> base half-fat cream | 10680                | 2       |
| Wolff / Phönix             | Wolff <sup>®</sup> base half-fat cream | 7742                 | 2       |
| Wolff / Phönix             | Wolff <sup>®</sup> base half-fat cream | 810800               | 2       |
| Wolff / Phönix             | Wolff <sup>®</sup> base half-fat cream | 910460               | 1       |
| Wolff Basis Creme          | Wolff <sup>®</sup> base half-fat cream | 602290               | 1       |
| Wolff Basiscreme           | Wolff <sup>®</sup> base half-fat cream | 707370               | 1       |
| Wolff GmbH / Noweda        | Wolff <sup>®</sup> base half-fat cream | 434360               | 3       |
| Wolff GmbH / Noweda        | Wolff <sup>®</sup> base half-fat cream | 501470               | 1       |
| wolff GmbH/AHD 21.09.2015  | Wolff <sup>®</sup> base half-fat cream | 438340               | 1       |
| Wolff GmbH/AHD             | Wolff <sup>®</sup> base half-fat cream | 905120               | 2       |
| Wolff GmbH/Sanacorp        | Wolff <sup>®</sup> base half-fat cream | 339140               | 1       |
| Wolff GmbH                 | Wolff <sup>®</sup> base half-fat cream | 230870               | 1       |
| Wolff GmbH                 | Wolff <sup>®</sup> base half-fat cream | 238560               | 1       |
| Wolff GmbH                 | Wolff <sup>®</sup> base half-fat cream | 9560                 | 1       |
| Wolff vdl 09.01.15         | Wolff <sup>®</sup> base half-fat cream | 434360               | 2       |
| Wolff,Gehe                 | Wolff <sup>®</sup> base half-fat cream |                      | 2       |
| Wolff/ Anzag               | Wolff <sup>®</sup> base half-fat cream | 501470               | 1       |
| Wolff/ Anzag               | Wolff <sup>®</sup> base half-fat cream | 807640               | 1       |
| Wolff/ Gehe                | Wolff <sup>®</sup> base half-fat cream | 434360               | 1       |
| Wolff/ Phoenix             | Wolff <sup>®</sup> base half-fat cream | 77420                | 1       |
| Wolff/ Phönix              | Wolff <sup>®</sup> base half-fat cream | 430880               | 2       |
| Wolff/ Sanacorp            | Wolff <sup>®</sup> base half-fat cream | 10550                | 2       |
| Wolff/ Sanacorp            | Wolff <sup>®</sup> base half-fat cream | 10680                | 7       |
| Wolff/ Sanacorp            | Wolff <sup>®</sup> base half-fat cream | 810201               | 2       |
| Wolff/ Sanacorp            | Wolff <sup>®</sup> base half-fat cream | 901140               | 2       |
| Wolff/ Sanacorp            | Wolff <sup>®</sup> base half-fat cream | 909810               | 1       |
| Wolff/1                    | Wolff <sup>®</sup> base half-fat cream | 501470               | 1       |
| Wolff/4                    | Wolff <sup>®</sup> base half-fat cream | 810800               | 1       |
| Wolff/AEP                  | Wolff <sup>®</sup> base half-fat cream | 805720               | 4       |
| Wolff/AEP                  | Wolff <sup>®</sup> base half-fat cream | 810800               | 4       |
| Wolff/AEP                  | Wolff <sup>®</sup> base half-fat cream | 905120               | 5       |
| Wolff/AHCA                 | Wolff <sup>®</sup> base half-fat cream | 702500               | 1       |
| Wolff/AHCA                 | Wolff <sup>®</sup> base half-fat cream | 707370               | 2       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 147400               | 1       |
| Wolff/AHD                  | Anionic hydrophilic cream DAB          | 282107               | 1       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 331551               | 8       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 332040               | 5       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 510621               | 1       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 602050               | 3       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 701451               | 2       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 704050               | 1       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 711250               | 1       |
| Wolff/AHD                  | Wolff <sup>®</sup> base half-fat cream | 810800               | 1       |
| Wolff/Alliance             | Wolff <sup>®</sup> base half-fat cream | 430880               | 1       |
| Wolff/Alliance             | Wolff <sup>®</sup> base half-fat cream | 436750               | 1       |
| Wolff/Alliance             | Wolff <sup>®</sup> base half-fat cream | 511420               | 1       |
| Wolff/Alliance             | Wolff <sup>®</sup> base half-fat cream | 608180               | 2       |
| Wolff/Anzag                | Wolff <sup>®</sup> base half-fat cream | 905120               | 2       |
| Wolff/Gehe 8.11.17         | Wolff <sup>®</sup> base half-fat cream | 702500-20180619Ma9   | 1       |
| Wolff/Gehe 707370-20180... | Wolff <sup>®</sup> base half-fat cream | 707370-20180830Ma9   | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream |                      | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 10550                | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 236420               | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 609950-20171106Ma8   | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 609950-20171127Ma9   | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 705760               | 2       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 705760-20171127Ma10  | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 711250-W20190115Ma12 | 1       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 807580               | 3       |
| Wolff/Gehe                 | Wolff <sup>®</sup> base half-fat cream | 807640               | 1       |

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| Supplier       | Substance                              | Batch       | Spectra |
|----------------|----------------------------------------|-------------|---------|
| Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 901920      | 3       |
| Wolff/Gehe     | Wolff <sup>®</sup> base half-fat cream | 904880      | 2       |
| Wolff/Jenne    | Wolff <sup>®</sup> base half-fat cream | 705760      | 2       |
| Wolff/Jenne    | Wolff <sup>®</sup> base half-fat cream | 801470      | 1       |
| Wolff/Krieger  | Wolff <sup>®</sup> base half-fat cream | 705760      | 1       |
| Wolff/Krieger  | Wolff <sup>®</sup> base half-fat cream | 810201      | 6       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 10550       | 2       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 511420      | 1       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 6480        | 1       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 702500      | 1       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 801140      | 1       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 901140      | 1       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 901930      | 2       |
| Wolff/Noweda   | Wolff <sup>®</sup> base half-fat cream | 908620      | 1       |
| Wolff/Phoenix  | Wolff <sup>®</sup> base half-fat cream | 4715E-03719 | 1       |
| Wolff/Phönix   | Anionic hydrophilic cream DAB          | 16328101    | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 3542        | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 438160      | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 501470      | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 608180      | 5       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 711240      | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 801140      | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 805720      | 4       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 807580      | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 807640      | 9       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 810800      | 1       |
| Wolff/Phönix   | Wolff <sup>®</sup> base half-fat cream | 901920      | 3       |
| Wolff/SANac    | Wolff <sup>®</sup> base half-fat cream | 7742        | 1       |
| Wolff/SANac    | Wolff <sup>®</sup> base half-fat cream | AP210311-04 | 1       |
| Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 141811      | 1       |
| Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 143650      | 2       |
| Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 238560      | 1       |
| Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 501470      | 1       |
| Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 602050      | 3       |
| Wolff/Sanacorp | Wolff <sup>®</sup> base half-fat cream | 9560        | 1       |
| Wolff/Spangro  | Wolff <sup>®</sup> base half-fat cream | 801140      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 10680       | 5       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 1110        | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 141812      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 147400      | 2       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 238660      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 240249      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 333930      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 430880      | 1       |
| wolff          | Wolff <sup>®</sup> base half-fat cream | 431050      | 1       |
| wolff          | Wolff <sup>®</sup> base half-fat cream | 431240      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 431240      | 2       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 501080      | 3       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 501870      | 2       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 506360      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 601880      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 602290      | 2       |
| wolff          | Wolff <sup>®</sup> base half-fat cream | 610991      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 6480        | 3       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 704050      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 704220      | 1       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 707500      | 4       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 711240      | 2       |
| Wolff          | Wolff <sup>®</sup> base half-fat cream | 7742        | 5       |
| wolff          | Wolff <sup>®</sup> base half-fat cream | 801140      | 2       |

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| Supplier     | Substance                              | Batch  | Spectra |
|--------------|----------------------------------------|--------|---------|
| Wolff        | Wolff <sup>®</sup> base half-fat cream | 801140 | 3       |
| Wolff        | Wolff <sup>®</sup> base half-fat cream | 901930 | 2       |
| Wolff        | Wolff <sup>®</sup> base half-fat cream | 904670 | 2       |
| Wolff        | Wolff <sup>®</sup> base half-fat cream | 904880 | 2       |
| Wolff        | Wolff <sup>®</sup> base half-fat cream | 909810 | 4       |
| Wolff        | Wolff <sup>®</sup> base half-fat cream | 911220 | 5       |
| Wolff        | Wolff <sup>®</sup> base half-fat cream | 9560   | 1       |
| Wolff/AHD    | Wolff <sup>®</sup> base half-fat cream | 909810 | 3       |
| Wolff/Phönix | Wolff <sup>®</sup> base half-fat cream | 333620 | 3       |
| wolff/AHD    | Wolff <sup>®</sup> base half-fat cream | 431240 | 1       |
| wolff/AHD    | Wolff <sup>®</sup> base half-fat cream | 605551 | 1       |

- 255 218 spectra from 1291 *Apo-Ident* customers from a total of 46 187 batches from a further 332 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Hydrophilic ointments* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Hydrophilic ointments* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 5910          | 0              | 61 249        |
| <b>Type B</b> | 0              | 17 716        | 0              | 89 407        |
| <b>Type C</b> | 0              | 33 287        | 204            | 255 071       |

The substance/substance group *Hydrophilic ointments* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9803 %) | 100.0000 % (> 99.8985 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 99.9661 %) |
| <b>Type C</b> | 100.0000 % (> 99.6953 %) | 99.3909 % (> 99.3819 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Hydrophilic ointments* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Non-ionic hydrophil ointment              | 10.43                     | —                                 |
| Lanette <sup>®</sup> ointment (conserved) | 15.92                     | —                                 |
| Glycolic acid 70%                         | 22.24                     | —                                 |
| Psorisol base cream Audor <sup>®</sup>    | 30.38                     | —                                 |
| Base cream DAC                            | 32.73                     | —                                 |
| Hydrated liniment SR/DAC (NRF p.40)       | 33.82                     | —                                 |
| Non-ionic hydrous liniment SR/DAC (NRF... | 35.58                     | —                                 |
| Gel Cordes <sup>®</sup>                   | 40.73                     | —                                 |
| Sodium laureth sulfate solution 27%       | 44.33                     | —                                 |
| Lotio Cordes <sup>®</sup>                 | 45.07                     | —                                 |
| Potash soap DAC                           | 45.29                     | —                                 |
| Lipo Lotio Cordes <sup>®</sup>            | 45.68                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Hydrophilic ointments* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30631     | 30837                  | 9.05                            | 35.01                              |
| 30758     | 31907                  | 6.29                            | 37.49                              |
| 30769     | 30769                  | 0.00                            | 25.61                              |
| 30837     | 30837                  | 0.00                            | 33.82                              |
| 30880     | 31741                  | 6.52                            | 31.51                              |
| 30895     | 32387                  | 5.75                            | 32.12                              |
| 30931     | 31478                  | 10.84                           | 30.89                              |
| 31002     | 31907                  | 3.08                            | 35.83                              |
| 31008     | 31008                  | 0.00                            | 20.91                              |
| 31039     | 31039                  | 0.00                            | 29.56                              |
| 31040     | 31503                  | 4.93                            | 28.68                              |
| 31042     | 32032                  | 6.91                            | 23.08                              |
| 31054     | 31054                  | 0.00                            | 30.29                              |
| 31086     | 30837                  | 12.99                           | 32.18                              |
| 31188     | 31188                  | 0.00                            | 25.95                              |
| 31231     | 31231                  | 0.00                            | 35.02                              |
| 31241     | 31741                  | 3.51                            | 38.14                              |
| 31440     | 31440                  | 0.00                            | 27.08                              |
| 31450     | 32115                  | 3.11                            | 24.29                              |
| 31470     | 32131                  | 2.25                            | 35.36                              |
| 31477     | 31188                  | 3.31                            | 24.77                              |
| 31478     | 31478                  | 0.00                            | 27.72                              |
| 31487     | 30837                  | 19.10                           | 31.31                              |
| 31500     | 31500                  | 0.00                            | 27.87                              |
| 31503     | 31503                  | 0.00                            | 31.15                              |
| 31515     | 31515                  | 0.00                            | 39.13                              |
| 31516     | 32387                  | 11.82                           | 34.51                              |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31537            | 31537                      | 0.00                                | 32.96                                  |
| 31565            | 35617                      | 6.02                                | 29.08                                  |
| 31568            | 30769                      | 4.86                                | 25.61                                  |
| 31591            | 32124                      | 5.27                                | 24.60                                  |
| 31593            | 31996                      | 3.55                                | 26.11                                  |
| 31599            | 31188                      | 2.61                                | 25.71                                  |
| 31600            | 31039                      | 7.23                                | 30.66                                  |
| 31644            | 31799                      | 3.34                                | 37.00                                  |
| 31661            | 32126                      | 7.08                                | 30.09                                  |
| 31741            | 31741                      | 0.00                                | 34.34                                  |
| 31799            | 31799                      | 0.00                                | 36.74                                  |
| 31906            | 31906                      | 0.00                                | 34.37                                  |
| 31907            | 31907                      | 0.00                                | 35.28                                  |
| 31962            | 32029                      | 10.94                               | 33.84                                  |
| 31996            | 31996                      | 0.00                                | 26.38                                  |
| 32022            | 32022                      | 0.00                                | 28.97                                  |
| 32023            | 32023                      | 0.00                                | 29.17                                  |
| 32024            | 32024                      | 0.00                                | 30.33                                  |
| 32025            | 32025                      | 0.00                                | 30.41                                  |
| 32026            | 32026                      | 0.00                                | 29.38                                  |
| 32027            | 32027                      | 0.00                                | 30.31                                  |
| 32028            | 32028                      | 0.00                                | 28.94                                  |
| 32029            | 32029                      | 0.00                                | 30.52                                  |
| 32030            | 32030                      | 0.00                                | 30.54                                  |
| 32031            | 32031                      | 0.00                                | 29.07                                  |
| 32032            | 32032                      | 0.00                                | 29.63                                  |
| 32038            | 32038                      | 0.00                                | 30.56                                  |
| 32039            | 32039                      | 0.00                                | 20.91                                  |
| 32052            | 32052                      | 0.00                                | 28.51                                  |
| 32053            | 32053                      | 0.00                                | 28.59                                  |
| 32115            | 32115                      | 0.00                                | 24.22                                  |
| 32116            | 32116                      | 0.00                                | 24.15                                  |
| 32123            | 32123                      | 0.00                                | 26.49                                  |
| 32124            | 32124                      | 0.00                                | 25.87                                  |
| 32125            | 32125                      | 0.00                                | 25.06                                  |
| 32126            | 32126                      | 0.00                                | 26.47                                  |
| 32127            | 32127                      | 0.00                                | 25.34                                  |
| 32128            | 32128                      | 0.00                                | 25.27                                  |
| 32129            | 32129                      | 0.00                                | 37.06                                  |
| 32130            | 32130                      | 0.00                                | 26.31                                  |
| 32131            | 32131                      | 0.00                                | 36.04                                  |
| 32132            | 32132                      | 0.00                                | 30.01                                  |
| 32141            | 32141                      | 0.00                                | 34.88                                  |
| 32142            | 32142                      | 0.00                                | 20.45                                  |
| 32225            | 32225                      | 0.00                                | 24.90                                  |
| 32303            | 31799                      | 2.31                                | 34.67                                  |
| 32346            | 31008                      | 5.31                                | 21.49                                  |
| 32386            | 32386                      | 0.00                                | 25.55                                  |
| 32387            | 32387                      | 0.00                                | 27.05                                  |
| 32435            | 32435                      | 0.00                                | 26.56                                  |
| 32436            | 32436                      | 0.00                                | 28.86                                  |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 32620            | 32620                      | 0.00                                | 41.18                                  |
| 32621            | 32621                      | 0.00                                | 26.01                                  |
| 32882            | 32882                      | 0.00                                | 40.75                                  |
| 33295            | 31503                      | 5.53                                | 27.79                                  |
| 33354            | 33354                      | 0.00                                | 35.99                                  |
| 33595            | 33595                      | 0.00                                | 37.02                                  |
| 33641            | 32053                      | 10.25                               | 31.23                                  |
| 33964            | 31799                      | 8.81                                | 39.27                                  |
| 34267            | 34267                      | 0.00                                | 35.82                                  |
| 34506            | 32115                      | 2.54                                | 26.25                                  |
| 34507            | 32115                      | 2.01                                | 26.11                                  |
| 34508            | 31996                      | 4.24                                | 27.04                                  |
| 34525            | 35617                      | 4.77                                | 25.63                                  |
| 34544            | 34544                      | 0.00                                | 33.10                                  |
| 34598            | 31907                      | 3.87                                | 34.96                                  |
| 34680            | 31039                      | 7.47                                | 30.74                                  |
| 34681            | 32115                      | 1.49                                | 24.15                                  |
| 34683            | 35617                      | 3.40                                | 25.91                                  |
| 34689            | 30837                      | 12.19                               | 31.64                                  |
| 34763            | 32032                      | 6.06                                | 26.87                                  |
| 34791            | 34791                      | 0.00                                | 18.92                                  |
| 34822            | 34822                      | 0.00                                | 35.05                                  |
| 34850            | 34850                      | 0.00                                | 37.91                                  |
| 35086            | 32032                      | 7.17                                | 23.09                                  |
| 35092            | 35092                      | 0.00                                | 40.79                                  |
| 35096            | 35096                      | 0.00                                | 27.99                                  |
| 35099            | 35099                      | 0.00                                | 41.69                                  |
| 35169            | 35169                      | 0.00                                | 42.06                                  |
| 35170            | 35170                      | 0.00                                | 43.00                                  |
| 35291            | 32029                      | 12.59                               | 33.91                                  |
| 35292            | 31799                      | 11.34                               | 35.39                                  |
| 35367            | 35367                      | 0.00                                | 40.40                                  |
| 35368            | 35368                      | 0.00                                | 39.83                                  |
| 35383            | 35383                      | 0.00                                | 35.14                                  |
| 35384            | 35384                      | 0.00                                | 34.47                                  |
| 35385            | 35385                      | 0.00                                | 32.30                                  |
| 35386            | 35386                      | 0.00                                | 34.79                                  |
| 35389            | 35389                      | 0.00                                | 35.14                                  |
| 35390            | 35390                      | 0.00                                | 32.97                                  |
| 35393            | 35393                      | 0.00                                | 33.63                                  |
| 35394            | 35394                      | 0.00                                | 32.96                                  |
| 35397            | 35397                      | 0.00                                | 33.75                                  |
| 35398            | 35398                      | 0.00                                | 35.61                                  |
| 35399            | 35399                      | 0.00                                | 32.94                                  |
| 35461            | 32032                      | 5.71                                | 24.63                                  |
| 35531            | 35531                      | 0.00                                | 31.12                                  |
| 35535            | 35535                      | 0.00                                | 30.95                                  |
| 35564            | 35564                      | 0.00                                | 31.11                                  |
| 35614            | 35614                      | 0.00                                | 27.48                                  |
| 35617            | 35617                      | 0.00                                | 27.07                                  |
| 35640            | 35640                      | 0.00                                | 36.71                                  |

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| <b>Sample ID</b> | <b>Reference<br/>sample ID</b> | <b>Distance to<br/>reference sample</b> | <b>Distance to<br/>next foreign sample</b> |
|------------------|--------------------------------|-----------------------------------------|--------------------------------------------|
| 36036            | 36036                          | 0.00                                    | 29.40                                      |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Hydroxyethyl salicylate</b>                                   |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30638-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Hydroxyethyl salicylate; Hydroxyethylis salicylas

### Special notes

When selecting the *Hydroxyethyl salicylate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Hydroxyethyl salicylate   | 5      | 3      | 13     |

## Second-stage model

For differentiation of the substance/substance group *Hydroxyethyl salicylate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Hydroxyethyl salicylate*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Hydroxyethyl sal... | 12049001 | 30638     | 40      | 1402192     |
| Caelo    | Hydroxyethyl sal... | 13285709 | 31339     | 40      | 20130918    |
| Caelo    | Hydroxyethyl sal... | 191112   | 34651     | 40      | 20190606*   |
| Caelo    | Hydroxyethyl sal... | 20003330 | 35719     | 50      | 20201203*   |
| Caelo    | Hydroxyethyl sal... | 20003489 | 35721     | 50      | 20201203*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Hydroxyethyl salicylate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Hydroxyethyl salicylate*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance               | Batch    | Sample ID | Spectra |
|----------|-------------------------|----------|-----------|---------|
| Caelo    | Hydroxyethyl salicylate | 16131002 | 32588     | 40      |
| Caelo    | Hydroxyethyl salicylate | 16131009 | 33241     | 40      |
| Caelo    | Hydroxyethyl salicylate | 172740   | 34226     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 18 spectra from 13 *Apo-Ident* customers from 13 batches from the substance/substance group *Hydroxyethyl salicylate*.
- Among them are spectra of independent samples from 13 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance               | Batch     | Spectra |
|----------------------|-------------------------|-----------|---------|
| Caelo                | Hydroxyethyl salicylate | 13285702  | 2       |
| Caelo                | Hydroxyethyl salicylate | 15004301  | 1       |
| Caelo                | Hydroxyethyl salicylate | 15414906  | 2       |
| Caelo                | Hydroxyethyl salicylate | 16131002  | 1       |
| Caelo                | Hydroxyethyl salicylate | 16131006  | 1       |
| Caelo                | Hydroxyethyl salicylate | 16131011  | 1       |
| Caelo                | Hydroxyethyl salicylate | 1727407   | 1       |
| Caelo                | Hydroxyethyl salicylate | 19111202  | 2       |
| Caelo                | Hydroxyethyl salicylate | 19111205  | 1       |
| Caelo                | Hydroxyethyl salicylate | 2091302   | 1       |
| Caesar & Loretz GmbH | Hydroxyethyl salicylate | 193088004 | 1       |
| caleo                | Hydroxyethyl salicylate | 193088004 | 1       |
| Fiebig               | Hydroxyethyl salicylate | 16131009  | 1       |
| Fiebig               | Hydroxyethyl salicylate | 17274002  | 1       |
| Phönix/CaesarLoretz  | Hydroxyethyl salicylate | 17274002  | 1       |

- 288 691 spectra from 1294 *Apo-Ident* customers from a total of 51 876 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Hydroxyethyl salicylate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Hydroxyethyl salicylate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 220           | 0              | 66 939        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 18            | 0              | 288 691       |

The substance/substance group *Hydroxyethyl salicylate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6875 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Hydroxyethyl salicylate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance      | Distance in main model | Distance in second-stage model |
|----------------|------------------------|--------------------------------|
| Phenoxyethanol | 60.96                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Hydroxyethyl salicylate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30638     | 30638               | 0.00                         | 72.78                           |
| 31339     | 35721               | 5.74                         | 65.92                           |
| 34651     | 34651               | 0.00                         | 66.96                           |
| 35719     | 35719               | 0.00                         | 69.55                           |
| 35721     | 35721               | 0.00                         | 71.23                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at



least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Isopropyl alcohol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30759-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Isopropyl alcohol; Alcohol isopropylicus

### Special notes

When selecting the *Isopropyl alcohol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Isopropyl alcohol         | 6      | 3      | 1477   |

## Second-stage model

For differentiation of the substance/substance group *Isopropyl alcohol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Isopropyl alcohol*:

| Supplier | Substance         | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------------|----------|-----------|---------|-------------|
| apomix   | Isopropyl alcohol | 4103112  | 31517     | 60      | 1505476     |
| Caelo    | Isopropyl alcohol | 12321002 | 30759     | 40      | 20121102    |
| Caelo    | Isopropyl alcohol | 13249425 | 31232     | 40      | 20130726    |
| Caelo    | Isopropyl alcohol | 14051031 | 31386     | 40      | 20140214    |
| Hedinger | Isopropyl alcohol | 070835B  | 32817     | 40      | 20160712    |
| Hedinger | Isopropyl alcohol | 070922B  | 33256     | 40      | 20170307    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 260 spectra of 6 reference samples from the substance/substance group *Isopropyl alcohol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 899 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Isopropyl alcohol*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance         | Batch       | Sample ID | Spectra |
|----------|-------------------|-------------|-----------|---------|
| Caelo    | Isopropyl alcohol | 17300401    | 33938     | 40      |
| Caelo    | Isopropyl alcohol | 20001912017 | 35090     | 40      |
| Caelo    | Isopropyl alcohol | 20003673    | 35250     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 4582 spectra from 927 *Apo-Ident* customers from 1512 batches from the substance/substance group *Isopropyl alcohol*.
- Among them are spectra of independent samples from 1472 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
|                            | Isopropyl alcohol | 70603B      | 1       |
| 070879B                    | Isopropyl alcohol | 70879B      | 1       |
| 17189301                   | Isopropyl alcohol | 17300430    | 1       |
| A. Hedinger / Kehr         | Isopropyl alcohol | 70614B      | 1       |
| A. Hedinger / Kehr         | Isopropyl alcohol | 707158      | 1       |
| A. Hedinger / Kehr         | Isopropyl alcohol | 708358      | 1       |
| A. Hedinger / Noweda       | Isopropyl alcohol | 706598      | 2       |
| A. Hedinger/Kehr           | Isopropyl alcohol | 709088      | 1       |
| A.Hedinger / Kehr          | Isopropyl alcohol | 70659B      | 1       |
| A.Hedinger/Sana            | Isopropyl alcohol | 701020B     | 1       |
| AEP                        | Isopropyl alcohol | 701054B     | 1       |
| AH/Hedinger                | Isopropyl alcohol | 70889B      | 1       |
| AHD / Hedinger             | Isopropyl alcohol | 70666B      | 1       |
| AHD Hedinger 2.3.20 EK:... | Isopropyl alcohol | 701173B     | 1       |
| AHD/Fischar                | Isopropyl alcohol |             | 1       |
| AHD/Hedinger               | Isopropyl alcohol | 701156B     | 1       |
| AHD/Hedinger               | Isopropyl alcohol | 701173B     | 2       |
| AHD/Hedinger               | Isopropyl alcohol | 70763B      | 1       |
| AHD/Hedinger               | Isopropyl alcohol | 70994B      | 1       |
| AHD                        | Isopropyl alcohol | 192098001   | 1       |
| AHD                        | Isopropyl alcohol | 20001179012 | 1       |
| AHD                        | Isopropyl alcohol | 7011148     | 1       |
| AHD                        | Isopropyl alcohol | 70614B      | 1       |
| AHD                        | Isopropyl alcohol | 70643B      | 1       |
| AHD                        | Isopropyl alcohol | 70892B      | 1       |
| AHD                        | Isopropyl alcohol | 70898B      | 1       |
| AHD                        | Isopropyl alcohol | 70994B      | 1       |
| AHD                        | Isopropyl alcohol | 71145B      | 1       |
| AHL                        | Isopropyl alcohol | 70835B      | 1       |
| AHL                        | Isopropyl alcohol | 709558      | 1       |
| Alkoholvertrieb Süd        | Isopropyl alcohol |             | 1       |
| Alkoholvertrieb Süd        | Isopropyl alcohol | Sorte702    | 1       |
| Allianc. Health. / Hedi... | Isopropyl alcohol | 70762B      | 1       |
| Allianc. Healthc. / Hed... | Isopropyl alcohol | 70730B      | 1       |
| Allianc. Healthc. / Hed... | Isopropyl alcohol | 70837B      | 1       |

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| Supplier                   | Substance         | Batch     | Spectra |
|----------------------------|-------------------|-----------|---------|
| Alliance / Hedinger        | Isopropyl alcohol | 7012128   | 1       |
| Alliance Healthcare/Hed... | Isopropyl alcohol | 701031B   | 1       |
| Alliance Healthcare/Hed... | Isopropyl alcohol | 70536B    | 1       |
| Alliance Healthcare/Hed... | Isopropyl alcohol | 70577B    | 1       |
| Alliance Healthcare/Hed... | Isopropyl alcohol | 70578B    | 1       |
| Alliance Healthcare/Hed... | Isopropyl alcohol | 70627B    | 1       |
| Alliance Healthcare/Hed... | Isopropyl alcohol | 70680B    | 1       |
| Alliance Healthcare        | Isopropyl alcohol | 701065B   | 1       |
| Alliance Healthcare        | Isopropyl alcohol | 701139B   | 1       |
| Alliance Healthcare        | Isopropyl alcohol | 701158B   | 2       |
| Alliance Healthcare        | Isopropyl alcohol | 701173B   | 2       |
| Allianz Healthcare         | Isopropyl alcohol | 70896b    | 1       |
| Angaz/Caesar & Loretz G... | Isopropyl alcohol | 19059532  | 1       |
| anzag / fischer            | Isopropyl alcohol | 1000031   | 1       |
| Anzag 08.02.2013           | Isopropyl alcohol | 70500B    | 1       |
| Anzag/Hedinger 07.05.20    | Isopropyl alcohol | 701201B   | 2       |
| Anzag/Hedinger             | Isopropyl alcohol | 70495B    | 1       |
| Anzag/Hedinger             | Isopropyl alcohol | 70562B    | 1       |
| Anzag/Hedinger             | Isopropyl alcohol | 70592B    | 1       |
| Anzag/Hedinger             | Isopropyl alcohol | 70835B    | 1       |
| Anzag/Seeger               | Isopropyl alcohol | 70527B    | 1       |
| Anzag                      | Isopropyl alcohol | 14716     | 1       |
| Anzag                      | Isopropyl alcohol | 14717     | 1       |
| Anzag                      | Isopropyl alcohol | 190595625 | 2       |
| Anzag                      | Isopropyl alcohol | 701020B   | 1       |
| Anzag                      | Isopropyl alcohol | 701099B   | 1       |
| Anzag                      | Isopropyl alcohol | 701156B   | 1       |
| Anzag                      | Isopropyl alcohol | 70459B    | 1       |
| Anzag                      | Isopropyl alcohol | 70471B    | 1       |
| Anzag                      | Isopropyl alcohol | 70495B    | 1       |
| Anzag                      | Isopropyl alcohol | 70578B    | 2       |
| Anzag                      | Isopropyl alcohol | 7059B     | 1       |
| Anzag                      | Isopropyl alcohol | 70720B    | 1       |
| Anzag                      | Isopropyl alcohol | 70835B    | 1       |
| Apot.Elisabeth Bartel      | Isopropyl alcohol | 701258B   | 1       |
| Apoth. Elisabeth -Bartel   | Isopropyl alcohol | 701231B   | 1       |
| Apoth.E.Bartel             | Isopropyl alcohol | 70545B    | 2       |
| Audor Pharma               | Isopropyl alcohol | 70720B    | 2       |
| Aug. Hedinger GmbH & Co... | Isopropyl alcohol | 701201B   | 6       |
| Aug. Hedinger GmbH & Co... | Isopropyl alcohol | 701321B   | 1       |
| Aug. Hedinger GmbH & Co... | Isopropyl alcohol | 501114B   | 1       |
| Aug. Hedinger GmbH & Co... | Isopropyl alcohol | 701123B   | 1       |
| Aug. Hedinger GmbH & Co... | Isopropyl alcohol | 70671B    | 1       |
| Aug. Hedinger GmbH & Co... | Isopropyl alcohol | 70768B    | 1       |
| Aug. Hedinger GmbH & Co... | Isopropyl alcohol | 701201B   | 1       |
| Aug. Hedinger GmbH/ Phö... | Isopropyl alcohol | 701156B   | 1       |
| Aug. Hedinger GmbH         | Isopropyl alcohol | 701105B   | 1       |
| Aug. hedinger/N/PZN:074... | Isopropyl alcohol | 70659B    | 1       |
| AUG.HEDINGER GMBH          | Isopropyl alcohol | 70994B    | 1       |
| Aug.Hedinger/Anzag         | Isopropyl alcohol | 7010318   | 1       |
| Aug.Hedinger/Noweda        | Isopropyl alcohol | 7010718   | 1       |
| Aug.Hedinger/Noweda        | Isopropyl alcohol | 70488B    | 1       |
| August Hed./Sanacorp       | Isopropyl alcohol | 701031B   | 1       |
| August Hedinger/Jenne      | Isopropyl alcohol | 701194B   | 3       |
| August Hedinger/Jenne      | Isopropyl alcohol | 701204B   | 3       |
| August Hedinger/Sanacorp   | Isopropyl alcohol | 701136B   | 1       |
| August Hedinger/Sanacorp   | Isopropyl alcohol | 701203B   | 1       |
| August Hedinger            | Isopropyl alcohol | 701011B   | 1       |
| August Hedinger            | Isopropyl alcohol | 70675B    | 1       |
| August Hedinger            | Isopropyl alcohol | 70923B    | 1       |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b>  | <b>Spectra</b> |
|----------------------------|-------------------|---------------|----------------|
| Azur GmbH                  | Isopropyl alcohol | 170126        | 1              |
| Bahnhof-Apothek/Bahnhof... | Isopropyl alcohol | 701052B       | 1              |
| Bartel/Gehe                | Isopropyl alcohol | 70788B        | 2              |
| BCD/Walter-CMP             | Isopropyl alcohol | 986640        | 1              |
| Bergchemie                 | Isopropyl alcohol | 14134711      | 1              |
| Berkel AHK Berlin          | Isopropyl alcohol | 190220/IPA    | 2              |
| Berkel AHK GmbH & Co.KG... | Isopropyl alcohol | 7700T30260320 | 1              |
| Berkel Ahk                 | Isopropyl alcohol | 190220/IPA    | 1              |
| Berkel AHK                 | Isopropyl alcohol | 190220/IPA    | 1              |
| Berkel AHK                 | Isopropyl alcohol | 250320/IPA    | 1              |
| Berkel AHK                 | Isopropyl alcohol | 2710227       | 1              |
| Berkel AHK                 | Isopropyl alcohol | 2772128       | 1              |
| Berkel AHK                 | Isopropyl alcohol | 80420/IPA     | 1              |
| Berkel                     | Isopropyl alcohol | 7700T30240220 | 1              |
| Berkel                     | Isopropyl alcohol | 7700T30260320 | 1              |
| Berkel-AHK                 | Isopropyl alcohol | 30420/IPA     | 1              |
| Besselmann Service         | Isopropyl alcohol | 900170854     | 1              |
| Besselmann Service         | Isopropyl alcohol | L20004671     | 1              |
| Bombastus                  | Isopropyl alcohol | 701107B       | 1              |
| Bombastus                  | Isopropyl alcohol | 70767B        | 1              |
| Bombastus                  | Isopropyl alcohol | 7474936       | 1              |
| Cae                        | Isopropyl alcohol | 18178229      | 1              |
| Caelo                      | Isopropyl alcohol |               | 6              |
| Caelo                      | Isopropyl alcohol | 10011502      | 1              |
| Caelo                      | Isopropyl alcohol | 10051302      | 1              |
| Caelo                      | Isopropyl alcohol | 10061507      | 1              |
| Caelo                      | Isopropyl alcohol | 1007031       | 1              |
| Caelo                      | Isopropyl alcohol | 10101403      | 1              |
| Caelo                      | Isopropyl alcohol | 10121304      | 1              |
| Caelo                      | Isopropyl alcohol | 1017410092    | 2              |
| Caelo                      | Isopropyl alcohol | 1071301       | 1              |
| Caelo                      | Isopropyl alcohol | 108073        | 1              |
| Caelo                      | Isopropyl alcohol | 1100317       | 1              |
| Caelo                      | Isopropyl alcohol | 11091401      | 1              |
| Caelo                      | Isopropyl alcohol | 11311602      | 1              |
| Caelo                      | Isopropyl alcohol | 11371204      | 1              |
| Caelo                      | Isopropyl alcohol | 11371212      | 1              |
| Caelo                      | Isopropyl alcohol | 11371217      | 1              |
| Caelo                      | Isopropyl alcohol | 12031106      | 1              |
| Caelo                      | Isopropyl alcohol | 12041402      | 1              |
| Caelo                      | Isopropyl alcohol | 12081505      | 1              |
| Caelo                      | Isopropyl alcohol | 12091305      | 1              |
| Caelo                      | Isopropyl alcohol | 12112204      | 1              |
| Caelo                      | Isopropyl alcohol | 12112206      | 1              |
| Caelo                      | Isopropyl alcohol | 12112209      | 1              |
| Caelo                      | Isopropyl alcohol | 12112220      | 1              |
| Caelo                      | Isopropyl alcohol | 12112224      | 3              |
| Caelo                      | Isopropyl alcohol | 12179307      | 3              |
| Caelo                      | Isopropyl alcohol | 12179310      | 1              |
| Caelo                      | Isopropyl alcohol | 12179311      | 1              |
| Caelo                      | Isopropyl alcohol | 12179316      | 1              |
| Caelo                      | Isopropyl alcohol | 12179317      | 2              |
| Caelo                      | Isopropyl alcohol | 12179321      | 1              |
| Caelo                      | Isopropyl alcohol | 12179326      | 1              |
| Caelo                      | Isopropyl alcohol | 12179328      | 1              |
| Caelo                      | Isopropyl alcohol | 12254702      | 1              |
| Caelo                      | Isopropyl alcohol | 12254703      | 1              |
| Caelo                      | Isopropyl alcohol | 12254708      | 1              |
| Caelo                      | Isopropyl alcohol | 12254708/129  | 1              |
| Caelo                      | Isopropyl alcohol | 12254709      | 2              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Caelo           | Isopropyl alcohol | 12254714     | 1              |
| Caelo           | Isopropyl alcohol | 12254719     | 1              |
| Caelo           | Isopropyl alcohol | 12254722     | 1              |
| Caelo           | Isopropyl alcohol | 12254724     | 1              |
| Caelo           | Isopropyl alcohol | 12254727     | 2              |
| Caelo           | Isopropyl alcohol | 12254729     | 1              |
| Caelo           | Isopropyl alcohol | 1231012      | 1              |
| Caelo           | Isopropyl alcohol | 12321008     | 2              |
| Caelo           | Isopropyl alcohol | 12321012     | 1              |
| Caelo           | Isopropyl alcohol | 12321016     | 1              |
| Caelo           | Isopropyl alcohol | 12321020     | 1              |
| Caelo           | Isopropyl alcohol | 12321022     | 1              |
| Caelo           | Isopropyl alcohol | 12321023     | 3              |
| Caelo           | Isopropyl alcohol | 12321030     | 2              |
| Caelo           | Isopropyl alcohol | 12321031     | 1              |
| Caelo           | Isopropyl alcohol | 12321032     | 1              |
| Caelo           | Isopropyl alcohol | 12379501     | 1              |
| Caelo           | Isopropyl alcohol | 12379502     | 2              |
| Caelo           | Isopropyl alcohol | 12379504     | 1              |
| Caelo           | Isopropyl alcohol | 12379506     | 1              |
| Caelo           | Isopropyl alcohol | 12379508     | 2              |
| Caelo           | Isopropyl alcohol | 12379510     | 3              |
| Caelo           | Isopropyl alcohol | 12379515     | 2              |
| Caelo           | Isopropyl alcohol | 12379517     | 1              |
| Caelo           | Isopropyl alcohol | 12379518     | 2              |
| Caelo           | Isopropyl alcohol | 12379520     | 2              |
| Caelo           | Isopropyl alcohol | 12379521     | 2              |
| Caelo           | Isopropyl alcohol | 12379522     | 1              |
| Caelo           | Isopropyl alcohol | 12379525     | 2              |
| Caelo           | Isopropyl alcohol | 12379526     | 3              |
| Caelo           | Isopropyl alcohol | 125651       | 1              |
| Caelo           | Isopropyl alcohol | 13011808     | 1              |
| Caelo           | Isopropyl alcohol | 13021409     | 1              |
| Caelo           | Isopropyl alcohol | 1305019      | 1              |
| Caelo           | Isopropyl alcohol | 13050901     | 1              |
| Caelo           | Isopropyl alcohol | 13050902     | 1              |
| Caelo           | Isopropyl alcohol | 13050904     | 1              |
| Caelo           | Isopropyl alcohol | 13050907     | 1              |
| Caelo           | Isopropyl alcohol | 13050911     | 1              |
| Caelo           | Isopropyl alcohol | 13050913     | 2              |
| Caelo           | Isopropyl alcohol | 13050914     | 2              |
| Caelo           | Isopropyl alcohol | 13050916     | 3              |
| Caelo           | Isopropyl alcohol | 13050917     | 2              |
| Caelo           | Isopropyl alcohol | 13050920     | 1              |
| Caelo           | Isopropyl alcohol | 13050922     | 1              |
| Caelo           | Isopropyl alcohol | 13050925     | 2              |
| Caelo           | Isopropyl alcohol | 13050927     | 1              |
| Caelo           | Isopropyl alcohol | 13050928     | 1              |
| Caelo           | Isopropyl alcohol | 13050929     | 1              |
| Caelo           | Isopropyl alcohol | 13071304     | 1              |
| Caelo           | Isopropyl alcohol | 13091802     | 1              |
| Caelo           | Isopropyl alcohol | 131/AKD1     | 1              |
| Caelo           | Isopropyl alcohol | 13101801     | 1              |
| Caelo           | Isopropyl alcohol | 13121401     | 1              |
| Caelo           | Isopropyl alcohol | 13148001     | 2              |
| Caelo           | Isopropyl alcohol | 13148003     | 1              |
| Caelo           | Isopropyl alcohol | 13148004     | 1              |
| Caelo           | Isopropyl alcohol | 13148006     | 1              |
| Caelo           | Isopropyl alcohol | 13148012     | 1              |
| Caelo           | Isopropyl alcohol | 13148015     | 3              |

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| Supplier | Substance         | Batch     | Spectra |
|----------|-------------------|-----------|---------|
| Caelo    | Isopropyl alcohol | 13148019  | 3       |
| Caelo    | Isopropyl alcohol | 13148021  | 1       |
| Caelo    | Isopropyl alcohol | 13148024  | 1       |
| Caelo    | Isopropyl alcohol | 13148028  | 1       |
| Caelo    | Isopropyl alcohol | 13148029  | 1       |
| Caelo    | Isopropyl alcohol | 132/AKD54 | 1       |
| Caelo    | Isopropyl alcohol | 132494    | 1       |
| Caelo    | Isopropyl alcohol | 13249401  | 1       |
| Caelo    | Isopropyl alcohol | 13249403  | 1       |
| Caelo    | Isopropyl alcohol | 13249404  | 1       |
| Caelo    | Isopropyl alcohol | 13249405  | 1       |
| Caelo    | Isopropyl alcohol | 13249406  | 1       |
| Caelo    | Isopropyl alcohol | 13249407  | 1       |
| Caelo    | Isopropyl alcohol | 13249412  | 2       |
| Caelo    | Isopropyl alcohol | 13249413  | 2       |
| Caelo    | Isopropyl alcohol | 13249414  | 2       |
| Caelo    | Isopropyl alcohol | 13249415  | 2       |
| Caelo    | Isopropyl alcohol | 13249416  | 1       |
| Caelo    | Isopropyl alcohol | 13249418  | 1       |
| Caelo    | Isopropyl alcohol | 13249420  | 1       |
| Caelo    | Isopropyl alcohol | 13249423  | 1       |
| Caelo    | Isopropyl alcohol | 13249424  | 1       |
| Caelo    | Isopropyl alcohol | 13249427  | 1       |
| Caelo    | Isopropyl alcohol | 13249429  | 2       |
| Caelo    | Isopropyl alcohol | 13249430  | 1       |
| Caelo    | Isopropyl alcohol | 13249432  | 1       |
| Caelo    | Isopropyl alcohol | 13249434  | 1       |
| Caelo    | Isopropyl alcohol | 13249435  | 3       |
| Caelo    | Isopropyl alcohol | 13249437  | 1       |
| Caelo    | Isopropyl alcohol | 1329421   | 1       |
| Caelo    | Isopropyl alcohol | 1329423   | 1       |
| Caelo    | Isopropyl alcohol | 13336911  | 1       |
| Caelo    | Isopropyl alcohol | 13336912  | 2       |
| Caelo    | Isopropyl alcohol | 13336913  | 1       |
| Caelo    | Isopropyl alcohol | 13336914  | 1       |
| Caelo    | Isopropyl alcohol | 13336915  | 1       |
| Caelo    | Isopropyl alcohol | 13336916  | 1       |
| Caelo    | Isopropyl alcohol | 13336921  | 1       |
| Caelo    | Isopropyl alcohol | 13336922  | 1       |
| Caelo    | Isopropyl alcohol | 13336924  | 1       |
| Caelo    | Isopropyl alcohol | 13336927  | 1       |
| Caelo    | Isopropyl alcohol | 13336930  | 1       |
| Caelo    | Isopropyl alcohol | 13336931  | 1       |
| Caelo    | Isopropyl alcohol | 13336933  | 1       |
| Caelo    | Isopropyl alcohol | 13336934  | 1       |
| Caelo    | Isopropyl alcohol | 13336936  | 1       |
| Caelo    | Isopropyl alcohol | 13336938  | 3       |
| Caelo    | Isopropyl alcohol | 13336939  | 2       |
| Caelo    | Isopropyl alcohol | 13336941  | 2       |
| Caelo    | Isopropyl alcohol | 13336942  | 1       |
| Caelo    | Isopropyl alcohol | 13336943  | 2       |
| Caelo    | Isopropyl alcohol | 13336944  | 1       |
| Caelo    | Isopropyl alcohol | 13336945  | 1       |
| Caelo    | Isopropyl alcohol | 13397303  | 2       |
| Caelo    | Isopropyl alcohol | 13397304  | 2       |
| Caelo    | Isopropyl alcohol | 13397305  | 1       |
| Caelo    | Isopropyl alcohol | 13397311  | 1       |
| Caelo    | Isopropyl alcohol | 13397312  | 2       |
| Caelo    | Isopropyl alcohol | 13397316  | 2       |
| Caelo    | Isopropyl alcohol | 13397317  | 1       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Caelo           | Isopropyl alcohol | 13397318     | 2              |
| Caelo           | Isopropyl alcohol | 13397323     | 1              |
| Caelo           | Isopropyl alcohol | 13397326     | 3              |
| Caelo           | Isopropyl alcohol | 13397327     | 2              |
| Caelo           | Isopropyl alcohol | 13397330     | 6              |
| Caelo           | Isopropyl alcohol | 13397332     | 3              |
| Caelo           | Isopropyl alcohol | 13407304     | 1              |
| Caelo           | Isopropyl alcohol | 14031501     | 1              |
| Caelo           | Isopropyl alcohol | 14031701     | 1              |
| Caelo           | Isopropyl alcohol | 14051002     | 2              |
| Caelo           | Isopropyl alcohol | 14051004     | 1              |
| Caelo           | Isopropyl alcohol | 14051009     | 2              |
| Caelo           | Isopropyl alcohol | 14051012     | 3              |
| Caelo           | Isopropyl alcohol | 14051013     | 1              |
| Caelo           | Isopropyl alcohol | 14051015     | 1              |
| Caelo           | Isopropyl alcohol | 14051016     | 1              |
| Caelo           | Isopropyl alcohol | 14051017     | 3              |
| Caelo           | Isopropyl alcohol | 14051018     | 1              |
| Caelo           | Isopropyl alcohol | 14051019     | 1              |
| Caelo           | Isopropyl alcohol | 14051021     | 1              |
| Caelo           | Isopropyl alcohol | 14051022     | 1              |
| Caelo           | Isopropyl alcohol | 14051026     | 1              |
| Caelo           | Isopropyl alcohol | 140510265    | 1              |
| Caelo           | Isopropyl alcohol | 14051028     | 1              |
| Caelo           | Isopropyl alcohol | 14051031     | 3              |
| Caelo           | Isopropyl alcohol | 14051036     | 1              |
| Caelo           | Isopropyl alcohol | 141/AKD16    | 1              |
| Caelo           | Isopropyl alcohol | 14134701     | 1              |
| Caelo           | Isopropyl alcohol | 14134705     | 2              |
| Caelo           | Isopropyl alcohol | 14134706     | 1              |
| Caelo           | Isopropyl alcohol | 14134708     | 1              |
| Caelo           | Isopropyl alcohol | 14134710     | 1              |
| Caelo           | Isopropyl alcohol | 14134712     | 1              |
| Caelo           | Isopropyl alcohol | 14134716     | 3              |
| Caelo           | Isopropyl alcohol | 14134719     | 1              |
| Caelo           | Isopropyl alcohol | 14134720     | 2              |
| Caelo           | Isopropyl alcohol | 14134721     | 1              |
| Caelo           | Isopropyl alcohol | 14134724     | 1              |
| Caelo           | Isopropyl alcohol | 14219202     | 1              |
| Caelo           | Isopropyl alcohol | 14219204     | 2              |
| Caelo           | Isopropyl alcohol | 14219205     | 1              |
| Caelo           | Isopropyl alcohol | 14219206     | 2              |
| Caelo           | Isopropyl alcohol | 14219209     | 1              |
| Caelo           | Isopropyl alcohol | 14219211     | 1              |
| Caelo           | Isopropyl alcohol | 14219212     | 2              |
| Caelo           | Isopropyl alcohol | 14219213     | 3              |
| Caelo           | Isopropyl alcohol | 14219214     | 3              |
| Caelo           | Isopropyl alcohol | 14219215     | 2              |
| Caelo           | Isopropyl alcohol | 14219216     | 1              |
| Caelo           | Isopropyl alcohol | 14219218     | 1              |
| Caelo           | Isopropyl alcohol | 14219220     | 2              |
| Caelo           | Isopropyl alcohol | 14219222     | 3              |
| Caelo           | Isopropyl alcohol | 14219224     | 1              |
| Caelo           | Isopropyl alcohol | 14219227     | 3              |
| Caelo           | Isopropyl alcohol | 14219228     | 2              |
| Caelo           | Isopropyl alcohol | 14219229     | 1              |
| Caelo           | Isopropyl alcohol | 14219233     | 1              |
| Caelo           | Isopropyl alcohol | 14278901     | 3              |
| Caelo           | Isopropyl alcohol | 14278902     | 2              |
| Caelo           | Isopropyl alcohol | 14278903     | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>   | <b>Spectra</b> |
|-----------------|-------------------|----------------|----------------|
| Caelo           | Isopropyl alcohol | 14278904       | 4              |
| Caelo           | Isopropyl alcohol | 14278905       | 2              |
| Caelo           | Isopropyl alcohol | 14278907       | 1              |
| Caelo           | Isopropyl alcohol | 14278909       | 1              |
| Caelo           | Isopropyl alcohol | 14278911       | 2              |
| Caelo           | Isopropyl alcohol | 14278914       | 1              |
| Caelo           | Isopropyl alcohol | 14278921       | 1              |
| Caelo           | Isopropyl alcohol | 14278923       | 4              |
| Caelo           | Isopropyl alcohol | 14278925       | 2              |
| Caelo           | Isopropyl alcohol | 14278926       | 4              |
| Caelo           | Isopropyl alcohol | 14278927       | 2              |
| Caelo           | Isopropyl alcohol | 14278929       | 1              |
| Caelo           | Isopropyl alcohol | 14369301       | 5              |
| Caelo           | Isopropyl alcohol | 14369302       | 5              |
| Caelo           | Isopropyl alcohol | 14369303       | 1              |
| Caelo           | Isopropyl alcohol | 14369304       | 1              |
| Caelo           | Isopropyl alcohol | 14369306       | 1              |
| Caelo           | Isopropyl alcohol | 14369307       | 3              |
| Caelo           | Isopropyl alcohol | 14369310       | 1              |
| Caelo           | Isopropyl alcohol | 14369311       | 1              |
| Caelo           | Isopropyl alcohol | 14369312       | 2              |
| Caelo           | Isopropyl alcohol | 14369313       | 4              |
| Caelo           | Isopropyl alcohol | 14369316       | 2              |
| Caelo           | Isopropyl alcohol | 14369317       | 2              |
| Caelo           | Isopropyl alcohol | 14369319       | 1              |
| Caelo           | Isopropyl alcohol | 14369325       | 1              |
| Caelo           | Isopropyl alcohol | 14369326       | 3              |
| Caelo           | Isopropyl alcohol | 14369329       | 1              |
| Caelo           | Isopropyl alcohol | 14369333       | 1              |
| Caelo           | Isopropyl alcohol | 14369334       | 1              |
| Caelo           | Isopropyl alcohol | 14369337       | 1              |
| Caelo           | Isopropyl alcohol | 14369370       | 1              |
| Caelo           | Isopropyl alcohol | 1469323        | 1              |
| Caelo           | Isopropyl alcohol | 15031801       | 1              |
| Caelo           | Isopropyl alcohol | 15057501       | 2              |
| Caelo           | Isopropyl alcohol | 15057502       | 1              |
| Caelo           | Isopropyl alcohol | 15057503       | 1              |
| Caelo           | Isopropyl alcohol | 15057505       | 2              |
| Caelo           | Isopropyl alcohol | 15057506       | 1              |
| Caelo           | Isopropyl alcohol | 15057507       | 2              |
| Caelo           | Isopropyl alcohol | 15057508       | 1              |
| Caelo           | Isopropyl alcohol | 15057510       | 1              |
| Caelo           | Isopropyl alcohol | 15057511       | 2              |
| Caelo           | Isopropyl alcohol | 15057513       | 1              |
| Caelo           | Isopropyl alcohol | 15057514       | 1              |
| Caelo           | Isopropyl alcohol | 15057515       | 1              |
| Caelo           | Isopropyl alcohol | 15057517       | 1              |
| Caelo           | Isopropyl alcohol | 15057518       | 1              |
| Caelo           | Isopropyl alcohol | 15057519       | 1              |
| Caelo           | Isopropyl alcohol | 15057520       | 2              |
| Caelo           | Isopropyl alcohol | 15057524       | 2              |
| Caelo           | Isopropyl alcohol | 15057525       | 1              |
| Caelo           | Isopropyl alcohol | 15057526       | 1              |
| Caelo           | Isopropyl alcohol | 15057528       | 2              |
| Caelo           | Isopropyl alcohol | 15057531       | 1              |
| Caelo           | Isopropyl alcohol | 151 (17189323) | 1              |
| Caelo           | Isopropyl alcohol | 15111401       | 1              |
| Caelo           | Isopropyl alcohol | 15111740       | 1              |
| Caelo           | Isopropyl alcohol | 15171301       | 1              |
| Caelo           | Isopropyl alcohol | 15171303       | 6              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|-------------------|---------------|----------------|
| Caelo           | Isopropyl alcohol | 15171304      | 2              |
| Caelo           | Isopropyl alcohol | 15171305      | 1              |
| Caelo           | Isopropyl alcohol | 15171306      | 1              |
| Caelo           | Isopropyl alcohol | 15171307      | 1              |
| Caelo           | Isopropyl alcohol | 15171308      | 1              |
| Caelo           | Isopropyl alcohol | 15171311      | 2              |
| Caelo           | Isopropyl alcohol | 15171312      | 2              |
| Caelo           | Isopropyl alcohol | 15171314      | 2              |
| Caelo           | Isopropyl alcohol | 15171315      | 1              |
| Caelo           | Isopropyl alcohol | 15171326      | 1              |
| Caelo           | Isopropyl alcohol | 15171327      | 1              |
| Caelo           | Isopropyl alcohol | 15171328      | 2              |
| Caelo           | Isopropyl alcohol | 15171329      | 2              |
| Caelo           | Isopropyl alcohol | 15171331      | 1              |
| Caelo           | Isopropyl alcohol | 15171332      | 1              |
| Caelo           | Isopropyl alcohol | 15171333      | 4              |
| Caelo           | Isopropyl alcohol | 15171335      | 1              |
| Caelo           | Isopropyl alcohol | 15171337      | 1              |
| Caelo           | Isopropyl alcohol | 15171340      | 1              |
| Caelo           | Isopropyl alcohol | 15171341      | 3              |
| Caelo           | Isopropyl alcohol | 15171342      | 2              |
| Caelo           | Isopropyl alcohol | 1517308       | 1              |
| Caelo           | Isopropyl alcohol | 152(18065412) | 1              |
| Caelo           | Isopropyl alcohol | 153(18291713) | 1              |
| Caelo           | Isopropyl alcohol | 15300902      | 4              |
| Caelo           | Isopropyl alcohol | 15300903      | 2              |
| Caelo           | Isopropyl alcohol | 15300904      | 2              |
| Caelo           | Isopropyl alcohol | 15300910      | 1              |
| Caelo           | Isopropyl alcohol | 15300912      | 1              |
| Caelo           | Isopropyl alcohol | 15300913      | 1              |
| Caelo           | Isopropyl alcohol | 15300915      | 1              |
| Caelo           | Isopropyl alcohol | 15300917      | 1              |
| Caelo           | Isopropyl alcohol | 15300918      | 1              |
| Caelo           | Isopropyl alcohol | 15300921      | 1              |
| Caelo           | Isopropyl alcohol | 15300923      | 1              |
| Caelo           | Isopropyl alcohol | 15300925      | 1              |
| Caelo           | Isopropyl alcohol | 15300926      | 1              |
| Caelo           | Isopropyl alcohol | 15300927      | 2              |
| Caelo           | Isopropyl alcohol | 15300929      | 1              |
| Caelo           | Isopropyl alcohol | 15300930      | 1              |
| Caelo           | Isopropyl alcohol | 15300931      | 2              |
| Caelo           | Isopropyl alcohol | 15300932      | 1              |
| Caelo           | Isopropyl alcohol | 15398802      | 1              |
| Caelo           | Isopropyl alcohol | 15398803      | 2              |
| Caelo           | Isopropyl alcohol | 15398804      | 3              |
| Caelo           | Isopropyl alcohol | 15398806      | 3              |
| Caelo           | Isopropyl alcohol | 15398808      | 2              |
| Caelo           | Isopropyl alcohol | 15398810      | 1              |
| Caelo           | Isopropyl alcohol | 15398811      | 1              |
| Caelo           | Isopropyl alcohol | 15398812      | 1              |
| Caelo           | Isopropyl alcohol | 15398813      | 1              |
| Caelo           | Isopropyl alcohol | 15398814      | 3              |
| Caelo           | Isopropyl alcohol | 15398816      | 4              |
| Caelo           | Isopropyl alcohol | 15398819      | 1              |
| Caelo           | Isopropyl alcohol | 15398820      | 3              |
| Caelo           | Isopropyl alcohol | 15398823      | 3              |
| Caelo           | Isopropyl alcohol | 15398826      | 2              |
| Caelo           | Isopropyl alcohol | 15398827      | 2              |
| Caelo           | Isopropyl alcohol | 15398828      | 1              |
| Caelo           | Isopropyl alcohol | 15398831      | 3              |

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| Supplier | Substance         | Batch             | Spectra |
|----------|-------------------|-------------------|---------|
| Caelo    | Isopropyl alcohol | 15498831          | 1       |
| Caelo    | Isopropyl alcohol | 1557015           | 1       |
| Caelo    | Isopropyl alcohol | 16/255/i          | 1       |
| Caelo    | Isopropyl alcohol | 16011406          | 1       |
| Caelo    | Isopropyl alcohol | 16039901          | 5       |
| Caelo    | Isopropyl alcohol | 16039902          | 1       |
| Caelo    | Isopropyl alcohol | 16039903          | 1       |
| Caelo    | Isopropyl alcohol | 16039904          | 3       |
| Caelo    | Isopropyl alcohol | 16039905          | 1       |
| Caelo    | Isopropyl alcohol | 16039906          | 2       |
| Caelo    | Isopropyl alcohol | 16039907          | 2       |
| Caelo    | Isopropyl alcohol | 16039911          | 2       |
| Caelo    | Isopropyl alcohol | 16039912          | 3       |
| Caelo    | Isopropyl alcohol | 16039913          | 1       |
| Caelo    | Isopropyl alcohol | 16039915          | 1       |
| Caelo    | Isopropyl alcohol | 16039919          | 1       |
| Caelo    | Isopropyl alcohol | 16039921          | 1       |
| Caelo    | Isopropyl alcohol | 16039922          | 2       |
| Caelo    | Isopropyl alcohol | 16039923          | 3       |
| Caelo    | Isopropyl alcohol | 16039924          | 1       |
| Caelo    | Isopropyl alcohol | 16039925          | 3       |
| Caelo    | Isopropyl alcohol | 16039926          | 2       |
| Caelo    | Isopropyl alcohol | 16039930          | 1       |
| Caelo    | Isopropyl alcohol | 16039931          | 1       |
| Caelo    | Isopropyl alcohol | 16039932          | 1       |
| Caelo    | Isopropyl alcohol | 16039935          | 1       |
| Caelo    | Isopropyl alcohol | 16039936          | 2       |
| Caelo    | Isopropyl alcohol | 1603997           | 1       |
| Caelo    | Isopropyl alcohol | 16061804          | 1       |
| Caelo    | Isopropyl alcohol | 16081810          | 1       |
| Caelo    | Isopropyl alcohol | 16137301          | 4       |
| Caelo    | Isopropyl alcohol | 16137302          | 4       |
| Caelo    | Isopropyl alcohol | 16137303          | 2       |
| Caelo    | Isopropyl alcohol | 16137304          | 3       |
| Caelo    | Isopropyl alcohol | 16137305          | 4       |
| Caelo    | Isopropyl alcohol | 16137307          | 1       |
| Caelo    | Isopropyl alcohol | 16137308          | 3       |
| Caelo    | Isopropyl alcohol | 16137311          | 1       |
| Caelo    | Isopropyl alcohol | 16137312          | 2       |
| Caelo    | Isopropyl alcohol | 16137317          | 2       |
| Caelo    | Isopropyl alcohol | 16137318          | 1       |
| Caelo    | Isopropyl alcohol | 16137322          | 3       |
| Caelo    | Isopropyl alcohol | 16137323          | 2       |
| Caelo    | Isopropyl alcohol | 16137325          | 2       |
| Caelo    | Isopropyl alcohol | 16137325/161123AI | 1       |
| Caelo    | Isopropyl alcohol | 16137326          | 1       |
| Caelo    | Isopropyl alcohol | 16137327          | 3       |
| Caelo    | Isopropyl alcohol | 16137328          | 1       |
| Caelo    | Isopropyl alcohol | 16137329          | 3       |
| Caelo    | Isopropyl alcohol | 16137330          | 1       |
| Caelo    | Isopropyl alcohol | 16137332          | 2       |
| Caelo    | Isopropyl alcohol | 16137333          | 1       |
| Caelo    | Isopropyl alcohol | 16137334          | 1       |
| Caelo    | Isopropyl alcohol | 16137336          | 4       |
| Caelo    | Isopropyl alcohol | 162334019         | 1       |
| Caelo    | Isopropyl alcohol | 16234001          | 5       |
| Caelo    | Isopropyl alcohol | 16234002          | 4       |
| Caelo    | Isopropyl alcohol | 16234003          | 1       |
| Caelo    | Isopropyl alcohol | 16234004          | 5       |
| Caelo    | Isopropyl alcohol | 16234005          | 2       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Caelo           | Isopropyl alcohol | 16234007     | 2              |
| Caelo           | Isopropyl alcohol | 16234008     | 1              |
| Caelo           | Isopropyl alcohol | 16234009     | 1              |
| Caelo           | Isopropyl alcohol | 16234010     | 4              |
| Caelo           | Isopropyl alcohol | 16234011     | 1              |
| Caelo           | Isopropyl alcohol | 16234013     | 1              |
| Caelo           | Isopropyl alcohol | 16234014     | 2              |
| Caelo           | Isopropyl alcohol | 16234017     | 3              |
| Caelo           | Isopropyl alcohol | 16234018     | 1              |
| Caelo           | Isopropyl alcohol | 16234019     | 2              |
| Caelo           | Isopropyl alcohol | 16234020     | 2              |
| Caelo           | Isopropyl alcohol | 16234021     | 1              |
| Caelo           | Isopropyl alcohol | 16234023     | 1              |
| Caelo           | Isopropyl alcohol | 16234025     | 3              |
| Caelo           | Isopropyl alcohol | 16234026     | 2              |
| Caelo           | Isopropyl alcohol | 16234029     | 1              |
| Caelo           | Isopropyl alcohol | 16234031     | 2              |
| Caelo           | Isopropyl alcohol | 16234032     | 1              |
| Caelo           | Isopropyl alcohol | 16234033     | 2              |
| Caelo           | Isopropyl alcohol | 1630606      | 1              |
| Caelo           | Isopropyl alcohol | 1630607      | 1              |
| Caelo           | Isopropyl alcohol | 16310601     | 1              |
| Caelo           | Isopropyl alcohol | 16310602     | 3              |
| Caelo           | Isopropyl alcohol | 16310603     | 3              |
| Caelo           | Isopropyl alcohol | 16310604     | 1              |
| Caelo           | Isopropyl alcohol | 16310605     | 2              |
| Caelo           | Isopropyl alcohol | 16310606     | 1              |
| Caelo           | Isopropyl alcohol | 16310607     | 3              |
| Caelo           | Isopropyl alcohol | 16310609     | 2              |
| Caelo           | Isopropyl alcohol | 16310610     | 3              |
| Caelo           | Isopropyl alcohol | 16310611     | 1              |
| Caelo           | Isopropyl alcohol | 16310612     | 3              |
| Caelo           | Isopropyl alcohol | 16310613     | 1              |
| Caelo           | Isopropyl alcohol | 16310614     | 2              |
| Caelo           | Isopropyl alcohol | 16310621     | 1              |
| Caelo           | Isopropyl alcohol | 16310622     | 4              |
| Caelo           | Isopropyl alcohol | 16310623     | 2              |
| Caelo           | Isopropyl alcohol | 16310625     | 1              |
| Caelo           | Isopropyl alcohol | 16310626     | 1              |
| Caelo           | Isopropyl alcohol | 16310628     | 1              |
| Caelo           | Isopropyl alcohol | 16310629     | 3              |
| Caelo           | Isopropyl alcohol | 16310632     | 3              |
| Caelo           | Isopropyl alcohol | 16310633     | 5              |
| Caelo           | Isopropyl alcohol | 16310634     | 1              |
| Caelo           | Isopropyl alcohol | 163234002    | 1              |
| Caelo           | Isopropyl alcohol | 17044001     | 1              |
| Caelo           | Isopropyl alcohol | 170440015277 | 1              |
| Caelo           | Isopropyl alcohol | 17044002     | 2              |
| Caelo           | Isopropyl alcohol | 17044003     | 1              |
| Caelo           | Isopropyl alcohol | 17044006     | 2              |
| Caelo           | Isopropyl alcohol | 17044007     | 1              |
| Caelo           | Isopropyl alcohol | 17044008     | 2              |
| Caelo           | Isopropyl alcohol | 17044009     | 1              |
| Caelo           | Isopropyl alcohol | 17044011     | 2              |
| Caelo           | Isopropyl alcohol | 17044013     | 3              |
| Caelo           | Isopropyl alcohol | 17044015     | 1              |
| Caelo           | Isopropyl alcohol | 17044016     | 2              |
| Caelo           | Isopropyl alcohol | 17044017     | 1              |
| Caelo           | Isopropyl alcohol | 17044019     | 3              |
| Caelo           | Isopropyl alcohol | 17044020     | 2              |

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| Supplier | Substance         | Batch        | Spectra |
|----------|-------------------|--------------|---------|
| Caelo    | Isopropyl alcohol | 17044022     | 2       |
| Caelo    | Isopropyl alcohol | 17044023     | 1       |
| Caelo    | Isopropyl alcohol | 17044025     | 1       |
| Caelo    | Isopropyl alcohol | 17044027     | 2       |
| Caelo    | Isopropyl alcohol | 17044028     | 4       |
| Caelo    | Isopropyl alcohol | 17044029     | 2       |
| Caelo    | Isopropyl alcohol | 17044030     | 5       |
| Caelo    | Isopropyl alcohol | 17044031     | 3       |
| Caelo    | Isopropyl alcohol | 17044032     | 1       |
| Caelo    | Isopropyl alcohol | 17044033     | 2       |
| Caelo    | Isopropyl alcohol | 17044034     | 1       |
| Caelo    | Isopropyl alcohol | 17044035     | 2       |
| Caelo    | Isopropyl alcohol | 17051802     | 1       |
| Caelo    | Isopropyl alcohol | 17061706     | 1       |
| Caelo    | Isopropyl alcohol | 17189301     | 4       |
| Caelo    | Isopropyl alcohol | 17189302     | 5       |
| Caelo    | Isopropyl alcohol | 17189303     | 2       |
| Caelo    | Isopropyl alcohol | 17189304     | 1       |
| Caelo    | Isopropyl alcohol | 171893045391 | 1       |
| Caelo    | Isopropyl alcohol | 17189305     | 3       |
| Caelo    | Isopropyl alcohol | 17189306     | 1       |
| Caelo    | Isopropyl alcohol | 17189307     | 2       |
| Caelo    | Isopropyl alcohol | 17189308     | 1       |
| Caelo    | Isopropyl alcohol | 17189309     | 2       |
| Caelo    | Isopropyl alcohol | 17189310     | 1       |
| Caelo    | Isopropyl alcohol | 17189312     | 1       |
| Caelo    | Isopropyl alcohol | 17189313     | 2       |
| Caelo    | Isopropyl alcohol | 17189316     | 2       |
| Caelo    | Isopropyl alcohol | 17189317     | 3       |
| Caelo    | Isopropyl alcohol | 17189319     | 9       |
| Caelo    | Isopropyl alcohol | 17189320     | 4       |
| Caelo    | Isopropyl alcohol | 17189321     | 2       |
| Caelo    | Isopropyl alcohol | 17189322     | 1       |
| Caelo    | Isopropyl alcohol | 17189323     | 1       |
| Caelo    | Isopropyl alcohol | 17189324     | 4       |
| Caelo    | Isopropyl alcohol | 17189325     | 1       |
| Caelo    | Isopropyl alcohol | 17189326     | 1       |
| Caelo    | Isopropyl alcohol | 17189329     | 1       |
| Caelo    | Isopropyl alcohol | 17189330     | 9       |
| Caelo    | Isopropyl alcohol | 17189332     | 2       |
| Caelo    | Isopropyl alcohol | 17189333     | 3       |
| Caelo    | Isopropyl alcohol | 17189334     | 2       |
| Caelo    | Isopropyl alcohol | 17189336     | 3       |
| Caelo    | Isopropyl alcohol | 17300401     | 7       |
| Caelo    | Isopropyl alcohol | 17300403     | 1       |
| Caelo    | Isopropyl alcohol | 17300404     | 1       |
| Caelo    | Isopropyl alcohol | 17300405     | 2       |
| Caelo    | Isopropyl alcohol | 17300406     | 3       |
| Caelo    | Isopropyl alcohol | 17300408     | 2       |
| Caelo    | Isopropyl alcohol | 17300409     | 1       |
| Caelo    | Isopropyl alcohol | 17300412     | 5       |
| Caelo    | Isopropyl alcohol | 17300413     | 5       |
| Caelo    | Isopropyl alcohol | 17300414     | 2       |
| Caelo    | Isopropyl alcohol | 17300415     | 1       |
| Caelo    | Isopropyl alcohol | 17300416     | 2       |
| Caelo    | Isopropyl alcohol | 17300417     | 1       |
| Caelo    | Isopropyl alcohol | 17300418     | 4       |
| Caelo    | Isopropyl alcohol | 17300420     | 1       |
| Caelo    | Isopropyl alcohol | 17300422     | 2       |
| Caelo    | Isopropyl alcohol | 17300423     | 2       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|-------------------|-------------------|----------------|
| Caelo           | Isopropyl alcohol | 17300424          | 2              |
| Caelo           | Isopropyl alcohol | 17300425          | 1              |
| Caelo           | Isopropyl alcohol | 17300426          | 1              |
| Caelo           | Isopropyl alcohol | 17300428          | 2              |
| Caelo           | Isopropyl alcohol | 17300429          | 6              |
| Caelo           | Isopropyl alcohol | 17300430          | 1              |
| Caelo           | Isopropyl alcohol | 17300431          | 3              |
| Caelo           | Isopropyl alcohol | 17300432          | 1              |
| Caelo           | Isopropyl alcohol | 17300433          | 1              |
| Caelo           | Isopropyl alcohol | 17300434          | 1              |
| Caelo           | Isopropyl alcohol | 17300436          | 3              |
| Caelo           | Isopropyl alcohol | 17300437          | 5              |
| Caelo           | Isopropyl alcohol | 1789304           | 1              |
| Caelo           | Isopropyl alcohol | 180109AI/17189332 | 1              |
| Caelo           | Isopropyl alcohol | 18041306          | 1              |
| Caelo           | Isopropyl alcohol | 18065401          | 4              |
| Caelo           | Isopropyl alcohol | 18065402          | 4              |
| Caelo           | Isopropyl alcohol | 180654025691      | 1              |
| Caelo           | Isopropyl alcohol | 18065403          | 5              |
| Caelo           | Isopropyl alcohol | 180654035690      | 1              |
| Caelo           | Isopropyl alcohol | 18065404          | 2              |
| Caelo           | Isopropyl alcohol | 18065405          | 2              |
| Caelo           | Isopropyl alcohol | 18065406          | 3              |
| Caelo           | Isopropyl alcohol | 18065408          | 1              |
| Caelo           | Isopropyl alcohol | 18065412          | 5              |
| Caelo           | Isopropyl alcohol | 18065413          | 3              |
| Caelo           | Isopropyl alcohol | 18065414          | 2              |
| Caelo           | Isopropyl alcohol | 18065415          | 4              |
| Caelo           | Isopropyl alcohol | 18065416          | 1              |
| Caelo           | Isopropyl alcohol | 18065417          | 1              |
| Caelo           | Isopropyl alcohol | 18065418          | 1              |
| Caelo           | Isopropyl alcohol | 18065419          | 5              |
| Caelo           | Isopropyl alcohol | 18065420          | 3              |
| Caelo           | Isopropyl alcohol | 18065422          | 1              |
| Caelo           | Isopropyl alcohol | 18065423          | 1              |
| Caelo           | Isopropyl alcohol | 18065425          | 3              |
| Caelo           | Isopropyl alcohol | 18065427          | 1              |
| Caelo           | Isopropyl alcohol | 18065429          | 1              |
| Caelo           | Isopropyl alcohol | 18065430          | 4              |
| Caelo           | Isopropyl alcohol | 18065432          | 2              |
| Caelo           | Isopropyl alcohol | 18178201          | 2              |
| Caelo           | Isopropyl alcohol | 18178202          | 3              |
| Caelo           | Isopropyl alcohol | 18178203          | 5              |
| Caelo           | Isopropyl alcohol | 18178204          | 2              |
| Caelo           | Isopropyl alcohol | 18178207          | 1              |
| Caelo           | Isopropyl alcohol | 18178209          | 2              |
| Caelo           | Isopropyl alcohol | 18178210          | 2              |
| Caelo           | Isopropyl alcohol | 18178212          | 1              |
| Caelo           | Isopropyl alcohol | 18178215          | 1              |
| Caelo           | Isopropyl alcohol | 18178216          | 1              |
| Caelo           | Isopropyl alcohol | 18178217          | 7              |
| Caelo           | Isopropyl alcohol | 18178220          | 1              |
| Caelo           | Isopropyl alcohol | 18178223          | 3              |
| Caelo           | Isopropyl alcohol | 18178224          | 3              |
| Caelo           | Isopropyl alcohol | 18178225          | 3              |
| Caelo           | Isopropyl alcohol | 18178226          | 3              |
| Caelo           | Isopropyl alcohol | 18178229          | 3              |
| Caelo           | Isopropyl alcohol | 18178230          | 3              |
| Caelo           | Isopropyl alcohol | 18178231          | 1              |
| Caelo           | Isopropyl alcohol | 18178232          | 3              |

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| Supplier | Substance         | Batch     | Spectra |
|----------|-------------------|-----------|---------|
| Caelo    | Isopropyl alcohol | 18178233  | 1       |
| Caelo    | Isopropyl alcohol | 18178234  | 6       |
| Caelo    | Isopropyl alcohol | 18178235  | 2       |
| Caelo    | Isopropyl alcohol | 18178236  | 1       |
| Caelo    | Isopropyl alcohol | 18178237  | 3       |
| Caelo    | Isopropyl alcohol | 18178238  | 3       |
| Caelo    | Isopropyl alcohol | 18178239  | 1       |
| Caelo    | Isopropyl alcohol | 18178240  | 2       |
| Caelo    | Isopropyl alcohol | 18178270  | 1       |
| Caelo    | Isopropyl alcohol | 181788225 | 1       |
| Caelo    | Isopropyl alcohol | 18291701  | 2       |
| Caelo    | Isopropyl alcohol | 18291702  | 2       |
| Caelo    | Isopropyl alcohol | 18291703  | 3       |
| Caelo    | Isopropyl alcohol | 18291704  | 1       |
| Caelo    | Isopropyl alcohol | 18291705  | 3       |
| Caelo    | Isopropyl alcohol | 18291707  | 7       |
| Caelo    | Isopropyl alcohol | 18291708  | 2       |
| Caelo    | Isopropyl alcohol | 18291710  | 2       |
| Caelo    | Isopropyl alcohol | 18291712  | 1       |
| Caelo    | Isopropyl alcohol | 18291717  | 2       |
| Caelo    | Isopropyl alcohol | 18291718  | 1       |
| Caelo    | Isopropyl alcohol | 18291719  | 4       |
| Caelo    | Isopropyl alcohol | 18291721  | 2       |
| Caelo    | Isopropyl alcohol | 18291722  | 3       |
| Caelo    | Isopropyl alcohol | 18291723  | 2       |
| Caelo    | Isopropyl alcohol | 18291724  | 1       |
| Caelo    | Isopropyl alcohol | 18291725  | 4       |
| Caelo    | Isopropyl alcohol | 18291726  | 1       |
| Caelo    | Isopropyl alcohol | 18291728  | 1       |
| Caelo    | Isopropyl alcohol | 18291732  | 1       |
| Caelo    | Isopropyl alcohol | 18291733  | 2       |
| Caelo    | Isopropyl alcohol | 18291736  | 3       |
| Caelo    | Isopropyl alcohol | 18291737  | 1       |
| Caelo    | Isopropyl alcohol | 1865430   | 1       |
| Caelo    | Isopropyl alcohol | 19021807  | 1       |
| Caelo    | Isopropyl alcohol | 19051405  | 1       |
| Caelo    | Isopropyl alcohol | 19051503  | 1       |
| Caelo    | Isopropyl alcohol | 19059501  | 2       |
| Caelo    | Isopropyl alcohol | 19059502  | 4       |
| Caelo    | Isopropyl alcohol | 19059503  | 2       |
| Caelo    | Isopropyl alcohol | 19059504  | 2       |
| Caelo    | Isopropyl alcohol | 19059506  | 2       |
| Caelo    | Isopropyl alcohol | 19059507  | 1       |
| Caelo    | Isopropyl alcohol | 19059508  | 3       |
| Caelo    | Isopropyl alcohol | 19059511  | 8       |
| Caelo    | Isopropyl alcohol | 19059512  | 2       |
| Caelo    | Isopropyl alcohol | 19059513  | 5       |
| Caelo    | Isopropyl alcohol | 19059514  | 1       |
| Caelo    | Isopropyl alcohol | 19059516  | 1       |
| Caelo    | Isopropyl alcohol | 19059518  | 2       |
| Caelo    | Isopropyl alcohol | 19059519  | 1       |
| Caelo    | Isopropyl alcohol | 19059520  | 2       |
| Caelo    | Isopropyl alcohol | 19059525  | 3       |
| Caelo    | Isopropyl alcohol | 19059526  | 3       |
| Caelo    | Isopropyl alcohol | 19059527  | 3       |
| Caelo    | Isopropyl alcohol | 19059528  | 1       |
| Caelo    | Isopropyl alcohol | 19059529  | 3       |
| Caelo    | Isopropyl alcohol | 19059531  | 7       |
| Caelo    | Isopropyl alcohol | 19059532  | 1       |
| Caelo    | Isopropyl alcohol | 19101702  | 1       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Caelo           | Isopropyl alcohol | 19121805     | 1              |
| Caelo           | Isopropyl alcohol | 19121806     | 1              |
| Caelo           | Isopropyl alcohol | 192/9814     | 1              |
| Caelo           | Isopropyl alcohol | 1920812      | 1              |
| Caelo           | Isopropyl alcohol | 192098001    | 2              |
| Caelo           | Isopropyl alcohol | 192098002    | 6              |
| Caelo           | Isopropyl alcohol | 192098004    | 1              |
| Caelo           | Isopropyl alcohol | 192098005    | 1              |
| Caelo           | Isopropyl alcohol | 192098006    | 1              |
| Caelo           | Isopropyl alcohol | 192098007    | 2              |
| Caelo           | Isopropyl alcohol | 192098008    | 1              |
| Caelo           | Isopropyl alcohol | 19209801     | 4              |
| Caelo           | Isopropyl alcohol | 192098010    | 2              |
| Caelo           | Isopropyl alcohol | 192098011    | 3              |
| Caelo           | Isopropyl alcohol | 19209802     | 1              |
| Caelo           | Isopropyl alcohol | 19209804     | 1              |
| Caelo           | Isopropyl alcohol | 19209805     | 5              |
| Caelo           | Isopropyl alcohol | 19209806     | 1              |
| Caelo           | Isopropyl alcohol | 19209807     | 1              |
| Caelo           | Isopropyl alcohol | 19209808     | 1              |
| Caelo           | Isopropyl alcohol | 19209809     | 1              |
| Caelo           | Isopropyl alcohol | 19209811     | 2              |
| Caelo           | Isopropyl alcohol | 19209812     | 7              |
| Caelo           | Isopropyl alcohol | 19209813     | 4              |
| Caelo           | Isopropyl alcohol | 19209814     | 2              |
| Caelo           | Isopropyl alcohol | 19209815     | 1              |
| Caelo           | Isopropyl alcohol | 19209816     | 1              |
| Caelo           | Isopropyl alcohol | 19209819     | 3              |
| Caelo           | Isopropyl alcohol | 19209820     | 1              |
| Caelo           | Isopropyl alcohol | 19209821     | 1              |
| Caelo           | Isopropyl alcohol | 19209823     | 3              |
| Caelo           | Isopropyl alcohol | 19209824     | 2              |
| Caelo           | Isopropyl alcohol | 19209827     | 6              |
| Caelo           | Isopropyl alcohol | 192198010    | 1              |
| Caelo           | Isopropyl alcohol | 1925590047   | 1              |
| Caelo           | Isopropyl alcohol | 200001557011 | 1              |
| Caelo           | Isopropyl alcohol | 20000450009  | 2              |
| Caelo           | Isopropyl alcohol | 20000450012  | 10             |
| Caelo           | Isopropyl alcohol | 20000450021  | 1              |
| Caelo           | Isopropyl alcohol | 20000450023  | 1              |
| Caelo           | Isopropyl alcohol | 20000450025  | 1              |
| Caelo           | Isopropyl alcohol | 2000045009   | 1              |
| Caelo           | Isopropyl alcohol | 20001179002  | 1              |
| Caelo           | Isopropyl alcohol | 20001179004  | 1              |
| Caelo           | Isopropyl alcohol | 20001179006  | 3              |
| Caelo           | Isopropyl alcohol | 20001179008  | 1              |
| Caelo           | Isopropyl alcohol | 20001179011  | 4              |
| Caelo           | Isopropyl alcohol | 20001179012  | 1              |
| Caelo           | Isopropyl alcohol | 20001179015  | 2              |
| Caelo           | Isopropyl alcohol | 20001179016  | 2              |
| Caelo           | Isopropyl alcohol | 20001179017  | 1              |
| Caelo           | Isopropyl alcohol | 20001179018  | 1              |
| Caelo           | Isopropyl alcohol | 20001179019  | 3              |
| Caelo           | Isopropyl alcohol | 20001179020  | 4              |
| Caelo           | Isopropyl alcohol | 20001179022  | 1              |
| Caelo           | Isopropyl alcohol | 20001179025  | 1              |
| Caelo           | Isopropyl alcohol | 20001179026  | 2              |
| Caelo           | Isopropyl alcohol | 20001179028  | 2              |
| Caelo           | Isopropyl alcohol | 20001179029  | 3              |
| Caelo           | Isopropyl alcohol | 20001179031  | 1              |

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| Supplier | Substance         | Batch        | Spectra |
|----------|-------------------|--------------|---------|
| Caelo    | Isopropyl alcohol | 20001557003  | 3       |
| Caelo    | Isopropyl alcohol | 20001557005  | 1       |
| Caelo    | Isopropyl alcohol | 20001557006  | 2       |
| Caelo    | Isopropyl alcohol | 20001557007  | 2       |
| Caelo    | Isopropyl alcohol | 20001557009  | 2       |
| Caelo    | Isopropyl alcohol | 20001557011  | 3       |
| Caelo    | Isopropyl alcohol | 20001557013  | 1       |
| Caelo    | Isopropyl alcohol | 20001557015  | 1       |
| Caelo    | Isopropyl alcohol | 20001557017  | 2       |
| Caelo    | Isopropyl alcohol | 20001557020  | 1       |
| Caelo    | Isopropyl alcohol | 20001557021  | 1       |
| Caelo    | Isopropyl alcohol | 20001557022  | 1       |
| Caelo    | Isopropyl alcohol | 20001557023  | 1       |
| Caelo    | Isopropyl alcohol | 20001557025  | 1       |
| Caelo    | Isopropyl alcohol | 20001557026  | 2       |
| Caelo    | Isopropyl alcohol | 20001557027  | 1       |
| Caelo    | Isopropyl alcohol | 20001557030  | 1       |
| Caelo    | Isopropyl alcohol | 2000179029   | 1       |
| Caelo    | Isopropyl alcohol | 200019112018 | 1       |
| Caelo    | Isopropyl alcohol | 20001912001  | 1       |
| Caelo    | Isopropyl alcohol | 20001912002  | 5       |
| Caelo    | Isopropyl alcohol | 20001912003  | 1       |
| Caelo    | Isopropyl alcohol | 20001912004  | 1       |
| Caelo    | Isopropyl alcohol | 20001912005  | 2       |
| Caelo    | Isopropyl alcohol | 20001912006  | 2       |
| Caelo    | Isopropyl alcohol | 20001912007  | 2       |
| Caelo    | Isopropyl alcohol | 20001912010  | 1       |
| Caelo    | Isopropyl alcohol | 20001912014  | 2       |
| Caelo    | Isopropyl alcohol | 20001912016  | 1       |
| Caelo    | Isopropyl alcohol | 20001912017  | 3       |
| Caelo    | Isopropyl alcohol | 20001912018  | 4       |
| Caelo    | Isopropyl alcohol | 20001912019  | 2       |
| Caelo    | Isopropyl alcohol | 20001912020  | 1       |
| Caelo    | Isopropyl alcohol | 20001912021  | 1       |
| Caelo    | Isopropyl alcohol | 20001912022  | 1       |
| Caelo    | Isopropyl alcohol | 20001912023  | 3       |
| Caelo    | Isopropyl alcohol | 20001912024  | 2       |
| Caelo    | Isopropyl alcohol | 20001912029  | 1       |
| Caelo    | Isopropyl alcohol | 20001912031  | 2       |
| Caelo    | Isopropyl alcohol | 20001912032  | 1       |
| Caelo    | Isopropyl alcohol | 20001912034  | 4       |
| Caelo    | Isopropyl alcohol | 20001912035  | 3       |
| Caelo    | Isopropyl alcohol | 20001912036  | 1       |
| Caelo    | Isopropyl alcohol | 20001912039  | 2       |
| Caelo    | Isopropyl alcohol | 20001912041  | 2       |
| Caelo    | Isopropyl alcohol | 20001912042  | 2       |
| Caelo    | Isopropyl alcohol | 200036730    | 1       |
| Caelo    | Isopropyl alcohol | 20003673003  | 1       |
| Caelo    | Isopropyl alcohol | 20003673004  | 2       |
| Caelo    | Isopropyl alcohol | 20003673005  | 4       |
| Caelo    | Isopropyl alcohol | 20003673006  | 2       |
| Caelo    | Isopropyl alcohol | 20003673009  | 1       |
| Caelo    | Isopropyl alcohol | 20003673016  | 1       |
| Caelo    | Isopropyl alcohol | 20003673017  | 2       |
| Caelo    | Isopropyl alcohol | 20003673018  | 1       |
| Caelo    | Isopropyl alcohol | 20003673021  | 1       |
| Caelo    | Isopropyl alcohol | 20003673022  | 1       |
| Caelo    | Isopropyl alcohol | 20003673024  | 2       |
| Caelo    | Isopropyl alcohol | 20003673027  | 1       |
| Caelo    | Isopropyl alcohol | 20003673028  | 1       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Caelo           | Isopropyl alcohol | 20003673029  | 1              |
| Caelo           | Isopropyl alcohol | 20003673033  | 1              |
| Caelo           | Isopropyl alcohol | 20003673038  | 1              |
| Caelo           | Isopropyl alcohol | 20003673041  | 4              |
| Caelo           | Isopropyl alcohol | 20003673042  | 1              |
| Caelo           | Isopropyl alcohol | 20003673303  | 1              |
| Caelo           | Isopropyl alcohol | 20011703     | 1              |
| Caelo           | Isopropyl alcohol | 2001557006   | 1              |
| Caelo           | Isopropyl alcohol | 20060912-4   | 1              |
| Caelo           | Isopropyl alcohol | 20081204     | 1              |
| Caelo           | Isopropyl alcohol | 2011403      | 1              |
| Caelo           | Isopropyl alcohol | 2051704      | 1              |
| Caelo           | Isopropyl alcohol | 21002392002  | 2              |
| Caelo           | Isopropyl alcohol | 21002392003  | 2              |
| Caelo           | Isopropyl alcohol | 21002392010  | 3              |
| Caelo           | Isopropyl alcohol | 21002392015  | 1              |
| Caelo           | Isopropyl alcohol | 21002392016  | 1              |
| Caelo           | Isopropyl alcohol | 21002392024  | 2              |
| Caelo           | Isopropyl alcohol | 21002392036  | 1              |
| Caelo           | Isopropyl alcohol | 21021311     | 1              |
| Caelo           | Isopropyl alcohol | 21091702     | 1              |
| Caelo           | Isopropyl alcohol | 21111402     | 1              |
| Caelo           | Isopropyl alcohol | 2121705      | 1              |
| Caelo           | Isopropyl alcohol | 22011302     | 1              |
| Caelo           | Isopropyl alcohol | 2201201301   | 1              |
| Caelo           | Isopropyl alcohol | 22091203     | 1              |
| Caelo           | Isopropyl alcohol | 22111204     | 1              |
| Caelo           | Isopropyl alcohol | 22121201     | 1              |
| Caelo           | Isopropyl alcohol | 24071201     | 1              |
| Caelo           | Isopropyl alcohol | 25021501     | 1              |
| Caelo           | Isopropyl alcohol | 25041802     | 1              |
| Caelo           | Isopropyl alcohol | 25051802     | 1              |
| Caelo           | Isopropyl alcohol | 25061201     | 1              |
| Caelo           | Isopropyl alcohol | 26051704     | 1              |
| Caelo           | Isopropyl alcohol | 26081710     | 1              |
| Caelo           | Isopropyl alcohol | 27012017     | 1              |
| Caelo           | Isopropyl alcohol | 27031502     | 1              |
| Caelo           | Isopropyl alcohol | 27071712     | 1              |
| Caelo           | Isopropyl alcohol | 27091401     | 1              |
| Caelo           | Isopropyl alcohol | 27121702     | 1              |
| Caelo           | Isopropyl alcohol | 28021316     | 1              |
| Caelo           | Isopropyl alcohol | 28081302     | 1              |
| Caelo           | Isopropyl alcohol | 28111806     | 1              |
| Caelo           | Isopropyl alcohol | 29011505     | 1              |
| Caelo           | Isopropyl alcohol | 29051202     | 1              |
| Caelo           | Isopropyl alcohol | 29071401     | 1              |
| Caelo           | Isopropyl alcohol | 29091801     | 1              |
| Caelo           | Isopropyl alcohol | 29101304     | 1              |
| Caelo           | Isopropyl alcohol | 30011401     | 1              |
| Caelo           | Isopropyl alcohol | 30041508     | 1              |
| Caelo           | Isopropyl alcohol | 30111303     | 1              |
| Caelo           | Isopropyl alcohol | 3071718      | 1              |
| Caelo           | Isopropyl alcohol | 3091801      | 1              |
| Caelo           | Isopropyl alcohol | 31081501     | 1              |
| Caelo           | Isopropyl alcohol | 31101204     | 1              |
| Caelo           | Isopropyl alcohol | 3300         | 1              |
| Caelo           | Isopropyl alcohol | 3326         | 1              |
| Caelo           | Isopropyl alcohol | 3653305      | 1              |
| Caelo           | Isopropyl alcohol | 4031405      | 1              |
| Caelo           | Isopropyl alcohol | 4061401      | 1              |

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| Supplier | Substance         | Batch       | Spectra |
|----------|-------------------|-------------|---------|
| Caelo    | Isopropyl alcohol | 4091201     | 1       |
| Caelo    | Isopropyl alcohol | 4121802     | 1       |
| Caelo    | Isopropyl alcohol | 4217E-01079 | 1       |
| Caelo    | Isopropyl alcohol | 4817A-01079 | 1       |
| Caelo    | Isopropyl alcohol | 5031303     | 1       |
| Caelo    | Isopropyl alcohol | 5061415     | 1       |
| Caelo    | Isopropyl alcohol | 53380       | 1       |
| Caelo    | Isopropyl alcohol | 543892      | 1       |
| Caelo    | Isopropyl alcohol | 6061320     | 1       |
| Caelo    | Isopropyl alcohol | 6061402     | 1       |
| Caelo    | Isopropyl alcohol | 6071201     | 1       |
| Caelo    | Isopropyl alcohol | 6081204     | 1       |
| Caelo    | Isopropyl alcohol | 6081303     | 1       |
| Caelo    | Isopropyl alcohol | 6101704     | 1       |
| Caelo    | Isopropyl alcohol | 6137305     | 1       |
| Caelo    | Isopropyl alcohol | 6324064     | 1       |
| Caelo    | Isopropyl alcohol | 701006B     | 2       |
| Caelo    | Isopropyl alcohol | 701011B     | 1       |
| Caelo    | Isopropyl alcohol | 701015B     | 1       |
| Caelo    | Isopropyl alcohol | 7010208     | 1       |
| Caelo    | Isopropyl alcohol | 701020B     | 1       |
| Caelo    | Isopropyl alcohol | 701031B     | 3       |
| Caelo    | Isopropyl alcohol | 701035B     | 1       |
| Caelo    | Isopropyl alcohol | 701043B     | 5       |
| Caelo    | Isopropyl alcohol | 701052B     | 1       |
| Caelo    | Isopropyl alcohol | 701054B     | 1       |
| Caelo    | Isopropyl alcohol | 701061B     | 1       |
| Caelo    | Isopropyl alcohol | 701065B     | 5       |
| Caelo    | Isopropyl alcohol | 701071B     | 2       |
| Caelo    | Isopropyl alcohol | 701073B     | 1       |
| Caelo    | Isopropyl alcohol | 701078B     | 1       |
| Caelo    | Isopropyl alcohol | 701081B     | 1       |
| Caelo    | Isopropyl alcohol | 701093B     | 2       |
| Caelo    | Isopropyl alcohol | 701105B     | 2       |
| Caelo    | Isopropyl alcohol | 701107B     | 1       |
| Caelo    | Isopropyl alcohol | 701186B     | 1       |
| Caelo    | Isopropyl alcohol | 7011898     | 1       |
| Caelo    | Isopropyl alcohol | 701193B     | 1       |
| Caelo    | Isopropyl alcohol | 701212B     | 1       |
| Caelo    | Isopropyl alcohol | 701244B     | 1       |
| Caelo    | Isopropyl alcohol | 701276B     | 1       |
| Caelo    | Isopropyl alcohol | 7041802     | 1       |
| Caelo    | Isopropyl alcohol | 70439B      | 1       |
| Caelo    | Isopropyl alcohol | 70478B      | 1       |
| Caelo    | Isopropyl alcohol | 70481B      | 2       |
| Caelo    | Isopropyl alcohol | 70492B      | 2       |
| Caelo    | Isopropyl alcohol | 7051401     | 1       |
| Caelo    | Isopropyl alcohol | 705368      | 1       |
| Caelo    | Isopropyl alcohol | 705408      | 1       |
| Caelo    | Isopropyl alcohol | 70541b      | 1       |
| Caelo    | Isopropyl alcohol | 70541B      | 2       |
| Caelo    | Isopropyl alcohol | 70545B      | 1       |
| Caelo    | Isopropyl alcohol | 705538      | 2       |
| Caelo    | Isopropyl alcohol | 70553B      | 1       |
| Caelo    | Isopropyl alcohol | 70555B      | 1       |
| Caelo    | Isopropyl alcohol | 70564B      | 1       |
| Caelo    | Isopropyl alcohol | 70565B      | 1       |
| Caelo    | Isopropyl alcohol | 70573B      | 1       |
| Caelo    | Isopropyl alcohol | 70584B      | 1       |
| Caelo    | Isopropyl alcohol | 70593B      | 1       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>   | <b>Spectra</b> |
|-----------------|-------------------|----------------|----------------|
| Caelo           | Isopropyl alcohol | 705988         | 1              |
| Caelo           | Isopropyl alcohol | 70598b         | 1              |
| Caelo           | Isopropyl alcohol | 70598B         | 1              |
| Caelo           | Isopropyl alcohol | 70609B         | 1              |
| Caelo           | Isopropyl alcohol | 70638B         | 1              |
| Caelo           | Isopropyl alcohol | 70643B         | 2              |
| Caelo           | Isopropyl alcohol | 70650B         | 1              |
| Caelo           | Isopropyl alcohol | 70656B         | 1              |
| Caelo           | Isopropyl alcohol | 706588         | 1              |
| Caelo           | Isopropyl alcohol | 70663B         | 1              |
| Caelo           | Isopropyl alcohol | 70668B         | 1              |
| Caelo           | Isopropyl alcohol | 70685B         | 2              |
| Caelo           | Isopropyl alcohol | 70690B         | 1              |
| Caelo           | Isopropyl alcohol | 70701B         | 1              |
| Caelo           | Isopropyl alcohol | 70707B         | 1              |
| Caelo           | Isopropyl alcohol | 70726B         | 1              |
| Caelo           | Isopropyl alcohol | 70739B         | 1              |
| Caelo           | Isopropyl alcohol | 70742B         | 1              |
| Caelo           | Isopropyl alcohol | 70748B         | 2              |
| Caelo           | Isopropyl alcohol | 70755B         | 2              |
| Caelo           | Isopropyl alcohol | 70768b         | 1              |
| Caelo           | Isopropyl alcohol | 707838         | 1              |
| Caelo           | Isopropyl alcohol | 70788B         | 1              |
| Caelo           | Isopropyl alcohol | 707998         | 1              |
| Caelo           | Isopropyl alcohol | 70799B         | 1              |
| Caelo           | Isopropyl alcohol | 708088         | 1              |
| Caelo           | Isopropyl alcohol | 708188         | 1              |
| Caelo           | Isopropyl alcohol | 70835B         | 2              |
| Caelo           | Isopropyl alcohol | 70858B         | 2              |
| Caelo           | Isopropyl alcohol | 70870B         | 2              |
| Caelo           | Isopropyl alcohol | 70881B         | 2              |
| Caelo           | Isopropyl alcohol | 70889B         | 2              |
| Caelo           | Isopropyl alcohol | 70936B         | 1              |
| Caelo           | Isopropyl alcohol | 70953B         | 1              |
| Caelo           | Isopropyl alcohol | 70957B         | 1              |
| Caelo           | Isopropyl alcohol | 70959b         | 1              |
| Caelo           | Isopropyl alcohol | 70959B         | 2              |
| Caelo           | Isopropyl alcohol | 70969B         | 1              |
| Caelo           | Isopropyl alcohol | 70973B         | 1              |
| Caelo           | Isopropyl alcohol | 70977B         | 1              |
| Caelo           | Isopropyl alcohol | 70983B         | 2              |
| Caelo           | Isopropyl alcohol | 70991B         | 1              |
| Caelo           | Isopropyl alcohol | 709948         | 1              |
| Caelo           | Isopropyl alcohol | 70994B         | 4              |
| Caelo           | Isopropyl alcohol | 7111802        | 1              |
| Caelo           | Isopropyl alcohol | 713Q-01079     | 1              |
| Caelo           | Isopropyl alcohol | 7272262        | 1              |
| Caelo           | Isopropyl alcohol | 7411           | 1              |
| Caelo           | Isopropyl alcohol | 750520B        | 1              |
| Caelo           | Isopropyl alcohol | 7776           | 1              |
| Caelo           | Isopropyl alcohol | 8012014E       | 1              |
| Caelo           | Isopropyl alcohol | 8082014C       | 1              |
| Caelo           | Isopropyl alcohol | 883588         | 1              |
| Caelo           | Isopropyl alcohol | 9041704        | 1              |
| Caelo           | Isopropyl alcohol | 9061812        | 1              |
| Caelo           | Isopropyl alcohol | 9071802        | 1              |
| Caelo           | Isopropyl alcohol | 9101314        | 1              |
| Caelo           | Isopropyl alcohol | Caelo          | 1              |
| Caelo           | Isopropyl alcohol | nichtvorhanden | 1              |
| Caeol/Phönix    | Isopropyl alcohol | 19059513       | 1              |

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| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
| Caesar & Loretz GmbH / ... | Isopropyl alcohol | 18291732    | 1       |
| Caesar & Loretz GmbH / ... | Isopropyl alcohol | 20001179022 | 1       |
| Caesar & Loretz GmbH / ... | Isopropyl alcohol | 20001179001 | 2       |
| Caesar & Loretz GmbH / ... | Isopropyl alcohol | 20001179028 | 1       |
| Caesar & Loretz GmbH, P... | Isopropyl alcohol | 1007091     | 1       |
| Caesar & Loretz GmbH/ A... | Isopropyl alcohol | 20001179023 | 1       |
| Caesar & Loretz GmbH/ S... | Isopropyl alcohol | 20000450022 | 1       |
| Caesar & Loretz GmbH/ S... | Isopropyl alcohol | 20001179001 | 1       |
| Caesar & Loretz GmbH/ S... | Isopropyl alcohol | 701212B     | 6       |
| Caesar & Loretz GmbH/AHD   | Isopropyl alcohol | 18291728    | 1       |
| Caesar & Loretz GmbH/AHD   | Isopropyl alcohol | 19059502    | 1       |
| Caesar & Loretz GmbH/AHD   | Isopropyl alcohol | 19209809    | 1       |
| Caesar & Loretz GmbH/An... | Isopropyl alcohol | 19059529    | 1       |
| Caesar & Loretz GmbH/An... | Isopropyl alcohol | 192098008   | 1       |
| Caesar & Loretz GmbH/An... | Isopropyl alcohol | 19209811    | 1       |
| Caesar & Loretz GmbH/Gehe  | Isopropyl alcohol | 20001179014 | 2       |
| Caesar & Loretz GmbH/GEHE  | Isopropyl alcohol | 20001912029 | 1       |
| Caesar & Loretz GmbH/Je... | Isopropyl alcohol | 19059512    | 1       |
| Caesar & Loretz GmbH/Je... | Isopropyl alcohol | 19209824    | 1       |
| Caesar & Loretz GmbH/Je... | Isopropyl alcohol | 20000450012 | 5       |
| Caesar & Loretz GmbH/Je... | Isopropyl alcohol | 20001179011 | 1       |
| Caesar & Loretz GmbH/Je... | Isopropyl alcohol | 20001179020 | 1       |
| Caesar & Loretz GmbH/Kr... | Isopropyl alcohol | 20001179020 | 1       |
| Caesar & Loretz GmbH/No... | Isopropyl alcohol | 20001912019 | 1       |
| Caesar & Loretz GmbH/P     | Isopropyl alcohol | 19209804    | 1       |
| Caesar & Loretz GmbH/Ph... | Isopropyl alcohol | 19059502    | 1       |
| Caesar & Loretz GmbH/Sa... | Isopropyl alcohol | 19209815    | 2       |
| Caesar & Loretz GmbH/sa... | Isopropyl alcohol | 18178234    | 1       |
| Caesar & Loretz GmbH/Sa... | Isopropyl alcohol | 19059525    | 1       |
| Caesar & Loretz GmbH/sa... | Isopropyl alcohol | 192098001   | 1       |
| Caesar & Loretz GmbH/Sa... | Isopropyl alcohol | 19209811    | 1       |
| Caesar & Loretz GmbH/Sa... | Isopropyl alcohol | 19209818    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 17189327    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18178224    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18178226    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18178231    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18178234    | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291701    | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291703    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291705    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291710    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291712    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291715    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291717    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291719    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291722    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291726    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291727    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291728    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291729    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291730    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 18291733    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059502    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059503    | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059504    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059505    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059511    | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059514    | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059516    | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 19059520    | 1       |

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| Supplier             | Substance         | Batch        | Spectra |
|----------------------|-------------------|--------------|---------|
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059525     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059526     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059527     | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059528     | 3       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059529     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059530     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059531     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19059533     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209801     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209802     | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209804     | 3       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209805     | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209808     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209809     | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209812     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209813     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209816     | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209819     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209820     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209822     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209824     | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 19209826     | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 200001557003 | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20000450002  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20000450009  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20000450017  | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20000450021  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20000450024  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179001  | 3       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179005  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179006  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179010  | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179011  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179015  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179017  | 4       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179020  | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179023  | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001179029  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001557004  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001557005  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001557013  | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001557014  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001557021  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001557030  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001912004  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001912017  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001912019  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001912022  | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001912023  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001912031  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20001912042  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673008  | 2       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673010  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673016  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673018  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673022  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673028  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673029  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673030  | 1       |
| Caesar & Loretz GmbH | Isopropyl alcohol | 20003673036  | 1       |

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| Supplier                   | Substance         | Batch        | Spectra |
|----------------------------|-------------------|--------------|---------|
| Caesar & Loretz GmbH       | Isopropyl alcohol | 20003673041  | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 2001557021   | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 21002392003  | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 21002392022  | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 21002392034  | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 700053B      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 701201B      | 7       |
| Caesar & Loretz/Gehe       | Isopropyl alcohol | 19209815     | 1       |
| Caesar & Loretz/Gehe       | Isopropyl alcohol | 20000450013  | 1       |
| Caesar & Loretz/Noweda     | Isopropyl alcohol | 17044009     | 1       |
| Caesar & Loretz            | Isopropyl alcohol | 17189320     | 1       |
| Caesar & Loretz            | Isopropyl alcohol | 18065420     | 1       |
| Caesar & Loretz/Gehe       | Isopropyl alcohol | 19209816     | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol | 70503B       | 1       |
| Caesar /phönix             | Isopropyl alcohol | 16310603     | 1       |
| Caesar&Lorenz / Gehe       | Isopropyl alcohol | 19059525     | 1       |
| Caesar&Loretz GmbH         | Isopropyl alcohol |              | 1       |
| Caesar&Loretz GmbH         | Isopropyl alcohol | 20001912019  | 1       |
| Caesar&Loretz/Noweda       | Isopropyl alcohol | 15398808     | 1       |
| Caesar/Loretz GmbH / P...  | Isopropyl alcohol | 20001912002  | 1       |
| Caesar/Loretz GmbH / P...  | Isopropyl alcohol | 20001912009  | 1       |
| Caesar/Loretz GmbH Anzag   | Isopropyl alcohol | 20001179     | 1       |
| Caesar/Loretz GmbH Anzag   | Isopropyl alcohol | 20001557030  | 1       |
| Caesar/Loretz GmbH Anzag   | Isopropyl alcohol | 701199B      | 1       |
| Caesar und Loretz GmbH     | Isopropyl alcohol | 18291723     | 1       |
| Caesar und Loretz GmbH     | Isopropyl alcohol | 19209822     | 1       |
| Caldic/ Nanoprotect        | Isopropyl alcohol | 90021901     | 1       |
| Carl Roth GmbH             | Isopropyl alcohol | 110294624    | 1       |
| Carl Roth GmbH             | Isopropyl alcohol | 120294894    | 1       |
| Carl Roth GmbH             | Isopropyl alcohol | 701214B      | 2       |
| Carl Roth                  | Isopropyl alcohol | 120294894    | 1       |
| Cealo/Sanacorp             | Isopropyl alcohol | 192098009    | 1       |
| cealo                      | Isopropyl alcohol | 13336936     | 1       |
| Cealo                      | Isopropyl alcohol | 19059526     | 1       |
| Cealo                      | Isopropyl alcohol | 192098007    | 1       |
| Cealo                      | Isopropyl alcohol | 20000450006  | 1       |
| Cealo7058                  | Isopropyl alcohol | 17300423     | 1       |
| Celo                       | Isopropyl alcohol | 16039925     | 1       |
| Celo                       | Isopropyl alcohol | 16039937     | 1       |
| celo                       | Isopropyl alcohol | 17300430     | 2       |
| Chem.Fabrik/Kehr           | Isopropyl alcohol | 2011         | 1       |
| Chem.Pharm.Labor.Dr.See... | Isopropyl alcohol | 70577B       | 1       |
| Chemievertrieb Hannover    | Isopropyl alcohol | 2011         | 1       |
| CVH/Kehr                   | Isopropyl alcohol | 2011         | 1       |
| Dankwart                   | Isopropyl alcohol | N9360450-001 | 1       |
| Dr. Seeger GmbH /Noweda    | Isopropyl alcohol | 70577B       | 2       |
| Dr.Seeger GmbH             | Isopropyl alcohol | 70475B       | 1       |
| Dr.Seeger GmbH             | Isopropyl alcohol | 70519B       | 1       |
| Dr.Seeger GmbH             | Isopropyl alcohol | 70527B       | 1       |
| Dr.Seeger GmbH             | Isopropyl alcohol | 70553B       | 2       |
| Druckchemie                | Isopropyl alcohol | 20035016     | 1       |
| Ebert & Jacobi 28.7.16     | Isopropyl alcohol | 16137317     | 1       |
| Eckige Flasche             | Isopropyl alcohol | 70162320     | 1       |
| Ehl                        | Isopropyl alcohol | xxxxxxx      | 1       |
| Eigen                      | Isopropyl alcohol | 70701B       | 1       |
| Euro OTC                   | Isopropyl alcohol | 13249405     | 1       |
| Euro OTC                   | Isopropyl alcohol | 18291704     | 1       |
| Euro OTC                   | Isopropyl alcohol | 70536B       | 1       |
| Euro OTC                   | Isopropyl alcohol | 70578B       | 1       |
| Euro OTC                   | Isopropyl alcohol | 70638        | 1       |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------|--------------|----------------|
| Euro OTC                   | Isopropyl alcohol | 70771B       | 1              |
| Euro OTC                   | Isopropyl alcohol | 70858B       | 1              |
| Euro OTC                   | Isopropyl alcohol | L1805017-03  | 1              |
| Europharm / Gehe           | Isopropyl alcohol | 18065401     | 1              |
| Fa. Hedinger/Noweda        | Isopropyl alcohol | 701244B      | 1              |
| Fagron                     | Isopropyl alcohol |              | 1              |
| Fagron                     | Isopropyl alcohol | 13111701     | 1              |
| Fagron                     | Isopropyl alcohol | 17189307     | 1              |
| Fagron                     | Isopropyl alcohol | 7010618      | 1              |
| Fagron                     | Isopropyl alcohol | 701065B      | 1              |
| Fagron                     | Isopropyl alcohol | 701068B      | 1              |
| Fagron                     | Isopropyl alcohol | 701071B      | 1              |
| Fagron                     | Isopropyl alcohol | 70541        | 1              |
| Fagron                     | Isopropyl alcohol | 70685B       | 1              |
| Fagron                     | Isopropyl alcohol | 70936B       | 1              |
| FHedinger/Gehe             | Isopropyl alcohol | 701194B      | 1              |
| Fiebig 09.11.12 EK28,33    | Isopropyl alcohol | 704758       | 1              |
| Fiebig/Aug.Hedinger GmbH   | Isopropyl alcohol | 701020B      | 1              |
| Fiebig/Hedinger            | Isopropyl alcohol | 701081B      | 2              |
| Fiebig/Hedinger            | Isopropyl alcohol | 701149B      | 1              |
| Fiebig/Hedinger            | Isopropyl alcohol | 701201B      | 1              |
| Fiebig/Hedinger            | Isopropyl alcohol | 70680B       | 1              |
| Fiebig/Hedinger            | Isopropyl alcohol | 70959B       | 1              |
| Fiebig                     | Isopropyl alcohol | 17300401     | 1              |
| Fiebig                     | Isopropyl alcohol | 17300416     | 1              |
| Fiebig                     | Isopropyl alcohol | 18065412     | 2              |
| Fiebig                     | Isopropyl alcohol | 18291704     | 1              |
| Fiebig                     | Isopropyl alcohol | 701026B      | 1              |
| Fiebig                     | Isopropyl alcohol | 701043B      | 1              |
| Fiebig                     | Isopropyl alcohol | 701052B      | 2              |
| Fiebig                     | Isopropyl alcohol | 701099B      | 1              |
| Fiebig                     | Isopropyl alcohol | 701107B      | 1              |
| Fiebig                     | Isopropyl alcohol | 701199B      | 1              |
| Fiebig                     | Isopropyl alcohol | 701244B      | 1              |
| FiebigHedinger             | Isopropyl alcohol | 701139B      | 1              |
| Firma Kost/firma Kost      | Isopropyl alcohol | 310200519154 | 1              |
| Firma Schwabe KA-Durlac... | Isopropyl alcohol | 10320        | 1              |
| Fischar GmbH               | Isopropyl alcohol | 4105104      | 1              |
| Fischar/ GEHE              | Isopropyl alcohol | 1008011      | 1              |
| Fischar/ Noweda            | Isopropyl alcohol | 1009011      | 1              |
| Fischar/ Noweda            | Isopropyl alcohol | 1009012      | 2              |
| Fischar/Fiebig 31.07.2018  | Isopropyl alcohol | 1007011      | 1              |
| Fischar/Noweda             | Isopropyl alcohol | 4100014      | 1              |
| Fischar/Noweda             | Isopropyl alcohol | 410003C      | 1              |
| Fischar/Noweda             | Isopropyl alcohol | 4109044      | 1              |
| Fischar/Noweda             | Isopropyl alcohol | 4109074      | 1              |
| Fischar/Phönix             | Isopropyl alcohol | 4100032      | 1              |
| Fischar/Phönix             | Isopropyl alcohol | 4103112      | 1              |
| Fischar                    | Isopropyl alcohol |              | 1              |
| Fischar                    | Isopropyl alcohol | 1005101      | 1              |
| Fischar                    | Isopropyl alcohol | 1007011      | 1              |
| Fischar                    | Isopropyl alcohol | 1008011      | 1              |
| Fischar                    | Isopropyl alcohol | 1009011      | 1              |
| Fischar                    | Isopropyl alcohol | 1009101      | 1              |
| fischar                    | Isopropyl alcohol | 3346271      | 1              |
| Fischar                    | Isopropyl alcohol | 410003G      | 1              |
| Fischar                    | Isopropyl alcohol | 4100111      | 1              |
| Fischar                    | Isopropyl alcohol | 4102084      | 2              |
| Fischar                    | Isopropyl alcohol | 4105042      | 1              |
| Fischar                    | Isopropyl alcohol | 4105104      | 1              |

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| Supplier               | Substance         | Batch       | Spectra |
|------------------------|-------------------|-------------|---------|
| Fischar                | Isopropyl alcohol | 4108024     | 1       |
| Fischar                | Isopropyl alcohol | 4108114     | 1       |
| Fischar                | Isopropyl alcohol | 70553B      | 1       |
| Fischar                | Isopropyl alcohol | 8081        | 1       |
| fischer / Anzag        | Isopropyl alcohol | 1009012     | 1       |
| Fischer/Phönix         | Isopropyl alcohol | 4103014     | 1       |
| Fisher Chemical        | Isopropyl alcohol | 2034478     | 1       |
| Flasche mit Auswölbung | Isopropyl alcohol | 31472       | 1       |
| Flavex                 | Isopropyl alcohol | 502024      | 1       |
| Folgt                  | Isopropyl alcohol | Folgt       | 1       |
| FurthChemie            | Isopropyl alcohol | 3C210010    | 1       |
| Gatt-Koller            | Isopropyl alcohol | KNC0691J8   | 1       |
| Gehe - Hedinger        | Isopropyl alcohol | 70607B      | 1       |
| GEHE 08.05.2014        | Isopropyl alcohol | 70598B      | 1       |
| Gehe am 07.03.14       | Isopropyl alcohol | 70573B      | 1       |
| Gehe am 17.12.2013     | Isopropyl alcohol | 70578B      | 1       |
| GEHE Kassel            | Isopropyl alcohol | 701081B     | 1       |
| Gehe/ Hedinger         | Isopropyl alcohol | 7012188     | 1       |
| Gehe/AEP               | Isopropyl alcohol | 701123B     | 1       |
| Gehe/Fischar           | Isopropyl alcohol | 1005101     | 2       |
| Gehe/Hedinger          | Isopropyl alcohol | 701006B     | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 701078B     | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 701114B     | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 701123B     | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 701133B     | 2       |
| Gehe/Hedinger          | Isopropyl alcohol | 701139b     | 2       |
| Gehe/Hedinger          | Isopropyl alcohol | 701193B     | 2       |
| Gehe/Hedinger          | Isopropyl alcohol | 701201B     | 2       |
| Gehe/Hedinger          | Isopropyl alcohol | 701214B     | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 701218B     | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 70540B      | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 70802B      | 1       |
| Gehe/Hedinger          | Isopropyl alcohol | 709188      | 1       |
| Gehe/Spinnrad GmbH     | Isopropyl alcohol | 519410092   | 1       |
| Gehe                   | Isopropyl alcohol | 12031105    | 1       |
| Gehe                   | Isopropyl alcohol | 12254718    | 1       |
| Gehe                   | Isopropyl alcohol | 13050927    | 1       |
| Gehe                   | Isopropyl alcohol | 13249403    | 1       |
| gehe                   | Isopropyl alcohol | 14219228    | 1       |
| Gehe                   | Isopropyl alcohol | 15057517    | 1       |
| Gehe                   | Isopropyl alcohol | 15398802    | 1       |
| Gehe                   | Isopropyl alcohol | 16039926    | 1       |
| Gehe                   | Isopropyl alcohol | 16234003    | 1       |
| Gehe                   | Isopropyl alcohol | 17044002    | 1       |
| GEHE                   | Isopropyl alcohol | 17300433    | 1       |
| GEHE                   | Isopropyl alcohol | 18065406    | 1       |
| Gehe                   | Isopropyl alcohol | 18291709    | 1       |
| Gehe                   | Isopropyl alcohol | 18291722    | 1       |
| GEHE                   | Isopropyl alcohol | 18291727    | 1       |
| Gehe                   | Isopropyl alcohol | 19059503    | 1       |
| gehe                   | Isopropyl alcohol | 20001557005 | 2       |
| Gehe                   | Isopropyl alcohol | 701031B     | 1       |
| Gehe                   | Isopropyl alcohol | 701035B     | 2       |
| GEHE                   | Isopropyl alcohol | 701043B     | 1       |
| Gehe                   | Isopropyl alcohol | 701052B     | 1       |
| GEHE                   | Isopropyl alcohol | 701065B     | 2       |
| GEHE                   | Isopropyl alcohol | 701099B     | 1       |
| Gehe                   | Isopropyl alcohol | 701107B     | 1       |
| Gehe                   | Isopropyl alcohol | 701136B     | 1       |
| Gehe                   | Isopropyl alcohol | 701139B     | 1       |

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| <b>Supplier</b>           | <b>Substance</b>  | <b>Batch</b>      | <b>Spectra</b> |
|---------------------------|-------------------|-------------------|----------------|
| Gehe                      | Isopropyl alcohol | 701145B           | 2              |
| Gehe                      | Isopropyl alcohol | 701156B           | 1              |
| Gehe                      | Isopropyl alcohol | 701158B           | 1              |
| Gehe                      | Isopropyl alcohol | 701169B           | 1              |
| Gehe                      | Isopropyl alcohol | 701302B           | 1              |
| Gehe                      | Isopropyl alcohol | 701317B           | 1              |
| Gehe                      | Isopropyl alcohol | 70382B            | 1              |
| Gehe                      | Isopropyl alcohol | 704098            | 1              |
| Gehe                      | Isopropyl alcohol | 70448B            | 1              |
| GEHE                      | Isopropyl alcohol | 70461B            | 1              |
| Gehe                      | Isopropyl alcohol | 70507B            | 1              |
| Gehe                      | Isopropyl alcohol | 70541B            | 1              |
| Gehe                      | Isopropyl alcohol | 70643B            | 1              |
| Gehe                      | Isopropyl alcohol | 70680B            | 1              |
| Gehe                      | Isopropyl alcohol | 70685B            | 1              |
| Gehe                      | Isopropyl alcohol | 707977B           | 1              |
| Gehe                      | Isopropyl alcohol | 70835B            | 1              |
| GEHE                      | Isopropyl alcohol | 70882B            | 1              |
| Gehe                      | Isopropyl alcohol | 70892B            | 1              |
| GEHE                      | Isopropyl alcohol | 70896B            | 1              |
| Gehe                      | Isopropyl alcohol | 70908B            | 1              |
| Gehe                      | Isopropyl alcohol | 70994B            | 1              |
| GEHE                      | Isopropyl alcohol | 70994B            | 1              |
| Gehe-Hedinger             | Isopropyl alcohol | 70675B            | 1              |
| Geibo/Hedinger 29.05.2020 | Isopropyl alcohol | 7012148           | 1              |
| Geibo/Hedinger            | Isopropyl alcohol | 701043B           | 1              |
| Geibo/Hedinger            | Isopropyl alcohol | 70983             | 1              |
| Geibo/Noweda              | Isopropyl alcohol | 17300401          | 1              |
| Grüssing                  | Isopropyl alcohol | B191546/0R2001439 | 1              |
| GUMO                      | Isopropyl alcohol | 20001557009       | 1              |
| Gutenberg-Apotheke        | Isopropyl alcohol | 70607B            | 1              |
| Haedinger/Sanacorp        | Isopropyl alcohol | 701065B           | 3              |
| Hänseler                  | Isopropyl alcohol |                   | 5              |
| Hänseler                  | Isopropyl alcohol | 2019040600        | 1              |
| Hed                       | Isopropyl alcohol | 701164B           | 1              |
| Heddinger/Noweda          | Isopropyl alcohol | 701145B           | 1              |
| Hediger GmbH / Anzag      | Isopropyl alcohol | 701204B           | 2              |
| Hediger/ Noweda           | Isopropyl alcohol | 70675B            | 1              |
| Hediger/Sanacorp          | Isopropyl alcohol | 70736B            | 1              |
| Hedin/Gehe                | Isopropyl alcohol | 701113B           | 1              |
| Hedin/Spangro             | Isopropyl alcohol | 70994B            | 1              |
| Hediner/Noweda            | Isopropyl alcohol | 701031B           | 1              |
| Hediner/Noweda            | Isopropyl alcohol | 70908B            | 1              |
| Hediner/Noweda            | Isopropyl alcohol | 70977B            | 1              |
| heding                    | Isopropyl alcohol | 701182B           | 1              |
| Hedinger vdL              | Isopropyl alcohol | 70715B            | 1              |
| Hedinger Phönix           | Isopropyl alcohol | 701073B           | 1              |
| Hedinger vdL              | Isopropyl alcohol | 70748B            | 1              |
| Hedinger vdL              | Isopropyl alcohol | 70853B            | 1              |
| Hedinger vdL              | Isopropyl alcohol | 70889B            | 1              |
| Hedinger , Noweda         | Isopropyl alcohol | 70490B            | 1              |
| Hedinger , Stuttgart      | Isopropyl alcohol | 70545B            | 1              |
| Hedinger , Stuttgart      | Isopropyl alcohol | 70565B            | 1              |
| Hedinger , Stuttgart      | Isopropyl alcohol | 70620B            | 1              |
| Hedinger / Anzag          | Isopropyl alcohol | 701043B           | 1              |
| Hedinger / Anzag          | Isopropyl alcohol | 701107B           | 1              |
| Hedinger / Noveda         | Isopropyl alcohol | 701065B           | 1              |
| Hedinger / Noveda         | Isopropyl alcohol | 70977B            | 1              |
| HEDINGER / 20             | Isopropyl alcohol | 70573B            | 1              |
| HEDINGER / 20             | Isopropyl alcohol | 70614B            | 1              |

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| Supplier                   | Substance         | Batch   | Spectra |
|----------------------------|-------------------|---------|---------|
| HEDINGER / 20              | Isopropyl alcohol | 70638B  | 1       |
| HEDINGER / 20              | Isopropyl alcohol | 70726B  | 1       |
| Hedinger / 30              | Isopropyl alcohol | 70768B  | 1       |
| Hedinger / 41              | Isopropyl alcohol | 701194B | 1       |
| Hedinger / AHC             | Isopropyl alcohol | 701073B | 1       |
| Hedinger / AHC             | Isopropyl alcohol | 70124B  | 1       |
| Hedinger / AHD 21.4.15     | Isopropyl alcohol | 70693B  | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 701054B | 2       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 70969B  | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 70983B  | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 701107B | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 701156B | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 701204B | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 701290B | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 70796B  | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 70858B  | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 70875B  | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 70936B  | 1       |
| Hedinger / Alliance Hea... | Isopropyl alcohol | 70991B  | 1       |
| Hedinger / Anzag           | Isopropyl alcohol | 701081B | 1       |
| Hedinger / Anzag           | Isopropyl alcohol | 701123B | 1       |
| Hedinger / Apotheke E.B... | Isopropyl alcohol | 70448B  | 1       |
| Hedinger / Apotheke E.B... | Isopropyl alcohol | 70461B  | 1       |
| Hedinger / Apotheke E.B... | Isopropyl alcohol | 70541B  | 1       |
| Hedinger / Apotheke E.B... | Isopropyl alcohol | 70587B  | 1       |
| Hedinger / Apotheke E.B... | Isopropyl alcohol | 70643B  | 1       |
| Hedinger / Fiebig          | Isopropyl alcohol | 701139B | 1       |
| Hedinger / Fiebig          | Isopropyl alcohol | 770994B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701006B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701011B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701078B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701099B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701113B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701156B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701212B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701218B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701231B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 701244B | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 70581B  | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 70742B  | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 70802B  | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 70809B  | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 70889B  | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 70977B  | 1       |
| Hedinger / Gehe            | Isopropyl alcohol | 70994B  | 1       |
| Hedinger / Jenne           | Isopropyl alcohol | 701173B | 1       |
| Hedinger / Kehr            | Isopropyl alcohol | 70755B  | 1       |
| Hedinger / Kehr            | Isopropyl alcohol | 7098B   | 1       |
| Hedinger / Krieger         | Isopropyl alcohol | 701156B | 1       |
| Hedinger / NOW             | Isopropyl alcohol | 701199B | 1       |
| Hedinger / Nowed           | Isopropyl alcohol | 70730B  | 1       |
| Hedinger / Noweda Münster  | Isopropyl alcohol | 70734B  | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701011B | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701015B | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701052B | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701054B | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701071B | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701073B | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701078B | 1       |
| Hedinger / Noweda          | Isopropyl alcohol | 701113B | 1       |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------|--------------|----------------|
| Hedinger / Noweda          | Isopropyl alcohol | 701133B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701136B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701145B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701164B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701164B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701173B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701173B      | 2              |
| Hedinger / Noweda          | Isopropyl alcohol | 701186B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701188B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701194B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701201B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701201B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701204B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701212B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 701258B      | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70525B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70587B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70620B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70627B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70643B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70659B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70663B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70675B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70703B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70734B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70737B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70748B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70762B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70788B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70870B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70882B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70889B       | 1              |
| HEDINGER / NOWEDA          | Isopropyl alcohol | 70898B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70923B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70959B       | 1              |
| Hedinger / Noweda          | Isopropyl alcohol | 70977B       | 1              |
| Hedinger / Phoenix Leip... | Isopropyl alcohol | 70722B       | 1              |
| Hedinger / Phönix (12.0... | Isopropyl alcohol | 701123B      | 1              |
| Hedinger / Phönix          | Isopropyl alcohol | 701035B      | 2              |
| Hedinger / Phönix          | Isopropyl alcohol | 701054B      | 1              |
| Hedinger / Phönix          | Isopropyl alcohol | 701065B      | 1              |
| Hedinger / Phönix          | Isopropyl alcohol | 701073B      | 1              |
| Hedinger / Phönix          | Isopropyl alcohol | 701105B      | 1              |
| Hedinger / Phönix          | Isopropyl alcohol | 701123B      | 2              |
| Hedinger / Phönix          | Isopropyl alcohol | 701287B      | 1              |
| Hedinger / Phönix          | Isopropyl alcohol | 70994B       | 1              |
| Hedinger / Phönix          | Isopropyl alcohol | 90794B       | 1              |
| Hedinger / Sana            | Isopropyl alcohol | 70748B       | 1              |
| Hedinger / Sana            | Isopropyl alcohol | 70799B       | 1              |
| Hedinger / Sana            | Isopropyl alcohol | 70881B       | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 701114B      | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 701136B      | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 701169B      | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 701193B      | 2              |
| Hedinger / sanacorp        | Isopropyl alcohol | 701196B      | 1              |
| Hedinger / sanacorp        | Isopropyl alcohol | 701218B      | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 701218B      | 1              |
| Hedinger / sanacorp        | Isopropyl alcohol | 701231B      | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 70737B       | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 707446B      | 1              |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------|--------------|----------------|
| Hedinger / Sanacorp        | Isopropyl alcohol | 70991B       | 1              |
| Hedinger / Sanacorp        | Isopropyl alcohol | 71052B       | 1              |
| Hedinger /Alliance Heal... | Isopropyl alcohol | 701043B      | 3              |
| Hedinger /Anzag            | Isopropyl alcohol | 701203B      | 1              |
| Hedinger /Anzag            | Isopropyl alcohol | 70991B       | 3              |
| Hedinger /Phoenix          | Isopropyl alcohol | 701073B      | 1              |
| Hedinger /Sana             | Isopropyl alcohol | 70488B       | 1              |
| Hedinger 1                 | Isopropyl alcohol | 701156B      | 1              |
| Hedinger 1                 | Isopropyl alcohol | 701321B      | 4              |
| Hedinger 15.04.2013 Spa... | Isopropyl alcohol | 70511B       | 2              |
| Hedinger Ahc               | Isopropyl alcohol | 701026B      | 1              |
| Hedinger Ahc               | Isopropyl alcohol | 70969B       | 2              |
| Hedinger Ahc               | Isopropyl alcohol | 70983B       | 1              |
| Hedinger Gehe              | Isopropyl alcohol | 701043B      | 1              |
| Hedinger Gehe              | Isopropyl alcohol | 70562B       | 1              |
| Hedinger Gehe              | Isopropyl alcohol | 70673B       | 1              |
| Hedinger GmbH & Co KG      | Isopropyl alcohol | 701212B      | 1              |
| Hedinger GmbH & Co. KG     | Isopropyl alcohol | 701043B      | 1              |
| Hedinger GmbH & Co. KG     | Isopropyl alcohol | 701113B      | 1              |
| Hedinger GmbH & Co. KG     | Isopropyl alcohol | 701186B      | 1              |
| Hedinger GmbH & Co. KG     | Isopropyl alcohol | 701212B      | 1              |
| Hedinger GmbH &Co KG       | Isopropyl alcohol | 701043B      | 1              |
| Hedinger GmbH &Co KG       | Isopropyl alcohol | 701071B      | 1              |
| Hedinger GmbH &Co KG       | Isopropyl alcohol | 70977B       | 1              |
| Hedinger GmbH und Co KG    | Isopropyl alcohol | 701196B      | 1              |
| Hedinger GmbH&Co. KG       | Isopropyl alcohol | 701218B      | 1              |
| Hedinger GmbH/Alliance ... | Isopropyl alcohol | 701182B      | 1              |
| Hedinger GmbH/Noweda       | Isopropyl alcohol | 701189B      | 1              |
| Hedinger GmbH              | Isopropyl alcohol | 16310612     | 1              |
| Hedinger GmbH              | Isopropyl alcohol | 701173B      | 1              |
| Hedinger GmbH              | Isopropyl alcohol | 70729B       | 1              |
| Hedinger GmbH              | Isopropyl alcohol | 70889B       | 1              |
| Hedinger GmbH              | Isopropyl alcohol | 70936B       | 1              |
| Hedinger Jenne             | Isopropyl alcohol | 701065B      | 1              |
| Hedinger Jenne             | Isopropyl alcohol | 70478B       | 1              |
| Hedinger Jenne             | Isopropyl alcohol | 70545B       | 1              |
| Hedinger Jenne             | Isopropyl alcohol | 70693B       | 1              |
| Hedinger Jenne             | Isopropyl alcohol | 70720B       | 1              |
| Hedinger Jenne             | Isopropyl alcohol | 70953B       | 1              |
| Hedinger Noweda            | Isopropyl alcohol | 701093B      | 1              |
| Hedinger Noweda            | Isopropyl alcohol | 701220B      | 1              |
| Hedinger Noweda            | Isopropyl alcohol | 701220B      | 1              |
| Hedinger Phönix            | Isopropyl alcohol | 70991B       | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 701073B      | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 701173B      | 2              |
| Hedinger Sanacorp          | Isopropyl alcohol | 701231B      | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 701282B      | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 70737B       | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 70835B       | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 70862B       | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 70931B(I)    | 1              |
| Hedinger Sanacorp          | Isopropyl alcohol | 70931B(II)   | 2              |
| Hedinger über Noweda       | Isopropyl alcohol | 70439B       | 1              |
| Hedinger über Noweda       | Isopropyl alcohol | 701189B      | 1              |
| Hedinger(Gehe)             | Isopropyl alcohol | 70573B       | 1              |
| Hedinger, Heiligenwiese... | Isopropyl alcohol | 70471B       | 1              |
| Hedinger, Heiligenwiese... | Isopropyl alcohol | 70519B       | 1              |
| Hedinger, Kehr /08.02.2... | Isopropyl alcohol | 701093B      | 1              |
| Hedinger, Noweda           | Isopropyl alcohol | 7474907      | 1              |
| Hedinger, Sanacorp         | Isopropyl alcohol | 701136B      | 1              |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------|--------------|----------------|
| Hedinger/ AHD              | Isopropyl alcohol | 701043B      | 1              |
| Hedinger/ AHD              | Isopropyl alcohol | 701073B      | 1              |
| Hedinger/ AHD              | Isopropyl alcohol | 70788B       | 1              |
| Hedinger/ AHD              | Isopropyl alcohol | 70947B       | 1              |
| Hedinger/ AHD              | Isopropyl alcohol | 70991B       | 1              |
| Hedinger/ Alliance         | Isopropyl alcohol | 701026B      | 1              |
| Hedinger/ Alliance         | Isopropyl alcohol | 701052B      | 1              |
| Hedinger/ Alliance         | Isopropyl alcohol | 701193B      | 1              |
| Hedinger/ Alliance         | Isopropyl alcohol | 701212B      | 1              |
| Hedinger/ Alliance         | Isopropyl alcohol | 70875B       | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol | 701196B      | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol | 701196B      | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol | 70120-48     | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol | 70492B       | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol | 706388       | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol | 70892B       | 1              |
| Hedinger/ E&J              | Isopropyl alcohol | 70947B       | 1              |
| Hedinger/ Fiebig           | Isopropyl alcohol | 701233B      | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 701026B      | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 701031B      | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 701061B      | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 701065B      | 1              |
| Hedinger/ GEHE             | Isopropyl alcohol | 701073B      | 1              |
| Hedinger/ GEHE             | Isopropyl alcohol | 701123B      | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 701139B      | 1              |
| Hedinger/ GEHE             | Isopropyl alcohol | 701218B      | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 70444B       | 1              |
| Hedinger/ GEHE             | Isopropyl alcohol | 706388       | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 70708B       | 2              |
| Hedinger/ Gehe             | Isopropyl alcohol | 70835B       | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 70973B       | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol | 70977B       | 2              |
| Hedinger/ Gehe             | Isopropyl alcohol | 70993B       | 1              |
| Hedinger/ Ginkgo           | Isopropyl alcohol | 701164B      | 1              |
| Hedinger/ Jenne            | Isopropyl alcohol | 701026B      | 1              |
| Hedinger/ jenne            | Isopropyl alcohol | 70541B       | 1              |
| Hedinger/ Jenne            | Isopropyl alcohol | 70595B       | 1              |
| Hedinger/ Jenne            | Isopropyl alcohol | 70608B       | 1              |
| Hedinger/ Jenne            | Isopropyl alcohol | 70620B       | 1              |
| Hedinger/ Kehr             | Isopropyl alcohol | 701196B      | 1              |
| Hedinger/ Kehr             | Isopropyl alcohol | 70703B       | 1              |
| Hedinger/ Max Jenne Lüb... | Isopropyl alcohol | 701136B      | 1              |
| Hedinger/ Max Jenne Lüb... | Isopropyl alcohol | 701204B      | 1              |
| Hedinger/ Max Jenne Lüb... | Isopropyl alcohol | 701212B      | 1              |
| Hedinger/ N/ PZN:07474942  | Isopropyl alcohol | 70598B       | 1              |
| Hedinger/ Noweda/ 02.04... | Isopropyl alcohol | 701189B      | 6              |
| Hedinger/ Noweda/ 09.04... | Isopropyl alcohol | 701193B      | 3              |
| Hedinger/ Noweda           | Isopropyl alcohol |              | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 701031B      | 2              |
| Hedinger/ Noweda           | Isopropyl alcohol | 701043B      | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 701054B      | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 7011056B     | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 701173B      | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 701201B      | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 701287B      | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70517B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70520B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70555B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70627B       | 2              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70675B       | 1              |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------|--------------|----------------|
| Hedinger/ Noweda           | Isopropyl alcohol | 70685B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70693B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70748b       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70771B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70799B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70818B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70835B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70853B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70884B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70889B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70943B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70957B       | 2              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70959B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70973B       | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol | 70977B       | 1              |
| Hedinger/ Otto Geilenki... | Isopropyl alcohol | 701325B      | 1              |
| Hedinger/ Phoenix / 04...  | Isopropyl alcohol | 70809b       | 1              |
| Hedinger/ Phoenix          | Isopropyl alcohol | 7011898      | 1              |
| Hedinger/ Phoenix          | Isopropyl alcohol | 701218B      | 1              |
| Hedinger/ Phoenix          | Isopropyl alcohol | 70898B       | 1              |
| Hedinger/ Phönix           | Isopropyl alcohol | 701043B      | 1              |
| Hedinger/ Phönix           | Isopropyl alcohol | 701073B      | 1              |
| Hedinger/ Sanacorp Lüb...  | Isopropyl alcohol | 701133B      | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol | 701011B      | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol | 701105B      | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol | 701145B      | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol | 701210B      | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol | 701220B      | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol | 70545B       | 1              |
| Hedinger/ Spangro.         | Isopropyl alcohol | 701186B      | 1              |
| Hedinger/A                 | Isopropyl alcohol | 701186B      | 1              |
| Hedinger/A                 | Isopropyl alcohol | 701189B      | 2              |
| Hedinger/A                 | Isopropyl alcohol | 701193B      | 1              |
| Hedinger/AHCA              | Isopropyl alcohol | 701145B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 7010738      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701073B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701078B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 7011058      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701107B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701114B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701123B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701145B      | 2              |
| HEDINGER/AHD               | Isopropyl alcohol | 701156B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701169B      | 1              |
| HEDINGER/AHD               | Isopropyl alcohol | 701169B      | 3              |
| Hedinger/AHD               | Isopropyl alcohol | 701173B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701182B      | 2              |
| Hedinger/AHD               | Isopropyl alcohol | 701199B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701212B      | 2              |
| HEDINGER/AHD               | Isopropyl alcohol | 701218B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701262B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701284B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 701305B      | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70507B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70527B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70532B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 705408       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70574B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70690B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70737B       | 3              |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------|--------------|----------------|
| Hedinger/AHD               | Isopropyl alcohol | 70748B       | 2              |
| Hedinger/AHD               | Isopropyl alcohol | 70768B       | 3              |
| Hedinger/AHD               | Isopropyl alcohol | 70771B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 707888       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70788B       | 2              |
| Hedinger/AHD               | Isopropyl alcohol | 70858B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70915B       | 1              |
| Hedinger/AHD               | Isopropyl alcohol | 70931B       | 2              |
| Hedinger/AHD               | Isopropyl alcohol | 709838       | 1              |
| Hedinger/Allia             | Isopropyl alcohol | 701164B      | 1              |
| Hedinger/Allia             | Isopropyl alcohol | 701262B      | 1              |
| Hedinger/Allia             | Isopropyl alcohol | 701287B      | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70898B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 701035B      | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 701043B      | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 701071B      | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 701305B      | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70503B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70768B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70858B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70908B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70936B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70941B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 70982B       | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 701186B      | 1              |
| Hedinger/Alliance Healt... | Isopropyl alcohol | 701201B      | 1              |
| Hedinger/Alliance          | Isopropyl alcohol |              | 1              |
| Hedinger/Alliance          | Isopropyl alcohol | 701026B      | 1              |
| Hedinger/Alliance          | Isopropyl alcohol | 701099B      | 1              |
| Hedinger/Alliance          | Isopropyl alcohol | 701233B      | 1              |
| Hedinger/Alliance          | Isopropyl alcohol | 70818B       | 1              |
| Hedinger/Alliance          | Isopropyl alcohol | 70846B       | 1              |
| Hedinger/Alliance          | Isopropyl alcohol | 70870B       | 1              |
| Hedinger/Alliance          | Isopropyl alcohol | 70991B       | 1              |
| Hedinger/AllianceHealth    | Isopropyl alcohol | 70889B       | 1              |
| Hedinger/Anzag 25.05.20    | Isopropyl alcohol | 701196B      | 1              |
| Hedinger/Anzag 27.02.2012  | Isopropyl alcohol | 70417B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 701015B      | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 701061B      | 2              |
| Hedinger/Anzag             | Isopropyl alcohol | 701113B      | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 701114B      | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 701123B      | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 701149B      | 4              |
| Hedinger/Anzag             | Isopropyl alcohol | 701156B      | 4              |
| Hedinger/Anzag             | Isopropyl alcohol | 701175B      | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 701181B      | 2              |
| Hedinger/Anzag             | Isopropyl alcohol | 701210B      | 2              |
| Hedinger/Anzag             | Isopropyl alcohol | 701214B      | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70471B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 705198       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70519B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70545B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70553B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 705728       | 1              |
| hedinger/anzag             | Isopropyl alcohol | 705838       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70608B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70627B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70643B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70675B       | 1              |
| Hedinger/Anzag             | Isopropyl alcohol | 70685B       | 1              |

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| Supplier                   | Substance         | Batch     | Spectra |
|----------------------------|-------------------|-----------|---------|
| Hedinger/Anzag             | Isopropyl alcohol | 70703B    | 1       |
| Hedinger/Anzag             | Isopropyl alcohol | 70736B    | 1       |
| Hedinger/Anzag             | Isopropyl alcohol | 70737B    | 2       |
| Hedinger/Anzag             | Isopropyl alcohol | 70768B    | 2       |
| Hedinger/Anzag             | Isopropyl alcohol | 70788B    | 2       |
| Hedinger/Anzag             | Isopropyl alcohol | 70853B    | 1       |
| Hedinger/Anzag             | Isopropyl alcohol | 70866B    | 1       |
| Hedinger/Anzag             | Isopropyl alcohol | 70906B    | 1       |
| Hedinger/Anzag             | Isopropyl alcohol | 70977B    | 1       |
| Hedinger/Anzag             | Isopropyl alcohol | 70982B    | 1       |
| Hedinger/Anzag             | Isopropyl alcohol | 709918    | 1       |
| Hedinger/Ebert&Jacobi      | Isopropyl alcohol | 70620B    | 1       |
| Hedinger/Ebert&Jacobi      | Isopropyl alcohol | 70627B    | 2       |
| Hedinger/Ebert             | Isopropyl alcohol | 701031B   | 1       |
| Hedinger/Ebert             | Isopropyl alcohol | 701065B   | 1       |
| Hedinger/Ebert             | Isopropyl alcohol | 701073B   | 2       |
| Hedinger/Ebert             | Isopropyl alcohol | 701105B   | 3       |
| Hedinger/Ebert             | Isopropyl alcohol | 701136B   | 1       |
| Hedinger/Ebert             | Isopropyl alcohol | 701156B   | 3       |
| Hedinger/Ebert             | Isopropyl alcohol | 70734B    | 1       |
| Hedinger/Ebert             | Isopropyl alcohol | 70882B    | 1       |
| Hedinger/Ebert             | Isopropyl alcohol | 70898B    | 1       |
| Hedinger/Ebert             | Isopropyl alcohol | 70943B    | 3       |
| Hedinger/Ebert             | Isopropyl alcohol | 70977B    | 1       |
| Hedinger/Ebert             | Isopropyl alcohol | 70991B    | 1       |
| Hedinger/Ebetr             | Isopropyl alcohol | 701052B   | 2       |
| Hedinger/Ebetr             | Isopropyl alcohol | 70977B    | 1       |
| Hedinger/Ebetr             | Isopropyl alcohol | 709994B   | 2       |
| Hedinger/Fiebig 09.06.2... | Isopropyl alcohol | 701203B   | 1       |
| Hedinger/Fiebig 29.06.2... | Isopropyl alcohol | 701248B   | 1       |
| Hedinger/Fiebig 30.12.2... | Isopropyl alcohol | 701199B   | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol | 701031B   | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol | 701114B   | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol | 701181B   | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol | 701182B   | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol | 701220B   | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol | 70729B    | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol | 70959B    | 1       |
| Hedinger/G                 | Isopropyl alcohol | 70994B    | 1       |
| Hedinger/gehe/38,69        | Isopropyl alcohol | 701148    | 1       |
| Hedinger/GEHE              | Isopropyl alcohol | 1514Q1079 | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701006B   | 2       |
| Hedinger/Gehe              | Isopropyl alcohol | 701015B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701031B   | 4       |
| Hedinger/Gehe              | Isopropyl alcohol | 701035B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701065B   | 3       |
| Hedinger/Gehe              | Isopropyl alcohol | 701073B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701078B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701093B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701099B   | 2       |
| Hedinger/Gehe              | Isopropyl alcohol | 701107B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 7011148   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701123B   | 2       |
| Hedinger/Gehe              | Isopropyl alcohol | 701136B   | 2       |
| Hedinger/Gehe              | Isopropyl alcohol | 701139B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701148B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701149B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701169B   | 3       |
| Hedinger/Gehe              | Isopropyl alcohol | 701173B   | 1       |
| Hedinger/Gehe              | Isopropyl alcohol | 701175B   | 2       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Hedinger/Gehe   | Isopropyl alcohol | 701182B      | 1              |
| Hedinger/GEHE   | Isopropyl alcohol | 701186B      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 701194B      | 1              |
| Hedinger/GEHE   | Isopropyl alcohol | 701194B      | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 701196B      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 701201B      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 701204B      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 701212B      | 2              |
| hedinger/Gehe   | Isopropyl alcohol | 7012148      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 7012148      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 7012188      | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 7012318      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 701244B      | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 701282B      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 701308B      | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70478B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70481B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70492B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 704988       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70501B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70505B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70507B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70527B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70532B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70540B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70553B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70562B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70581B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70584B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70587B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70598B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 70603B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70607B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70627B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 70638B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70659B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 70663B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70666B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70668B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70671b       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70675B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70690B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70693B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70696B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70701B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70703B       | 4              |
| Hedinger/Gehe   | Isopropyl alcohol | 70715B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 70723B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 707308       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70730B       | 5              |
| Hedinger/Gehe   | Isopropyl alcohol | 70736B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 70737B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70739B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70748B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 70755B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 70763B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70767B       | 2              |
| Hedinger/Gehe   | Isopropyl alcohol | 7076B        | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70771B       | 1              |
| Hedinger/Gehe   | Isopropyl alcohol | 70783B       | 1              |

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| <b>Supplier</b>           | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|-------------------|--------------|----------------|
| Hedinger/Gehe             | Isopropyl alcohol | 70796B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70799B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70804B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70809B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70816B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70818B       | 3              |
| Hedinger/Gehe             | Isopropyl alcohol | 70825B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70858B       | 3              |
| Hedinger/Gehe             | Isopropyl alcohol | 70870B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70875B       | 2              |
| Hedinger/Gehe             | Isopropyl alcohol | 7087B        | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70882B       | 2              |
| Hedinger/Gehe             | Isopropyl alcohol | 70889B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70892B       | 2              |
| Hedinger/Gehe             | Isopropyl alcohol | 70898B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70908B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70918B       | 2              |
| Hedinger/Gehe             | Isopropyl alcohol | 70931B       | 3              |
| Hedinger/Gehe             | Isopropyl alcohol | 70936B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70941B       | 4              |
| HEDINGER/Gehe             | Isopropyl alcohol | 70947B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70957B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70959B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70973B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70983B       | 1              |
| Hedinger/Gehe             | Isopropyl alcohol | 70994B       | 4              |
| Hedinger/Geibo            | Isopropyl alcohol | 701105B      | 1              |
| Hedinger/Geilenkirchen    | Isopropyl alcohol | 701114B      | 1              |
| Hedinger/Geilenkirchen    | Isopropyl alcohol | 706388       | 1              |
| Hedinger/Hedinger         | Isopropyl alcohol | 701173B      | 1              |
| Hedinger/Hedinger         | Isopropyl alcohol | 701186B      | 2              |
| Hedinger/Holdermann 30... | Isopropyl alcohol | 70444B       | 1              |
| Hedinger/Holdermann       | Isopropyl alcohol | 70607B       | 1              |
| Hedinger/Holdermann       | Isopropyl alcohol | 70881B       | 1              |
| Hedinger/Holdermann       | Isopropyl alcohol | 70898B       | 1              |
| Hedinger/Jenne 31.10.2014 | Isopropyl alcohol | 706388       | 1              |
| Hedinger/Jenne/12.01.18   | Isopropyl alcohol | 70977B       | 1              |
| Hedinger/Jenne            | Isopropyl alcohol | 701139B      | 1              |
| Hedinger/Jenne            | Isopropyl alcohol | 701189B      | 1              |
| Hedinger/Jenne            | Isopropyl alcohol | 701194B      | 2              |
| Hedinger/Jenne            | Isopropyl alcohol | 701204B      | 3              |
| Hedinger/Jenne            | Isopropyl alcohol | 701212B      | 1              |
| Hedinger/Jenne            | Isopropyl alcohol | 70525B       | 1              |
| Hedinger/Jenne            | Isopropyl alcohol | 70559B       | 1              |
| Hedinger/Kehr             | Isopropyl alcohol | 701093B      | 2              |
| Hedinger/Kehr             | Isopropyl alcohol | 70675B       | 1              |
| Hedinger/Kehr             | Isopropyl alcohol | 7073B        | 1              |
| Hedinger/Krieger          | Isopropyl alcohol | 701031B      | 1              |
| Hedinger/Krieger          | Isopropyl alcohol | 701114B      | 2              |
| Hedinger/Krieger          | Isopropyl alcohol | 701214B      | 1              |
| Hedinger/Krieger          | Isopropyl alcohol | 708358       | 1              |
| Hedinger/Krieger          | Isopropyl alcohol | 70918B       | 1              |
| Hedinger/L10              | Isopropyl alcohol | 7010158      | 1              |
| Hedinger/L10              | Isopropyl alcohol | 7011868      | 1              |
| HEDINGER/N/1.06.13/PZN... | Isopropyl alcohol | 70527b       | 1              |
| Hedinger/N/PZN:07474942   | Isopropyl alcohol | 70559B       | 1              |
| Hedinger/N                | Isopropyl alcohol | 70675B       | 1              |
| Hedinger/N                | Isopropyl alcohol | 70818B       | 1              |
| hedinger/noveda/anzag     | Isopropyl alcohol | 701194B      | 1              |
| Hedinger/Noveda           | Isopropyl alcohol | 701054B      | 1              |

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| <b>Supplier</b>         | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-------------------------|-------------------|--------------|----------------|
| Hedinger/Nowda          | Isopropyl alcohol | 701073B      | 2              |
| Hedinger/Nowda 11.01... | Isopropyl alcohol | 701233B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 4716M-01079  | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 4916U-01079  | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701006B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701011B      | 1              |
| Hedinger/noweda         | Isopropyl alcohol | 701015B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701015B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701026B      | 3              |
| Hedinger/noweda         | Isopropyl alcohol | 701031B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701031B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 7010358      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701035B      | 2              |
| Hedinger/noweda         | Isopropyl alcohol | 701043B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701043B      | 9              |
| Hedinger/noweda         | Isopropyl alcohol | 701054B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701061B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701065B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701071B      | 3              |
| Hedinger/Nowda          | Isopropyl alcohol | 7010738      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701078B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 7010818      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701099B      | 2              |
| Hedinger/noweda         | Isopropyl alcohol | 701105B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701105B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701107B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701114B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701123B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 7011338      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701133B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701136B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701139B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701148B      | 1              |
| HEDINGER/NOWEDA         | Isopropyl alcohol | 701148B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701149B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701156B      | 1              |
| HEDINGER/NOWEDA         | Isopropyl alcohol | 701156B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701158B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701164B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701182B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701188B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701193B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701194B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701199B      | 6              |
| Hedinger/Nowda          | Isopropyl alcohol | 7011B6B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701201B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701203B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701204B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701212B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701214B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701233B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 7012488      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701262B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 7012878      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701287B      | 2              |
| Hedinger/Nowda          | Isopropyl alcohol | 701308B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 701321B      | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 70457B       | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 70465B       | 1              |
| Hedinger/Nowda          | Isopropyl alcohol | 70519B       | 1              |

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| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
| Hedinger/Noweda            | Isopropyl alcohol | 70520B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70540B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70545B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 7054907     | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70565B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70584B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70603B      | 4       |
| Hedinger/Noweda            | Isopropyl alcohol | 70620B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70627B      | 4       |
| Hedinger/Noweda            | Isopropyl alcohol | 706388      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70643B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70685B      | 3       |
| Hedinger/Noweda            | Isopropyl alcohol | 70690B      | 2       |
| Hedinger/Noweda            | Isopropyl alcohol | 707075B     | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70720B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70726B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70730B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70736B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70737B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70767B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 707718      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70788B      | 2       |
| Hedinger/Noweda            | Isopropyl alcohol | 708188      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70818B      | 4       |
| Hedinger/Noweda            | Isopropyl alcohol | 70835B      | 3       |
| Hedinger/Noweda            | Isopropyl alcohol | 70853B      | 2       |
| Hedinger/Noweda            | Isopropyl alcohol | 70882b      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70889B      | 2       |
| Hedinger/Noweda            | Isopropyl alcohol | 70906B      | 2       |
| Hedinger/Noweda            | Isopropyl alcohol | 709082B     | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70908B      | 1       |
| hedinger/Noweda            | Isopropyl alcohol | 70918B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70922B      | 2       |
| Hedinger/Noweda            | Isopropyl alcohol | 70941B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70947B      | 2       |
| Hedinger/noweda            | Isopropyl alcohol | 70957B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70957B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70969B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70973B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70977B      | 4       |
| Hedinger/Noweda            | Isopropyl alcohol | 70983B      | 1       |
| Hedinger/Noweda            | Isopropyl alcohol | 70994B      | 2       |
| hedinger/noweda            | Isopropyl alcohol | CH0701175B  | 1       |
| HEDINGER/OTTO Geilenkir... | Isopropyl alcohol | 7012848     | 1       |
| Hedinger/Otto              | Isopropyl alcohol |             | 1       |
| Hedinger/Otto              | Isopropyl alcohol | 70581B      | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 20001912014 | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 700078B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701006B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701031B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701035B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701065B     | 2       |
| Hedinger/Phoenix           | Isopropyl alcohol | 7010738     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701073B     | 2       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701093B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701099B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701105B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 7011138     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701123B     | 1       |
| Hedinger/Phoenix           | Isopropyl alcohol | 701145B     | 1       |

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| <b>Supplier</b>  | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|------------------|-------------------|--------------|----------------|
| Hedinger/Phoenix | Isopropyl alcohol | 701148B      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 701156B      | 3              |
| Hedinger/Phoenix | Isopropyl alcohol | 701164B      | 2              |
| Hedinger/Phoenix | Isopropyl alcohol | 701169B      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 701189B      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 701201B      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 701214B      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 701218B      | 3              |
| Hedinger/Phoenix | Isopropyl alcohol | 701220B      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 701231B      | 4              |
| Hedinger/Phoenix | Isopropyl alcohol | 701233B      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 701258B      | 2              |
| Hedinger/Phoenix | Isopropyl alcohol | 701262B      | 2              |
| Hedinger/Phoenix | Isopropyl alcohol | 701284B      | 5              |
| Hedinger/Phoenix | Isopropyl alcohol | 7013218      | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70545B       | 2              |
| Hedinger/Phoenix | Isopropyl alcohol | 70578B       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70659B       | 2              |
| Hedinger/Phoenix | Isopropyl alcohol | 70734B       | 1              |
| Hedinger/phoenix | Isopropyl alcohol | 707488       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70794B       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70799B       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70837B       | 3              |
| Hedinger/Phoenix | Isopropyl alcohol | 70889B       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70908B       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70969B       | 2              |
| Hedinger/Phoenix | Isopropyl alcohol | 70973B       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 709948       | 1              |
| Hedinger/Phoenix | Isopropyl alcohol | 70994B       | 3              |
| Hedinger/Phönix  | Isopropyl alcohol | 701043B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701052B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701065B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701073B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701093B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701105B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 7011148      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701123B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701133B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 7011369B     | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701148B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701156B      | 2              |
| Hedinger/Phönix  | Isopropyl alcohol | 701189B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701214B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701218B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701231B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 701233B      | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70385B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70520B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70536B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70565B       | 3              |
| Hedinger/Phönix  | Isopropyl alcohol | 70598B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70607B       | 2              |
| Hedinger/Phönix  | Isopropyl alcohol | 70627B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70643B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 706808       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70680B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70715B       | 2              |
| Hedinger/Phönix  | Isopropyl alcohol | 70723B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70748B       | 1              |
| Hedinger/Phönix  | Isopropyl alcohol | 70768B       | 2              |

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| Supplier                     | Substance         | Batch       | Spectra |
|------------------------------|-------------------|-------------|---------|
| Hedinger/Phönix              | Isopropyl alcohol | 70771B      | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 70783B      | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 70809B      | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 70825B      | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 70846B      | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 70858B      | 2       |
| Hedinger/Phönix              | Isopropyl alcohol | 70892B      | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 709473B     | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 70969B      | 1       |
| Hedinger/Phönix              | Isopropyl alcohol | 70977B      | 1       |
| Hedinger/Sana EK: EUR 72,... | Isopropyl alcohol | 701073B     | 1       |
| Hedinger/Sana                | Isopropyl alcohol | 701276B     | 1       |
| Hedinger/Sana                | Isopropyl alcohol | 70663B      | 1       |
| Hedinger/Sana                | Isopropyl alcohol | 70881B      | 1       |
| Hedinger/Sana                | Isopropyl alcohol | 70915B      | 1       |
| Hedinger/Sana                | Isopropyl alcohol | 70943B      | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol |             | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 2309I/01079 | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701020B     | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701026B     | 4       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701031B     | 4       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 7010438     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701043B     | 4       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701052B     | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701054B     | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 7010618     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701061B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701065B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701073B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701078B     | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701081B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701093B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701107B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701114B     | 7       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701133B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701136B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 7011498     | 1       |
| Hedinger/sanacorp            | Isopropyl alcohol | 701156B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701156B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701158B     | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701164B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701169B     | 3       |
| HEDINGER/Sanacorp            | Isopropyl alcohol | 701182B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701188B     | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701189B     | 4       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701194B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701196B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701201B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701203B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701210B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701212B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701218B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701220B     | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701231B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701244B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701258B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 701334B     | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 70176B      | 1       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 70476B      | 2       |
| Hedinger/Sanacorp            | Isopropyl alcohol | 70519B      | 1       |

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| <b>Supplier</b>           | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|-------------------|--------------|----------------|
| Hedinger/Sanacorp         | Isopropyl alcohol | 70540B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70541B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70553BH      | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70564B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70578B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70587B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70593B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70598B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70614B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70620B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70627B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70638B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70643B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70650B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70656B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70659B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70685B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70696B       | 2              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70703B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70704B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70720B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70726B       | 2              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70734B       | 2              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70737B       | 1              |
| Hedinger/sanacorp         | Isopropyl alcohol | 70739B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70742B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70755B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70762B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70763B       | 2              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70767B       | 5              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70771B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70777B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70788B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70818B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70835B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70879B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70892B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70896B       | 2              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70915B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70923B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70936B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70977B       | 3              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 70982B       | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 711258B      | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 7685B        | 1              |
| Hedinger/Sanacorp         | Isopropyl alcohol | 7701189B     | 1              |
| Hedinger/Sanacorp6.5.2014 | Isopropyl alcohol | 70603B       | 1              |
| Hedinger/Spangro          | Isopropyl alcohol | 701078B      | 1              |
| Hedinger/Spangro          | Isopropyl alcohol | 701133B      | 1              |
| Hedinger/Spangro          | Isopropyl alcohol | 701186B      | 1              |
| Hedinger/VDL              | Isopropyl alcohol | 704788       | 1              |
| Hedinger/VDL              | Isopropyl alcohol | 70884B       | 1              |
| Hedinger                  | Isopropyl alcohol |              | 2              |
| hedinger                  | Isopropyl alcohol | 105208       | 1              |
| Hedinger                  | Isopropyl alcohol | 1207211079   | 1              |
| Hedinger                  | Isopropyl alcohol | 1512211079   | 1              |
| Hedinger                  | Isopropyl alcohol | 1601311079   | 1              |
| Hedinger                  | Isopropyl alcohol | 171893205489 | 1              |
| Hedinger                  | Isopropyl alcohol | 20170160     | 1              |
| Hedinger                  | Isopropyl alcohol | 2022015D     | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|-------------------|---------------|----------------|
| Hedinger        | Isopropyl alcohol | 2072015A      | 1              |
| Hedinger        | Isopropyl alcohol | 2310211079    | 1              |
| Hedinger        | Isopropyl alcohol | 231307        | 1              |
| Hedinger        | Isopropyl alcohol | 2315B-01079   | 1              |
| Hedinger        | Isopropyl alcohol | 2x070461B     | 1              |
| Hedinger        | Isopropyl alcohol | 3013E1079     | 1              |
| Hedinger        | Isopropyl alcohol | 31115-88      | 1              |
| Hedinger        | Isopropyl alcohol | 3397          | 1              |
| Hedinger        | Isopropyl alcohol | 402211079     | 1              |
| Hedinger        | Isopropyl alcohol | 406211079     | 1              |
| Hedinger        | Isopropyl alcohol | 4103014       | 1              |
| Hedinger        | Isopropyl alcohol | 50700B        | 1              |
| Hedinger        | Isopropyl alcohol | 701006B       | 2              |
| hedinger        | Isopropyl alcohol | 701011b       | 1              |
| Hedinger        | Isopropyl alcohol | 701011B       | 3              |
| Hedinger        | Isopropyl alcohol | 701015B       | 2              |
| Hedinger        | Isopropyl alcohol | 701020B       | 1              |
| Hedinger        | Isopropyl alcohol | 701026B       | 8              |
| HEDINGER        | Isopropyl alcohol | 701026B       | 2              |
| Hedinger        | Isopropyl alcohol | 7010318       | 1              |
| Hedinger        | Isopropyl alcohol | 701031B       | 7              |
| hedinger        | Isopropyl alcohol | 701035B       | 1              |
| Hedinger        | Isopropyl alcohol | 701035B       | 4              |
| HEDINGER        | Isopropyl alcohol | 701035B       | 1              |
| Hedinger        | Isopropyl alcohol | 701043B       | 15             |
| Hedinger        | Isopropyl alcohol | 701052b       | 1              |
| Hedinger        | Isopropyl alcohol | 701052B       | 1              |
| Hedinger        | Isopropyl alcohol | 701054B       | 4              |
| hedinger        | Isopropyl alcohol | 70105B        | 1              |
| Hedinger        | Isopropyl alcohol | 701061B       | 6              |
| Hedinger        | Isopropyl alcohol | 7010658       | 1              |
| Hedinger        | Isopropyl alcohol | 701065B       | 9              |
| Hedinger        | Isopropyl alcohol | 7010688       | 1              |
| Hedinger        | Isopropyl alcohol | 701068B       | 4              |
| hedinger        | Isopropyl alcohol | 701071B       | 1              |
| Hedinger        | Isopropyl alcohol | 701071B       | 3              |
| Hedinger        | Isopropyl alcohol | 701073b       | 1              |
| Hedinger        | Isopropyl alcohol | 701073B       | 4              |
| Hedinger        | Isopropyl alcohol | 701078B       | 7              |
| hedinger        | Isopropyl alcohol | 701081B       | 1              |
| Hedinger        | Isopropyl alcohol | 701081B       | 3              |
| Hedinger        | Isopropyl alcohol | 70108Bpalmito | 1              |
| Hedinger        | Isopropyl alcohol | 7010938       | 1              |
| Hedinger        | Isopropyl alcohol | 701093B       | 6              |
| Hedinger        | Isopropyl alcohol | 701099B       | 6              |
| Hedinger        | Isopropyl alcohol | 7011048B      | 1              |
| Hedinger        | Isopropyl alcohol | 7011058       | 1              |
| hedinger        | Isopropyl alcohol | 701105B       | 1              |
| Hedinger        | Isopropyl alcohol | 701105B       | 4              |
| Hedinger        | Isopropyl alcohol | 701107B       | 3              |
| Hedinger        | Isopropyl alcohol | 7011138       | 1              |
| Hedinger        | Isopropyl alcohol | 701113B       | 3              |
| Hedinger        | Isopropyl alcohol | 7011148       | 1              |
| Hedinger        | Isopropyl alcohol | 701114B       | 15             |
| Hedinger        | Isopropyl alcohol | 701117B       | 1              |
| Hedinger        | Isopropyl alcohol | 701118B       | 1              |
| hedinger        | Isopropyl alcohol | 701123B       | 1              |
| Hedinger        | Isopropyl alcohol | 701123B       | 11             |
| Hedinger        | Isopropyl alcohol | 701133B       | 6              |
| Hedinger        | Isopropyl alcohol | 701136B       | 5              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Hedinger        | Isopropyl alcohol | 701139b      | 3              |
| Hedinger        | Isopropyl alcohol | 701139B      | 9              |
| Hedinger        | Isopropyl alcohol | 7011458      | 1              |
| Hedinger        | Isopropyl alcohol | 701145b      | 1              |
| Hedinger        | Isopropyl alcohol | 701145B      | 10             |
| Hedinger        | Isopropyl alcohol | 701148B      | 3              |
| Hedinger        | Isopropyl alcohol | 701149B      | 3              |
| Hedinger        | Isopropyl alcohol | 70114B       | 1              |
| hedinger        | Isopropyl alcohol | 701156B      | 1              |
| Hedinger        | Isopropyl alcohol | 701156B      | 8              |
| Hedinger        | Isopropyl alcohol | 701158B      | 1              |
| Hedinger        | Isopropyl alcohol | 701164B      | 2              |
| Hedinger        | Isopropyl alcohol | 701169B      | 4              |
| Hedinger        | Isopropyl alcohol | 701173B      | 14             |
| Hedinger        | Isopropyl alcohol | 701175B      | 2              |
| Hedinger        | Isopropyl alcohol | 70118        | 1              |
| hedinger        | Isopropyl alcohol | 701181B      | 1              |
| Hedinger        | Isopropyl alcohol | 701181B      | 7              |
| Hedinger        | Isopropyl alcohol | 701182B      | 3              |
| Hedinger        | Isopropyl alcohol | 701186B      | 3              |
| Hedinger        | Isopropyl alcohol | 701188B      | 5              |
| Hedinger        | Isopropyl alcohol | 7011898      | 1              |
| Hedinger        | Isopropyl alcohol | 701189B      | 8              |
| hedinger        | Isopropyl alcohol | 701193B      | 2              |
| Hedinger        | Isopropyl alcohol | 701193B      | 1              |
| hedinger        | Isopropyl alcohol | 701194B      | 2              |
| Hedinger        | Isopropyl alcohol | 701194B      | 3              |
| Hedinger        | Isopropyl alcohol | 701196B      | 2              |
| Hedinger        | Isopropyl alcohol | 701199B      | 4              |
| Hedinger        | Isopropyl alcohol | 7012018      | 1              |
| Hedinger        | Isopropyl alcohol | 701201B      | 7              |
| Hedinger        | Isopropyl alcohol | 7012038      | 1              |
| Hedinger        | Isopropyl alcohol | 701203B      | 2              |
| Hedinger        | Isopropyl alcohol | 701204B      | 4              |
| hedinger        | Isopropyl alcohol | 701209B      | 7              |
| Hedinger        | Isopropyl alcohol | 701209B      | 4              |
| hedinger        | Isopropyl alcohol | 701210B      | 2              |
| Hedinger        | Isopropyl alcohol | 701210B      | 1              |
| hedinger        | Isopropyl alcohol | 701212B      | 5              |
| Hedinger        | Isopropyl alcohol | 701212B      | 11             |
| hedinger        | Isopropyl alcohol | 701214B      | 2              |
| Hedinger        | Isopropyl alcohol | 701214b      | 1              |
| Hedinger        | Isopropyl alcohol | 701214B      | 10             |
| Hedinger        | Isopropyl alcohol | 701218B      | 3              |
| Hedinger        | Isopropyl alcohol | 701220B      | 3              |
| Hedinger        | Isopropyl alcohol | 701231B      | 2              |
| Hedinger        | Isopropyl alcohol | 701233       | 1              |
| Hedinger        | Isopropyl alcohol | 701233B      | 3              |
| Hedinger        | Isopropyl alcohol | 701244B      | 1              |
| hedinger        | Isopropyl alcohol | 701258B      | 1              |
| Hedinger        | Isopropyl alcohol | 701258B      | 3              |
| hedinger        | Isopropyl alcohol | 701262B      | 1              |
| Hedinger        | Isopropyl alcohol | 701262B      | 1              |
| Hedinger        | Isopropyl alcohol | 701282B      | 1              |
| Hedinger        | Isopropyl alcohol | 701287B      | 1              |
| Hedinger        | Isopropyl alcohol | 701299B      | 3              |
| Hedinger        | Isopropyl alcohol | 701302B      | 2              |
| Hedinger        | Isopropyl alcohol | 701317B      | 1              |
| Hedinger        | Isopropyl alcohol | 701321B      | 2              |
| Hedinger        | Isopropyl alcohol | 701325B      | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Hedinger        | Isopropyl alcohol | 70145B       | 1              |
| Hedinger        | Isopropyl alcohol | 70165B       | 1              |
| Hedinger        | Isopropyl alcohol | 70219B       | 1              |
| Hedinger        | Isopropyl alcohol | 70380        | 1              |
| Hedinger        | Isopropyl alcohol | 70422B       | 1              |
| Hedinger        | Isopropyl alcohol | 70439B       | 1              |
| Hedinger        | Isopropyl alcohol | 70444B       | 1              |
| Hedinger        | Isopropyl alcohol | 70447B       | 2              |
| Hedinger        | Isopropyl alcohol | 70457B       | 1              |
| Hedinger        | Isopropyl alcohol | 70461B       | 3              |
| Hedinger        | Isopropyl alcohol | 704638       | 1              |
| Hedinger        | Isopropyl alcohol | 70463B       | 1              |
| Hedinger        | Isopropyl alcohol | 70465B       | 1              |
| Hedinger        | Isopropyl alcohol | 70471B       | 2              |
| Hedinger        | Isopropyl alcohol | 70478B       | 5              |
| Hedinger        | Isopropyl alcohol | 70481B       | 1              |
| Hedinger        | Isopropyl alcohol | 704888       | 1              |
| Hedinger        | Isopropyl alcohol | 70488B       | 2              |
| Hedinger        | Isopropyl alcohol | 70495B       | 1              |
| Hedinger        | Isopropyl alcohol | 70497B       | 1              |
| Hedinger        | Isopropyl alcohol | 70498B       | 1              |
| Hedinger        | Isopropyl alcohol | 70500B       | 1              |
| Hedinger        | Isopropyl alcohol | 70501B       | 4              |
| Hedinger        | Isopropyl alcohol | 70507B       | 6              |
| Hedinger        | Isopropyl alcohol | 70511B       | 3              |
| Hedinger        | Isopropyl alcohol | 70519B       | 1              |
| Hedinger        | Isopropyl alcohol | 705258       | 1              |
| Hedinger        | Isopropyl alcohol | 70527B       | 5              |
| Hedinger        | Isopropyl alcohol | 70530B       | 2              |
| Hedinger        | Isopropyl alcohol | 70532B       | 3              |
| Hedinger        | Isopropyl alcohol | 70536B       | 3              |
| Hedinger        | Isopropyl alcohol | 70540B       | 1              |
| Hedinger        | Isopropyl alcohol | 70541B       | 4              |
| Hedinger        | Isopropyl alcohol | 70545B       | 4              |
| Hedinger        | Isopropyl alcohol | 70553B       | 5              |
| Hedinger        | Isopropyl alcohol | 705540B      | 1              |
| Hedinger        | Isopropyl alcohol | 70555B       | 4              |
| Hedinger        | Isopropyl alcohol | 70559B       | 1              |
| Hedinger        | Isopropyl alcohol | 70562B       | 3              |
| Hedinger        | Isopropyl alcohol | 70564B       | 2              |
| Hedinger        | Isopropyl alcohol | 705728       | 2              |
| Hedinger        | Isopropyl alcohol | 70572B       | 5              |
| Hedinger        | Isopropyl alcohol | 705738       | 2              |
| Hedinger        | Isopropyl alcohol | 70573B       | 1              |
| Hedinger        | Isopropyl alcohol | 70574B       | 3              |
| Hedinger        | Isopropyl alcohol | 70577B       | 1              |
| Hedinger        | Isopropyl alcohol | 70578        | 1              |
| Hedinger        | Isopropyl alcohol | 70578B       | 2              |
| Hedinger        | Isopropyl alcohol | 70581B       | 1              |
| hedinger        | Isopropyl alcohol | 70584B       | 1              |
| Hedinger        | Isopropyl alcohol | 70584B       | 3              |
| Hedinger        | Isopropyl alcohol | 70587B       | 2              |
| Hedinger        | Isopropyl alcohol | 70592B       | 1              |
| Hedinger        | Isopropyl alcohol | 70593B       | 3              |
| Hedinger        | Isopropyl alcohol | 70595B       | 1              |
| Hedinger        | Isopropyl alcohol | 70598B       | 9              |
| Hedinger        | Isopropyl alcohol | 70603B       | 6              |
| Hedinger        | Isopropyl alcohol | 70607B       | 3              |
| Hedinger        | Isopropyl alcohol | 7060B        | 1              |
| Hedinger        | Isopropyl alcohol | 70614B       | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Hedinger        | Isopropyl alcohol | 70620B       | 6              |
| Hedinger        | Isopropyl alcohol | 70623B       | 1              |
| Hedinger        | Isopropyl alcohol | 70627b       | 1              |
| Hedinger        | Isopropyl alcohol | 70627B       | 5              |
| Hedinger        | Isopropyl alcohol | 70630B       | 1              |
| Hedinger        | Isopropyl alcohol | 70636B       | 2              |
| Hedinger        | Isopropyl alcohol | 70638B       | 3              |
| hedinger        | Isopropyl alcohol | 70643B       | 1              |
| Hedinger        | Isopropyl alcohol | 70643B       | 8              |
| Hedinger        | Isopropyl alcohol | 70650B       | 5              |
| Hedinger        | Isopropyl alcohol | 70656B       | 1              |
| Hedinger        | Isopropyl alcohol | 70659B       | 4              |
| hedinger        | Isopropyl alcohol | 70663B       | 1              |
| Hedinger        | Isopropyl alcohol | 70663B       | 3              |
| Hedinger        | Isopropyl alcohol | 70666B       | 1              |
| Hedinger        | Isopropyl alcohol | 70668B       | 1              |
| Hedinger        | Isopropyl alcohol | 70671B       | 2              |
| hedinger        | Isopropyl alcohol | 70675B       | 1              |
| Hedinger        | Isopropyl alcohol | 70675B       | 3              |
| Hedinger        | Isopropyl alcohol | 70680B       | 2              |
| Hedinger        | Isopropyl alcohol | 70685B       | 6              |
| Hedinger        | Isopropyl alcohol | 70690B       | 3              |
| Hedinger        | Isopropyl alcohol | 70693B       | 2              |
| Hedinger        | Isopropyl alcohol | 70695B       | 1              |
| Hedinger        | Isopropyl alcohol | 70701B       | 2              |
| Hedinger        | Isopropyl alcohol | 70703B       | 3              |
| Hedinger        | Isopropyl alcohol | 70704B       | 1              |
| Hedinger        | Isopropyl alcohol | 70707B       | 6              |
| Hedinger        | Isopropyl alcohol | 707088       | 1              |
| Hedinger        | Isopropyl alcohol | 70708B       | 2              |
| Hedinger        | Isopropyl alcohol | 707158       | 1              |
| Hedinger        | Isopropyl alcohol | 70715b       | 1              |
| Hedinger        | Isopropyl alcohol | 70715B       | 5              |
| Hedinger        | Isopropyl alcohol | 70720B       | 4              |
| Hedinger        | Isopropyl alcohol | 70722B       | 3              |
| Hedinger        | Isopropyl alcohol | 70723B       | 1              |
| hedinger        | Isopropyl alcohol | 70726B       | 2              |
| Hedinger        | Isopropyl alcohol | 70730B       | 2              |
| Hedinger        | Isopropyl alcohol | 70736B       | 3              |
| Hedinger        | Isopropyl alcohol | 70737B       | 4              |
| Hedinger        | Isopropyl alcohol | 70739B       | 1              |
| Hedinger        | Isopropyl alcohol | 70742B       | 3              |
| Hedinger        | Isopropyl alcohol | 70748B       | 8              |
| Hedinger        | Isopropyl alcohol | 70755B       | 3              |
| Hedinger        | Isopropyl alcohol | 70763B       | 1              |
| Hedinger        | Isopropyl alcohol | 70767B       | 4              |
| Hedinger        | Isopropyl alcohol | 70768B       | 5              |
| Hedinger        | Isopropyl alcohol | 70771B       | 6              |
| Hedinger        | Isopropyl alcohol | 70783B       | 4              |
| Hedinger        | Isopropyl alcohol | 70788B       | 3              |
| Hedinger        | Isopropyl alcohol | 70794B       | 3              |
| Hedinger        | Isopropyl alcohol | 70796B       | 2              |
| Hedinger        | Isopropyl alcohol | 70799B       | 6              |
| Hedinger        | Isopropyl alcohol | 70802B       | 2              |
| Hedinger        | Isopropyl alcohol | 70808B       | 3              |
| Hedinger        | Isopropyl alcohol | 70809        | 1              |
| Hedinger        | Isopropyl alcohol | 70809B       | 6              |
| Hedinger        | Isopropyl alcohol | 70816B       | 1              |
| Hedinger        | Isopropyl alcohol | 708188       | 2              |
| hedinger        | Isopropyl alcohol | 70818B       | 1              |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------|--------------|----------------|
| Hedinger        | Isopropyl alcohol | 70818B       | 3              |
| Hedinger        | Isopropyl alcohol | 708258       | 2              |
| Hedinger        | Isopropyl alcohol | 70825B       | 4              |
| Hedinger        | Isopropyl alcohol | 70835B       | 4              |
| Hedinger        | Isopropyl alcohol | 70837B       | 2              |
| Hedinger        | Isopropyl alcohol | 70853B       | 1              |
| Hedinger        | Isopropyl alcohol | 70855B       | 2              |
| Hedinger        | Isopropyl alcohol | 70858b       | 1              |
| Hedinger        | Isopropyl alcohol | 70858B       | 9              |
| HEDINGER        | Isopropyl alcohol | 70858B       | 1              |
| Hedinger        | Isopropyl alcohol | 70862B       | 1              |
| HEDINGER        | Isopropyl alcohol | 70862B       | 1              |
| Hedinger        | Isopropyl alcohol | 70870B       | 1              |
| Hedinger        | Isopropyl alcohol | 70879B       | 5              |
| hedinger        | Isopropyl alcohol | 70881B       | 1              |
| Hedinger        | Isopropyl alcohol | 70881B       | 2              |
| Hedinger        | Isopropyl alcohol | 708828       | 1              |
| Hedinger        | Isopropyl alcohol | 70882B       | 5              |
| Hedinger        | Isopropyl alcohol | 70884B       | 1              |
| Hedinger        | Isopropyl alcohol | 70889B       | 2              |
| Hedinger        | Isopropyl alcohol | 70892B       | 1              |
| Hedinger        | Isopropyl alcohol | 70896B       | 1              |
| Hedinger        | Isopropyl alcohol | 70898B       | 4              |
| Hedinger        | Isopropyl alcohol | 7089B        | 1              |
| Hedinger        | Isopropyl alcohol | 70900B       | 1              |
| Hedinger        | Isopropyl alcohol | 70906B       | 4              |
| Hedinger        | Isopropyl alcohol | 70908B       | 2              |
| Hedinger        | Isopropyl alcohol | 70915B       | 2              |
| Hedinger        | Isopropyl alcohol | 70918B       | 1              |
| Hedinger        | Isopropyl alcohol | 70922B       | 5              |
| Hedinger        | Isopropyl alcohol | 70923B       | 2              |
| Hedinger        | Isopropyl alcohol | 70931B       | 5              |
| Hedinger        | Isopropyl alcohol | 70936b       | 1              |
| Hedinger        | Isopropyl alcohol | 70936B       | 7              |
| Hedinger        | Isopropyl alcohol | 70941B       | 2              |
| Hedinger        | Isopropyl alcohol | 70943B       | 2              |
| hedinger        | Isopropyl alcohol | 70947B       | 1              |
| Hedinger        | Isopropyl alcohol | 70947B       | 6              |
| Hedinger        | Isopropyl alcohol | 70957B       | 2              |
| Hedinger        | Isopropyl alcohol | 70959b       | 1              |
| Hedinger        | Isopropyl alcohol | 70959B       | 5              |
| Hedinger        | Isopropyl alcohol | 70969        | 1              |
| Hedinger        | Isopropyl alcohol | 70969B       | 2              |
| Hedinger        | Isopropyl alcohol | 70973        | 1              |
| Hedinger        | Isopropyl alcohol | 709738       | 1              |
| Hedinger        | Isopropyl alcohol | 70973B       | 3              |
| Hedinger        | Isopropyl alcohol | 70977B       | 9              |
| Hedinger        | Isopropyl alcohol | 70982B       | 1              |
| Hedinger        | Isopropyl alcohol | 70983B       | 8              |
| hedinger        | Isopropyl alcohol | 70991B       | 1              |
| Hedinger        | Isopropyl alcohol | 70991B       | 3              |
| Hedinger        | Isopropyl alcohol | 70993B       | 2              |
| Hedinger        | Isopropyl alcohol | 709943       | 1              |
| Hedinger        | Isopropyl alcohol | 709948       | 1              |
| hedinger        | Isopropyl alcohol | 70994B       | 2              |
| Hedinger        | Isopropyl alcohol | 70994B       | 20             |
| Hedinger        | Isopropyl alcohol | 71189B       | 1              |
| Hedinger        | Isopropyl alcohol | 7474942      | 1              |
| Hedinger        | Isopropyl alcohol | 7474959      | 2              |
| Hedinger        | Isopropyl alcohol | 7638B        | 1              |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b>   | <b>Spectra</b> |
|----------------------------|-------------------|----------------|----------------|
| Hedinger                   | Isopropyl alcohol | 9709838        | 1              |
| Hedinger                   | Isopropyl alcohol | P2018/109      | 1              |
| Hedinger                   | Isopropyl alcohol | Q101012        | 2              |
| Hedinger1                  | Isopropyl alcohol | 70607B         | 1              |
| HEDINGER7/AHD              | Isopropyl alcohol | 701214B        | 1              |
| HedingerAlliance           | Isopropyl alcohol | 701156B        | 1              |
| HedingerAlliance           | Isopropyl alcohol | 7011640        | 1              |
| HedingerAlliance           | Isopropyl alcohol | 701258B        | 1              |
| HedingerAlliance           | Isopropyl alcohol | 70866B         | 2              |
| HedingerAlliance           | Isopropyl alcohol | 70881B         | 2              |
| HedingerAlliance           | Isopropyl alcohol | 70882B         | 1              |
| HedingerGmbH/AHD           | Isopropyl alcohol | 701233B        | 1              |
| Hedinger-Phönix            | Isopropyl alcohol | 701052B        | 1              |
| HedingerStuttgart/GEHE     | Isopropyl alcohol | 70430B         | 1              |
| HedingerStuttgart/GEHE     | Isopropyl alcohol | 704958         | 1              |
| HedingerStuttgart/GEHE     | Isopropyl alcohol | 704978         | 1              |
| HedingerStuttgart/GEHE     | Isopropyl alcohol | 70527B         | 1              |
| Hedinger/Gehe              | Isopropyl alcohol | 70994B         | 1              |
| Heidinger/ Noweda          | Isopropyl alcohol | 701031B        | 2              |
| Heidinger/ Noweda          | Isopropyl alcohol | 701123B        | 1              |
| Heidinger/ Noweda          | Isopropyl alcohol | 701173B        | 1              |
| Heidinger/ Noweda          | Isopropyl alcohol | 701175B        | 1              |
| Heidinger                  | Isopropyl alcohol | 70748B         | 1              |
| Heidinger                  | Isopropyl alcohol | 70922B         | 1              |
| Heinger/G                  | Isopropyl alcohol | 70730B         | 1              |
| Hendrigger                 | Isopropyl alcohol | 701317B        | 1              |
| Henry Lamotte Oils GmbH    | Isopropyl alcohol | 701052B        | 1              |
| Henry Lamotte Oils GmbH    | Isopropyl alcohol | 70627B         | 1              |
| Henry Lamotte Oils         | Isopropyl alcohol | 16310633       | 1              |
| Henry Lamotte/ Sanacorp    | Isopropyl alcohol | 15300912       | 1              |
| Henry LamotteOlis GmbH/... | Isopropyl alcohol | 7011368        | 1              |
| Heraeus                    | Isopropyl alcohol | 3960070        | 4              |
| Herdinger Phönix           | Isopropyl alcohol | 70536B         | 1              |
| Herdinger                  | Isopropyl alcohol | 70592B         | 1              |
| Hetterich/Noewda           | Isopropyl alcohol | 70796B         | 1              |
| Höfer Chemie GmbH          | Isopropyl alcohol | 200661-7       | 1              |
| Höfer Chemie GmbH          | Isopropyl alcohol | keine          | 1              |
| Höfer Chemie               | Isopropyl alcohol | 200-661-7      | 1              |
| Höfer Chemie               | Isopropyl alcohol | 20200828352678 | 1              |
| Höfer Chemie               | Isopropyl alcohol | 20504295       | 5              |
| Höfer Chemie               | Isopropyl alcohol | 4923198/100    | 2              |
| Höfer                      | Isopropyl alcohol | 1425423        | 1              |
| Hofmann/Schmittmann Korn   | Isopropyl alcohol | 2710227        | 1              |
| Hofmann/Schmittmann Korn   | Isopropyl alcohol | 2772128        | 1              |
| Hubmann Stern              | Isopropyl alcohol | 200-661-7      | 1              |
| Ichthyol/Noweda            | Isopropyl alcohol | 70587B         | 1              |
| Ichthyol/Phönix            | Isopropyl alcohol | 70835B         | 1              |
| Isopropylalkohol GMP/Gehe  | Isopropyl alcohol | 70598B         | 1              |
| Isopropylalkohol/Noweda    | Isopropyl alcohol | 701105B        | 1              |
| Jenne, Hedinger            | Isopropyl alcohol | 70475B         | 1              |
| Jenne, Hedinger            | Isopropyl alcohol | 70501B         | 1              |
| Jenne, Hedinger            | Isopropyl alcohol | 70519B         | 1              |
| Jenne/Hedinger             | Isopropyl alcohol | 701099B        | 1              |
| Jenne/Hedinger             | Isopropyl alcohol | 70643B         | 1              |
| Jenne                      | Isopropyl alcohol | 701073B        | 1              |
| Jenne                      | Isopropyl alcohol | 70114B         | 1              |
| Jenne                      | Isopropyl alcohol | 701194B        | 2              |
| Jenne                      | Isopropyl alcohol | 701212B        | 2              |
| Jenne                      | Isopropyl alcohol | 7474936        | 1              |
| Jürgen Boesecke GmbH       | Isopropyl alcohol | 200400310      | 1              |

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| Supplier                   | Substance         | Batch        | Spectra |
|----------------------------|-------------------|--------------|---------|
| Karl Kost Alkohole/Krie... | Isopropyl alcohol | 310140618140 | 1       |
| Karl Kost Alkohole         | Isopropyl alcohol | 310080420173 | 1       |
| Karl-Josef Kost Alkohol... | Isopropyl alcohol | 310150221191 | 1       |
| Kassner & Sasse            | Isopropyl alcohol | 383316       | 2       |
| Kassner & Sasse            | Isopropyl alcohol | 669929       | 1       |
| Kehr/ Hedinger             | Isopropyl alcohol | 70994B       | 1       |
| Kehr/Hedinger              | Isopropyl alcohol | 70898B       | 1       |
| Kehr                       | Isopropyl alcohol | 2011         | 1       |
| Klenk                      | Isopropyl alcohol | 70475b       | 1       |
| Klenk                      | Isopropyl alcohol | 70527B       | 1       |
| Kögl                       | Isopropyl alcohol | KNC0576J16   | 1       |
| Kögl                       | Isopropyl alcohol | KNC0593J17   | 1       |
| Kögl                       | Isopropyl alcohol | KNC1686J17   | 1       |
| Kost/ - /16.09.13          | Isopropyl alcohol | 310120913059 | 1       |
| Kost/Karl Josef Kost/Kr... | Isopropyl alcohol | 310151019161 | 1       |
| Kost/Karl Josef Kost       | Isopropyl alcohol | 310230218134 | 1       |
| Kost/kost/sophien          | Isopropyl alcohol | 310261113062 | 1       |
| Kost                       | Isopropyl alcohol | 310031215096 | 1       |
| kost                       | Isopropyl alcohol | 310120913059 | 2       |
| Kost                       | Isopropyl alcohol | 310140616105 | 1       |
| Kost                       | Isopropyl alcohol | 310160418136 | 1       |
| Kost                       | Isopropyl alcohol | 310260419153 | 1       |
| L 10/Hedinger              | Isopropyl alcohol | 70866B       | 1       |
| L10/Apoth.E.Bartel         | Isopropyl alcohol | 70858B       | 1       |
| L10                        | Isopropyl alcohol | 701031B      | 1       |
| L10                        | Isopropyl alcohol | 701054B      | 1       |
| L10                        | Isopropyl alcohol | 70977B       | 1       |
| L11                        | Isopropyl alcohol | 701099B      | 1       |
| L12/Apoth.E.Bartel         | Isopropyl alcohol | 70835B       | 1       |
| Laborchemie Apolda GmbH... | Isopropyl alcohol | 18178216     | 1       |
| Lolab                      | Isopropyl alcohol | 992926       | 1       |
| Martinus-Apotheke          | Isopropyl alcohol | 20504295     | 1       |
| Megro                      | Isopropyl alcohol | 310190919160 | 1       |
| Merck                      | Isopropyl alcohol | K17381091    | 1       |
| Nanoprotect GmbH           | Isopropyl alcohol | 2020-III     | 1       |
| NeoFroxx/Fox Chemicals     | Isopropyl alcohol | 5E5CEE9F     | 1       |
| neoFroxxGmbH/Fox Chemic... | Isopropyl alcohol | 5CE6AEEA     | 1       |
| neoFroxxGmbH/Fox Chemic... | Isopropyl alcohol | 5D713BC1     | 1       |
| neoFroxxGmbH/Fox Chemic... | Isopropyl alcohol | 5E675FA7     | 1       |
| NicoLiquids Essen          | Isopropyl alcohol | 12345        | 1       |
| Nokun                      | Isopropyl alcohol | 70870B       | 1       |
| Nordwest Chemie            | Isopropyl alcohol | F2000484     | 2       |
| Nordwest Chemie            | Isopropyl alcohol | F2000508     | 1       |
| Nordwest Chemie            | Isopropyl alcohol | F2000508-1   | 1       |
| Nowed                      | Isopropyl alcohol | 701078B      | 1       |
| Nowed                      | Isopropyl alcohol | 701181B      | 3       |
| Nowed                      | Isopropyl alcohol | 701186B      | 3       |
| Noweda / Hedinger          | Isopropyl alcohol | 701123B      | 1       |
| Noweda / Hedinger          | Isopropyl alcohol | 70598B       | 1       |
| Noweda / Hedinger          | Isopropyl alcohol | 70638B       | 1       |
| Noweda / Hedinger          | Isopropyl alcohol | 70742B       | 2       |
| Noweda Hedinger 15.01.2... | Isopropyl alcohol | 709948       | 1       |
| Noweda Hedinger            | Isopropyl alcohol | 701188B      | 1       |
| Noweda/ Dr. Seeger         | Isopropyl alcohol | 70540B       | 1       |
| Noweda/ Hedinger GmbH      | Isopropyl alcohol | 70663B       | 1       |
| Noweda/ Hedinger           | Isopropyl alcohol | 701114B      | 1       |
| Noweda/ Hedinger           | Isopropyl alcohol | 701186B      | 1       |
| Noweda/Hedin               | Isopropyl alcohol | 70726B       | 1       |
| Noweda/Hedinger            | Isopropyl alcohol | 701043B      | 1       |
| Noweda/Hedinger            | Isopropyl alcohol | 701073B      | 1       |

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| <b>Supplier</b>      | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------|-------------------|--------------|----------------|
| Noweda/Hedinger      | Isopropyl alcohol | 701093B      | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 701105B      | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 701136B      | 1              |
| Noweda/hedinger      | Isopropyl alcohol | 701258B      | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 701302B      | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70507B       | 2              |
| Noweda/Hedinger      | Isopropyl alcohol | 70555B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70565B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70572B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70574B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70584B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70610B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 706148       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70614B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70627B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70650B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70659B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70685        | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70693B       | 2              |
| Noweda/Hedinger      | Isopropyl alcohol | 70722B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70730B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70734B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70799B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70923B       | 1              |
| Noweda/Hedinger      | Isopropyl alcohol | 70943B       | 1              |
| Noweda/Henry Lamotte | Isopropyl alcohol | 706638       | 1              |
| Noweda               | Isopropyl alcohol | 11371222     | 1              |
| Noweda               | Isopropyl alcohol | 12112218     | 1              |
| Noweda               | Isopropyl alcohol | 12254715     | 1              |
| Noweda               | Isopropyl alcohol | 12379510     | 1              |
| Noweda               | Isopropyl alcohol | 12379515     | 1              |
| Noweda               | Isopropyl alcohol | 13397303     | 1              |
| Noweda               | Isopropyl alcohol | 14051027     | 1              |
| noweda               | Isopropyl alcohol | 14278905     | 1              |
| Noweda               | Isopropyl alcohol | 16137302     | 1              |
| noweda               | Isopropyl alcohol | 16137324     | 1              |
| Noweda               | Isopropyl alcohol | 16310616     | 1              |
| Noweda               | Isopropyl alcohol | 17044031     | 1              |
| Noweda               | Isopropyl alcohol | 17044033     | 1              |
| Noweda               | Isopropyl alcohol | 181778209    | 1              |
| Noweda               | Isopropyl alcohol | 18178207     | 1              |
| Noweda               | Isopropyl alcohol | 18178209     | 1              |
| Noweda               | Isopropyl alcohol | 18178240     | 1              |
| Noweda               | Isopropyl alcohol | 18291710     | 2              |
| Noweda               | Isopropyl alcohol | 19059527     | 1              |
| Noweda               | Isopropyl alcohol | 19209802     | 1              |
| Noweda               | Isopropyl alcohol | 20001557011  | 1              |
| Noweda               | Isopropyl alcohol | 701035B      | 1              |
| Noweda               | Isopropyl alcohol | 701043B      | 1              |
| Noweda               | Isopropyl alcohol | 701071B      | 1              |
| Noweda               | Isopropyl alcohol | 7010818      | 1              |
| Noweda               | Isopropyl alcohol | 701123B      | 1              |
| Noweda               | Isopropyl alcohol | 701156B      | 1              |
| Noweda               | Isopropyl alcohol | 701173B      | 1              |
| Noweda               | Isopropyl alcohol | 701175B      | 2              |
| Noweda               | Isopropyl alcohol | 701194B      | 1              |
| Noweda               | Isopropyl alcohol | 701201B      | 1              |
| Noweda               | Isopropyl alcohol | 701203B      | 2              |
| Noweda               | Isopropyl alcohol | 701212B      | 1              |
| Noweda               | Isopropyl alcohol | 70409B       | 1              |

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| <b>Supplier</b>            | <b>Substance</b>  | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------|--------------|----------------|
| Noweda                     | Isopropyl alcohol | 70459B       | 1              |
| Noweda                     | Isopropyl alcohol | 70475B       | 2              |
| Noweda                     | Isopropyl alcohol | 70490B       | 1              |
| Noweda                     | Isopropyl alcohol | 70519B       | 1              |
| Noweda                     | Isopropyl alcohol | 70627B       | 1              |
| Noweda                     | Isopropyl alcohol | 70638B       | 1              |
| Noweda                     | Isopropyl alcohol | 707488       | 1              |
| Noweda                     | Isopropyl alcohol | 70755B       | 1              |
| Noweda                     | Isopropyl alcohol | 70835B       | 1              |
| Noweda                     | Isopropyl alcohol | 70898B       | 1              |
| Noweda                     | Isopropyl alcohol | 70931B       | 1              |
| Noweda                     | Isopropyl alcohol | 70993B       | 1              |
| Otto Fischar GmbH & Co.... | Isopropyl alcohol | 1009011      | 1              |
| Otto Fischar GmbH & Co.... | Isopropyl alcohol | 4108024      | 1              |
| Otto Fischar GmbH          | Isopropyl alcohol | 1008081      | 1              |
| Otto Fischar GmbH          | Isopropyl alcohol | 4104072      | 1              |
| Otto Fischar/GEHE          | Isopropyl alcohol | 1008011      | 1              |
| Otto Fischar               | Isopropyl alcohol | 4100014      | 4              |
| Otto fischar               | Isopropyl alcohol | 41000314     | 1              |
| Otto Fischar               | Isopropyl alcohol | 410003G      | 1              |
| Otto Fischar               | Isopropyl alcohol | 603117000    | 1              |
| Otto Fischar               | Isopropyl alcohol | ohne         | 1              |
| Otto Fischer / Alliance... | Isopropyl alcohol | 1009011      | 1              |
| Otto Fischer / Gehe EK ... | Isopropyl alcohol | 100/0051     | 1              |
| Otto Fischer GmbH & co.... | Isopropyl alcohol | 1008011      | 1              |
| Otto Fischer GmbH & co.... | Isopropyl alcohol | 1008081      | 1              |
| Otto Fischer GmbH          | Isopropyl alcohol | 10172297     | 1              |
| OttoFischar/Noweda         | Isopropyl alcohol | 1005041      | 1              |
| Ph.Eur.                    | Isopropyl alcohol | 701099B      | 1              |
| Ph.Eur.                    | Isopropyl alcohol | 701139B      | 1              |
| Ph.Eur/Sanacorp            | Isopropyl alcohol | 701081B      | 1              |
| Phoen                      | Isopropyl alcohol | 70809B       | 1              |
| Phoenix 22.10.14           | Isopropyl alcohol | 70607B       | 1              |
| Phoenix goettin            | Isopropyl alcohol | 70685B       | 1              |
| Phoenix/Fischer            | Isopropyl alcohol | 1008081      | 1              |
| Phoenix/Hedinger           | Isopropyl alcohol | 701182B      | 1              |
| Phoenix                    | Isopropyl alcohol | 14219204     | 1              |
| Phoenix                    | Isopropyl alcohol | 20001179020  | 2              |
| Phoenix                    | Isopropyl alcohol | 20001557007  | 3              |
| Phoenix                    | Isopropyl alcohol | 2000155707   | 1              |
| Phoenix                    | Isopropyl alcohol | 3023         | 1              |
| Phoenix                    | Isopropyl alcohol | 3048         | 1              |
| Phoenix                    | Isopropyl alcohol | 3086         | 1              |
| Phoenix                    | Isopropyl alcohol | 3228         | 1              |
| Phoenix                    | Isopropyl alcohol | 3241         | 1              |
| Phoenix                    | Isopropyl alcohol | 410003g      | 1              |
| Phoenix                    | Isopropyl alcohol | 4108082      | 1              |
| Phoenix                    | Isopropyl alcohol | 701105B      | 1              |
| Phoenix                    | Isopropyl alcohol | 701113B      | 1              |
| Phoenix                    | Isopropyl alcohol | 701133B      | 2              |
| phoenix                    | Isopropyl alcohol | 70947B       | 1              |
| Phoenix                    | Isopropyl alcohol | 70994B       | 1              |
| Phönix 13.10.15 ...        | Isopropyl alcohol | 70734B       | 1              |
| Phönix / Hedinger          | Isopropyl alcohol | 70809B       | 1              |
| Phönix 07.01.15            | Isopropyl alcohol | 70650B       | 1              |
| Phönix W.E:11.04.18 E....  | Isopropyl alcohol | 70991B       | 1              |
| Phönix/ HEDINGER           | Isopropyl alcohol | 701214B      | 1              |
| Phönix/ HEDINGER           | Isopropyl alcohol | 701218B      | 1              |
| Phönix/Hedinger GmbH       | Isopropyl alcohol | 701107B      | 1              |
| Phönix/Hedinger GmbH       | Isopropyl alcohol | 701114B      | 1              |

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| <b>Supplier</b>              | <b>Substance</b>  | <b>Batch</b>    | <b>Spectra</b> |
|------------------------------|-------------------|-----------------|----------------|
| Phönix/Hedinger              | Isopropyl alcohol | 701113B         | 1              |
| Phönix                       | Isopropyl alcohol | 1009011         | 1              |
| Phönix                       | Isopropyl alcohol | 12321002        | 1              |
| Phönix                       | Isopropyl alcohol | 13249432        | 1              |
| Phönix                       | Isopropyl alcohol | 14134715        | 1              |
| Phönix                       | Isopropyl alcohol | 17300406        | 1              |
| Phönix                       | Isopropyl alcohol | 17300430        | 1              |
| Phönix                       | Isopropyl alcohol | 18178223        | 1              |
| Phönix                       | Isopropyl alcohol | 19059513        | 1              |
| Phönix                       | Isopropyl alcohol | 20001912003     | 1              |
| Phönix                       | Isopropyl alcohol | 3138            | 1              |
| Phönix                       | Isopropyl alcohol | 3168            | 1              |
| Phönix                       | Isopropyl alcohol | 410003G         | 1              |
| Phönix                       | Isopropyl alcohol | 4100048         | 1              |
| Phönix                       | Isopropyl alcohol | 701011B         | 1              |
| PHÖNIX                       | Isopropyl alcohol | 701214B         | 1              |
| Phönix                       | Isopropyl alcohol | 701302B         | 3              |
| Phönix                       | Isopropyl alcohol | 70536B          | 1              |
| phönix                       | Isopropyl alcohol | 70783b          | 1              |
| phönix                       | Isopropyl alcohol | 70799B          | 1              |
| phönix                       | Isopropyl alcohol | 70837B          | 1              |
| phönix                       | Isopropyl alcohol | 70862B          | 1              |
| Phönix                       | Isopropyl alcohol | 70862B          | 1              |
| Phönix                       | Isopropyl alcohol | 70870B          | 1              |
| phönix                       | Isopropyl alcohol | 70898b          | 1              |
| Phönix                       | Isopropyl alcohol | 70983B          | 1              |
| Post Apotheke                | Isopropyl alcohol | 18291708        | 2              |
| PTS GmbH                     | Isopropyl alcohol | 10031701        | 1              |
| Rondell Apotheke             | Isopropyl alcohol | 70607B          | 2              |
| Rondell Apotheke             | Isopropyl alcohol | 70818B          | 1              |
| Röntgen                      | Isopropyl alcohol | 18178229        | 1              |
| Röntgen                      | Isopropyl alcohol | 20003673009     | 1              |
| Roth Chemical                | Isopropyl alcohol | 1331811         | 1              |
| Roth Chemical                | Isopropyl alcohol | 1344201         | 1              |
| Roth/Walter-CMP              | Isopropyl alcohol | 90293586        | 3              |
| Roth                         | Isopropyl alcohol | 30291609        | 1              |
| Roth                         | Isopropyl alcohol | 60292951        | 2              |
| Rückgabe Marschollek         | Isopropyl alcohol | 70896B          | 1              |
| S3 Chemicals                 | Isopropyl alcohol | ABNX/P-20032001 | 1              |
| Sanacorp EK:4,56 EUR -11     | Isopropyl alcohol | 70923B          | 1              |
| Sanacorp / Hedinger          | Isopropyl alcohol | 70573B          | 1              |
| Sanacorp / Hedinger          | Isopropyl alcohol | 70726B          | 1              |
| Sanacorp 08.11.21 EK:11...   | Isopropyl alcohol | 211108I         | 1              |
| Sanacorp, 18.03.17, 29,...   | Isopropyl alcohol | 70906B          | 1              |
| sanacorp, 29,30EUR, 15.09... | Isopropyl alcohol | 70835B          | 1              |
| sanacorp, hedinger           | Isopropyl alcohol | 701156B         | 1              |
| Sanacorp/ Hedinger           | Isopropyl alcohol | 701182B         | 1              |
| Sanacorp/ Hedinger           | Isopropyl alcohol | 701199B         | 1              |
| Sanacorp/Hedinger WE:15...   | Isopropyl alcohol | 70748B          | 1              |
| Sanacorp/Hedinger            | Isopropyl alcohol | 701214B         | 1              |
| Sanacorp/Hedinger            | Isopropyl alcohol | 70923B          | 1              |
| Sanacorp                     | Isopropyl alcohol |                 | 1              |
| Sanacorp                     | Isopropyl alcohol | 1000051         | 1              |
| Sanacorp                     | Isopropyl alcohol | 12321028        | 1              |
| Sanacorp                     | Isopropyl alcohol | 13050904        | 1              |
| Sanacorp                     | Isopropyl alcohol | 1324919         | 2              |
| Sanacorp                     | Isopropyl alcohol | 13249410        | 1              |
| Sanacorp                     | Isopropyl alcohol | 13249416        | 1              |
| Sanacorp                     | Isopropyl alcohol | 14051017        | 1              |
| Sanacorp                     | Isopropyl alcohol | 14051035        | 1              |

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| Supplier                   | Substance         | Batch        | Spectra |
|----------------------------|-------------------|--------------|---------|
| Sanacorp                   | Isopropyl alcohol | 14134709     | 1       |
| Sanacorp                   | Isopropyl alcohol | 14134725     | 1       |
| Sanacorp                   | Isopropyl alcohol | 14278913     | 1       |
| Sanacorp                   | Isopropyl alcohol | 15171302     | 1       |
| Sanacorp                   | Isopropyl alcohol | 15300902     | 1       |
| Sanacorp                   | Isopropyl alcohol | 16039901     | 1       |
| Sanacorp                   | Isopropyl alcohol | 17189318     | 1       |
| Sanacorp                   | Isopropyl alcohol | 17189324     | 1       |
| Sanacorp                   | Isopropyl alcohol | 18065405     | 2       |
| Sanacorp                   | Isopropyl alcohol | 18178231     | 1       |
| Sanacorp                   | Isopropyl alcohol | 18291714     | 1       |
| Sanacorp                   | Isopropyl alcohol | 18291726     | 1       |
| Sanacorp                   | Isopropyl alcohol | 192098004    | 1       |
| Sanacorp                   | Isopropyl alcohol | 19209818     | 1       |
| Sanacorp                   | Isopropyl alcohol | 20000450022  | 3       |
| Sanacorp                   | Isopropyl alcohol | 701011B      | 2       |
| Sanacorp                   | Isopropyl alcohol | 701099B      | 1       |
| Sanacorp                   | Isopropyl alcohol | 701123B      | 2       |
| Sanacorp                   | Isopropyl alcohol | 701173B      | 1       |
| Sanacorp                   | Isopropyl alcohol | 701186B      | 1       |
| Sanacorp                   | Isopropyl alcohol | 701189B      | 1       |
| Sanacorp                   | Isopropyl alcohol | 701193B      | 2       |
| Sanacorp                   | Isopropyl alcohol | 701196B      | 2       |
| Sanacorp                   | Isopropyl alcohol | 701258B      | 1       |
| Sanacorp                   | Isopropyl alcohol | 701276B      | 2       |
| Sanacorp                   | Isopropyl alcohol | 701325B      | 1       |
| sanacorp                   | Isopropyl alcohol | 70481B       | 1       |
| Sanacorp                   | Isopropyl alcohol | 70593B       | 1       |
| Sanacorp                   | Isopropyl alcohol | 705988       | 1       |
| Sanacorp                   | Isopropyl alcohol | 70693B       | 1       |
| Sanacorp                   | Isopropyl alcohol | 70701B       | 1       |
| Sanacorp                   | Isopropyl alcohol | 70788B       | 1       |
| Sanacorp                   | Isopropyl alcohol | 70809B       | 3       |
| Sanacorp                   | Isopropyl alcohol | 70918B       | 1       |
| Sanacorp                   | Isopropyl alcohol | 70977B       | 1       |
| Sanacorp                   | Isopropyl alcohol | 70994B       | 1       |
| SAV LP Gmbh                | Isopropyl alcohol | 20200309     | 1       |
| SAV LP Gmbh                | Isopropyl alcohol | 939705       | 1       |
| Scharr KG                  | Isopropyl alcohol | 153001       | 2       |
| Schwabe                    | Isopropyl alcohol |              | 1       |
| Schwabe                    | Isopropyl alcohol | 40320        | 1       |
| Shell Chemicals/Noweda     | Isopropyl alcohol | 701196B      | 1       |
| Shell Chemicals            | Isopropyl alcohol | 70577B       | 1       |
| Shell Chemicals            | Isopropyl alcohol | 70703B       | 1       |
| Shell/Noweda               | Isopropyl alcohol | 701133B      | 2       |
| Shell/Phoenix              | Isopropyl alcohol | 701214B      | 8       |
| shell                      | Isopropyl alcohol | 701203B      | 1       |
| SHELL                      | Isopropyl alcohol | 70540b       | 1       |
| sittig                     | Isopropyl alcohol | 70788B       | 1       |
| Sophien AM GmbH/ Kiefer... | Isopropyl alcohol | 310260117116 | 2       |
| sophien-arzneimittel       | Isopropyl alcohol | 310190514069 | 1       |
| Spangro 16.2.19            | Isopropyl alcohol | 18178236     | 1       |
| Spangro 24.03.2014         | Isopropyl alcohol | 70562B       | 1       |
| Spangropharm               | Isopropyl alcohol | 701189B      | 1       |
| Spangropharm               | Isopropyl alcohol | 701193B      | 1       |
| Spangropharm               | Isopropyl alcohol | 705988       | 1       |
| spinnenrad                 | Isopropyl alcohol | 611410093    | 1       |
| Spinnrad/Phönix            | Isopropyl alcohol | 1017410092   | 1       |
| Spinnrad                   | Isopropyl alcohol | 1114410092   | 1       |
| Spinnrad                   | Isopropyl alcohol | 320410091    | 1       |

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| Supplier                   | Substance         | Batch        | Spectra |
|----------------------------|-------------------|--------------|---------|
| Spinnrad                   | Isopropyl alcohol | 320410093    | 1       |
| Spinnrad                   | Isopropyl alcohol | 516410091    | 1       |
| Stockmeier                 | Isopropyl alcohol | 940589       | 1       |
| Stockmeier                 | Isopropyl alcohol | 945599       | 1       |
| Stumpf/Hedinger            | Isopropyl alcohol | 70527B       | 2       |
| Stumpf/Hedinger            | Isopropyl alcohol | 70627B       | 1       |
| Stumpf/Hedinger            | Isopropyl alcohol | 70673B       | 1       |
| Stumpf                     | Isopropyl alcohol | 70540B       | 1       |
| Taoasis                    | Isopropyl alcohol | 701011B      | 1       |
| Th. Geyer                  | Isopropyl alcohol | 310140120165 | 1       |
| Th. Geyer                  | Isopropyl alcohol | 310310120166 | 1       |
| unbekannt                  | Isopropyl alcohol | 25032020     | 1       |
| unbekannt                  | Isopropyl alcohol | 25032020REAL | 1       |
| Universität Hamburg        | Isopropyl alcohol | 985328       | 1       |
| VDL                        | Isopropyl alcohol | 14051020     | 1       |
| VDL                        | Isopropyl alcohol | 14219213     | 1       |
| VMP                        | Isopropyl alcohol | 43985        | 1       |
| VWR Chemicals              | Isopropyl alcohol | 19L264007    | 4       |
| VWR Chemicals              | Isopropyl alcohol | 200-661-7    | 7       |
| VWR Chemicals              | Isopropyl alcohol | 20A204118    | 1       |
| VWR Chemicals              | Isopropyl alcohol | 20B034013    | 2       |
| VWR International S.A.S    | Isopropyl alcohol | 19L264003    | 1       |
| VWR                        | Isopropyl alcohol | 20b034013    | 1       |
| VWR                        | Isopropyl alcohol | 20C194011    | 1       |
| VWR                        | Isopropyl alcohol | K51090266920 | 1       |
| VWR                        | Isopropyl alcohol | K51268166916 | 1       |
| WE:Sanacorp 08.11.2016 ... | Isopropyl alcohol | 70870B       | 1       |
| WernerHofmann/WernerHof... | Isopropyl alcohol | 2772128      | 1       |
| WernerHofmann/WernerHof... | Isopropyl alcohol | 701193B      | 1       |

- 284 127 spectra from 1294 *Apo-Ident* customers from a total of 50 397 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Isopropyl alcohol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Isopropyl alcohol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 260           | 0              | 66 899        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 4554          | 28             | 284 127       |

The substance/substance group *Isopropyl alcohol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.6923 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.3889 % (> 99.3234 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Isopropyl alcohol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance    | Distance in<br>main model | Distance in<br>second-stage model |
|--------------|---------------------------|-----------------------------------|
| Dexpanthenol | 140.32                    | –                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Isopropyl alcohol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30759     | 31517                  | 6.98                            | 231.65                             |
| 31232     | 31517                  | 1.47                            | 224.63                             |
| 31386     | 31517                  | 3.13                            | 221.37                             |
| 31517     | 31517                  | 0.00                            | 222.19                             |
| 32817     | 31517                  | 6.67                            | 210.00                             |
| 33256     | 31517                  | 5.30                            | 204.23                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Isopropyl alcohol 70%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30848-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Isopropyl alcohol 70%; Alcohol isopropylicus 70%

### Special notes

When selecting the *Isopropyl alcohol 70%* substance/substance group, the following information is displayed to the user:

- Information about the content of liquid mixtures: The content of the substance refers to volume percent (V/V). Alcohol-water mixtures weighed in in percent by mass (m/V) may cannot be identified.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

- The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
- In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
- All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Isopropyl alcohol 70%     | 12     | 25     | 1737   |

## Second-stage model

For differentiation of the substance/substance group *Isopropyl alcohol 70%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Isopropyl alcohol 70%*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Isopropyl alcoho... | 14076503 | 31388     | 40      | 1412279     |
| Caelo    | Isopropyl alcoho... | 14331004 | 31622     | 60      | 20141104    |
| Caelo    | Isopropyl alcoho... | 15403802 | 31831     | 60      | 20151127    |
| Caelo    | Isopropyl alcoho... | 160884   | 32216     | 40      | 20160414*   |
| Caelo    | Isopropyl alcoho... | 161678   | 32318     | 40      | 20160722*   |
| Caelo    | Isopropyl alcoho... | 161677   | 32319     | 40      | 20160722*   |
| Caelo    | Isopropyl alcoho... | 161676   | 32320     | 40      | 20160722*   |
| Caelo    | Isopropyl alcoho... | 161679   | 32322     | 40      | 20160722*   |
| Caelo    | Isopropyl alcoho... | 163189   | 33105     | 40      | 20161206*   |
| Caelo    | Isopropyl alcoho... | 163190   | 33106     | 40      | 20161206*   |
| Caelo    | Isopropyl alcoho... | 21003310 | 36054     | 40      | 20211125*   |
| Caelo    | Isopropyl alcoho... | 21002600 | 36058     | 40      | 20210827*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 520 spectra of 12 reference samples from the substance/substance group *Isopropyl alcohol 70%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 12 different batches.
- 66 639 spectra from a total of 1367 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples:

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 880 spectra of 30 reference samples from the substance/substance group *Isopropyl alcohol 70%*.
- Among them are spectra of independent samples from 25 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance             | Batch    | Sample ID | Spectra |
|----------|-----------------------|----------|-----------|---------|
| Caelo    | Isopropyl alcohol 70% | 163191   | 33107     | 40      |
| Caelo    | Isopropyl alcohol 70% | 163192   | 33108     | 40      |
| Caelo    | Isopropyl alcohol 70% | 172029   | 33685     | 40      |
| Caelo    | Isopropyl alcohol 70% | 172028   | 33686     | 40      |
| Caelo    | Isopropyl alcohol 70% | 172031   | 33689     | 40      |
| Caelo    | Isopropyl alcohol 70% | 170821   | 33702     | 40      |
| Caelo    | Isopropyl alcohol 70% | 181143   | 34067     | 40      |
| Caelo    | Isopropyl alcohol 70% | 181142   | 34068     | 40      |
| Caelo    | Isopropyl alcohol 70% | 181141   | 34069     | 40      |
| Caelo    | Isopropyl alcohol 70% | 180739   | 34071     | 40      |
| Caelo    | Isopropyl alcohol 70% | 183080   | 34465     | 40      |
| Caelo    | Isopropyl alcohol 70% | 183079   | 34466     | 40      |
| Caelo    | Isopropyl alcohol 70% | 21002601 | 35825     | 50      |
| Caelo    | Isopropyl alcohol 70% | 21002603 | 35836     | 50      |
| Caelo    | Isopropyl alcohol 70% | 21002602 | 35837     | 50      |
| Caelo    | Isopropyl alcohol 70% | 21003308 | 36056     | 10      |
| Caelo    | Isopropyl alcohol 70% | 21003309 | 36057     | 10      |
| Caelo    | Isopropyl alcohol 70% | 22000732 | 36167     | 40      |
| Caelo    | Isopropyl alcohol 70% | 22000733 | 36168     | 10      |
| Caelo    | Isopropyl alcohol 70% | 22000734 | 36169     | 10      |
| Caelo    | Isopropyl alcohol 70% | 22000735 | 36170     | 10      |
| Caelo    | Isopropyl alcohol 70% | 22001156 | 36313     | 40      |
| Caelo    | Isopropyl alcohol 70% | 22001157 | 36314     | 10      |
| Caelo    | Isopropyl alcohol 70% | 22001158 | 36315     | 10      |
| Caelo    | Isopropyl alcohol 70% | 22001159 | 36316     | 10      |
| Caelo    | Isopropyl alcohol 70% | 21002600 | 35827     | 50      |
| Caelo    | Isopropyl alcohol 70% | 21003310 | 36055     | 10      |
| Caelo    | Isopropyl alcohol 70% | 21002601 | 36059     | 10      |
| Caelo    | Isopropyl alcohol 70% | 21002602 | 36060     | 10      |
| Caelo    | Isopropyl alcohol 70% | 21002603 | 36061     | 10      |

- 106 483 spectra from a total of 2474 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 4343 spectra from 552 *Apo-Ident* customers from 1748 batches from the substance/substance group *Isopropyl alcohol 70%*.
- Among them are spectra of independent samples from 1735 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance             | Batch       | Spectra |
|----------------------------|-----------------------|-------------|---------|
|                            | Isopropyl alcohol 70% | 201644      | 1       |
| 03.08.2020                 | Isopropyl alcohol 70% | 53532       | 3       |
| 03.08.2020                 | Isopropyl alcohol 70% | 53536       | 1       |
| 03.08.2020                 | Isopropyl alcohol 70% | 53537       | 1       |
| 04.04.19/GEHE/Hedinger     | Isopropyl alcohol 70% | 53516       | 1       |
| A. Hedinger/ Noweda        | Isopropyl alcohol 70% | 53590       | 1       |
| A. Hedinger/Noweda         | Isopropyl alcohol 70% | 53336       | 2       |
| A.Hedinger/Ph              | Isopropyl alcohol 70% | 53673       | 1       |
| A.Hedinger/Sana            | Isopropyl alcohol 70% | 53504       | 1       |
| A.Hedinger/Sana            | Isopropyl alcohol 70% | 53506       | 2       |
| A.Hedinger/Sana            | Isopropyl alcohol 70% | 53577       | 1       |
| A.Hedinger/Sana            | Isopropyl alcohol 70% | 53603       | 1       |
| Adler-Apotheke             | Isopropyl alcohol 70% |             | 1       |
| AH/Hedinger                | Isopropyl alcohol 70% | 53490       | 1       |
| AHD/Hedinger               | Isopropyl alcohol 70% | 53296       | 1       |
| AHD/Hedinger               | Isopropyl alcohol 70% | 53318       | 1       |
| AHD/Hedinger               | Isopropyl alcohol 70% | 53329       | 1       |
| AHD/Hedinger               | Isopropyl alcohol 70% | 53528       | 1       |
| AHD/Hedinger               | Isopropyl alcohol 70% | 53569       | 1       |
| AHD/Hedinger               | Isopropyl alcohol 70% | 53601       | 1       |
| AHD/Hedinger               | Isopropyl alcohol 70% | 53633       | 1       |
| Alliance Health 17.03.2... | Isopropyl alcohol 70% | 53279       | 2       |
| Alliance Healthcare/Hed... | Isopropyl alcohol 70% | 53285       | 3       |
| Alliance Healthcare/Hed... | Isopropyl alcohol 70% | 53540       | 1       |
| alliance healthcare        | Isopropyl alcohol 70% | 53569       | 1       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53601       | 1       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53638       | 2       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53661       | 1       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53663       | 1       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53686       | 3       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53687       | 2       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53689       | 3       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53697       | 3       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53703       | 5       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53754       | 2       |
| Alliance/Hedinger          | Isopropyl alcohol 70% | 53795       | 1       |
| allianz                    | Isopropyl alcohol 70% | 53388       | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 117A-01080  | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 119M-01080  | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 1418I-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 1617M-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 1918I-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 2019M-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 2020I-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 2217M-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 2217Q-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 2818M-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 320A-01080  | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 3218M-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 3317I-01080 | 2       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 3818I-01080 | 2       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 3919A-01080 | 2       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 420M-01080  | 2       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 4317E-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 4818E-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 5017I-01080 | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 517I-01080  | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 518A-01080  | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 719M-01080  | 1       |
| Alte Apo Defektur          | Isopropyl alcohol 70% | 818E-01080  | 1       |

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| Supplier                    | Substance             | Batch       | Spectra |
|-----------------------------|-----------------------|-------------|---------|
| Alte Apo Defektur           | Isopropyl alcohol 70% | H230819     | 1       |
| Alte Apotheke               | Isopropyl alcohol 70% | 4716E-01080 | 1       |
| Amts-Apotheke/Defektur      | Isopropyl alcohol 70% | 3518A-01080 | 1       |
| Amts-Apotheke/Defektur      | Isopropyl alcohol 70% | 4819E-01080 | 1       |
| antares-apotheke Ler        | Isopropyl alcohol 70% | 1920E-01080 | 1       |
| antares-apotheke Ler        | Isopropyl alcohol 70% | 3420A-01080 | 1       |
| Anzag/Hedinger              | Isopropyl alcohol 70% | 5369        | 1       |
| Anzag/Hedinger              | Isopropyl alcohol 70% | 53702       | 1       |
| Anzag                       | Isopropyl alcohol 70% | 18307901    | 1       |
| Anzag                       | Isopropyl alcohol 70% | 53594       | 1       |
| apo defektur                | Isopropyl alcohol 70% | IS070082016 | 1       |
| Apo Dunningen               | Isopropyl alcohol 70% | 1917A-01080 | 1       |
| Apo Dunningen               | Isopropyl alcohol 70% | 3517A-01080 | 1       |
| Apolda                      | Isopropyl alcohol 70% | 120214      | 1       |
| Apotärze                    | Isopropyl alcohol 70% | 4815I-01080 | 1       |
| Apoth.E.Bartel              | Isopropyl alcohol 70% | 70545B/2    | 1       |
| Apotheke am Holzweg         | Isopropyl alcohol 70% | 3912Y-01080 | 1       |
| Apotheke am Marktplatz      | Isopropyl alcohol 70% | 2517Q-01080 | 1       |
| Apotheke am Marktplatz      | Isopropyl alcohol 70% | 3618M-01080 | 1       |
| Apotheke am Marktplatz      | Isopropyl alcohol 70% | 3919E-01080 | 1       |
| Apotheke am Marktplatz      | Isopropyl alcohol 70% | 4221A-01080 | 2       |
| Apotheke am Marktplatz      | Isopropyl alcohol 70% | 4716L-01080 | 1       |
| Apotheke am Rathaus-Def. .. | Isopropyl alcohol 70% | 20191118    | 1       |
| Apotheke Dunningen          | Isopropyl alcohol 70% | 317A-01080  | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 121Q-01080  | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 1620E-01080 | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 2320M-0180  | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 2721A-01080 | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 3520Q-01080 | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 3921E-01080 | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 4120E-01080 | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 4520I-01080 | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 4619A-01080 | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 520F-01080  | 1       |
| Apotheke Hornbach Zentrum   | Isopropyl alcohol 70% | 5219Q-01080 | 1       |
| Apotheke im Arnoldhaus/...  | Isopropyl alcohol 70% | 2119I-01080 | 1       |
| Apotheke im Arnoldhaus/...  | Isopropyl alcohol 70% | 2619Q-01080 | 1       |
| Apotheke im Kurzzentrum...  | Isopropyl alcohol 70% | 811162TH2   | 1       |
| Apotheke                    | Isopropyl alcohol 70% | 116E-07013  | 1       |
| Apotheke                    | Isopropyl alcohol 70% | 12345       | 1       |
| Apotheke                    | Isopropyl alcohol 70% | 26022021    | 1       |
| Apotheke                    | Isopropyl alcohol 70% | 2815E-01080 | 1       |
| Apotheke                    | Isopropyl alcohol 70% | 4813Q-0180  | 1       |
| Apotheke                    | Isopropyl alcohol 70% | 6062013     | 1       |
| Apotheke                    | Isopropyl alcohol 70% | 70214/51Dre | 1       |
| ASS                         | Isopropyl alcohol 70% | 314A01080   | 1       |
| Aug. Hedinger GmbH / Gehe   | Isopropyl alcohol 70% | 53672       | 1       |
| Aug. Hedinger/ Sanacorp     | Isopropyl alcohol 70% | 53418       | 1       |
| Aug. Hedinger/              | Isopropyl alcohol 70% | 53588       | 1       |
| Aug. Hedinger/Sanacorp      | Isopropyl alcohol 70% | 53550       | 4       |
| Aug. Hedinger               | Isopropyl alcohol 70% | 53385       | 2       |
| Aug.Hedinger GmbH&Co.KG     | Isopropyl alcohol 70% | 53470       | 1       |
| Aug.Hedinger GmbH           | Isopropyl alcohol 70% | 303159      | 1       |
| Aug.Hedinger/All.Health.    | Isopropyl alcohol 70% | 53557       | 1       |
| Aug.Hedinger/All.Health.    | Isopropyl alcohol 70% | 53569       | 1       |
| Aug.Hedinger/All.Health.    | Isopropyl alcohol 70% | 53599       | 1       |
| Aug.Hedinger/Noweda         | Isopropyl alcohol 70% | 53582       | 1       |
| Aug.Hedinger/Noweda         | Isopropyl alcohol 70% | 53623       | 1       |
| Aug.Hedinger/Noweda         | Isopropyl alcohol 70% | 53657       | 1       |
| Aug.Hedinger/Noweda         | Isopropyl alcohol 70% | 53680       | 1       |

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| <b>Supplier</b>            | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-----------------------|--------------|----------------|
| Aug.Hedinger/Sanacorp      | Isopropyl alcohol 70% | 53429        | 1              |
| Aug.Hedinger               | Isopropyl alcohol 70% | 53508        | 1              |
| Aug.Hedinger               | Isopropyl alcohol 70% | 53548        | 1              |
| August Hedinger GmbH/ G... | Isopropyl alcohol 70% | 53700        | 2              |
| August Hedinger GmbH/ G... | Isopropyl alcohol 70% | 53703        | 1              |
| August Hedinger GmbH/ G... | Isopropyl alcohol 70% | 53743        | 1              |
| Azur GmbH                  | Isopropyl alcohol 70% | 70-9204780   | 1              |
| Azur GmbH                  | Isopropyl alcohol 70% | 70-920480    | 6              |
| Bären Apotheke             | Isopropyl alcohol 70% | 1917Q-01080  | 1              |
| bartel                     | Isopropyl alcohol 70% | 53611        | 3              |
| bartel                     | Isopropyl alcohol 70% | 53612        | 1              |
| Belous                     | Isopropyl alcohol 70% | 2023001      | 2              |
| Berliner Bär Apotheke      | Isopropyl alcohol 70% | H819091      | 2              |
| bison                      | Isopropyl alcohol 70% | 317H4        | 1              |
| Bison                      | Isopropyl alcohol 70% | 517H2        | 1              |
| Bombastus                  | Isopropyl alcohol 70% | 16319201     | 1              |
| Bombastus                  | Isopropyl alcohol 70% | 175131       | 1              |
| Bombastus                  | Isopropyl alcohol 70% | 2813Q-01080  | 1              |
| Bombastus                  | Isopropyl alcohol 70% | 53322        | 1              |
| Bombastus                  | Isopropyl alcohol 70% | 53485        | 2              |
| Braun / Sanacorp           | Isopropyl alcohol 70% | 19043M11     | 1              |
| Braun                      | Isopropyl alcohol 70% | 17441M01     | 1              |
| Brinn- Holtz               | Isopropyl alcohol 70% | 1233-04/18   | 1              |
| Brinn-Holtz                | Isopropyl alcohol 70% | 1288-09/18   | 1              |
| Brugger                    | Isopropyl alcohol 70% | 21112013     | 1              |
| C.Lange                    | Isopropyl alcohol 70% | 50817/50La   | 1              |
| C.Lange                    | Isopropyl alcohol 70% | 60307/51La   | 1              |
| Caelo                      | Isopropyl alcohol 70% |              | 6              |
| Caelo                      | Isopropyl alcohol 70% | 10091802     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 1016A        | 1              |
| Caelo                      | Isopropyl alcohol 70% | 1061701      | 1              |
| Caelo                      | Isopropyl alcohol 70% | 11031406     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 11031704     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 11051501     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 113363003    | 1              |
| Caelo                      | Isopropyl alcohol 70% | 1160113      | 1              |
| Caelo                      | Isopropyl alcohol 70% | 116M-01080   | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12031514     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12031801     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12101301     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12121306     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12136201     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12136303     | 6              |
| Caelo                      | Isopropyl alcohol 70% | 12202801     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12202902     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12278601     | 4              |
| Caelo                      | Isopropyl alcohol 70% | 12278702     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12278704     | 2              |
| Caelo                      | Isopropyl alcohol 70% | 12338001     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12338101     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 12338104     | 3              |
| Caelo                      | Isopropyl alcohol 70% | 123456789    | 1              |
| Caelo                      | Isopropyl alcohol 70% | 130009002    | 1              |
| Caelo                      | Isopropyl alcohol 70% | 130009003    | 1              |
| Caelo                      | Isopropyl alcohol 70% | 13008902     | 2              |
| Caelo                      | Isopropyl alcohol 70% | 13008903     | 2              |
| Caelo                      | Isopropyl alcohol 70% | 13009003     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 13031304     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 13041701     | 1              |
| Caelo                      | Isopropyl alcohol 70% | 13092201     | 1              |

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| Supplier | Substance             | Batch               | Spectra |
|----------|-----------------------|---------------------|---------|
| Caelo    | Isopropyl alcohol 70% | 13092202            | 1       |
| Caelo    | Isopropyl alcohol 70% | 13092203            | 3       |
| Caelo    | Isopropyl alcohol 70% | 13155401            | 2       |
| Caelo    | Isopropyl alcohol 70% | 13155403            | 3       |
| Caelo    | Isopropyl alcohol 70% | 13155503            | 5       |
| Caelo    | Isopropyl alcohol 70% | 13217501            | 1       |
| Caelo    | Isopropyl alcohol 70% | 13217602            | 1       |
| Caelo    | Isopropyl alcohol 70% | 13217603            | 2       |
| Caelo    | Isopropyl alcohol 70% | 13319404            | 2       |
| Caelo    | Isopropyl alcohol 70% | 13319405            | 3       |
| Caelo    | Isopropyl alcohol 70% | 13319502            | 1       |
| Caelo    | Isopropyl alcohol 70% | 13337004            | 1       |
| Caelo    | Isopropyl alcohol 70% | 13363001            | 1       |
| Caelo    | Isopropyl alcohol 70% | 13363003            | 2       |
| Caelo    | Isopropyl alcohol 70% | 13363101            | 2       |
| Caelo    | Isopropyl alcohol 70% | 13363104            | 1       |
| Caelo    | Isopropyl alcohol 70% | 13363107            | 1       |
| Caelo    | Isopropyl alcohol 70% | 140226402           | 1       |
| Caelo    | Isopropyl alcohol 70% | 14026303            | 2       |
| Caelo    | Isopropyl alcohol 70% | 14026401            | 5       |
| Caelo    | Isopropyl alcohol 70% | 14026403            | 3       |
| Caelo    | Isopropyl alcohol 70% | 14041501            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14041802            | 1       |
| Caelo    | Isopropyl alcohol 70% | 140505              | 1       |
| Caelo    | Isopropyl alcohol 70% | 14074205            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14076501            | 2       |
| Caelo    | Isopropyl alcohol 70% | 14076503            | 2       |
| Caelo    | Isopropyl alcohol 70% | 14076602            | 6       |
| Caelo    | Isopropyl alcohol 70% | 14076603            | 2       |
| Caelo    | Isopropyl alcohol 70% | 140902              | 1       |
| Caelo    | Isopropyl alcohol 70% | 14101303            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14101402            | 1       |
| Caelo    | Isopropyl alcohol 70% | 141117P801/17203002 | 1       |
| Caelo    | Isopropyl alcohol 70% | 14114501            | 3       |
| Caelo    | Isopropyl alcohol 70% | 14114601            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14121205            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14146701            | 3       |
| Caelo    | Isopropyl alcohol 70% | 14146703            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14146801            | 3       |
| Caelo    | Isopropyl alcohol 70% | 14146802            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14146803            | 6       |
| Caelo    | Isopropyl alcohol 70% | 14146804            | 1       |
| Caelo    | Isopropyl alcohol 70% | 1416702             | 1       |
| Caelo    | Isopropyl alcohol 70% | 141t46801           | 1       |
| Caelo    | Isopropyl alcohol 70% | 14229101            | 3       |
| Caelo    | Isopropyl alcohol 70% | 14229103            | 2       |
| Caelo    | Isopropyl alcohol 70% | 14229201            | 2       |
| Caelo    | Isopropyl alcohol 70% | 14229202            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14327203            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14330802            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14330803            | 3       |
| Caelo    | Isopropyl alcohol 70% | 14330901            | 3       |
| Caelo    | Isopropyl alcohol 70% | 14330902            | 1       |
| Caelo    | Isopropyl alcohol 70% | 14331003            | 5       |
| Caelo    | Isopropyl alcohol 70% | 14331004            | 2       |
| Caelo    | Isopropyl alcohol 70% | 15014101            | 1       |
| Caelo    | Isopropyl alcohol 70% | 15014102            | 3       |
| Caelo    | Isopropyl alcohol 70% | 15014202            | 2       |
| Caelo    | Isopropyl alcohol 70% | 15014204            | 1       |
| Caelo    | Isopropyl alcohol 70% | 15014301            | 1       |

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| Supplier | Substance             | Batch        | Spectra |
|----------|-----------------------|--------------|---------|
| Caelo    | Isopropyl alcohol 70% | 15014302     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15021802     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15031803     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15053505     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15076401     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15076601     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15076602     | 7       |
| Caelo    | Isopropyl alcohol 70% | 15076603     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15111304     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15150201     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15150202     | 4       |
| Caelo    | Isopropyl alcohol 70% | 1517A-01080  | 1       |
| Caelo    | Isopropyl alcohol 70% | 15191902     | 3       |
| Caelo    | Isopropyl alcohol 70% | 15192001     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15192002     | 4       |
| Caelo    | Isopropyl alcohol 70% | 15192003     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15192101     | 4       |
| Caelo    | Isopropyl alcohol 70% | 15192102     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15248503     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15308201     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15309001     | 5       |
| Caelo    | Isopropyl alcohol 70% | 15309101     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15309201     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15403802     | 8       |
| Caelo    | Isopropyl alcohol 70% | 15403902     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15404002     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15430002     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15430004     | 2       |
| Caelo    | Isopropyl alcohol 70% | 15430005     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15437601     | 10      |
| Caelo    | Isopropyl alcohol 70% | 15437701     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15437703     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15437801     | 1       |
| Caelo    | Isopropyl alcohol 70% | 15437802     | 3       |
| Caelo    | Isopropyl alcohol 70% | 16049003     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16052014-100 | 1       |
| Caelo    | Isopropyl alcohol 70% | 16071503     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16088201     | 4       |
| Caelo    | Isopropyl alcohol 70% | 16088302     | 6       |
| Caelo    | Isopropyl alcohol 70% | 16088403     | 3       |
| Caelo    | Isopropyl alcohol 70% | 16121402     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16138703     | 1       |
| Caelo    | Isopropyl alcohol 70% | 1613q-01080  | 1       |
| Caelo    | Isopropyl alcohol 70% | 1614001      | 1       |
| Caelo    | Isopropyl alcohol 70% | 16167601     | 4       |
| Caelo    | Isopropyl alcohol 70% | 16167801     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16167802     | 2       |
| Caelo    | Isopropyl alcohol 70% | 16167803     | 2       |
| Caelo    | Isopropyl alcohol 70% | 16167901     | 2       |
| Caelo    | Isopropyl alcohol 70% | 16167902     | 7       |
| Caelo    | Isopropyl alcohol 70% | 16202803     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16237302     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16296604     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16318901     | 3       |
| Caelo    | Isopropyl alcohol 70% | 16319001     | 6       |
| Caelo    | Isopropyl alcohol 70% | 16319021     | 1       |
| Caelo    | Isopropyl alcohol 70% | 16319101     | 6       |
| Caelo    | Isopropyl alcohol 70% | 16319102     | 3       |
| Caelo    | Isopropyl alcohol 70% | 163191102    | 1       |
| Caelo    | Isopropyl alcohol 70% | 16319201     | 7       |

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| Supplier | Substance             | Batch            | Spectra |
|----------|-----------------------|------------------|---------|
| Caelo    | Isopropyl alcohol 70% | 16319202         | 2       |
| Caelo    | Isopropyl alcohol 70% | 17033801         | 1       |
| Caelo    | Isopropyl alcohol 70% | 17045801         | 1       |
| Caelo    | Isopropyl alcohol 70% | 17082101         | 5       |
| Caelo    | Isopropyl alcohol 70% | 17082102         | 5       |
| Caelo    | Isopropyl alcohol 70% | 17082103         | 7       |
| Caelo    | Isopropyl alcohol 70% | 17082201         | 3       |
| Caelo    | Isopropyl alcohol 70% | 17082302         | 6       |
| Caelo    | Isopropyl alcohol 70% | 17082303         | 4       |
| Caelo    | Isopropyl alcohol 70% | 172003002        | 1       |
| Caelo    | Isopropyl alcohol 70% | 17202801         | 7       |
| Caelo    | Isopropyl alcohol 70% | 17202802         | 1       |
| Caelo    | Isopropyl alcohol 70% | 17202901         | 3       |
| Caelo    | Isopropyl alcohol 70% | 17202903         | 6       |
| Caelo    | Isopropyl alcohol 70% | 17203001         | 6       |
| Caelo    | Isopropyl alcohol 70% | 17203002         | 3       |
| Caelo    | Isopropyl alcohol 70% | 17203002/1271117 | 1       |
| Caelo    | Isopropyl alcohol 70% | 17203101         | 5       |
| Caelo    | Isopropyl alcohol 70% | 17311402         | 5       |
| Caelo    | Isopropyl alcohol 70% | 17311403         | 6       |
| Caelo    | Isopropyl alcohol 70% | 17311701         | 1       |
| Caelo    | Isopropyl alcohol 70% | 173441           | 1       |
| Caelo    | Isopropyl alcohol 70% | 17358201         | 16      |
| Caelo    | Isopropyl alcohol 70% | 17358202         | 3       |
| Caelo    | Isopropyl alcohol 70% | 174321           | 1       |
| Caelo    | Isopropyl alcohol 70% | 18031503         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18051801         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18061306         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18061508         | 1       |
| Caelo    | Isopropyl alcohol 70% | 180621006        | 1       |
| Caelo    | Isopropyl alcohol 70% | 18073701         | 4       |
| Caelo    | Isopropyl alcohol 70% | 18073702         | 14      |
| Caelo    | Isopropyl alcohol 70% | 18073702/1170418 | 1       |
| Caelo    | Isopropyl alcohol 70% | 18073801         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18073901         | 7       |
| Caelo    | Isopropyl alcohol 70% | 18073902         | 11      |
| Caelo    | Isopropyl alcohol 70% | 18081510         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18081511         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18101301         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18114001         | 15      |
| Caelo    | Isopropyl alcohol 70% | 18114101         | 5       |
| Caelo    | Isopropyl alcohol 70% | 18114202         | 14      |
| Caelo    | Isopropyl alcohol 70% | 18114301         | 5       |
| Caelo    | Isopropyl alcohol 70% | 18114302         | 2       |
| Caelo    | Isopropyl alcohol 70% | 18199101         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18200201         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18235001         | 2       |
| Caelo    | Isopropyl alcohol 70% | 18235002         | 2       |
| Caelo    | Isopropyl alcohol 70% | 18235003         | 5       |
| Caelo    | Isopropyl alcohol 70% | 18235101         | 4       |
| Caelo    | Isopropyl alcohol 70% | 18235201         | 15      |
| Caelo    | Isopropyl alcohol 70% | 18235202         | 5       |
| Caelo    | Isopropyl alcohol 70% | 18235301         | 2       |
| Caelo    | Isopropyl alcohol 70% | 18235302         | 8       |
| Caelo    | Isopropyl alcohol 70% | 182731           | 2       |
| Caelo    | Isopropyl alcohol 70% | 18307901         | 4       |
| Caelo    | Isopropyl alcohol 70% | 18308001         | 10      |
| Caelo    | Isopropyl alcohol 70% | 18308002         | 1       |
| Caelo    | Isopropyl alcohol 70% | 18308101         | 12      |
| Caelo    | Isopropyl alcohol 70% | 18308202         | 4       |

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| Supplier | Substance             | Batch        | Spectra |
|----------|-----------------------|--------------|---------|
| Caelo    | Isopropyl alcohol 70% | 18308203     | 2       |
| Caelo    | Isopropyl alcohol 70% | 184741       | 1       |
| Caelo    | Isopropyl alcohol 70% | 190261801    | 1       |
| Caelo    | Isopropyl alcohol 70% | 19071801     | 1       |
| Caelo    | Isopropyl alcohol 70% | 19071802     | 1       |
| Caelo    | Isopropyl alcohol 70% | 19078704     | 16      |
| Caelo    | Isopropyl alcohol 70% | 19078801     | 4       |
| Caelo    | Isopropyl alcohol 70% | 19078901     | 1       |
| Caelo    | Isopropyl alcohol 70% | 19079001     | 12      |
| Caelo    | Isopropyl alcohol 70% | 19111401     | 1       |
| Caelo    | Isopropyl alcohol 70% | 19138501     | 9       |
| Caelo    | Isopropyl alcohol 70% | 19138601     | 25      |
| Caelo    | Isopropyl alcohol 70% | 191386601    | 1       |
| Caelo    | Isopropyl alcohol 70% | 19138701     | 4       |
| Caelo    | Isopropyl alcohol 70% | 19138801     | 2       |
| Caelo    | Isopropyl alcohol 70% | 19138802     | 1       |
| Caelo    | Isopropyl alcohol 70% | 1915A-01080  | 1       |
| Caelo    | Isopropyl alcohol 70% | 19261801     | 15      |
| Caelo    | Isopropyl alcohol 70% | 19261901     | 2       |
| Caelo    | Isopropyl alcohol 70% | 192620002    | 2       |
| Caelo    | Isopropyl alcohol 70% | 192621001    | 5       |
| Caelo    | Isopropyl alcohol 70% | 193622       | 1       |
| Caelo    | Isopropyl alcohol 70% | 20001612001  | 4       |
| Caelo    | Isopropyl alcohol 70% | 20001612002  | 4       |
| Caelo    | Isopropyl alcohol 70% | 20001613001  | 12      |
| Caelo    | Isopropyl alcohol 70% | 20001614001  | 3       |
| Caelo    | Isopropyl alcohol 70% | 20001615001  | 7       |
| Caelo    | Isopropyl alcohol 70% | 2000273002   | 1       |
| Caelo    | Isopropyl alcohol 70% | 20002771001  | 2       |
| Caelo    | Isopropyl alcohol 70% | 20002772001  | 10      |
| Caelo    | Isopropyl alcohol 70% | 20002773001  | 1       |
| Caelo    | Isopropyl alcohol 70% | 20002773002  | 4       |
| Caelo    | Isopropyl alcohol 70% | 20003389001  | 4       |
| Caelo    | Isopropyl alcohol 70% | 20003391001  | 3       |
| Caelo    | Isopropyl alcohol 70% | 20003392001  | 1       |
| Caelo    | Isopropyl alcohol 70% | 20011503     | 1       |
| Caelo    | Isopropyl alcohol 70% | 20021414     | 1       |
| Caelo    | Isopropyl alcohol 70% | 20021415     | 1       |
| Caelo    | Isopropyl alcohol 70% | 20021506     | 1       |
| Caelo    | Isopropyl alcohol 70% | 2002772001   | 1       |
| Caelo    | Isopropyl alcohol 70% | 20061801     | 1       |
| Caelo    | Isopropyl alcohol 70% | 20091302     | 1       |
| Caelo    | Isopropyl alcohol 70% | 20121701     | 1       |
| Caelo    | Isopropyl alcohol 70% | 2015181201E0 | 1       |
| Caelo    | Isopropyl alcohol 70% | 2041501      | 1       |
| Caelo    | Isopropyl alcohol 70% | 2081202      | 1       |
| Caelo    | Isopropyl alcohol 70% | 2081701      | 1       |
| Caelo    | Isopropyl alcohol 70% | 21000886001  | 1       |
| Caelo    | Isopropyl alcohol 70% | 21000887001  | 1       |
| Caelo    | Isopropyl alcohol 70% | 21000888001  | 1       |
| Caelo    | Isopropyl alcohol 70% | 21000888002  | 1       |
| Caelo    | Isopropyl alcohol 70% | 21000889001  | 5       |
| Caelo    | Isopropyl alcohol 70% | 21002601001  | 4       |
| Caelo    | Isopropyl alcohol 70% | 21002603001  | 1       |
| Caelo    | Isopropyl alcohol 70% | 21081701     | 1       |
| Caelo    | Isopropyl alcohol 70% | 21081702     | 1       |
| Caelo    | Isopropyl alcohol 70% | 21081801     | 1       |
| Caelo    | Isopropyl alcohol 70% | 21114103     | 1       |
| Caelo    | Isopropyl alcohol 70% | 2171-01080   | 1       |
| Caelo    | Isopropyl alcohol 70% | 22011901     | 1       |

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| <b>Supplier</b> | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-----------------------|--------------|----------------|
| Caelo           | Isopropyl alcohol 70% | 22021303     | 1              |
| Caelo           | Isopropyl alcohol 70% | 22051301     | 1              |
| Caelo           | Isopropyl alcohol 70% | 221111205    | 1              |
| Caelo           | Isopropyl alcohol 70% | 22111701     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2216M-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 23041304     | 1              |
| Caelo           | Isopropyl alcohol 70% | 23061501     | 1              |
| Caelo           | Isopropyl alcohol 70% | 23061707     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2314E-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 24011405     | 1              |
| Caelo           | Isopropyl alcohol 70% | 24081207     | 1              |
| Caelo           | Isopropyl alcohol 70% | 24081303     | 1              |
| Caelo           | Isopropyl alcohol 70% | 24101203     | 1              |
| Caelo           | Isopropyl alcohol 70% | 24101804     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2415Q-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 25081401     | 1              |
| Caelo           | Isopropyl alcohol 70% | 25091402     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2512A-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 253487       | 1              |
| Caelo           | Isopropyl alcohol 70% | 2600887T     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2600907T     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2600980T     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2601004T     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2601025T     | 1              |
| Caelo           | Isopropyl alcohol 70% | 26071401     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2616E-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 27031704     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2716I-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 28091701     | 1              |
| Caelo           | Isopropyl alcohol 70% | 29011805     | 1              |
| Caelo           | Isopropyl alcohol 70% | 2916A-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 2x053426     | 1              |
| Caelo           | Isopropyl alcohol 70% | 30101801     | 1              |
| Caelo           | Isopropyl alcohol 70% | 303033       | 1              |
| Caelo           | Isopropyl alcohol 70% | 303101       | 1              |
| Caelo           | Isopropyl alcohol 70% | 303126       | 1              |
| Caelo           | Isopropyl alcohol 70% | 305201801    | 1              |
| Caelo           | Isopropyl alcohol 70% | 3081605      | 1              |
| Caelo           | Isopropyl alcohol 70% | 3091302      | 1              |
| Caelo           | Isopropyl alcohol 70% | 3115E-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 3216E        | 2              |
| Caelo           | Isopropyl alcohol 70% | 3414E-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 4051704      | 1              |
| Caelo           | Isopropyl alcohol 70% | 41161-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 4116104      | 1              |
| Caelo           | Isopropyl alcohol 70% | 4118012      | 1              |
| Caelo           | Isopropyl alcohol 70% | 4118013      | 1              |
| Caelo           | Isopropyl alcohol 70% | 47141-01080  | 2              |
| Caelo           | Isopropyl alcohol 70% | 4813E-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 4914A-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 5051702      | 1              |
| Caelo           | Isopropyl alcohol 70% | 5061501      | 1              |
| Caelo           | Isopropyl alcohol 70% | 5121814      | 1              |
| Caelo           | Isopropyl alcohol 70% | 5309         | 1              |
| Caelo           | Isopropyl alcohol 70% | 53141-01080  | 1              |
| Caelo           | Isopropyl alcohol 70% | 53241        | 1              |
| Caelo           | Isopropyl alcohol 70% | 53324        | 1              |
| Caelo           | Isopropyl alcohol 70% | 53332        | 1              |
| Caelo           | Isopropyl alcohol 70% | 53353        | 2              |
| Caelo           | Isopropyl alcohol 70% | 53359        | 1              |

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continued from previous page

| Supplier | Substance             | Batch              | Spectra |
|----------|-----------------------|--------------------|---------|
| Caelo    | Isopropyl alcohol 70% | 53367              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53369              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53378              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53383              | 3       |
| Caelo    | Isopropyl alcohol 70% | 53385              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53392              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53395              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53396              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53398              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53401              | 3       |
| Caelo    | Isopropyl alcohol 70% | 53404              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53408              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53413              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53415              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53416              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53426              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53428              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53437              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53444              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53465              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53474              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53475              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53476              | 1       |
| Caelo    | Isopropyl alcohol 70% | 534825599          | 1       |
| Caelo    | Isopropyl alcohol 70% | 53488              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53493              | 3       |
| Caelo    | Isopropyl alcohol 70% | 53496              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53498              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53500              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53513              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53518              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53524              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53527              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53530              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53540              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53551              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53565              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53567              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53578              | 2       |
| Caelo    | Isopropyl alcohol 70% | 53589              | 1       |
| Caelo    | Isopropyl alcohol 70% | 53613              | 1       |
| Caelo    | Isopropyl alcohol 70% | 6041407            | 1       |
| Caelo    | Isopropyl alcohol 70% | 6061401            | 1       |
| Caelo    | Isopropyl alcohol 70% | 6081405            | 1       |
| Caelo    | Isopropyl alcohol 70% | 6111701            | 1       |
| Caelo    | Isopropyl alcohol 70% | 6111702            | 1       |
| Caelo    | Isopropyl alcohol 70% | 7021307            | 1       |
| Caelo    | Isopropyl alcohol 70% | 7082013/1          | 1       |
| Caelo    | Isopropyl alcohol 70% | 720Q04043          | 1       |
| Caelo    | Isopropyl alcohol 70% | 8011901            | 1       |
| Caelo    | Isopropyl alcohol 70% | 8091702            | 1       |
| Caelo    | Isopropyl alcohol 70% | 8111802            | 2       |
| Caelo    | Isopropyl alcohol 70% | 817J01080          | 1       |
| Caelo    | Isopropyl alcohol 70% | 820M-01080         | 1       |
| Caelo    | Isopropyl alcohol 70% | 9011801            | 1       |
| Caelo    | Isopropyl alcohol 70% | 9071701            | 1       |
| Caelo    | Isopropyl alcohol 70% | 9171-01080         | 1       |
| Caelo    | Isopropyl alcohol 70% | AL313              | 1       |
| Caelo    | Isopropyl alcohol 70% | Caelo              | 1       |
| Caelo    | Isopropyl alcohol 70% | Caesar/21002601001 | 1       |

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continued from previous page

| Supplier                   | Substance             | Batch            | Spectra |
|----------------------------|-----------------------|------------------|---------|
| Caelo                      | Isopropyl alcohol 70% | Eigenherstellung | 1       |
| Caelo                      | Isopropyl alcohol 70% | H030315T1        | 1       |
| Caelo                      | Isopropyl alcohol 70% | H170315T1        | 1       |
| Caelo                      | Isopropyl alcohol 70% | H22062013H1      | 1       |
| Caelo                      | Isopropyl alcohol 70% | RH141030-0003    | 1       |
| Caelo/Phoenix              | Isopropyl alcohol 70% | 18235202         | 1       |
| Caesar & Loretz GmbH / ... | Isopropyl alcohol 70% | 18307901         | 1       |
| Caesar & Loretz GmbH / ... | Isopropyl alcohol 70% | 18308203         | 2       |
| Caesar & Loretz GmbH / ... | Isopropyl alcohol 70% | 19138701         | 1       |
| Caesar & Loretz GmbH Sa... | Isopropyl alcohol 70% | 20002771001      | 1       |
| Caesar & Loretz GmbH/ G... | Isopropyl alcohol 70% | 20003391001      | 2       |
| Caesar & Loretz GmbH/An... | Isopropyl alcohol 70% | 19138601         | 1       |
| Caesar & Loretz GmbH/Gege  | Isopropyl alcohol 70% | 21000889001      | 1       |
| Caesar & Loretz GmbH/Gehe  | Isopropyl alcohol 70% | 20001613001      | 1       |
| Caesar & Loretz GmbH/Gehe  | Isopropyl alcohol 70% | 21000888001      | 1       |
| Caesar & Loretz GmbH/Kr... | Isopropyl alcohol 70% | 19138601         | 1       |
| Caesar & Loretz GmbH/No... | Isopropyl alcohol 70% | 18308001         | 1       |
| Caesar & Loretz GmbH/Ph... | Isopropyl alcohol 70% | 20003389001      | 4       |
| Caesar & Loretz GmbH/Sa... | Isopropyl alcohol 70% | 19078901         | 1       |
| Caesar & Loretz GmbH/Sa... | Isopropyl alcohol 70% | 19261901         | 1       |
| Caesar & Loretz GmbH/Sp... | Isopropyl alcohol 70% | 19138501         | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 18235101         | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 18307901         | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 18308001         | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 18308101         | 3       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 18308202         | 3       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 19078704         | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 19078901         | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 19079001         | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 19138501         | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 19138601         | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 19261801         | 4       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 20000215002      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 20001612002      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 20001613001      | 3       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 20002770001      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 20002772001      | 2       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 20003390001      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 20003391001      | 6       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 21000888002      | 4       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 21000889001      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 21002601001      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 21002603001      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 21003307001      | 1       |
| Caesar & Loretz GmbH       | Isopropyl alcohol 70% | 22000735001      | 1       |
| Caesar & Loretz            | Isopropyl alcohol 70% | 20001615001      | 1       |
| Caesar&Loretz/Gehe         | Isopropyl alcohol 70% | 20001613001      | 1       |
| Caleo/ Ebert               | Isopropyl alcohol 70% | 18114202         | 2       |
| Caleo/ Noweda              | Isopropyl alcohol 70% | 17202802         | 1       |
| Caleo/ Noweda              | Isopropyl alcohol 70% | 18114101         | 1       |
| Caolo                      | Isopropyl alcohol 70% | D07104T1         | 1       |
| carina certain             | Isopropyl alcohol 70% | 11097            | 1       |
| Cealo/Sancorp              | Isopropyl alcohol 70% | 19138601         | 1       |
| Cealo                      | Isopropyl alcohol 70% | 14146801         | 1       |
| Cealo                      | Isopropyl alcohol 70% | 22042020/1       | 1       |
| Celo/Jenne                 | Isopropyl alcohol 70% | 19261801         | 2       |
| Celo                       | Isopropyl alcohol 70% | 16167802         | 1       |
| CL. LANGE                  | Isopropyl alcohol 70% | 50921/51LA       | 1       |
| Claudia Lange              | Isopropyl alcohol 70% | 60620/50La       | 1       |
| Claudia Lange              | Isopropyl alcohol 70% | 60620/51La       | 1       |

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*continued from previous page*

| <b>Supplier</b>              | <b>Substance</b>      | <b>Batch</b>    | <b>Spectra</b> |
|------------------------------|-----------------------|-----------------|----------------|
| Claudia Lange                | Isopropyl alcohol 70% | 60704/50La      | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1008210521      | 1              |
| Defektur / Wolf-Apotheke     | Isopropyl alcohol 70% | 50828/50W1o     | 1              |
| Defektur 1616E-01080         | Isopropyl alcohol 70% | 1616E-01080     | 1              |
| Defektur 25.04.2014          | Isopropyl alcohol 70% | 2014-04-25      | 1              |
| Defektur 4416A-01080         | Isopropyl alcohol 70% | 4416A-01080     | 1              |
| Defektur 4814N-01080         | Isopropyl alcohol 70% | 4814N-01080     | 2              |
| Defektur Rheinbogen Apo. . . | Isopropyl alcohol 70% | 1/20192005      | 1              |
| Defektur/eigen               | Isopropyl alcohol 70% | 1416Q-01080     | 1              |
| Defektur/eigen               | Isopropyl alcohol 70% | 2216A-01080     | 1              |
| Defektur/eigen               | Isopropyl alcohol 70% | 2816M-01080     | 1              |
| Defektur/eigen               | Isopropyl alcohol 70% | 3016E-01080     | 1              |
| Defektur/eigen               | Isopropyl alcohol 70% | 3216I-01080     | 1              |
| Defektur/Wolf Apotheke       | Isopropyl alcohol 70% | 4621E-01080     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 121Q-01080      | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 1721M-01080     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 2321A-01080     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 3012A-01080     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 3521E-01080     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 3821E-01080     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 40509/50Wo      | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 4320I-01080     | 2              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 50103/50W1o     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 50227/50W1o     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 50313/50W1o     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 50330/50W1o     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 50715/50W1o     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 61215/50Dre     | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 721A-01080      | 1              |
| Defektur/Wolf-Apotheke       | Isopropyl alcohol 70% | 921A-01080      | 1              |
| Defektur                     | Isopropyl alcohol 70% |                 | 5              |
| Defektur                     | Isopropyl alcohol 70% | 100513Iso70     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1013210816      | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1017211015      | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1029220119      | 1              |
| Defektur                     | Isopropyl alcohol 70% | 12/15           | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1214I           | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1215A           | 1              |
| Defektur                     | Isopropyl alcohol 70% | 121Q-01080      | 1              |
| Defektur                     | Isopropyl alcohol 70% | 14/14           | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1414I           | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1415M-01080     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1467/2014072920 | 1              |
| Defektur                     | Isopropyl alcohol 70% | 151113Iso70     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1516M-01080     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 16/13           | 1              |
| Defektur                     | Isopropyl alcohol 70% | 170109002       | 1              |
| Defektur                     | Isopropyl alcohol 70% | 170529002       | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1716A-01080     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 180413Iso70     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1LP20200605     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 1SW20150917     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 2/13            | 1              |
| Defektur                     | Isopropyl alcohol 70% | 2/14            | 1              |
| Defektur                     | Isopropyl alcohol 70% | 2/15            | 1              |
| Defektur                     | Isopropyl alcohol 70% | 200313Iso70     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 2020M-01080     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 21012013        | 1              |
| Defektur                     | Isopropyl alcohol 70% | 210613Iso70     | 1              |
| Defektur                     | Isopropyl alcohol 70% | 217Q-01080      | 1              |

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| Supplier                  | Substance             | Batch        | Spectra |
|---------------------------|-----------------------|--------------|---------|
| Defektur                  | Isopropyl alcohol 70% | 22/13        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 22/14        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 220321       | 1       |
| Defektur                  | Isopropyl alcohol 70% | 2216B-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 2220Q-01080  | 1       |
| DEFEKTUR                  | Isopropyl alcohol 70% | 2314M-01080  | 2       |
| Defektur                  | Isopropyl alcohol 70% | 23712        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 250713Iso70  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 27/13        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 2717I-07125  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 28/14        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 280513Iso70  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 2812M-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 290813Iso70  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 2915E        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 3019A-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 320Q-01080   | 1       |
| Defektur                  | Isopropyl alcohol 70% | 34/14        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 37/13        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 37/14        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 3713Q-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 3715Q        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 3812         | 1       |
| Defektur                  | Isopropyl alcohol 70% | 3819I-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4114I        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4115Q        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4118A-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4119M-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 42/13        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 43/14        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4315Q-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4415A-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4517M-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4714M        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 4917A-01080  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 5013A        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 50907/50Si   | 1       |
| Defektur                  | Isopropyl alcohol 70% | 51/13        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 514A         | 1       |
| Defektur                  | Isopropyl alcohol 70% | 5214A        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 53/12        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 58/13        | 1       |
| Defektur                  | Isopropyl alcohol 70% | 60209/50Hk   | 1       |
| Defektur                  | Isopropyl alcohol 70% | 620M-01080   | 1       |
| Defektur                  | Isopropyl alcohol 70% | 7/14         | 1       |
| Defektur                  | Isopropyl alcohol 70% | 71016/52Dre  | 1       |
| Defektur                  | Isopropyl alcohol 70% | 719I-01080   | 1       |
| Defektur                  | Isopropyl alcohol 70% | 80114Iso70   | 1       |
| Defektur                  | Isopropyl alcohol 70% | 80625/50A1   | 1       |
| Defektur                  | Isopropyl alcohol 70% | 819060       | 1       |
| Defektur                  | Isopropyl alcohol 70% | 9/13         | 1       |
| Defektur                  | Isopropyl alcohol 70% | 996201204    | 1       |
| Defektur                  | Isopropyl alcohol 70% | H17042013B1  | 1       |
| Defektur                  | Isopropyl alcohol 70% | H2017A-01080 | 1       |
| Defektur_EW_04062013      | Isopropyl alcohol 70% | 130604002    | 1       |
| Defektur_JP_07012013      | Isopropyl alcohol 70% | 213A-07015   | 1       |
| Defektur_JP_25022013      | Isopropyl alcohol 70% | 913A-07015   | 1       |
| Defektur_JP_28012013      | Isopropyl alcohol 70% | 513A-07015   | 1       |
| Defekur                   | Isopropyl alcohol 70% | 516Q-01080   | 1       |
| Delphin-Apotheke/Defektur | Isopropyl alcohol 70% | 1521M-01080  | 1       |

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| <b>Supplier</b>           | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|-----------------------|--------------|----------------|
| Delphin-Apotheke/Defektur | Isopropyl alcohol 70% | 1721M-01080  | 1              |
| Delphin-Apotheke/Defektur | Isopropyl alcohol 70% | 4721A-01080  | 1              |
| Delphin-Apotheke/Defektur | Isopropyl alcohol 70% | 522A-01080   | 1              |
| Delphin-Apotheke/Defektur | Isopropyl alcohol 70% | 822A-01080   | 1              |
| Delphin-Apotheke          | Isopropyl alcohol 70% | 1120A-01080  | 1              |
| Delphin-Apotheke          | Isopropyl alcohol 70% | 1520I-01080  | 1              |
| Delphin-Apotheke          | Isopropyl alcohol 70% | 1920Q-01080  | 1              |
| Delphin-Apotheke          | Isopropyl alcohol 70% | 2620Q-01080  | 1              |
| Delphin-Apotheke          | Isopropyl alcohol 70% | 3220I-01080  | 1              |
| Delphin-Apotheke          | Isopropyl alcohol 70% | 3920I-01080  | 1              |
| Delphin-Apotheke          | Isopropyl alcohol 70% | 921A-01080   | 1              |
| Delta                     | Isopropyl alcohol 70% | 18073702     | 1              |
| Delta                     | Isopropyl alcohol 70% | 53451        | 1              |
| Delta                     | Isopropyl alcohol 70% | 53510        | 1              |
| Deselaers Carola          | Isopropyl alcohol 70% | 1720A-01080  | 1              |
| Deselaers Carola          | Isopropyl alcohol 70% | 620M-01080   | 1              |
| Deselaers                 | Isopropyl alcohol 70% | 3218Q-01080  | 1              |
| Deselaers                 | Isopropyl alcohol 70% | 4518R-01080  | 1              |
| Deselaers                 | Isopropyl alcohol 70% | 4519Q-01080  | 1              |
| Deselaers                 | Isopropyl alcohol 70% | 519Q-01080   | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 200518004    | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 200703003    | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 200910005    | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 3013A-01080  | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 3413M-01080  | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 4012M-01080  | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 4912M-01080  | 1              |
| Doppeleiche Apotheke      | Isopropyl alcohol 70% | 913A-01080   | 1              |
| Dreier                    | Isopropyl alcohol 70% | 20052019     | 1              |
| Duburg-Apo                | Isopropyl alcohol 70% | 521E-01080   | 1              |
| Ebert/Hedinger            | Isopropyl alcohol 70% | 53526        | 1              |
| Ebert/Hedinger            | Isopropyl alcohol 70% | 53550        | 1              |
| Eiegn/Defektur            | Isopropyl alcohol 70% | 616E-01080   | 1              |
| Eigen /Defektur           | Isopropyl alcohol 70% | 2619E-01080  | 1              |
| Eigen Defektur            | Isopropyl alcohol 70% | 1016E-01080  | 1              |
| Eigen Defektur            | Isopropyl alcohol 70% | 316Q-01080   | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 1116M-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 1916M-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 216A-01080   | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 216M-01080   | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 2316I-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 2516I-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 2616Q-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 2716A-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 3016M-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 3419Q-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 3515A-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 3516M-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 4215M-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 4715E-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 4815Q-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 5015A-01080  | 1              |
| Eigen/Defektur            | Isopropyl alcohol 70% | 716M-01080   | 1              |
| Eigen                     | Isopropyl alcohol 70% |              | 1              |
| EIGEN                     | Isopropyl alcohol 70% |              | 3              |
| eigen                     | Isopropyl alcohol 70% | 116E-01080   | 1              |
| eigen                     | Isopropyl alcohol 70% | 116G-01080   | 1              |
| EIGEN                     | Isopropyl alcohol 70% | 1234567      | 1              |
| Eigen                     | Isopropyl alcohol 70% | 1317N-01080  | 2              |
| Eigen                     | Isopropyl alcohol 70% | 1920M-01080  | 1              |

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| Supplier                   | Substance             | Batch               | Spectra |
|----------------------------|-----------------------|---------------------|---------|
| Eigen                      | Isopropyl alcohol 70% | 200325X-S           | 1       |
| Eigen                      | Isopropyl alcohol 70% | 200325Y-S           | 1       |
| Eigen                      | Isopropyl alcohol 70% | 200325Z-S           | 1       |
| Eigen                      | Isopropyl alcohol 70% | 2416M-01080         | 1       |
| Eigen                      | Isopropyl alcohol 70% | 2908-1705           | 1       |
| Eigen                      | Isopropyl alcohol 70% | 3116M-01080         | 1       |
| Eigen                      | Isopropyl alcohol 70% | 320I-01080          | 1       |
| Eigen                      | Isopropyl alcohol 70% | 3320A-01080Defektur | 1       |
| Eigen                      | Isopropyl alcohol 70% | 3615A-01080         | 1       |
| eigen                      | Isopropyl alcohol 70% | 3615I-01080         | 1       |
| Eigen                      | Isopropyl alcohol 70% | 3616M-01080         | 2       |
| Eigen                      | Isopropyl alcohol 70% | 3914A-01080         | 1       |
| EIGEN                      | Isopropyl alcohol 70% | 4117E-01080         | 1       |
| EIGEN                      | Isopropyl alcohol 70% | 4117I-01080         | 1       |
| Eigen                      | Isopropyl alcohol 70% | 4215E-01080         | 1       |
| EIGEN                      | Isopropyl alcohol 70% | 4220E-01080         | 1       |
| Eigen                      | Isopropyl alcohol 70% | 4413A-01080         | 1       |
| Eigen                      | Isopropyl alcohol 70% | 5216E-01079         | 1       |
| Eigen                      | Isopropyl alcohol 70% | 5315I-01080         | 1       |
| Eigen                      | Isopropyl alcohol 70% | Eigen               | 2       |
| EIGEN                      | Isopropyl alcohol 70% | EIGEN               | 3       |
| Eigenbedarf ( Hergestel... | Isopropyl alcohol 70% | 260613              | 1       |
| Eigene Defektur            | Isopropyl alcohol 70% | 5119M-01080         | 2       |
| Eigene Herstellung         | Isopropyl alcohol 70% | 1019Q-01080         | 1       |
| eigene Herstellung         | Isopropyl alcohol 70% | 1201-15             | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | 1919A-01080         | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | 2619A-01080         | 1       |
| eigene Herstellung         | Isopropyl alcohol 70% | 3013M-01080         | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | 4119Q-01080         | 1       |
| eigene Herstellung         | Isopropyl alcohol 70% | 5210115             | 1       |
| eigene Herstellung         | Isopropyl alcohol 70% | 91215               | 1       |
| eigene herstellung         | Isopropyl alcohol 70% | a1308               | 1       |
| eigene herstellung         | Isopropyl alcohol 70% | a1309               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL310               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL311               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL312               | 1       |
| eigene herstellung         | Isopropyl alcohol 70% | AL314               | 2       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL315               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL316               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL317               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL318               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL319               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | AL320               | 1       |
| eigene Herstellung         | Isopropyl alcohol 70% | AL321               | 1       |
| Eigene Herstellung         | Isopropyl alcohol 70% | H03092021           | 1       |
| Eigene                     | Isopropyl alcohol 70% |                     | 1       |
| Eigene                     | Isopropyl alcohol 70% | 121Q-01080          | 1       |
| Eigene                     | Isopropyl alcohol 70% | 1521Q-01080         | 1       |
| Eigene                     | Isopropyl alcohol 70% | 1620Q-01080         | 1       |
| eigene                     | Isopropyl alcohol 70% | 200326W-S           | 1       |
| eigene                     | Isopropyl alcohol 70% | 200326X-S           | 1       |
| eigene                     | Isopropyl alcohol 70% | 200326Y-S           | 1       |
| eigene                     | Isopropyl alcohol 70% | 200326Z-S           | 1       |
| Eigene                     | Isopropyl alcohol 70% | 2818Q-01080         | 1       |
| Eigene                     | Isopropyl alcohol 70% | 3019U-01371         | 1       |
| Eigene                     | Isopropyl alcohol 70% | 3815A-01080         | 1       |
| Eigene                     | Isopropyl alcohol 70% | AP200611-01         | 1       |
| Eigenherstellung Hubert... | Isopropyl alcohol 70% | 2014072221 (DF)     | 1       |
| Eigenherstellung           | Isopropyl alcohol 70% |                     | 3       |
| Eigenherstellung           | Isopropyl alcohol 70% | 1020F-01080         | 1       |

continued on the next page

continued from previous page

| Supplier         | Substance             | Batch        | Spectra |
|------------------|-----------------------|--------------|---------|
| Eigenherstellung | Isopropyl alcohol 70% | 1-11122014   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1-20082014   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1215M-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1-23102014   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 141120-1     | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1416E-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1513A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 17036        | 2       |
| EIGENHERSTELLUNG | Isopropyl alcohol 70% | 1717A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1720E-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1815E-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1823         | 1       |
| EIGENHERSTELLUNG | Isopropyl alcohol 70% | 19012017     | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 190620-01    | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1916A        | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 1953         | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 200822-02    | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 2015E-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 2016040520KS | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 2019A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 216M-01080   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 2216E-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 23/15        | 2       |
| Eigenherstellung | Isopropyl alcohol 70% | 2419Q-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 26107        | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 2620A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 2716I_01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 28072014     | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 3116I-01080  | 1       |
| eigenherstellung | Isopropyl alcohol 70% | 3116Q-03043  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 316E         | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 3215E-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 3313Q-01080  | 1       |
| EIGENHERSTELLUNG | Isopropyl alcohol 70% | 3315I_01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 3414E-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 3520A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 3917A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 4015A-0108   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 4022016-01   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 4114Q-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 4115A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 4515Q-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 4715M        | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 4716Q-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 5015Q-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 5018I-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 5114M-01080  | 1       |
| EIGENHERSTELLUNG | Isopropyl alcohol 70% | 5115A-01080  | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 515E-01080   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 517Q-01080   | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9010813      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9051212      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9070313      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9091115      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9100414      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9211215      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9230413      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9261114      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | 9270215      | 1       |
| Eigenherstellung | Isopropyl alcohol 70% | eigene       | 1       |

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| Supplier           | Substance             | Batch            | Spectra |
|--------------------|-----------------------|------------------|---------|
| Eigenherstellung   | Isopropyl alcohol 70% | Eigenherstellung | 2       |
| Eigenproduktion    | Isopropyl alcohol 70% |                  | 2       |
| Eigenproduktion    | Isopropyl alcohol 70% | 1016E-01080      | 1       |
| Eigenproduktion    | Isopropyl alcohol 70% | 1217Q-01080      | 1       |
| Eigenproduktion    | Isopropyl alcohol 70% | 2413E-01080      | 1       |
| Eigenproduktion    | Isopropyl alcohol 70% | 2417Q-01080      | 1       |
| Eigenproduktion    | Isopropyl alcohol 70% | 2720A-01080      | 1       |
| Eigenproduktion    | Isopropyl alcohol 70% | 3216A-01080      | 1       |
| Eigenproduktion    | Isopropyl alcohol 70% | 360921A          | 1       |
| Eigenproduktion    | Isopropyl alcohol 70% | 3617E-01080      | 1       |
| Eigenrezeptur      | Isopropyl alcohol 70% | 4616A-01080      | 1       |
| Eigenrezeptur      | Isopropyl alcohol 70% | 4616E-01080      | 1       |
| Engel-Apotheke     | Isopropyl alcohol 70% | 2519A-01080      | 1       |
| Euro OCT           | Isopropyl alcohol 70% | 200214           | 1       |
| Euro OTC           | Isopropyl alcohol 70% | 2600973T         | 1       |
| Euro OTC           | Isopropyl alcohol 70% | 4012Q-01080      | 1       |
| Euro OTC           | Isopropyl alcohol 70% | 53245            | 1       |
| Euro OTC           | Isopropyl alcohol 70% | 53398            | 1       |
| Euro OTC           | Isopropyl alcohol 70% | 53442            | 1       |
| Euro OTC           | Isopropyl alcohol 70% | 53467            | 2       |
| EuroPTC/Phönix     | Isopropyl alcohol 70% | 15076401         | 2       |
| Fagron             | Isopropyl alcohol 70% |                  | 1       |
| Fagron             | Isopropyl alcohol 70% | 1234             | 1       |
| Fagron             | Isopropyl alcohol 70% | 13009002         | 1       |
| Fagron             | Isopropyl alcohol 70% | 15076501         | 1       |
| Fagron             | Isopropyl alcohol 70% | 17311701         | 1       |
| Fagron             | Isopropyl alcohol 70% | 18114202         | 2       |
| Fagron             | Isopropyl alcohol 70% | 4114104          | 1       |
| Fagron             | Isopropyl alcohol 70% | 53279            | 1       |
| Fagron             | Isopropyl alcohol 70% | 53411            | 3       |
| Fagron             | Isopropyl alcohol 70% | 53526            | 1       |
| Fiebig/ Hedinger   | Isopropyl alcohol 70% | 53343            | 1       |
| Fiebig/ O. Fischar | Isopropyl alcohol 70% | 4110901          | 1       |
| Fiebig/ O. Fischar | Isopropyl alcohol 70% | 4119091          | 8       |
| Fiebig/ O. Fischar | Isopropyl alcohol 70% | 4119092          | 6       |
| Fiebig/ O. Fischar | Isopropyl alcohol 70% | 4119101          | 2       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53336            | 1       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53360            | 1       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53400            | 1       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53445            | 1       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53475            | 1       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53600            | 1       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53607            | 4       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53611            | 2       |
| Fiebig/Hedinger    | Isopropyl alcohol 70% | 53612            | 1       |
| Fiebig             | Isopropyl alcohol 70% | 18308001         | 1       |
| Fiebig             | Isopropyl alcohol 70% | 4116123          | 1       |
| Fiebig             | Isopropyl alcohol 70% | 4117103          | 13      |
| Fiebig             | Isopropyl alcohol 70% | 4117124          | 9       |
| Fiebig             | Isopropyl alcohol 70% | 4117125          | 7       |
| Fiebig             | Isopropyl alcohol 70% | 4118011          | 10      |
| Fiebig             | Isopropyl alcohol 70% | 4118012          | 4       |
| Fiebig             | Isopropyl alcohol 70% | 4118051          | 5       |
| Fiebig             | Isopropyl alcohol 70% | 4118052          | 4       |
| Fiebig             | Isopropyl alcohol 70% | 4118053          | 11      |
| Fiebig             | Isopropyl alcohol 70% | 4118063          | 10      |
| Fiebig             | Isopropyl alcohol 70% | 4118071          | 16      |
| Fiebig             | Isopropyl alcohol 70% | 4118073          | 4       |
| Fiebig             | Isopropyl alcohol 70% | 4118074          | 1       |
| Fiebig             | Isopropyl alcohol 70% | 4118092          | 4       |

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| Supplier          | Substance             | Batch   | Spectra |
|-------------------|-----------------------|---------|---------|
| Fiebig            | Isopropyl alcohol 70% | 4118094 | 3       |
| Fiebig            | Isopropyl alcohol 70% | 4118102 | 3       |
| Fiebig            | Isopropyl alcohol 70% | 4118104 | 8       |
| Fiebig            | Isopropyl alcohol 70% | 4118113 | 11      |
| Fiebig            | Isopropyl alcohol 70% | 4118114 | 12      |
| Fiebig            | Isopropyl alcohol 70% | 4119011 | 15      |
| Fiebig            | Isopropyl alcohol 70% | 4119012 | 8       |
| Fiebig            | Isopropyl alcohol 70% | 4119026 | 3       |
| Fiebig            | Isopropyl alcohol 70% | 4119041 | 2       |
| Fiebig            | Isopropyl alcohol 70% | 4119043 | 10      |
| Fiebig            | Isopropyl alcohol 70% | 4119062 | 4       |
| Fiebig            | Isopropyl alcohol 70% | 4119063 | 7       |
| Fiebig            | Isopropyl alcohol 70% | 4119064 | 14      |
| Fiebig            | Isopropyl alcohol 70% | 4119065 | 6       |
| Fiebig            | Isopropyl alcohol 70% | 4119073 | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53475   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53478   | 3       |
| Fiebig            | Isopropyl alcohol 70% | 53482   | 3       |
| Fiebig            | Isopropyl alcohol 70% | 53504   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53505   | 5       |
| Fiebig            | Isopropyl alcohol 70% | 53509   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53525   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53526   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53527   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53529   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53539   | 2       |
| Fiebig            | Isopropyl alcohol 70% | 53542   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53545   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53550   | 3       |
| Fiebig            | Isopropyl alcohol 70% | 53552   | 2       |
| Fiebig            | Isopropyl alcohol 70% | 53556   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53559   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53562   | 3       |
| Fiebig            | Isopropyl alcohol 70% | 53573   | 2       |
| Fiebig            | Isopropyl alcohol 70% | 53576   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53586   | 1       |
| Fiebig            | Isopropyl alcohol 70% | 53587   | 1       |
| Finteler Apotheke | Isopropyl alcohol 70% | 53425   | 1       |
| Fischar / Anzag   | Isopropyl alcohol 70% | 4115073 | 1       |
| Fischar / Phoenix | Isopropyl alcohol 70% | 4110053 | 2       |
| Fischar / Phoenix | Isopropyl alcohol 70% | 4110056 | 1       |
| Fischar / Phoenix | Isopropyl alcohol 70% | 4110091 | 1       |
| Fischar / Phoenix | Isopropyl alcohol 70% | 4110094 | 1       |
| Fischar / Phoenix | Isopropyl alcohol 70% | 4111031 | 1       |
| Fischar / Phoenix | Isopropyl alcohol 70% | 4111051 | 1       |
| Fischar / Phönix  | Isopropyl alcohol 70% | 4118101 | 1       |
| Fischar/Fiebig    | Isopropyl alcohol 70% | 4117064 | 8       |
| Fischar/Fiebig    | Isopropyl alcohol 70% | 4117065 | 12      |
| Fischar/Fiebig    | Isopropyl alcohol 70% | 4117121 | 7       |
| Fischar/Phoenix   | Isopropyl alcohol 70% | 4110022 | 1       |
| Fischar/Phoenix   | Isopropyl alcohol 70% | 4111064 | 1       |
| Fischar/Phoenix   | Isopropyl alcohol 70% | 4111107 | 1       |
| Fischar/Phoenix   | Isopropyl alcohol 70% | 4117091 | 1       |
| Fischar/Phönix    | Isopropyl alcohol 70% | 4110012 | 1       |
| Fischar/Phönix    | Isopropyl alcohol 70% | 4117126 | 1       |
| Fischar/Phönix    | Isopropyl alcohol 70% | 4118073 | 1       |
| Fischar/Phönix    | Isopropyl alcohol 70% | 4119026 | 2       |
| Fischar/Sanacorp  | Isopropyl alcohol 70% | 4114044 | 1       |
| Fischar           | Isopropyl alcohol 70% | 2183    | 1       |
| Fischar           | Isopropyl alcohol 70% | 4110022 | 1       |

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| Supplier                | Substance             | Batch         | Spectra |
|-------------------------|-----------------------|---------------|---------|
| Fischar                 | Isopropyl alcohol 70% | 4110053       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4114041       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4114064       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4114082       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4115061       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4115062       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4116044       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4116123       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4116125       | 2       |
| Fischar                 | Isopropyl alcohol 70% | 4117022       | 2       |
| Fischar                 | Isopropyl alcohol 70% | 4117043       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4117052       | 2       |
| Fischar                 | Isopropyl alcohol 70% | 4117062       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4117064       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4117065       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4117082       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4117122       | 3       |
| fischar                 | Isopropyl alcohol 70% | 4118011       | 1       |
| fischar                 | Isopropyl alcohol 70% | 4118022       | 1       |
| fischar                 | Isopropyl alcohol 70% | 4118032       | 2       |
| Fischar                 | Isopropyl alcohol 70% | 4118051       | 1       |
| fischar                 | Isopropyl alcohol 70% | 4118053       | 4       |
| fischar                 | Isopropyl alcohol 70% | 4118111       | 4       |
| fischar                 | Isopropyl alcohol 70% | 4119012       | 3       |
| Fischar                 | Isopropyl alcohol 70% | 4119012       | 2       |
| fischar                 | Isopropyl alcohol 70% | 4119021       | 3       |
| fischar                 | Isopropyl alcohol 70% | 4119041       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4119041       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4119042       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4119043       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4119063       | 1       |
| Fischar                 | Isopropyl alcohol 70% | 4119071       | 2       |
| Fischer/Phoenix         | Isopropyl alcohol 70% | 4118013       | 2       |
| Franz GmbH, Phoenix     | Isopropyl alcohol 70% | 53426         | 1       |
| Frau Hennies            | Isopropyl alcohol 70% | 240216        | 1       |
| Gehe Hedinger           | Isopropyl alcohol 70% | 53448         | 1       |
| Gehe 07.12.18           | Isopropyl alcohol 70% | 18235302      | 1       |
| GEHE am 16.08.2014      | Isopropyl alcohol 70% | 53297         | 1       |
| GEHE am 17.06.2014      | Isopropyl alcohol 70% | 53286         | 1       |
| Gehe/ Hedinger          | Isopropyl alcohol 70% | 53494/1300518 | 1       |
| GEHE/ HEDINGER          | Isopropyl alcohol 70% | 53622         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 53310         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 53370         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 53379         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 53421         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 53461         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 53473         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 53647         | 1       |
| Gehe/Hedinger           | Isopropyl alcohol 70% | 83366         | 1       |
| Gehe/Hedinger26.04.16   | Isopropyl alcohol 70% | 53359         | 1       |
| Gehe/Hedinger29.08.2016 | Isopropyl alcohol 70% | 53372         | 1       |
| Gehe/Phönix             | Isopropyl alcohol 70% | 12338001      | 2       |
| Gehe/Phönix             | Isopropyl alcohol 70% | 136363003     | 1       |
| Gehe/Phönix             | Isopropyl alcohol 70% | 14229101      | 1       |
| Gehe                    | Isopropyl alcohol 70% | 11370004      | 3       |
| GEHE                    | Isopropyl alcohol 70% | 12037601      | 1       |
| Gehe                    | Isopropyl alcohol 70% | 14026402      | 4       |
| Gehe                    | Isopropyl alcohol 70% | 15014302      | 1       |
| Gehe                    | Isopropyl alcohol 70% | 15192002      | 1       |
| Gehe                    | Isopropyl alcohol 70% | 15309001      | 1       |

continued on the next page



continued from previous page

| Supplier               | Substance             | Batch           | Spectra |
|------------------------|-----------------------|-----------------|---------|
| Gehe                   | Isopropyl alcohol 70% | 15309101        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 15404001        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 15437601        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 16088302        | 2       |
| Gehe                   | Isopropyl alcohol 70% | 16167701        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 16167902        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 16318901        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 16319001        | 2       |
| GEHE                   | Isopropyl alcohol 70% | 16319001        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 17202903        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 17203101        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 17358201        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 17358202        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18073702        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18073901        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18073902        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18074001        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18114001        | 2       |
| GEHE                   | Isopropyl alcohol 70% | 18114001        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18114101        | 2       |
| GEHE                   | Isopropyl alcohol 70% | 18114101        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18114301        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18235202        | 3       |
| GEHE                   | Isopropyl alcohol 70% | 18235301        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18308101        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 18308202        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 19078704        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 19138501        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 19261801        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 194231          | 1       |
| Gehe                   | Isopropyl alcohol 70% | 213741          | 1       |
| GEHE                   | Isopropyl alcohol 70% | 221160/3        | 1       |
| Gehe                   | Isopropyl alcohol 70% | 310170118132/70 | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53264           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53290           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53391           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53408           | 1       |
| GEHE                   | Isopropyl alcohol 70% | 53420           | 2       |
| GEHE                   | Isopropyl alcohol 70% | 53491           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53516           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53552           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53559           | 2       |
| Gehe                   | Isopropyl alcohol 70% | 53565           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53600           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53769           | 1       |
| Gehe                   | Isopropyl alcohol 70% | 53777           | 2       |
| GEHE                   | Isopropyl alcohol 70% | 603117000       | 1       |
| Geibo/Hedinger         | Isopropyl alcohol 70% | 53505           | 1       |
| Geibo/Teofarma         | Isopropyl alcohol 70% | 140004          | 1       |
| Geibo                  | Isopropyl alcohol 70% | 183541          | 1       |
| geiger                 | Isopropyl alcohol 70% | 2213E-01080     | 1       |
| Geilenkirchen/Hedinger | Isopropyl alcohol 70% | 53382           | 1       |
| Geilenkirchen/Hedinger | Isopropyl alcohol 70% | 53383           | 1       |
| Geilenkirchen/Hedinger | Isopropyl alcohol 70% | 53404           | 1       |
| Germania Apo           | Isopropyl alcohol 70% | 315032          | 1       |
| GUMO/04.04.2013        | Isopropyl alcohol 70% | 2600726T        | 1       |
| Gutenberg-Apotheke     | Isopropyl alcohol 70% | 130206004       | 1       |
| Gutenberg-Apotheke     | Isopropyl alcohol 70% | 130327003       | 1       |
| Gutenberg-Apotheke     | Isopropyl alcohol 70% | 130725001       | 1       |
| Gutenberg-Apotheke     | Isopropyl alcohol 70% | 130813006       | 1       |

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| Supplier                   | Substance             | Batch       | Spectra |
|----------------------------|-----------------------|-------------|---------|
| Gutenberg-Apotheke         | Isopropyl alcohol 70% | 130912001   | 1       |
| Gutenberg-Apotheke         | Isopropyl alcohol 70% | 140612014   | 1       |
| Gutenberg-Apotheke         | Isopropyl alcohol 70% | 3212I-01080 | 1       |
| Gutenberg-Apotheke         | Isopropyl alcohol 70% | 3812E-01080 | 1       |
| Gutenberg-Apotheke         | Isopropyl alcohol 70% | 4212A-01080 | 1       |
| Gutenberg-Apotheke         | Isopropyl alcohol 70% | 4612I-01080 | 1       |
| hadinger/allianz           | Isopropyl alcohol 70% | 53420       | 1       |
| Hedinge/AHD                | Isopropyl alcohol 70% | 53703       | 1       |
| Hedinge/AHD                | Isopropyl alcohol 70% | 53709       | 1       |
| Hedinger / 2               | Isopropyl alcohol 70% | 53348       | 1       |
| Hedinger / AHD             | Isopropyl alcohol 70% | 53378       | 1       |
| Hedinger / AHD             | Isopropyl alcohol 70% | 53499       | 1       |
| Hedinger / AHD             | Isopropyl alcohol 70% | 53572       | 1       |
| Hedinger / AHD             | Isopropyl alcohol 70% | 53687       | 1       |
| Hedinger / Anzag           | Isopropyl alcohol 70% | 53529       | 1       |
| Hedinger / Anzag           | Isopropyl alcohol 70% | 53551       | 1       |
| Hedinger / Gehe            | Isopropyl alcohol 70% | 303059      | 1       |
| Hedinger / Gehe            | Isopropyl alcohol 70% | 53337       | 1       |
| Hedinger / Gehe            | Isopropyl alcohol 70% | 53452       | 1       |
| Hedinger / Gehe            | Isopropyl alcohol 70% | 53465       | 1       |
| Hedinger / Gehe            | Isopropyl alcohol 70% | 53506       | 2       |
| Hedinger / Gehe            | Isopropyl alcohol 70% | 53696       | 1       |
| Hedinger / Kehr            | Isopropyl alcohol 70% | 53359       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53266       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53267       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53300       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 5331        | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53321       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53324       | 1       |
| HEDINGER / Noweda          | Isopropyl alcohol 70% | 53340       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53385       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53387       | 2       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53443       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53453       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53461       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53476       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53525       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53528       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53552       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53557       | 1       |
| Hedinger / Noweda          | Isopropyl alcohol 70% | 53598       | 1       |
| Hedinger / Phoenix         | Isopropyl alcohol 70% | 53561       | 1       |
| Hedinger / Phönix          | Isopropyl alcohol 70% | 53266       | 1       |
| Hedinger / Phönix          | Isopropyl alcohol 70% | 53290       | 1       |
| Hedinger / Phönix          | Isopropyl alcohol 70% | 53309       | 1       |
| Hedinger / Phönix          | Isopropyl alcohol 70% | 53326       | 1       |
| Hedinger / Phönix          | Isopropyl alcohol 70% | 53413       | 1       |
| Hedinger / Phönix          | Isopropyl alcohol 70% | 53430       | 1       |
| Hedinger / Phönix          | Isopropyl alcohol 70% | 53442       | 1       |
| Hedinger / Sanacorp        | Isopropyl alcohol 70% | 503549      | 1       |
| Hedinger / Sanacorp        | Isopropyl alcohol 70% | 53407       | 1       |
| Hedinger / Sanacorp        | Isopropyl alcohol 70% | 53465       | 1       |
| Hedinger / Sanacorp        | Isopropyl alcohol 70% | 53483       | 1       |
| Hedinger / Sanacorp        | Isopropyl alcohol 70% | 53491       | 1       |
| Hedinger / Sanacorp        | Isopropyl alcohol 70% | 53638       | 1       |
| Hedinger / Sanacorp        | Isopropyl alcohol 70% | 53690       | 1       |
| hedinge / AHD              | Isopropyl alcohol 70% | 535045666   | 1       |
| Hedinger /Sanacorp WE: ... | Isopropyl alcohol 70% | 53338       | 1       |
| Hedinger Gehe              | Isopropyl alcohol 70% | 53473       | 1       |
| Hedinger Gehe              | Isopropyl alcohol 70% | 53476       | 1       |

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| <b>Supplier</b>            | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-----------------------|--------------|----------------|
| Hedinger Gehe              | Isopropyl alcohol 70% | 53517        | 1              |
| Hedinger Gehe              | Isopropyl alcohol 70% | 53536        | 1              |
| Hedinger Gehe              | Isopropyl alcohol 70% | 53549        | 1              |
| Hedinger GmbH & Co. KG/... | Isopropyl alcohol 70% | 53328        | 1              |
| Hedinger GmbH & Co. KG/... | Isopropyl alcohol 70% | 53329        | 1              |
| Hedinger GmbH & Co. KG     | Isopropyl alcohol 70% | 303172       | 1              |
| Hedinger GmbH & Co. KG     | Isopropyl alcohol 70% | 53515        | 1              |
| Hedinger GmbH/Alliance ... | Isopropyl alcohol 70% | 303137       | 1              |
| Hedinger GmbH/Sanacorp     | Isopropyl alcohol 70% | 53452        | 1              |
| Hedinger GmbH              | Isopropyl alcohol 70% | 303212       | 1              |
| Hedinger Jenne             | Isopropyl alcohol 70% | 53417        | 1              |
| Hedinger Jenne             | Isopropyl alcohol 70% | 53435        | 1              |
| Hedinger Jenne             | Isopropyl alcohol 70% | 53441        | 1              |
| Hedinger/ AHD              | Isopropyl alcohol 70% | 53482        | 1              |
| Hedinger/ AHD              | Isopropyl alcohol 70% | 53495        | 2              |
| Hedinger/ AHD              | Isopropyl alcohol 70% | 53509        | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol 70% | 53499        | 1              |
| Hedinger/ Anzag            | Isopropyl alcohol 70% | 53508        | 2              |
| Hedinger/ Anzag            | Isopropyl alcohol 70% | 53514        | 2              |
| Hedinger/ Gehe             | Isopropyl alcohol 70% | 53354        | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol 70% | 53654        | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol 70% | 53667        | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol 70% | 53703        | 1              |
| Hedinger/ Gehe             | Isopropyl alcohol 70% | 53754        | 1              |
| Hedinger/ Jenne            | Isopropyl alcohol 70% | 53680        | 1              |
| Hedinger/ Kehr             | Isopropyl alcohol 70% | 53377        | 4              |
| Hedinger/ Kehr             | Isopropyl alcohol 70% | 53429        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 22092001     | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 30062001     | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 303058       | 2              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53440        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53480        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53499        | 1              |
| Hedinger/ NOWEDA           | Isopropyl alcohol 70% | 53527        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53529        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53534        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53545        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53561        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53567        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53571        | 2              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53581        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53598        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53602        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53603        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53607        | 1              |
| Hedinger/ NOWEDA           | Isopropyl alcohol 70% | 53616        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53653        | 2              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53673        | 2              |
| Hedinger/ NOWEDA           | Isopropyl alcohol 70% | 53704        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53717        | 1              |
| Hedinger/ Noweda           | Isopropyl alcohol 70% | 53739        | 2              |
| Hedinger/ PH               | Isopropyl alcohol 70% | 53687        | 1              |
| Hedinger/ Phoenix          | Isopropyl alcohol 70% | 53413        | 1              |
| Hedinger/ Phönix           | Isopropyl alcohol 70% | 53536        | 1              |
| Hedinger/ Phönix           | Isopropyl alcohol 70% | 53578        | 1              |
| Hedinger/ Sanacorp Lüb...  | Isopropyl alcohol 70% | 53591        | 1              |
| Hedinger/ Sanacorp Lüb...  | Isopropyl alcohol 70% | 53668        | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol 70% | 53354        | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol 70% | 53360        | 1              |
| Hedinger/ Sanacorp         | Isopropyl alcohol 70% | 53382        | 1              |

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| <b>Supplier</b>    | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|--------------------|-----------------------|--------------|----------------|
| Hedinger/ Sanacorp | Isopropyl alcohol 70% | 53398        | 1              |
| Hedinger/ Sanacorp | Isopropyl alcohol 70% | 53509        | 1              |
| hedinger/ Sanacorp | Isopropyl alcohol 70% | 535105725    | 1              |
| hedinger/ Sanacorp | Isopropyl alcohol 70% | 535265764    | 1              |
| Hedinger/ Sanacorp | Isopropyl alcohol 70% | 53607        | 1              |
| Hedinger/          | Isopropyl alcohol 70% | 53594        | 1              |
| Hedinger/          | Isopropyl alcohol 70% | 53600        | 1              |
| Hedinger/          | Isopropyl alcohol 70% | 53664        | 1              |
| Hedinger/          | Isopropyl alcohol 70% | 53694        | 1              |
| Hedinger/          | Isopropyl alcohol 70% | 53696        | 1              |
| Hedinger/1         | Isopropyl alcohol 70% | 53355        | 1              |
| HEDINGER/1         | Isopropyl alcohol 70% | 53525        | 1              |
| HEDINGER/1         | Isopropyl alcohol 70% | 53565        | 1              |
| HEDINGER/1         | Isopropyl alcohol 70% | 53603        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53265        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53268        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53277        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53290        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53310        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53322        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53326        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53340        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53346        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53355        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53371        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53376        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53392        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53399        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53404        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53407        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53420        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53426        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53435        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53438        | 2              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53444        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53462        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53466        | 2              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53478        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53479        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53488        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53493        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53495        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53505        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53513        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53529        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53549        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53551        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53555        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53557        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53561        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53576        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53582        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53595        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53611        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53617        | 2              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53643        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53661        | 2              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53687        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53689        | 1              |
| Hedinger/AHD       | Isopropyl alcohol 70% | 53709        | 1              |

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continued from previous page

| Supplier                   | Substance             | Batch          | Spectra |
|----------------------------|-----------------------|----------------|---------|
| Hedinger/AHD               | Isopropyl alcohol 70% | 53714          | 1       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53716          | 1       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53717          | 1       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53723          | 1       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53741          | 1       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53755          | 1       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53774          | 1       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53787          | 2       |
| Hedinger/AHD               | Isopropyl alcohol 70% | 53797          | 2       |
| Hedinger/Alli              | Isopropyl alcohol 70% | 53665          | 1       |
| Hedinger/Alliance Healt... | Isopropyl alcohol 70% |                | 1       |
| Hedinger/Alliance Healt... | Isopropyl alcohol 70% | 53376          | 1       |
| Hedinger/Alliance Healt... | Isopropyl alcohol 70% | 53467          | 3       |
| Hedinger/Alliance Hirsc... | Isopropyl alcohol 70% | 53519          | 1       |
| Hedinger/Alliance          | Isopropyl alcohol 70% | 53324          | 1       |
| Hedinger/Alliance          | Isopropyl alcohol 70% | 53353          | 1       |
| Hedinger/Alliance          | Isopropyl alcohol 70% | 53359          | 1       |
| Hedinger/Alliance          | Isopropyl alcohol 70% | 53417          | 1       |
| Hedinger/Alliance          | Isopropyl alcohol 70% | 53678          | 2       |
| Hedinger/Alliance          | Isopropyl alcohol 70% | 53694          | 4       |
| Hedinger/Alliance          | Isopropyl alcohol 70% | 53706          | 2       |
| Hedinger/Anz               | Isopropyl alcohol 70% | 53399          | 1       |
| Hedinger/Anz               | Isopropyl alcohol 70% | 53514          | 1       |
| Hedinger/Anzag direkt      | Isopropyl alcohol 70% | 53545          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 2002018        | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 2x053739       | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 303006         | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 303007         | 2       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 303008         | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53447          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53497          | 2       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53518          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53524          | 4       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53525          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53548          | 3       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53550          | 4       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53554          | 2       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53574          | 3       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53586          | 5       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53598          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53601          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53606          | 2       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53607          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53610          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53622          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53632          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53667          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53694          | 4       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53698          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53700          | 2       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53709          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53715          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53737          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | 53750          | 1       |
| Hedinger/Anzag             | Isopropyl alcohol 70% | sieheProtokoll | 1       |
| Hedinger/Delta             | Isopropyl alcohol 70% | 53539          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53442          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53449          | 2       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53452          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53460          | 1       |

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continued from previous page

| Supplier                   | Substance             | Batch          | Spectra |
|----------------------------|-----------------------|----------------|---------|
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53462          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53494          | 2       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53504          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53506          | 2       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53562          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53577          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53598          | 1       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53600          | 3       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53602          | 2       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53685          | 2       |
| Hedinger/Ebert             | Isopropyl alcohol 70% | 53697          | 3       |
| Hedinger/Fiebig 05.03.2... | Isopropyl alcohol 70% | 53626          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 303035         | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53326          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53391          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53409          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53420          | 3       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53440          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53447          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53451          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53454          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53456          | 3       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53468          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53469          | 5       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53478          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53488          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53493          | 3       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53495          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53505          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53509          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53510          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53515          | 3       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53525          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53530          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53534          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53542          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53545          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53552          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53562          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53576          | 3       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53577          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53593          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53603          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53611          | 2       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53633          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53706          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53726          | 1       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 53741          | 3       |
| Hedinger/Fiebig            | Isopropyl alcohol 70% | 5386           | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 1200717/053443 | 1       |
| Hedinger/GEHE              | Isopropyl alcohol 70% | 53266          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53302          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53315          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53322          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53333          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53338          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53340          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53346          | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 5335           | 1       |
| Hedinger/Gehe              | Isopropyl alcohol 70% | 53351          | 1       |

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| <b>Supplier</b>        | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|------------------------|-----------------------|--------------|----------------|
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53352        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53357        | 3              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53366        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53367        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53376        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53379        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53380        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53385        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53388        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53392        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53401        | 2              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53402        | 2              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53416        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53422        | 1              |
| Hedinger/GEHE          | Isopropyl alcohol 70% | 53453        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53482        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53491        | 2              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53492        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53498        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53511        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53532        | 2              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53536        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53557        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53562        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53565        | 2              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53570        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53581        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53594        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53595        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53601        | 5              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53607        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53617        | 2              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53629        | 1              |
| Hedinger/GEHE          | Isopropyl alcohol 70% | 53673        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53695        | 1              |
| Hedinger/Gehe          | Isopropyl alcohol 70% | 53798        | 1              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53262        | 1              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53266        | 1              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53306        | 2              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53320        | 1              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53333        | 1              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53566        | 4              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53570        | 3              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53604        | 2              |
| Hedinger/Geilenkirchen | Isopropyl alcohol 70% | 53798        | 1              |
| Hedinger/Jenne         | Isopropyl alcohol 70% | 53601        | 1              |
| Hedinger/Jenne         | Isopropyl alcohol 70% | 53652        | 2              |
| Hedinger/Jenne         | Isopropyl alcohol 70% | 53741        | 1              |
| Hedinger/Jenne         | Isopropyl alcohol 70% | 53744        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53386        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53393        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53425        | 2              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53435        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53438        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53439        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53497        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53524        | 2              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53545        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53548        | 1              |
| Hedinger/Kehr          | Isopropyl alcohol 70% | 53555        | 1              |

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| <b>Supplier</b>      | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|----------------------|-----------------------|--------------|----------------|
| Hedinger/Kehr        | Isopropyl alcohol 70% | 53559        | 1              |
| Hedinger/Kehr        | Isopropyl alcohol 70% | 53582        | 1              |
| Hedinger/Kehr        | Isopropyl alcohol 70% | 53590        | 1              |
| Hedinger/Kehr        | Isopropyl alcohol 70% | 53601        | 1              |
| Hedinger/Klosterring | Isopropyl alcohol 70% | 53518        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 181115182    | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 303078       | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 303084       | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 303100       | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 3817M-01080  | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53308        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53266        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53320        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53343        | 2              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53346        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53355        | 2              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53357        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53360        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53367        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53379        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53380        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53381        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53383        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53395        | 1              |
| hedinger/noweda      | Isopropyl alcohol 70% | 53397        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53397        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53403        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53406        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53410        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53411        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53412        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53417        | 2              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53419        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53420        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53422        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53425        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53430        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53434        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53438        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53439        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53441        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53443        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53445        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53451        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53454        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53458        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53459        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53461        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53464        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53467        | 2              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53468        | 2              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53485        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53491        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53497        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53503        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53511        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53514        | 1              |
| hedinger/Noweda      | Isopropyl alcohol 70% | 53517        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53517        | 1              |
| Hedinger/Noweda      | Isopropyl alcohol 70% | 53518        | 3              |

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| <b>Supplier</b>            | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-----------------------|--------------|----------------|
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53519        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53521        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53526        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53537        | 1              |
| hedinger/Noweda            | Isopropyl alcohol 70% | 53544        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53571        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53580        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53581        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53587        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53600        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53603        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53608        | 2              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53611        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53616        | 2              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53618        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53633        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53636        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53639        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53645        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53655        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53665        | 1              |
| HEDINGER/NOWEDA            | Isopropyl alcohol 70% | 53665        | 1              |
| HEDINGER/NOWEDA            | Isopropyl alcohol 70% | 53670        | 2              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53672        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53674        | 1              |
| HEDINGER/NOWEDA            | Isopropyl alcohol 70% | 53675        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53678        | 11             |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53694        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53695        | 4              |
| HEDINGER/NOWEDA            | Isopropyl alcohol 70% | 53695        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53716        | 2              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53727        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53733        | 2              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53734        | 5              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53738        | 2              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53750        | 3              |
| HEDINGER/NOWEDA            | Isopropyl alcohol 70% | 53753        | 2              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53761        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53770        | 1              |
| Hedinger/Noweda            | Isopropyl alcohol 70% | 53795        | 1              |
| Hedinger/Phö               | Isopropyl alcohol 70% | 53340        | 1              |
| Hedinger/Phö               | Isopropyl alcohol 70% | 53401        | 1              |
| Hedinger/Phö               | Isopropyl alcohol 70% | 53416        | 1              |
| Hedinger/Phö               | Isopropyl alcohol 70% | 5432         | 1              |
| Hedinger/Phoenix 16.07.18  | Isopropyl alcohol 70% | 53480        | 1              |
| Hedinger/Phoenix WE: 09... | Isopropyl alcohol 70% | 53410        | 2              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 303053       | 4              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 303144       | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53332        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53367        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53377        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53382        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53385        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53392        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53442        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53447        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53448        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53453        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53456        | 1              |
| Hedinger/Phoenix           | Isopropyl alcohol 70% | 53475        | 1              |

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| Supplier         | Substance             | Batch   | Spectra |
|------------------|-----------------------|---------|---------|
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53482   | 3       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53488   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53499   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53506   | 6       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53509   | 4       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53511   | 3       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53517   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53522   | 2       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53524   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53527   | 5       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53528   | 2       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53537   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53539   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53540   | 8       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53552   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53559   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53563   | 1       |
| Hedinger/phoenix | Isopropyl alcohol 70% | 53567   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53578   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53581   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53582   | 2       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53585   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53608   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53651   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53664   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53686   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53694   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53704   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53723   | 1       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53756   | 4       |
| Hedinger/Phoenix | Isopropyl alcohol 70% | 53769   | 1       |
| Hedinger/Phön.   | Isopropyl alcohol 70% | 53651   | 2       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | /53593  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 3030046 | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303035  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303037  | 3       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303039  | 3       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303040  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303042  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303045  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303059  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303087  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 303095  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 4110039 | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53348   | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 533586  | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53369   | 1       |
| HEDINGER/Phönix  | Isopropyl alcohol 70% | 53369   | 2       |
| HEDINGER/Phönix  | Isopropyl alcohol 70% | 53380   | 2       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53385   | 1       |
| HEDINGER/Phönix  | Isopropyl alcohol 70% | 53387   | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53392   | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53397   | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53398   | 1       |
| HEDINGER/Phönix  | Isopropyl alcohol 70% | 53398   | 1       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53401   | 2       |
| HEDINGER/Phönix  | Isopropyl alcohol 70% | 53401   | 4       |
| Hedinger/Phönix  | Isopropyl alcohol 70% | 53410   | 3       |
| HEDINGER/Phönix  | Isopropyl alcohol 70% | 53410   | 1       |
| HEDINGER/Phönix  | Isopropyl alcohol 70% | 53416   | 3       |

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| <b>Supplier</b>            | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-----------------------|--------------|----------------|
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53426        | 1              |
| HEDINGER/Phönix            | Isopropyl alcohol 70% | 53426        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53432        | 1              |
| HEDINGER/Phönix            | Isopropyl alcohol 70% | 53432        | 4              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53447        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53451        | 3              |
| HEDINGER/Phönix            | Isopropyl alcohol 70% | 53451        | 2              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53456        | 1              |
| HEDINGER/Phönix            | Isopropyl alcohol 70% | 53456        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53462        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53479        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53480        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53486        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53488        | 6              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53493        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53497        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53502        | 2              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53519        | 2              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53520        | 4              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53523        | 2              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53526        | 4              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53539        | 4              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53541        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53550        | 4              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53561        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53567        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53573        | 3              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53577        | 3              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53584        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53587        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53590        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53593        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53600        | 2              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53603        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53612        | 3              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53672        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53674        | 3              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53682        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53686        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53695        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53702        | 2              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53741        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53758        | 2              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53777        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53788        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53797        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 53798        | 1              |
| Hedinger/Phönix            | Isopropyl alcohol 70% | 701035B      | 1              |
| Hedinger/Sana              | Isopropyl alcohol 70% | 53397        | 1              |
| Hedinger/Sana              | Isopropyl alcohol 70% | 53739        | 1              |
| Hedinger/Sana              | Isopropyl alcohol 70% | 53788        | 1              |
| Hedinger/Sanacorp          | Isopropyl alcohol 70% | 53493        | 1              |
| Hedinger/Sanacorp (Zyto... | Isopropyl alcohol 70% | 53713        | 1              |
| Hedinger/Sanacorp (Zyto... | Isopropyl alcohol 70% | 53725        | 2              |
| Hedinger/Sanacorp          | Isopropyl alcohol 70% | 303155       | 1              |
| Hedinger/Sanacorp          | Isopropyl alcohol 70% | 3407         | 1              |
| Hedinger/Sanacorp          | Isopropyl alcohol 70% | 53300        | 1              |
| Hedinger/Sanacorp          | Isopropyl alcohol 70% | 53324        | 1              |
| Hedinger/Sanacorp          | Isopropyl alcohol 70% | 53332        | 1              |
| Hedinger/Sanacorp          | Isopropyl alcohol 70% | 53337        | 1              |

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| <b>Supplier</b>   | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|-------------------|-----------------------|--------------|----------------|
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53341        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53353        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53370        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53371        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53372        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53375        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53381        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53382        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53383        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53396        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53404        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53410        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53411        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53412        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53416        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53421        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53432        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53440        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53443        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53447        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53456        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53460        | 4              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53465        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53466        | 3              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53469        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53470        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53479        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53492        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53493        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53494        | 3              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53504        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53506        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53510        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53513        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53519        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53523        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53525        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53534        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53540        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53542        | 3              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53544        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53550        | 2              |
| HEDINGER/Sanacorp | Isopropyl alcohol 70% | 53550        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53557        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53561        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53566        | 1              |
| Hedinger/sanacorp | Isopropyl alcohol 70% | 53570        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53570        | 2              |
| Hedinger/sanacorp | Isopropyl alcohol 70% | 53571        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53573        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53577        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53584        | 7              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53587        | 6              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53598        | 4              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53599        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53606        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53608        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53617        | 1              |
| Hedinger/sanacorp | Isopropyl alcohol 70% | 53655        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53669        | 1              |

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| <b>Supplier</b>   | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|-------------------|-----------------------|--------------|----------------|
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53678        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53685        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53688        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53690        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53693        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53694        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53697        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53702        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53703        | 3              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53704        | 1              |
| HEDINGER/Sanacorp | Isopropyl alcohol 70% | 53710        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53717        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53718        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53722        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53728        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 5373/8       | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53732        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 5374         | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53747        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53753        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53757        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53781        | 2              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53793        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 53802        | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | 704103       | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | AP210225-02  | 1              |
| Hedinger/Sanacorp | Isopropyl alcohol 70% | Ap210720-02  | 1              |
| Hedinger/Spangro  | Isopropyl alcohol 70% | 53508        | 1              |
| Hedinger/Spangro  | Isopropyl alcohol 70% | 53524        | 3              |
| Hedinger/Spangro  | Isopropyl alcohol 70% | 53548        | 1              |
| Hedinger/VDL      | Isopropyl alcohol 70% | 53425        | 1              |
| Hedinger          | Isopropyl alcohol 70% |              | 3              |
| Hedinger          | Isopropyl alcohol 70% | 181108187    | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303049       | 2              |
| Hedinger          | Isopropyl alcohol 70% | 303054       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303071       | 1              |
| hedinger          | Isopropyl alcohol 70% | 303073       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303081       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303087       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303140       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303145       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303159       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 303185       | 1              |
| Hedinger          | Isopropyl alcohol 70% | 42550        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53226        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53228        | 1              |
| hedinger          | Isopropyl alcohol 70% | 53236        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53240        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53241        | 3              |
| Hedinger          | Isopropyl alcohol 70% | 53242        | 2              |
| Hedinger          | Isopropyl alcohol 70% | 53245        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53250        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53253        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53255        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53258        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53259        | 2              |
| Hedinger          | Isopropyl alcohol 70% | 53265        | 1              |
| Hedinger          | Isopropyl alcohol 70% | 53267        | 2              |
| Hedinger          | Isopropyl alcohol 70% | 53268        | 2              |
| Hedinger          | Isopropyl alcohol 70% | 53274        | 1              |

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| Supplier | Substance             | Batch | Spectra |
|----------|-----------------------|-------|---------|
| Hedinger | Isopropyl alcohol 70% | 53280 | 5       |
| Hedinger | Isopropyl alcohol 70% | 53284 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53291 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53297 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53301 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53303 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53306 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53308 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53309 | 3       |
| Hedinger | Isopropyl alcohol 70% | 53315 | 4       |
| Hedinger | Isopropyl alcohol 70% | 53316 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53320 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53321 | 4       |
| Hedinger | Isopropyl alcohol 70% | 53324 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53333 | 2       |
| HEDINGER | Isopropyl alcohol 70% | 53333 | 3       |
| Hedinger | Isopropyl alcohol 70% | 53334 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53337 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53340 | 5       |
| Hedinger | Isopropyl alcohol 70% | 53341 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53350 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53351 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53352 | 2       |
| HEDINGER | Isopropyl alcohol 70% | 53352 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53353 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53354 | 4       |
| Hedinger | Isopropyl alcohol 70% | 53357 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53359 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53362 | 2       |
| HEDINGER | Isopropyl alcohol 70% | 53362 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53363 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53366 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53368 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53370 | 3       |
| Hedinger | Isopropyl alcohol 70% | 53371 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53372 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53373 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53375 | 3       |
| Hedinger | Isopropyl alcohol 70% | 53377 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53378 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53382 | 7       |
| Hedinger | Isopropyl alcohol 70% | 53383 | 3       |
| Hedinger | Isopropyl alcohol 70% | 53385 | 3       |
| Hedinger | Isopropyl alcohol 70% | 53386 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53387 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53388 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53390 | 2       |
| HEDINGER | Isopropyl alcohol 70% | 53390 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53392 | 5       |
| Hedinger | Isopropyl alcohol 70% | 53393 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53397 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53398 | 9       |
| Hedinger | Isopropyl alcohol 70% | 53400 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53401 | 2       |
| HEDINGER | Isopropyl alcohol 70% | 53401 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53402 | 3       |
| Hedinger | Isopropyl alcohol 70% | 53404 | 6       |
| Hedinger | Isopropyl alcohol 70% | 53406 | 2       |
| Hedinger | Isopropyl alcohol 70% | 53407 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53408 | 1       |

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| Supplier | Substance             | Batch     | Spectra |
|----------|-----------------------|-----------|---------|
| Hedinger | Isopropyl alcohol 70% | 53409     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53410     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53411     | 3       |
| Hedinger | Isopropyl alcohol 70% | 53412     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53413     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53416     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53418     | 6       |
| Hedinger | Isopropyl alcohol 70% | 53419     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53421     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53423     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53425     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53426     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53427     | 2       |
| Hedinger | Isopropyl alcohol 70% | 534275329 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53428     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53429     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53430     | 3       |
| Hedinger | Isopropyl alcohol 70% | 53437     | 3       |
| Hedinger | Isopropyl alcohol 70% | 534375310 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53438     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53439     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53440     | 2       |
| Hedinger | Isopropyl alcohol 70% | 534405397 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53442     | 14      |
| Hedinger | Isopropyl alcohol 70% | 53443     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53444     | 3       |
| Hedinger | Isopropyl alcohol 70% | 53445     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53446     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53447     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53448     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53449     | 2       |
| Hedinger | Isopropyl alcohol 70% | 534495370 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53451     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53454     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53456     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53458     | 2       |
| hedinger | Isopropyl alcohol 70% | 53459     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53460     | 3       |
| Hedinger | Isopropyl alcohol 70% | 53461     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53462     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53463     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53464     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53465     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53467     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53468     | 1       |
| Hedinger | Isopropyl alcohol 70% | 534685436 | 1       |
| Hedinger | Isopropyl alcohol 70% | 534685475 | 1       |
| Hedinger | Isopropyl alcohol 70% | 53469     | 5       |
| Hedinger | Isopropyl alcohol 70% | 53470     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53471     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53474     | 2       |
| hedinger | Isopropyl alcohol 70% | 53476     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53478     | 3       |
| HEDINGER | Isopropyl alcohol 70% | 53478     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53479     | 3       |
| Hedinger | Isopropyl alcohol 70% | 53480     | 5       |
| Hedinger | Isopropyl alcohol 70% | 53482     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53483     | 1       |
| Hedinger | Isopropyl alcohol 70% | 53484     | 2       |
| Hedinger | Isopropyl alcohol 70% | 53486     | 2       |

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| <b>Supplier</b> | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-----------------------|--------------|----------------|
| Hedinger        | Isopropyl alcohol 70% | 53488        | 4              |
| Hedinger        | Isopropyl alcohol 70% | 534895520    | 1              |
| hedinger        | Isopropyl alcohol 70% | 53490        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53490        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53491        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53493        | 4              |
| Hedinger        | Isopropyl alcohol 70% | 53495        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53498        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53502        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53505        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53506        | 3              |
| HEDINGER        | Isopropyl alcohol 70% | 53506        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53508        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53509        | 4              |
| Hedinger        | Isopropyl alcohol 70% | 53510        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53511        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53512        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53513        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53515        | 7              |
| Hedinger        | Isopropyl alcohol 70% | 53516        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53519        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53520        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53521        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53522        | 4              |
| Hedinger        | Isopropyl alcohol 70% | 53523        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53525        | 4              |
| HEDINGER        | Isopropyl alcohol 70% | 53525        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53526        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53527        | 2              |
| hedinger        | Isopropyl alcohol 70% | 53528        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53529        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53530        | 5              |
| Hedinger        | Isopropyl alcohol 70% | 53532        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53533        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53534        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53537        | 1              |
| hedinger        | Isopropyl alcohol 70% | 53538        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53539        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53541        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53542        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53545        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53546        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53548        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53550        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53551        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53553        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53554        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53557        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53558        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53559        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53561        | 6              |
| HEDINGER        | Isopropyl alcohol 70% | 53561        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53562        | 3              |
| hedinger        | Isopropyl alcohol 70% | 53563        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53563        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53565        | 2              |
| hedinger        | Isopropyl alcohol 70% | 53566        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53567        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53568        | 1              |
| hedinger        | Isopropyl alcohol 70% | 53569        | 1              |

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| <b>Supplier</b> | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-----------------------|--------------|----------------|
| Hedinger        | Isopropyl alcohol 70% | 53571        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53573        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53576        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53577        | 5              |
| Hedinger        | Isopropyl alcohol 70% | 53578        | 4              |
| Hedinger        | Isopropyl alcohol 70% | 53580        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53581        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53582        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53584        | 4              |
| hedinger        | Isopropyl alcohol 70% | 53585        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53586        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53587        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53589        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53590        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53593        | 6              |
| Hedinger        | Isopropyl alcohol 70% | 53594        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53595        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53597        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53598        | 1              |
| hedinger        | Isopropyl alcohol 70% | 53599        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53600        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53602        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53603        | 8              |
| Hedinger        | Isopropyl alcohol 70% | 53607        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53608        | 2              |
| hedinger        | Isopropyl alcohol 70% | 53609        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53610        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53611        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53613        | 1              |
| HEDINGER        | Isopropyl alcohol 70% | 53616        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53617        | 1              |
| HEDINGER        | Isopropyl alcohol 70% | 53617        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53619        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53622        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53632        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53634        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53637        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53639        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53650        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53651        | 3              |
| Hedinger        | Isopropyl alcohol 70% | 53652        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53653        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53657        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53667        | 1              |
| hedinger        | Isopropyl alcohol 70% | 53670        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53670        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53673        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53674        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53676        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53678        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53680        | 1              |
| hedinger        | Isopropyl alcohol 70% | 53681        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53682        | 2              |
| Hedinger        | Isopropyl alcohol 70% | 53683        | 1              |
| hedinger        | Isopropyl alcohol 70% | 53684        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53686        | 2              |
| HEDINGER        | Isopropyl alcohol 70% | 53686        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53687        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53689        | 1              |
| Hedinger        | Isopropyl alcohol 70% | 53694        | 2              |

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| <b>Supplier</b>          | <b>Substance</b>      | <b>Batch</b> | <b>Spectra</b> |
|--------------------------|-----------------------|--------------|----------------|
| Hedinger                 | Isopropyl alcohol 70% | 53700        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53702        | 2              |
| Hedinger                 | Isopropyl alcohol 70% | 53703        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53706        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53709        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53714        | 3              |
| Hedinger                 | Isopropyl alcohol 70% | 53715        | 2              |
| Hedinger                 | Isopropyl alcohol 70% | 53716        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53717        | 3              |
| hedinger                 | Isopropyl alcohol 70% | 53727        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53733        | 5              |
| Hedinger                 | Isopropyl alcohol 70% | 53737        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53739        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53744        | 1              |
| hedinger                 | Isopropyl alcohol 70% | 53746        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53750        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53753        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53756        | 2              |
| Hedinger                 | Isopropyl alcohol 70% | 53762        | 2              |
| Hedinger                 | Isopropyl alcohol 70% | 53769        | 1              |
| hedinger                 | Isopropyl alcohol 70% | 53773        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53777        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53781        | 2              |
| Hedinger                 | Isopropyl alcohol 70% | 53788        | 2              |
| hedinger                 | Isopropyl alcohol 70% | 53800        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 53806        | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 700186B      | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 701189B      | 1              |
| Hedinger                 | Isopropyl alcohol 70% | 701203B      | 1              |
| Hedinger                 | Isopropyl alcohol 70% | B230715      | 1              |
| Hedinger                 | Isopropyl alcohol 70% | HA32         | 1              |
| Hedinger1                | Isopropyl alcohol 70% | 53290        | 1              |
| HedingerAlliance         | Isopropyl alcohol 70% | 53548        | 1              |
| HedingerSanacorp         | Isopropyl alcohol 70% | 53526        | 1              |
| Hedunger / Phönix        | Isopropyl alcohol 70% | 53686        | 1              |
| Hedunger / Phönix        | Isopropyl alcohol 70% | 53695        | 1              |
| Heidinger/Sanacorp       | Isopropyl alcohol 70% | 53454        | 1              |
| Heidinger                | Isopropyl alcohol 70% | 53777        | 1              |
| Hedinger/AHD             | Isopropyl alcohol 70% | 53296        | 1              |
| hergestellt am 11.04.13  | Isopropyl alcohol 70% | 191012/925   | 1              |
| Hergestellt am03.07.2013 | Isopropyl alcohol 70% | 2013-07-03B  | 1              |
| Hergestellt              | Isopropyl alcohol 70% | 1150727      | 1              |
| Herstellung in Apotheke  | Isopropyl alcohol 70% | 20120911     | 1              |
| Herstellung in Apotheke  | Isopropyl alcohol 70% | 20130102     | 1              |
| Herstellung in Apotheke  | Isopropyl alcohol 70% | 22042013     | 1              |
| Herstellung in Apotheke  | Isopropyl alcohol 70% | 70587B       | 1              |
| Herstellung in Apotheke  | Isopropyl alcohol 70% | 20130613     | 1              |
| Herstellung in Apotheke  | Isopropyl alcohol 70% | 70643B       | 1              |
| Herstellung              | Isopropyl alcohol 70% | 110416P2     | 1              |
| Hetterich/AEP            | Isopropyl alcohol 70% | 140703       | 1              |
| Hetterich/Sanacorp       | Isopropyl alcohol 70% | 140803       | 1              |
| Hetterich/Spangro        | Isopropyl alcohol 70% | 140804       | 1              |
| Hetterich                | Isopropyl alcohol 70% | 140001       | 1              |
| hetterich                | Isopropyl alcohol 70% | 140102       | 1              |
| Hetterich                | Isopropyl alcohol 70% | 140301       | 1              |
| Hetterich                | Isopropyl alcohol 70% | 140403       | 1              |
| Hirsch Apotheke          | Isopropyl alcohol 70% | 1615I-01080  | 1              |
| Hirsch Apotheke          | Isopropyl alcohol 70% | 415M-0108    | 1              |
| Hirsch Apotheke          | Isopropyl alcohol 70% | 4714I-01080  | 1              |
| Hirsch                   | Isopropyl alcohol 70% | 1913E-01080  | 1              |

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| Supplier                   | Substance             | Batch        | Spectra |
|----------------------------|-----------------------|--------------|---------|
| Hirsch                     | Isopropyl alcohol 70% | 4213E-01080  | 1       |
| Hirsch                     | Isopropyl alcohol 70% | 4413I-01080  | 1       |
| Hirsch                     | Isopropyl alcohol 70% | 5013Q-01080  | 1       |
| Hirsch                     | Isopropyl alcohol 70% | 714E-01080   | 1       |
| Hirsch                     | Isopropyl alcohol 70% | Die16041301  | 1       |
| HirschApotheke             | Isopropyl alcohol 70% | 1015I-01080  | 1       |
| HirschApotheke             | Isopropyl alcohol 70% | 1815E-01080  | 1       |
| HirschApotheke             | Isopropyl alcohol 70% | 2315I-01080  | 1       |
| HirschApotheke             | Isopropyl alcohol 70% | 4514I-01080  | 1       |
| hochhaus-apotheke/Eigen... | Isopropyl alcohol 70% | 2417Q-01080  | 1       |
| Hochhaus-Apotheke          | Isopropyl alcohol 70% | 1116E-01080  | 1       |
| Hochhaus-Apotheke          | Isopropyl alcohol 70% | 117E-01080   | 1       |
| Hochhaus-Apotheke          | Isopropyl alcohol 70% | 3715A-01080  | 1       |
| Hochhaus-Apotheke          | Isopropyl alcohol 70% | 4315E-01080  | 1       |
| hochhaus-Apotheke          | Isopropyl alcohol 70% | 4715E-01080  | 1       |
| hochhaus-Apotheke          | Isopropyl alcohol 70% | 5315E-01080  | 1       |
| hochhaus-Apotheke          | Isopropyl alcohol 70% | 916I-01080   | 1       |
| hochhaus-Apotheke          | Isopropyl alcohol 70% | 917M-01080   | 1       |
| Hofmann und Sommer         | Isopropyl alcohol 70% | 940817       | 1       |
| Hofmann&Sommer/Sanacorp    | Isopropyl alcohol 70% | 1380420      | 1       |
| Hofmann&Sommer             | Isopropyl alcohol 70% | 1280320      | 1       |
| hofmanns/noweda            | Isopropyl alcohol 70% | 1340420      | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | 103171       | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | 103172       | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | 103173       | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | 110416       | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | 230915       | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | 31215        | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | 71014        | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | ChB060115    | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | Chb070319    | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | ChB120914    | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | chb190320181 | 1       |
| Hubertus Apotheke          | Isopropyl alcohol 70% | chb190320182 | 1       |
| Ichthyol über Phoenix      | Isopropyl alcohol 70% | 16167802     | 1       |
| Ichthyol/Noweda            | Isopropyl alcohol 70% | 17311403     | 1       |
| Ichtyol                    | Isopropyl alcohol 70% | 2600971T     | 1       |
| Igel Apotheke              | Isopropyl alcohol 70% | 3813E-01080  | 1       |
| Igel-Apo                   | Isopropyl alcohol 70% | 119M-01080   | 1       |
| Igel-Apo                   | Isopropyl alcohol 70% | 4318Q-01080  | 1       |
| Igel-Apo                   | Isopropyl alcohol 70% | 4618E-01080  | 1       |
| Igel-Apo                   | Isopropyl alcohol 70% | 4819I-01080  | 1       |
| Infectopharm / Noweda      | Isopropyl alcohol 70% | 53504        | 1       |
| Isopropylalkohol GMP/Gehe  | Isopropyl alcohol 70% | 2314M-01080  | 1       |
| Jenne/Hedinger             | Isopropyl alcohol 70% | 53747        | 1       |
| Jenne                      | Isopropyl alcohol 70% | 18308001     | 2       |
| Kastner (eigen)            | Isopropyl alcohol 70% | 3914A-01080  | 1       |
| Kastner                    | Isopropyl alcohol 70% | 1714I-01080  | 1       |
| Kastner                    | Isopropyl alcohol 70% | 914I-01080   | 1       |
| Kehr/A.Hedinger            | Isopropyl alcohol 70% | 53490        | 1       |
| Kehr/Hedinger              | Isopropyl alcohol 70% | 53406        | 1       |
| Kehr/Hedinger              | Isopropyl alcohol 70% | 53419        | 4       |
| Kehr/Hedinger              | Isopropyl alcohol 70% | 53482        | 1       |
| Kehr/Hedinger              | Isopropyl alcohol 70% | 53584        | 1       |
| Kehr                       | Isopropyl alcohol 70% | 53444        | 1       |
| Kehr                       | Isopropyl alcohol 70% | 53451        | 1       |
| Kehr                       | Isopropyl alcohol 70% | 53458        | 1       |
| Kehr                       | Isopropyl alcohol 70% | 53484        | 1       |
| Kehr                       | Isopropyl alcohol 70% | 53486        | 1       |
| Kehr                       | Isopropyl alcohol 70% | 53498        | 2       |

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| Supplier                  | Substance             | Batch          | Spectra |
|---------------------------|-----------------------|----------------|---------|
| Kehr                      | Isopropyl alcohol 70% | 53516          | 1       |
| Kehr                      | Isopropyl alcohol 70% | 53582          | 1       |
| Klenk                     | Isopropyl alcohol 70% | 1214M-1080     | 1       |
| Klenk                     | Isopropyl alcohol 70% | Hedinger053363 | 1       |
| Klosterring               | Isopropyl alcohol 70% | 53448          | 1       |
| Krieger/hedinger          | Isopropyl alcohol 70% | 53388          | 1       |
| Krieger/Hedinger          | Isopropyl alcohol 70% | 53449          | 1       |
| Krieger/Hedinger          | Isopropyl alcohol 70% | 53488          | 1       |
| Krieger/Hedinger          | Isopropyl alcohol 70% | 53516          | 1       |
| Krieger/Hedinger          | Isopropyl alcohol 70% | 53559          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 1116H2         | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 117H2          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 118H4          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 218H2          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 317H2          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 417H2          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 418H4          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 518H2          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 617H2          | 1       |
| kruppa                    | Isopropyl alcohol 70% | 717H4          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 718H4          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 718H6          | 1       |
| kruppa                    | Isopropyl alcohol 70% | 817H2          | 1       |
| Kruppa                    | Isopropyl alcohol 70% | 818H7          | 1       |
| L10                       | Isopropyl alcohol 70% | 53423          | 3       |
| L10                       | Isopropyl alcohol 70% | 53427          | 1       |
| L10                       | Isopropyl alcohol 70% | 53429          | 1       |
| L10                       | Isopropyl alcohol 70% | 53449          | 2       |
| L10                       | Isopropyl alcohol 70% | 53466          | 2       |
| L10                       | Isopropyl alcohol 70% | 53486          | 1       |
| L10                       | Isopropyl alcohol 70% | 53561          | 3       |
| L10                       | Isopropyl alcohol 70% | 53562          | 1       |
| L12                       | Isopropyl alcohol 70% | 53402          | 1       |
| L12                       | Isopropyl alcohol 70% | 53404          | 1       |
| L12                       | Isopropyl alcohol 70% | 53567          | 2       |
| L30                       | Isopropyl alcohol 70% | 53387          | 6       |
| L30                       | Isopropyl alcohol 70% | 53456          | 1       |
| L30                       | Isopropyl alcohol 70% | 53469          | 3       |
| L30                       | Isopropyl alcohol 70% | 53484          | 1       |
| L30                       | Isopropyl alcohol 70% | 53494          | 1       |
| L30                       | Isopropyl alcohol 70% | 53502          | 3       |
| L30                       | Isopropyl alcohol 70% | 53516          | 1       |
| L30                       | Isopropyl alcohol 70% | 53530          | 4       |
| L30                       | Isopropyl alcohol 70% | 53539          | 5       |
| L30                       | Isopropyl alcohol 70% | 53542          | 1       |
| L30                       | Isopropyl alcohol 70% | 53576          | 1       |
| Laborchemie Apolda/Phönix | Isopropyl alcohol 70% | 18114202       | 1       |
| Lamotte/AHCA              | Isopropyl alcohol 70% | 6010905001     | 4       |
| Lamotte/Alliance          | Isopropyl alcohol 70% | 303032         | 1       |
| Lamotte/Sanacorp          | Isopropyl alcohol 70% | 53377          | 1       |
| Lehy/ Noweda              | Isopropyl alcohol 70% | 182741         | 1       |
| Ley Pharma GmbH/ Gehe     | Isopropyl alcohol 70% | 174551         | 1       |
| Ley Pharma GmbH/ Gehe     | Isopropyl alcohol 70% | 182132         | 1       |
| Ley Pharma/Phönix         | Isopropyl alcohol 70% | 153741         | 1       |
| ley Pharma                | Isopropyl alcohol 70% | 200531         | 1       |
| Ley/Noweda                | Isopropyl alcohol 70% | 170951         | 1       |
| Ley/Noweda                | Isopropyl alcohol 70% | 172241         | 1       |
| Ley/Noweda                | Isopropyl alcohol 70% | 174521         | 3       |
| leyh Pharma GmbH 98596... | Isopropyl alcohol 70% | 200641         | 1       |
| leyh Pharma GmbH 98596... | Isopropyl alcohol 70% | 200911         | 1       |

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| Supplier                     | Substance             | Batch       | Spectra |
|------------------------------|-----------------------|-------------|---------|
| Leyh Pharma GmbH / Noweda    | Isopropyl alcohol 70% | 181141      | 1       |
| Leyh Pharma GmbH / Noweda    | Isopropyl alcohol 70% | 183511      | 1       |
| Leyh Pharma GmbH / Noweda    | Isopropyl alcohol 70% | 191351      | 1       |
| Leyh Pharma GmbH / Noweda    | Isopropyl alcohol 70% | 201222      | 1       |
| Leyh Pharma GmbH/ Allia. . . | Isopropyl alcohol 70% | 201641      | 1       |
| Leyh Pharma GmbH/Sanacorp    | Isopropyl alcohol 70% | 200532      | 1       |
| Leyh Pharma GmbH             | Isopropyl alcohol 70% | 164021      | 1       |
| Leyh Pharma GmbH             | Isopropyl alcohol 70% | 181212      | 1       |
| Leyh Pharma GmbH             | Isopropyl alcohol 70% | 181231      | 1       |
| Leyh Pharma GmbH             | Isopropyl alcohol 70% | 181611      | 1       |
| Leyh Pharma GmbH             | Isopropyl alcohol 70% | 183451      | 1       |
| Leyh Pharma GmbH             | Isopropyl alcohol 70% | 191041      | 1       |
| Leyh Pharma GmbH             | Isopropyl alcohol 70% | 201541      | 1       |
| Leyh Pharma/ AHD             | Isopropyl alcohol 70% | 191411      | 1       |
| Leyh Pharma/Kehr             | Isopropyl alcohol 70% | 201541      | 1       |
| Leyh Pharma/Noweda           | Isopropyl alcohol 70% | 183521      | 1       |
| Leyh Pharma/Phoenix          | Isopropyl alcohol 70% | 200531      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 132021      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 141311      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 143541      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 152121      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 154531      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 155021      | 1       |
| leyh pharma                  | Isopropyl alcohol 70% | 161411      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 164721      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 170721      | 2       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 170951      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 174921      | 1       |
| Leyh Pharma                  | Isopropyl alcohol 70% | 184341      | 1       |
| leyh pharma                  | Isopropyl alcohol 70% | 201522      | 1       |
| leyh pharma                  | Isopropyl alcohol 70% | 201643      | 1       |
| Leyh Pharms                  | Isopropyl alcohol 70% | 152521      | 1       |
| Leyh Pharma GmbH / Geibo     | Isopropyl alcohol 70% | 193711      | 1       |
| Leyh/Gehe                    | Isopropyl alcohol 70% | 183121      | 1       |
| Leyh/Gehe                    | Isopropyl alcohol 70% | 183441      | 1       |
| Leyh/Noweda                  | Isopropyl alcohol 70% | 183211      | 1       |
| Leyh/Noweda                  | Isopropyl alcohol 70% | 201731      | 1       |
| Leyh/Phoenix                 | Isopropyl alcohol 70% | 181832      | 1       |
| Leyh/Phönix                  | Isopropyl alcohol 70% | 183433      | 1       |
| Leyh-Pharma/Spangro          | Isopropyl alcohol 70% | 201622      | 1       |
| Lichtenstein                 | Isopropyl alcohol 70% | 123456789   | 1       |
| Linden-Apotheke Görlitz      | Isopropyl alcohol 70% | 2816E-01080 | 1       |
| Linden-Apotheke Görlitz      | Isopropyl alcohol 70% | 2915Q-01080 | 1       |
| Lornsen Apotheke             | Isopropyl alcohol 70% | 123456      | 1       |
| Löwen Apotheke               | Isopropyl alcohol 70% | H28122012P1 | 1       |
| M.Kastner                    | Isopropyl alcohol 70% | 2914M-01080 | 1       |
| M.Kastner                    | Isopropyl alcohol 70% | 3314I-01080 | 1       |
| MAROS Arznei, Noweda         | Isopropyl alcohol 70% |             | 1       |
| Martinus-Apotheke Defek. . . | Isopropyl alcohol 70% | A-201119-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-021116-2D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-030715-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-110716-2D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-131117-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-131213-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-150216-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-150314-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-171013-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-191214-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-200117-1D | 1       |
| Martinus-Apotheke            | Isopropyl alcohol 70% | A-241115-1D | 1       |

continued on the next page



continued from previous page

| Supplier                  | Substance             | Batch       | Spectra |
|---------------------------|-----------------------|-------------|---------|
| Martinus-Apotheke         | Isopropyl alcohol 70% | A-300714-1D | 1       |
| N.N.                      | Isopropyl alcohol 70% |             | 1       |
| Nauto                     | Isopropyl alcohol 70% | 180131      | 1       |
| Neue-Apotheke Defekture   | Isopropyl alcohol 70% | 2120M-01080 | 1       |
| Neugereut Apotheke        | Isopropyl alcohol 70% |             | 2       |
| Neugereut Apotheke        | Isopropyl alcohol 70% | 214Q-01080  | 1       |
| Neugereut Apotheke        | Isopropyl alcohol 70% | 3531Q-01080 | 1       |
| Neugereut Apotheke        | Isopropyl alcohol 70% | 4913M-01080 | 1       |
| Neugereut Apotheke        | Isopropyl alcohol 70% | 713M-01080  | 1       |
| Noweda 12.12.2019         | Isopropyl alcohol 70% | 53608       | 1       |
| Noweda am 13.10.2017      | Isopropyl alcohol 70% | 17082102    | 1       |
| Noweda/ Hedinger          | Isopropyl alcohol 70% | 53383       | 1       |
| Noweda/ Hedinger          | Isopropyl alcohol 70% | 53408       | 1       |
| Noweda/ Hedinger          | Isopropyl alcohol 70% | 53426       | 1       |
| Noweda/ Hedinger          | Isopropyl alcohol 70% | 53571       | 1       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53343       | 1       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53350       | 1       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53428       | 1       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53504       | 1       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53537       | 1       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53552       | 2       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53589       | 1       |
| Noweda/hedinger           | Isopropyl alcohol 70% | 53593       | 2       |
| Noweda/Hedinger           | Isopropyl alcohol 70% | 53663       | 1       |
| Noweda                    | Isopropyl alcohol 70% |             | 3       |
| Noweda                    | Isopropyl alcohol 70% | 18114001    | 1       |
| Noweda                    | Isopropyl alcohol 70% | 18308001    | 1       |
| Noweda                    | Isopropyl alcohol 70% | 19138801    | 1       |
| noweda                    | Isopropyl alcohol 70% | 2600787T    | 1       |
| Noweda                    | Isopropyl alcohol 70% | 53333       | 1       |
| Noweda                    | Isopropyl alcohol 70% | 53417       | 1       |
| Noweda                    | Isopropyl alcohol 70% | 53422       | 1       |
| Noweda                    | Isopropyl alcohol 70% | 53542       | 1       |
| Noweda                    | Isopropyl alcohol 70% | 53650       | 1       |
| Noweda                    | Isopropyl alcohol 70% | 53735       | 1       |
| O. Fischar                | Isopropyl alcohol 70% | 4110013     | 5       |
| O. Fischar                | Isopropyl alcohol 70% | 4119113     | 6       |
| Ohm Apotheke              | Isopropyl alcohol 70% | 12345       | 1       |
| Ostertor Apotheke         | Isopropyl alcohol 70% | 2819I-01080 | 1       |
| Ottlik                    | Isopropyl alcohol 70% | 2015090420  | 1       |
| Otto Fischar / Jenne      | Isopropyl alcohol 70% | 4119111     | 1       |
| Otto Fischar / PHÖNIX     | Isopropyl alcohol 70% | 4119012     | 1       |
| Otto Fischar GmbH & Co... | Isopropyl alcohol 70% | 4115012     | 1       |
| Otto Fischar GmbH & Co... | Isopropyl alcohol 70% | 4115114     | 2       |
| Otto Fischar GmbH/Phoenix | Isopropyl alcohol 70% | 4110033     | 1       |
| Otto Fischar GmbH         | Isopropyl alcohol 70% | 4115084     | 1       |
| Otto Fischar GmbH         | Isopropyl alcohol 70% | 4116033     | 1       |
| Otto Fischar gmbh         | Isopropyl alcohol 70% | 4116045     | 1       |
| Otto Fischar GmbH         | Isopropyl alcohol 70% | 4116083     | 1       |
| Otto Fischar/Fiebig       | Isopropyl alcohol 70% | 4117091     | 5       |
| Otto Fischar/Fiebig       | Isopropyl alcohol 70% | 4117092     | 10      |
| Otto Fischar/Phönix       | Isopropyl alcohol 70% | 4110042     | 1       |
| Otto Fischar/Phönix       | Isopropyl alcohol 70% | 4119072     | 1       |
| Otto Fischar/Phönix       | Isopropyl alcohol 70% | 4119092     | 1       |
| Otto Fischar/Phönix       | Isopropyl alcohol 70% | 4119101     | 1       |
| Otto Fischar              | Isopropyl alcohol 70% | 4110038     | 1       |
| Otto Fischar              | Isopropyl alcohol 70% | 4117081     | 1       |
| Otto Fischer GmbH         | Isopropyl alcohol 70% | 4118073     | 1       |
| Otto Fischer/Fiebig       | Isopropyl alcohol 70% | 4117041     | 15      |
| Otto Fischer/Fiebig       | Isopropyl alcohol 70% | 4117042     | 11      |

continued on the next page

continued from previous page

| Supplier                   | Substance             | Batch         | Spectra |
|----------------------------|-----------------------|---------------|---------|
| Otto Fischer/Phönix        | Isopropyl alcohol 70% | 4117043       | 20      |
| Otto Fischer/Phönix        | Isopropyl alcohol 70% | 4119022       | 1       |
| Otto Fischer               | Isopropyl alcohol 70% | 4117121       | 1       |
| Otto Fischer               | Isopropyl alcohol 70% | 4118011       | 1       |
| Otto Fischer               | Isopropyl alcohol 70% | 4118062       | 1       |
| Otto FischerGmbH&Co.KG/... | Isopropyl alcohol 70% | 4118033       | 1       |
| Otto FischerGmbH&Co.KG/... | Isopropyl alcohol 70% | 4118071       | 1       |
| OttoFischer/Fiebig         | Isopropyl alcohol 70% | 41170         | 1       |
| Phoen                      | Isopropyl alcohol 70% | 162621        | 1       |
| Phoenix 17.03.2014         | Isopropyl alcohol 70% | 53280         | 1       |
| Phoenix/AHD                | Isopropyl alcohol 70% | 53329         | 1       |
| Phoenix/Cealo              | Isopropyl alcohol 70% | 53496         | 1       |
| Phoenix/Hedinger           | Isopropyl alcohol 70% | 53493         | 1       |
| Phoenix/Hedinger           | Isopropyl alcohol 70% | 53578         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 18235302      | 2       |
| Phoenix                    | Isopropyl alcohol 70% | 20002772001   | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 303104        | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 4110041       | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 4116125053416 | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 4116126       | 6       |
| Phoenix                    | Isopropyl alcohol 70% | 4117126       | 14      |
| Phoenix                    | Isopropyl alcohol 70% | 4119071       | 2       |
| Phoenix                    | Isopropyl alcohol 70% | 4119081       | 13      |
| Phoenix                    | Isopropyl alcohol 70% | 53447         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 53495         | 3       |
| Phoenix                    | Isopropyl alcohol 70% | 53573         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 53651         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 53673         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 53732         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 53756         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 53769         | 1       |
| Phoenix                    | Isopropyl alcohol 70% | 6909-BIP      | 1       |
| Phönix E.K:5,68 -1L        | Isopropyl alcohol 70% | 53474         | 2       |
| Phönix / Otto Fischar G... | Isopropyl alcohol 70% | 4110043       | 1       |
| Phönix 05.01.15            | Isopropyl alcohol 70% | 53303         | 1       |
| Phönix 13.01.2014          | Isopropyl alcohol 70% | 13319404      | 1       |
| Phönix/ Hedinger           | Isopropyl alcohol 70% | 303155        | 1       |
| Phönix/Fischar             | Isopropyl alcohol 70% | 4117102       | 6       |
| Phönix/fischar             | Isopropyl alcohol 70% | 4118073       | 1       |
| Phönix/Fischar             | Isopropyl alcohol 70% | 4119065       | 1       |
| Phönix/Hedinger            | Isopropyl alcohol 70% | 53153         | 1       |
| Phönix/Hedinger            | Isopropyl alcohol 70% | 53295         | 2       |
| Phönix/Hedinger            | Isopropyl alcohol 70% | 53341         | 1       |
| Phönix/Hedinger            | Isopropyl alcohol 70% | 53426         | 1       |
| Phönix/Hedinger            | Isopropyl alcohol 70% | 53486         | 2       |
| Phönix/Hedinger            | Isopropyl alcohol 70% | 53513         | 1       |
| Phönix/Hedinger            | Isopropyl alcohol 70% | 53525         | 1       |
| Phönix/Leyhpharma          | Isopropyl alcohol 70% | 180311        | 1       |
| Phönix                     | Isopropyl alcohol 70% | 1073902       | 1       |
| Phönix                     | Isopropyl alcohol 70% | 1217603       | 1       |
| Phönix                     | Isopropyl alcohol 70% | 13217601      | 1       |
| Phonix                     | Isopropyl alcohol 70% | 14026403      | 1       |
| Phönix                     | Isopropyl alcohol 70% | 18308101      | 1       |
| Phönix                     | Isopropyl alcohol 70% | 192621001     | 1       |
| Phönix                     | Isopropyl alcohol 70% | 53252         | 1       |
| Phönix                     | Isopropyl alcohol 70% | 53413         | 1       |
| Phönix                     | Isopropyl alcohol 70% | 53442         | 1       |
| Phönix                     | Isopropyl alcohol 70% | 53475         | 1       |
| Phönix                     | Isopropyl alcohol 70% | 53488         | 1       |
| Phönix                     | Isopropyl alcohol 70% | 53519         | 1       |

continued on the next page

continued from previous page

| Supplier                | Substance             | Batch         | Spectra |
|-------------------------|-----------------------|---------------|---------|
| Phönix                  | Isopropyl alcohol 70% | 535553        | 2       |
| Phönix                  | Isopropyl alcohol 70% | 53573         | 1       |
| Phönix                  | Isopropyl alcohol 70% | 53581         | 1       |
| Phönix                  | Isopropyl alcohol 70% | 53608         | 6       |
| Phönix                  | Isopropyl alcohol 70% | 53732         | 1       |
| Post Apotheke           | Isopropyl alcohol 70% | 326-321       | 1       |
| Post Apotheke           | Isopropyl alcohol 70% | 326-322       | 1       |
| Post Apotheke           | Isopropyl alcohol 70% | 326-323       | 1       |
| Post Apotheke           | Isopropyl alcohol 70% | 326-324       | 1       |
| Post Apotheke           | Isopropyl alcohol 70% | 326-325       | 1       |
| Post Apotheke           | Isopropyl alcohol 70% | 326-326       | 1       |
| Post Apotheke           | Isopropyl alcohol 70% | 326-327       | 1       |
| Praxisbedarf Neurologen | Isopropyl alcohol 70% |               | 5       |
| Purren Apotheke         | Isopropyl alcohol 70% | 18043         | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1018IS701020A | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1018IS701020B | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1018IS701020C | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1019IS701021A | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1019IS701021B | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1019IS701021C | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1117IS701119  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1117IS701119A | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1117IS701119B | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1150617       | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 117IS701118A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 117IS701118B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 117IS701118C  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 118IS700120A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 118IS700120B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1216IS701218A | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1216IS701218B | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1218IS1220A   | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 1218IS1220B   | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 216IS0700218A | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 216IS0700218B | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 219IS700221A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 219IS700221B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 219IS700221C  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 316IS700318A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 316IS700318B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 318IS700320A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 318IS700320B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 318IS700320C  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 416IS700318A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 416IS700318B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 416IS700318C  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 417IS700419   | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 417IS700419B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 417IS700419C  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 419IS700421A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 419IS700421B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 419IS700421C  | 3       |
| Rezeptur                | Isopropyl alcohol 70% | 419IS700421D  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 420IS700422A  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 420IS700422B  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 420IS700422C  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 420IS700422D  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 420IS700422E  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 420IS700422F  | 1       |
| Rezeptur                | Isopropyl alcohol 70% | 518IS700520A  | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance             | Batch        | Spectra |
|----------------------------|-----------------------|--------------|---------|
| Rezeptur                   | Isopropyl alcohol 70% | 518IS700520B | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 518IS700520C | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 616IS700618A | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 616IS700618B | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 616IS700618C | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 620IS700622  | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 620IS700622B | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 620IS700622C | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 716IS700718  | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 717IS700719A | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 717IS700719B | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 719IS700721A | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 719IS700721B | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 719IS700721C | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 719IS700721D | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 817IS0819    | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 817IS0819B   | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 817IS0819C   | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 818IS700820A | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 818IS700820B | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 916IS700918  | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 916IS700918A | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | 916IS700918C | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | IS70112017   | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | IS70122017   | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | IS70122017B  | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | IS070092017  | 1       |
| Rezeptur                   | Isopropyl alcohol 70% | Rezeptur     | 1       |
| Rodh/Sanacorp              | Isopropyl alcohol 70% | 3915N-01080  | 1       |
| Römerapo.                  | Isopropyl alcohol 70% | 53316        | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 1115Q-07123  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 1316I-01080  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 1316I-01080  | 2       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 245Q-07123   | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 2613Q-01080  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 2615E-07123  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 2814E-07123  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 3016E-01080  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 3113M-07123  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 3215M-07123  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 3816A-01080  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 4215E-07123  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 4814E-07123  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 4815M-01080  | 1       |
| Rondell Apotheke           | Isopropyl alcohol 70% | 716M-01080   | 1       |
| Rondell                    | Isopropyl alcohol 70% | 1014M-07123  | 1       |
| Rondell                    | Isopropyl alcohol 70% | 414Q-07123   | 1       |
| rondell-Apotheke           | Isopropyl alcohol 70% | 3413M-07123  | 1       |
| Rondell-Apotheke           | Isopropyl alcohol 70% | 3814Q-07123  | 1       |
| Rosen Apotheke Dr.Erdal    | Isopropyl alcohol 70% | 2003209-1    | 1       |
| Rosen Apotheke Dr.Erdal    | Isopropyl alcohol 70% | 2003209-2    | 1       |
| Rosen Apotheke             | Isopropyl alcohol 70% | 2017E-07125  | 1       |
| sana /Hedinger             | Isopropyl alcohol 70% | 53772        | 1       |
| Sana/ Hedinger             | Isopropyl alcohol 70% | 53682        | 1       |
| Sana/ Hedinger             | Isopropyl alcohol 70% | 53725        | 1       |
| Sanacorp (Hedinger)        | Isopropyl alcohol 70% | 53397        | 1       |
| Sanacorp 26.11.15          | Isopropyl alcohol 70% | 2600905T     | 1       |
| Sanacorp WE: 21.11.17 1... | Isopropyl alcohol 70% | 53460        | 1       |
| Sanacorp WE: 25.10.17 1... | Isopropyl alcohol 70% | 53452        | 1       |
| Sanacorp/ Hedinger         | Isopropyl alcohol 70% | 53497        | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance             | Batch        | Spectra |
|----------------------------|-----------------------|--------------|---------|
| Sanacorp/ Hedinger         | Isopropyl alcohol 70% | 53534        | 2       |
| sanacorp/hedinger          | Isopropyl alcohol 70% | 53499        | 1       |
| Sanacorp/HEDINGER          | Isopropyl alcohol 70% | 53531        | 1       |
| Sanacorp/Winthrop WE:18... | Isopropyl alcohol 70% | 2600929T     | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 14267805     | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 16319102     | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 17082103     | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 2218E-01080  | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 303169       | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 418E-01080   | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 419E-01080   | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 53417        | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 53430        | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 53550        | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 53571        | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 53632        | 2       |
| Sanacorp                   | Isopropyl alcohol 70% | 53661        | 2       |
| Sanacorp                   | Isopropyl alcohol 70% | 53770        | 1       |
| Sanacorp                   | Isopropyl alcohol 70% | 53792        | 1       |
| SanacorpWE:19.01.2017 ...  | Isopropyl alcohol 70% | 53407        | 2       |
| Schwanen-Apotheke, Köster  | Isopropyl alcohol 70% | 160104-1     | 1       |
| Schwanen-Apotheke-Köster   | Isopropyl alcohol 70% | 151028-1     | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 1200-01080   | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 1520A-01080  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 1520M-01080  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 1520N-01080  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 1MD20200321  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 1MD20200404  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 2820A-01080  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 2MD20200321  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 2MD20200404  | 1       |
| selbst hergestellt         | Isopropyl alcohol 70% | 3MD20200404  | 1       |
| selbst                     | Isopropyl alcohol 70% |              | 2       |
| selbst                     | Isopropyl alcohol 70% | 7106         | 1       |
| selbst                     | Isopropyl alcohol 70% | 8108         | 1       |
| Selbstherstellung          | Isopropyl alcohol 70% | 1017A-07096  | 1       |
| Selbstherstellung          | Isopropyl alcohol 70% | 1020E-01080  | 1       |
| Sieg-Apotheke              | Isopropyl alcohol 70% | 661302027    | 1       |
| sittig                     | Isopropyl alcohol 70% | 10815        | 1       |
| sittig                     | Isopropyl alcohol 70% | 130616       | 1       |
| Sittig                     | Isopropyl alcohol 70% | 150416       | 1       |
| Sonnen - Apotheke          | Isopropyl alcohol 70% | 9/16         | 1       |
| SonnenApo                  | Isopropyl alcohol 70% | 1920E-01080  | 1       |
| SonnenApo                  | Isopropyl alcohol 70% | 3220E-01080  | 2       |
| SonnenApo                  | Isopropyl alcohol 70% | 3819I-01080  | 1       |
| Sonnen-Apotheke Wefensl... | Isopropyl alcohol 70% | 17/2015      | 1       |
| Sonnen-Apotheke Wefensl... | Isopropyl alcohol 70% | 18/16        | 1       |
| Sonnen-Apotheke Wefensl... | Isopropyl alcohol 70% | 23/16        | 1       |
| Sonnen-Apotheke Wefensl... | Isopropyl alcohol 70% | 33/15        | 1       |
| Sonnen-Apotheke Wefensl... | Isopropyl alcohol 70% | 37/15        | 1       |
| Sonnen-Apotheke Wefensl... | Isopropyl alcohol 70% | 44/15        | 1       |
| Sonnen-Apotheke            | Isopropyl alcohol 70% | 210513H1     | 1       |
| Sonnen-Apotheke            | Isopropyl alcohol 70% | 3/16         | 1       |
| Sonnenberg-Apotheke        | Isopropyl alcohol 70% | 100214       | 1       |
| St. Georg Apotheke         | Isopropyl alcohol 70% | 7071193B     | 1       |
| St.Georg                   | Isopropyl alcohol 70% | 701193B      | 2       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 1518Q-018080 | 1       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 1619M-01080  | 3       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 2418A-01080  | 1       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 3118M-01080  | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance             | Batch       | Spectra |
|----------------------------|-----------------------|-------------|---------|
| Stadt-Apo                  | Isopropyl alcohol 70% | 35181-01080 | 1       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 4318Q-01080 | 2       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 5217I-01080 | 1       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 718A-01080  | 1       |
| Stadt-Apo                  | Isopropyl alcohol 70% | 720E-01080  | 1       |
| Stadtapotheke Achern       | Isopropyl alcohol 70% | 4871B-01080 | 1       |
| STERN                      | Isopropyl alcohol 70% | 131202002   | 1       |
| STERN                      | Isopropyl alcohol 70% | 140507002   | 1       |
| STERN                      | Isopropyl alcohol 70% | 140617002   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 130321004   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 130425004   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 130703007   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 130805002   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 130927002   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 131108001   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 131216005   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 140116004   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 140210001   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 140310001   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 140404005   | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 20130912    | 1       |
| Stern-Defektur             | Isopropyl alcohol 70% | 20131022    | 1       |
| Stern-Rezeptur             | Isopropyl alcohol 70% | 131015001   | 1       |
| Stifts-Apotheke            | Isopropyl alcohol 70% | 2716Q-01080 | 1       |
| Stifts-Apotheke            | Isopropyl alcohol 70% | 317E-01080  | 1       |
| Teofarma 12.8.21           | Isopropyl alcohol 70% | 140006      | 2       |
| Teofarma srl/ GEHE         | Isopropyl alcohol 70% | 140703      | 1       |
| Teofarma srl               | Isopropyl alcohol 70% | 140701      | 1       |
| Teofarma/Noweda            | Isopropyl alcohol 70% | 140806      | 1       |
| Teofarma/Noweda            | Isopropyl alcohol 70% | 140902      | 1       |
| Teofarma/Spangro           | Isopropyl alcohol 70% | 140002      | 1       |
| Teopharma                  | Isopropyl alcohol 70% | 140804      | 3       |
| Töste Apotheke             | Isopropyl alcohol 70% | 1520A-01080 | 1       |
| unbekannt                  | Isopropyl alcohol 70% | 1320Q-01080 | 1       |
| Unisan                     | Isopropyl alcohol 70% | 13155502    | 1       |
| Viehstrich-Apotheke        | Isopropyl alcohol 70% | 2919I-01080 | 1       |
| Viehstrich-Apotheke        | Isopropyl alcohol 70% | 3220A-01080 | 1       |
| Viehstrich-Apotheke        | Isopropyl alcohol 70% | 3520M-01080 | 1       |
| Viehstrich-Apotheke        | Isopropyl alcohol 70% | 4120E-01080 | 1       |
| Viehstrich-Apotheke        | Isopropyl alcohol 70% | 520A-01080  | 1       |
| Viehstrich-Apotheke        | Isopropyl alcohol 70% | 621B-01080  | 1       |
| WE 27.12.16 Hedinger/Ph... | Isopropyl alcohol 70% | 53401       | 1       |
| WE: Phoenix 19.10.2016 ... | Isopropyl alcohol 70% | 53388       | 2       |
| Wensauer Apotheke          | Isopropyl alcohol 70% |             | 1       |
| Werner Hofmann/Werner H... | Isopropyl alcohol 70% | 53580       | 1       |
| Winthorp AM/NOW            | Isopropyl alcohol 70% | 2600790T    | 1       |
| Winthorp                   | Isopropyl alcohol 70% | 2601013T    | 1       |
| Winthorp                   | Isopropyl alcohol 70% | 26010231    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2600802T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2600857T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2600807T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2600830T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2600846T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2600915T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2600916T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2601007T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2601021T    | 1       |
| Winthrop Arzneimittel G... | Isopropyl alcohol 70% | 2601026T    | 1       |
| Winthrop Arzneimittel      | Isopropyl alcohol 70% | 2600969T    | 1       |
| Winthrop/Alliance Healt... | Isopropyl alcohol 70% | 2600875T    | 1       |

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| Supplier                   | Substance             | Batch       | Spectra |
|----------------------------|-----------------------|-------------|---------|
| Winthrop/Alliance Healt... | Isopropyl alcohol 70% | 2600892t    | 1       |
| Winthrop/Phönix            | Isopropyl alcohol 70% | 2600852T    | 1       |
| Winthrop/Phönix            | Isopropyl alcohol 70% | 2600966T    | 1       |
| Winthrop/Sanacorp          | Isopropyl alcohol 70% | 2600873T    | 1       |
| Winthrop/Sanacorp          | Isopropyl alcohol 70% | 2600882t    | 1       |
| Winthrop/Sanacorp          | Isopropyl alcohol 70% | 2600981T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600670T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600681T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600685T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600706T    | 1       |
| winthrop                   | Isopropyl alcohol 70% | 2600735T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600846T    | 1       |
| winthrop                   | Isopropyl alcohol 70% | 2600850T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600870T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600938T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600940T    | 1       |
| Winthrop                   | Isopropyl alcohol 70% | 2600977T    | 1       |
| Wintrop AM GmbH/Anzag      | Isopropyl alcohol 70% | 2600754T    | 1       |
| Wintrop AM GmbH            | Isopropyl alcohol 70% | 2600749T    | 1       |
| Wintrop                    | Isopropyl alcohol 70% | 2600863T    | 2       |
| Wintrop                    | Isopropyl alcohol 70% | 2600869t    | 1       |
| Wintrop                    | Isopropyl alcohol 70% | 2600908t    | 1       |
| Wintrop                    | Isopropyl alcohol 70% | 2600969T    | 1       |
| Wintrop                    | Isopropyl alcohol 70% | 80616-12    | 1       |
| wir leben Apotheke Tespe   | Isopropyl alcohol 70% | 3415M-01080 | 1       |
| Wolf- Apotheke / Defektur  | Isopropyl alcohol 70% | 50914/51W1o | 1       |
| Wolf-Apotheke / Defektur   | Isopropyl alcohol 70% | 123456      | 2       |
| Wolf-Apotheke / Defektur   | Isopropyl alcohol 70% | 40729/50Hk  | 1       |
| Wolf-Apotheke / Defektur   | Isopropyl alcohol 70% | 41017/50W1o | 1       |
| Wolf-Apotheke / Defektur   | Isopropyl alcohol 70% | 41125/1Hk   | 1       |
| Wolf-Apotheke / Defektur   | Isopropyl alcohol 70% | 41212/50Si  | 1       |
| Wolf-Apotheke / Defektur   | Isopropyl alcohol 70% | 50204/50Bz  | 1       |
| Wolf-Apotheke              | Isopropyl alcohol 70% | 60623/50Dre | 1       |
| Zentiva/Alliance Health... | Isopropyl alcohol 70% | 2600866T    | 1       |
| Zentiva/Alliance Health... | Isopropyl alcohol 70% | 2600887T    | 1       |
| Zentiva/Alliance Health... | Isopropyl alcohol 70% | 2600906T    | 2       |
| Zentiva/Alliance Health... | Isopropyl alcohol 70% | 2600948T    | 1       |
| Zentiva/Alliance Health... | Isopropyl alcohol 70% | 2600953T    | 1       |

- 284366 spectra from 1294 *Apo-Ident* customers from a total of 50179 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Isopropyl alcohol 70%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Isopropyl alcohol 70%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 520           | 0              | 66 639        |
| <b>Type B</b> | 0              | 880           | 0              | 106 483       |
| <b>Type C</b> | 0              | 4328          | 15             | 284 366       |



The substance/substance group *Isopropyl alcohol 70%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.8462 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.3182 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.6546 % (> 99.5855 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Isopropyl alcohol 70%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance      | Distance in main model | Distance in second-stage model |
|----------------|------------------------|--------------------------------|
| Camphor spirit | 37.11                  | –                              |
| Spirit soap    | 63.13                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Isopropyl alcohol 70%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31388     | 31388               | 0.00                         | 77.03                           |
| 31622     | 32318               | 3.24                         | 61.44                           |
| 31831     | 32216               | 2.81                         | 73.13                           |
| 32216     | 32216               | 0.00                         | 75.73                           |
| 32318     | 32318               | 0.00                         | 59.07                           |
| 32319     | 32319               | 0.00                         | 58.61                           |
| 32320     | 32320               | 0.00                         | 60.37                           |
| 32322     | 32322               | 0.00                         | 60.06                           |
| 33105     | 33105               | 0.00                         | 58.51                           |
| 33106     | 33106               | 0.00                         | 59.24                           |
| 36054     | 36054               | 0.00                         | 53.83                           |
| 36058     | 36058               | 0.00                         | 55.92                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Isopropyl myristate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30977-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Isopropyl myristate; Isopropylis myristas

### Special notes

When selecting the *Isopropyl myristate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Isopropyl myristate       | 6      | 5      | 106    |

## Second-stage model

For differentiation of the substance/substance group *Isopropyl myristate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Isopropyl myristate*:

| Supplier | Substance           | Batch      | Sample ID | Spectra | Certificate |
|----------|---------------------|------------|-----------|---------|-------------|
| Caelo    | Isopropyl myrist... | 12171522   | 30977     | 80      | 1408077     |
| Caelo    | Isopropyl myrist... | 13144311   | 31363     | 40      | 1412539     |
| Caelo    | Isopropyl myrist... | 192333     | 34726     | 40      | 20190911*   |
| Euro OTC | Isopropyl myrist... | 1303034-03 | 31530     | 60      | 20130502    |
| Euro OTC | Isopropyl myrist... | 1508035    | 31774     | 60      | 20150907*   |
| Euro OTC | Isopropyl myrist... | 2008023    | 35081     | 40      | 20200916*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 320 spectra of 6 reference samples from the substance/substance group *Isopropyl myristate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 839 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 200 spectra of 5 reference samples from the substance/substance group *Isopropyl myristate*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 5 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance           | Batch    | Sample ID | Spectra |
|----------|---------------------|----------|-----------|---------|
| Caelo    | Isopropyl myristate | 172729   | 33882     | 40      |
| Caelo    | Isopropyl myristate | 181308   | 34234     | 40      |
| Caelo    | Isopropyl myristate | 21003927 | 36068     | 40      |
| Euro OTC | Isopropyl myristate | 1608039  | 32776     | 40      |
| Euro OTC | Isopropyl myristate | 1801035  | 33926     | 40      |

- 107 163 spectra from a total of 2496 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 592 spectra from 303 *Apo-Ident* customers from 109 batches from the substance/substance group *Isopropyl myristate*.
- Among them are spectra of independent samples from 106 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance           | Batch       | Spectra |
|-----------|---------------------|-------------|---------|
|           | Isopropyl myristate | 1508035-02  | 1       |
| AHD/Euro  | Isopropyl myristate | 1801035     | 1       |
| AHD       | Isopropyl myristate | 1301992     | 1       |
| AHD       | Isopropyl myristate | 15438215    | 1       |
| Anzag     | Isopropyl myristate | 120100801   | 1       |
| apo-ident | Isopropyl myristate | 1608039-01  | 1       |
| Bombastus | Isopropyl myristate | 19003290    | 1       |
| Caelo     | Isopropyl myristate | 1(18130801) | 1       |
| Caelo     | Isopropyl myristate | 11178415    | 1       |
| Caelo     | Isopropyl myristate | 12171518    | 1       |
| Caelo     | Isopropyl myristate | 12171522    | 3       |
| Caelo     | Isopropyl myristate | 12248600    | 1       |
| Caelo     | Isopropyl myristate | 130034-02   | 2       |
| Caelo     | Isopropyl myristate | 13019902    | 2       |
| Caelo     | Isopropyl myristate | 13019910    | 2       |
| Caelo     | Isopropyl myristate | 1303034-01  | 1       |
| Caelo     | Isopropyl myristate | 130303402   | 1       |
| Caelo     | Isopropyl myristate | 13144308    | 7       |
| Caelo     | Isopropyl myristate | 1407015-01  | 1       |
| Caelo     | Isopropyl myristate | 14155902    | 1       |
| Caelo     | Isopropyl myristate | 14155909    | 7       |
| Caelo     | Isopropyl myristate | 14155914    | 1       |
| Caelo     | Isopropyl myristate | 15035906    | 8       |
| Caelo     | Isopropyl myristate | 15035907    | 1       |
| Caelo     | Isopropyl myristate | 1508035-01  | 5       |
| Caelo     | Isopropyl myristate | 1508035-02  | 1       |
| Caelo     | Isopropyl myristate | 15248304    | 4       |
| Caelo     | Isopropyl myristate | 15248306    | 6       |
| Caelo     | Isopropyl myristate | 15284804    | 1       |
| Caelo     | Isopropyl myristate | 15284807    | 2       |
| Caelo     | Isopropyl myristate | 15438024    | 1       |
| Caelo     | Isopropyl myristate | 15438204    | 5       |
| Caelo     | Isopropyl myristate | 15438206    | 1       |

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| Supplier                   | Substance           | Batch         | Spectra |
|----------------------------|---------------------|---------------|---------|
| Caelo                      | Isopropyl myristate | 15438210      | 6       |
| Caelo                      | Isopropyl myristate | 15438215      | 7       |
| Caelo                      | Isopropyl myristate | 1608039-01    | 2       |
| Caelo                      | Isopropyl myristate | 1608039-02    | 3       |
| Caelo                      | Isopropyl myristate | 17272901      | 14      |
| Caelo                      | Isopropyl myristate | 17272902      | 1       |
| Caelo                      | Isopropyl myristate | 17359501      | 9       |
| Caelo                      | Isopropyl myristate | 1801035-01    | 3       |
| Caelo                      | Isopropyl myristate | 18130801      | 19      |
| Caelo                      | Isopropyl myristate | 18130802-01   | 1       |
| Caelo                      | Isopropyl myristate | 18130803      | 24      |
| Caelo                      | Isopropyl myristate | 18130808      | 8       |
| Caelo                      | Isopropyl myristate | 18130893      | 1       |
| Caelo                      | Isopropyl myristate | 18310808      | 1       |
| Caelo                      | Isopropyl myristate | 19059103      | 15      |
| Caelo                      | Isopropyl myristate | 19059108      | 8       |
| Caelo                      | Isopropyl myristate | 192333001     | 1       |
| Caelo                      | Isopropyl myristate | 192333004     | 7       |
| Caelo                      | Isopropyl myristate | 192333005     | 1       |
| Caelo                      | Isopropyl myristate | 192333008     | 15      |
| Caelo                      | Isopropyl myristate | 19233304      | 1       |
| Caelo                      | Isopropyl myristate | 1932333004    | 1       |
| Caelo                      | Isopropyl myristate | 2000001753006 | 1       |
| Caelo                      | Isopropyl myristate | 20001753001   | 8       |
| Caelo                      | Isopropyl myristate | 20001753006   | 8       |
| Caelo                      | Isopropyl myristate | 2000409098003 | 1       |
| Caelo                      | Isopropyl myristate | 20004098003   | 6       |
| Caelo                      | Isopropyl myristate | 20004098007   | 1       |
| Caelo                      | Isopropyl myristate | 2001753001    | 1       |
| Caelo                      | Isopropyl myristate | 2091713       | 1       |
| Caelo                      | Isopropyl myristate | 21071805      | 1       |
| Caelo                      | Isopropyl myristate | 22000431004   | 1       |
| Caelo                      | Isopropyl myristate | 30051502      | 1       |
| Caesar & Lorenz GmbH       | Isopropyl myristate | 1905103       | 1       |
| Caesar & Loretz GmbH/ G... | Isopropyl myristate | 22000431004   | 1       |
| Caesar & Loretz GmbH/An... | Isopropyl myristate | 18130808      | 1       |
| Caesar & Loretz GmbH/Kr... | Isopropyl myristate | 18130808      | 1       |
| Caesar & Loretz GmbH/Sa... | Isopropyl myristate | 192333008     | 1       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 13019902      | 1       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 18130801      | 1       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 18130803      | 2       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 18130808      | 1       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 19059103      | 3       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 19059104      | 1       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 19059108      | 2       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 192333004     | 5       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 192333008     | 2       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 20001753001   | 2       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 20001753006   | 5       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 20004098003   | 1       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 20004098007   | 1       |
| Caesar & Loretz GmbH       | Isopropyl myristate | 22000431004   | 1       |
| Caesar und Loretz GmbH     | Isopropyl myristate | 18130801      | 3       |
| Caesar&Loretz GmbH D-40... | Isopropyl myristate | 1201008-01    | 1       |
| Cesar&Loretz GmbH Fiebig   | Isopropyl myristate | 192333008     | 1       |
| Ebert & Jacobi             | Isopropyl myristate | 1801035-01    | 1       |
| EuRho/Phönix               | Isopropyl myristate | 1212031-01    | 1       |
| EuRho/Phönix               | Isopropyl myristate | 1407015-03    | 1       |
| EuRho/Sanacorp             | Isopropyl myristate | 2008023-01    | 1       |
| EuRho                      | Isopropyl myristate | 1106026-01    | 1       |

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| Supplier                    | Substance           | Batch            | Spectra |
|-----------------------------|---------------------|------------------|---------|
| EuRho                       | Isopropyl myristate | 1201008-01       | 1       |
| EuRho                       | Isopropyl myristate | 12100801         | 1       |
| EuRho                       | Isopropyl myristate | 1303034-01       | 1       |
| EuRho                       | Isopropyl myristate | 1407015-02       | 1       |
| Euro OCT / Sanacorp         | Isopropyl myristate | 71142935         | 1       |
| Euro OTC                    | Isopropyl myristate | 1106026-01       | 1       |
| Euro OTC                    | Isopropyl myristate | 120100801        | 2       |
| Euro OTC                    | Isopropyl myristate | 1201008-01       | 3       |
| Euro OTC                    | Isopropyl myristate | 1212031-01       | 4       |
| Euro OTC                    | Isopropyl myristate | 130133402        | 1       |
| Euro OTC                    | Isopropyl myristate | 1303034          | 1       |
| Euro OTC                    | Isopropyl myristate | 1303034-01       | 6       |
| Euro OTC                    | Isopropyl myristate | 1303034-02       | 20      |
| Euro OTC                    | Isopropyl myristate | 130303403        | 1       |
| Euro OTC                    | Isopropyl myristate | 1303034-03       | 10      |
| Euro OTC                    | Isopropyl myristate | 1407015          | 1       |
| Euro OTC                    | Isopropyl myristate | 1407015_03       | 1       |
| Euro OTC                    | Isopropyl myristate | 1407015-01       | 6       |
| Euro OTC                    | Isopropyl myristate | 1407015-02       | 4       |
| Euro OTC                    | Isopropyl myristate | 140701503        | 2       |
| Euro OTC                    | Isopropyl myristate | 1407015-03       | 14      |
| Euro OTC                    | Isopropyl myristate | 1508035          | 2       |
| Euro OTC                    | Isopropyl myristate | 1508035-01       | 23      |
| Euro OTC                    | Isopropyl myristate | 1508035-02       | 13      |
| Euro OTC                    | Isopropyl myristate | 1508035-1        | 1       |
| Euro OTC                    | Isopropyl myristate | 159600           | 1       |
| Euro OTC                    | Isopropyl myristate | 1608039          | 1       |
| Euro OTC                    | Isopropyl myristate | 160803901        | 2       |
| Euro OTC                    | Isopropyl myristate | 1608039-01       | 35      |
| Euro OTC                    | Isopropyl myristate | 160803902        | 1       |
| Euro OTC                    | Isopropyl myristate | 1608039-02       | 15      |
| Euro OTC                    | Isopropyl myristate | 1608039-1        | 1       |
| Euro OTC                    | Isopropyl myristate | 160839-02        | 1       |
| Euro OTC                    | Isopropyl myristate | 1801035          | 1       |
| Euro OTC                    | Isopropyl myristate | 180103501        | 2       |
| Euro OTC                    | Isopropyl myristate | 1801035-01       | 49      |
| Euro OTC                    | Isopropyl myristate | 180135-01        | 1       |
| Euro OTC                    | Isopropyl myristate | 181035-01        | 1       |
| Euro OTC                    | Isopropyl myristate | 18130803         | 1       |
| Euro OTC                    | Isopropyl myristate | 200802301        | 1       |
| Euro OTC                    | Isopropyl myristate | 2008023-01       | 7       |
| Euro OTC                    | Isopropyl myristate | 22842004         | 1       |
| Euro OTC                    | Isopropyl myristate | 3515Q-02898      | 1       |
| Euro OTC                    | Isopropyl myristate | 41140874         | 1       |
| Euro OTC                    | Isopropyl myristate | 4816Q-02898      | 1       |
| Euro OTC                    | Isopropyl myristate | 5217M-02898      | 1       |
| Euro OTC                    | Isopropyl myristate | 71142935         | 5       |
| Euro OTC                    | Isopropyl myristate | 71145935         | 1       |
| Euro OTG                    | Isopropyl myristate | 1303034-02       | 1       |
| Euro/ Sanacorp              | Isopropyl myristate | 1303034-02       | 1       |
| Euro/ Sanacorp              | Isopropyl myristate | 1407015-01       | 1       |
| Euro/Phönix                 | Isopropyl myristate | 1303034-01       | 1       |
| Euro/Phönix                 | Isopropyl myristate | 1508035          | 1       |
| Euroo/Phoenix               | Isopropyl myristate | 1303034-03       | 1       |
| Fagron                      | Isopropyl myristate | 13A17-B03-295774 | 2       |
| Fagron                      | Isopropyl myristate | 16B09-B03        | 1       |
| Fiebig 3.04.13 ek: 3,45EUR  | Isopropyl myristate | 121203101        | 2       |
| Fiebig ek: 3,00EUR 31.08.12 | Isopropyl myristate | 1201008-01       | 1       |
| GEHE 26.11.2014             | Isopropyl myristate | 1303034-03       | 1       |
| Gehe                        | Isopropyl myristate | 1303034-03       | 1       |

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| Supplier                 | Substance           | Batch        | Spectra |
|--------------------------|---------------------|--------------|---------|
| Gehe                     | Isopropyl myristate | 140701502    | 1       |
| Gehe                     | Isopropyl myristate | 15035906     | 1       |
| Gehe                     | Isopropyl myristate | 15438215     | 1       |
| Gehe                     | Isopropyl myristate | 17359501     | 1       |
| Kehr                     | Isopropyl myristate | 19059108     | 1       |
| Kögl                     | Isopropyl myristate | 12402172817  | 1       |
| Kögl                     | Isopropyl myristate | 1800589      | 1       |
| Kögl                     | Isopropyl myristate | 388310152916 | 1       |
| Nachtestung-Verlängerung | Isopropyl myristate | 349/18       | 1       |
| Noweda                   | Isopropyl myristate | 12171511     | 1       |
| Noweda                   | Isopropyl myristate | 1407015-01   | 1       |
| Noweda                   | Isopropyl myristate | 1801035-01   | 1       |
| Noweda                   | Isopropyl myristate | 192333008    | 1       |
| Phoenix                  | Isopropyl myristate | 1407015-03   | 2       |
| Phoenix                  | Isopropyl myristate | 1608039-02   | 1       |
| Phoenix                  | Isopropyl myristate | 18130801     | 1       |
| Phoenix                  | Isopropyl myristate | 18130803     | 1       |
| Phoenix                  | Isopropyl myristate | 20001753001  | 1       |
| Phönix, 18.07.2013       | Isopropyl myristate | 130303401    | 1       |
| Phönix                   | Isopropyl myristate | 12171522     | 1       |
| Phönix                   | Isopropyl myristate | 13019910     | 1       |
| Phönix                   | Isopropyl myristate | 1608039-01   | 1       |
| Phönix                   | Isopropyl myristate | 1801035-01   | 1       |
| Phönix                   | Isopropyl myristate | 20001753001  | 1       |
| sanacorb                 | Isopropyl myristate | 180103501    | 1       |
| Sanacorp/EuRho           | Isopropyl myristate | 1608039-02   | 1       |
| Sanacorp/EuRho           | Isopropyl myristate | 71142935     | 1       |
| Sanacorp                 | Isopropyl myristate | 12171511     | 1       |
| Sanacorp                 | Isopropyl myristate | 18130801     | 1       |
| Wolf-Apotheke            | Isopropyl myristate | 1508035-02   | 1       |

- 288 117 spectra from 1294 *Apo-Ident* customers from a total of 51 780 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Isopropyl myristate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Isopropyl myristate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 320           | 0              | 66 839        |
| <b>Type B</b> | 0              | 200           | 0              | 107 163       |
| <b>Type C</b> | 0              | 585           | 7              | 288 117       |

The substance/substance group *Isopropyl myristate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.1250 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 97.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.8176 % (> 98.3108 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Isopropyl myristate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                             | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------------------------|---------------------------|-----------------------------------|
| Isopropyl palmitate                   | 13.04                     | —                                 |
| Metronidazole 25% in white petrolatum | 22.85                     | —                                 |
| Wool fat                              | 27.42                     | —                                 |
| Shea butter, refined                  | 29.32                     | —                                 |
| Triglycerides, medium-chain           | 33.20                     | —                                 |
| Camphor ointment                      | 33.77                     | —                                 |
| Pasta Cordes®                         | 34.93                     | —                                 |
| Laurel oil                            | 41.04                     | —                                 |
| Softisan® 378                         | 45.11                     | —                                 |
| Permethrin 25% solution               | 46.85                     | —                                 |
| Squalane                              | 49.12                     | —                                 |
| 2-ethylhexyl laurate                  | 52.39                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Isopropyl myristate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30977     | 30977                  | 0.00                            | 29.24                              |
| 31363     | 31363                  | 0.00                            | 21.82                              |
| 31530     | 31774                  | 1.42                            | 25.04                              |
| 31774     | 31774                  | 0.00                            | 23.68                              |
| 34726     | 34726                  | 0.00                            | 24.61                              |
| 35081     | 35081                  | 0.00                            | 25.98                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by

laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Isopropyl palmitate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30868-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Isopropyl palmitate; Isopropylis palmitas

### Special notes

When selecting the *Isopropyl palmitate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Isopropyl palmitate       | 6      | 4      | 120    |



## Second-stage model

For differentiation of the substance/substance group *Isopropyl palmitate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Isopropyl palmitate*:

| Supplier  | Substance           | Batch    | Sample ID | Spectra | Certificate        |
|-----------|---------------------|----------|-----------|---------|--------------------|
| Bombastus | Isopropyl palmit... | 284060   | 31268     | 40      | 20131119           |
| Bombastus | Isopropyl palmit... | 306390   | 32995     | 40      | 20161219           |
| Bombastus | Isopropyl palmit... | 306390   | 33040     | 40      | 20161219           |
| Bombastus | Isopropyl palmit... | 19006540 | 35289     | 40      | 20191218           |
| Caelo     | Isopropyl palmit... | 12229109 | 30868     | 40      | 20120807           |
| Caelo     | Isopropyl palmit... | 14034806 | 31364     | 40      | AR-15-FG-000372-01 |
| Caelo     | Isopropyl palmit... | 20002049 | 35453     | 40      | 20200914*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 280 spectra of 7 reference samples from the substance/substance group *Isopropyl palmitate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 879 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Isopropyl palmitate*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance           | Batch    | Sample ID | Spectra |
|-----------|---------------------|----------|-----------|---------|
| Bombastus | Isopropyl palmitate | 22001263 | 36214     | 40      |
| Caelo     | Isopropyl palmitate | 16091706 | 32570     | 40      |
| Caelo     | Isopropyl palmitate | 180672   | 34079     | 40      |
| Caelo     | Isopropyl palmitate | 192499   | 34727     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 856 spectra from 458 *Apo-Ident* customers from 127 batches from the substance/substance group *Isopropyl palmitate*.
- Among them are spectra of independent samples from 120 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                  | Substance           | Batch           | Spectra |
|---------------------------|---------------------|-----------------|---------|
| AHD                       | Isopropyl palmitate | 14034801        | 1       |
| AHD                       | Isopropyl palmitate | 288083          | 1       |
| Allianz                   | Isopropyl palmitate | 18067201        | 1       |
| Anzag 09.01.19            | Isopropyl palmitate | 18004344        | 1       |
| Anzag                     | Isopropyl palmitate | 16333401        | 1       |
| Anzag                     | Isopropyl palmitate | 277740Bombastus | 1       |
| apomix                    | Isopropyl palmitate | 20000637        | 1       |
| Audor Pharma              | Isopropyl palmitate | 15169701        | 1       |
| Audor Pharma              | Isopropyl palmitate | 285604          | 1       |
| Bambastus                 | Isopropyl palmitate | 307838          | 1       |
| Bambastus-Werke AG/Phönix | Isopropyl palmitate | 20001459        | 1       |
| Bionorica/Kehr            | Isopropyl palmitate | 17000844        | 1       |
| Bomastus/Noweda           | Isopropyl palmitate | 19003913        | 1       |
| Bomb/Gehe                 | Isopropyl palmitate | 299989          | 1       |
| bomb                      | Isopropyl palmitate | 18001978        | 1       |
| Bombas über Sanacorp      | Isopropyl palmitate | 290363          | 1       |
| BOMBAST/GEHE              | Isopropyl palmitate | 21002502        | 1       |
| bombast/Px                | Isopropyl palmitate | 293140          | 1       |
| bombasts/ Po              | Isopropyl palmitate | 18001978        | 1       |
| Bombastus                 | Isopropyl palmitate |                 | 1       |
| Bombastus                 | Isopropyl palmitate | 108611          | 2       |
| Bombastus                 | Isopropyl palmitate | 1317001786      | 1       |
| Bombastus                 | Isopropyl palmitate | 17000844        | 11      |
| Bombastus                 | Isopropyl palmitate | 17001786        | 17      |
| Bombastus                 | Isopropyl palmitate | 170612183       | 1       |
| Bombastus                 | Isopropyl palmitate | 170703IP/306390 | 1       |
| Bombastus                 | Isopropyl palmitate | 18001978        | 10      |
| Bombastus                 | Isopropyl palmitate | 18003207        | 10      |
| Bombastus                 | Isopropyl palmitate | 18004344        | 12      |

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| <b>Supplier</b> | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------|--------------|----------------|
| Bombastus       | Isopropyl palmitate | 18005839     | 3              |
| Bombastus       | Isopropyl palmitate | 190005596    | 1              |
| Bombastus       | Isopropyl palmitate | 19000596     | 12             |
| Bombastus       | Isopropyl palmitate | 19002375     | 13             |
| Bombastus       | Isopropyl palmitate | 19003913     | 13             |
| Bombastus       | Isopropyl palmitate | 19003919     | 1              |
| Bombastus       | Isopropyl palmitate | 19006540     | 9              |
| Bombastus       | Isopropyl palmitate | 20000637     | 17             |
| Bombastus       | Isopropyl palmitate | 20001459     | 13             |
| Bombastus       | Isopropyl palmitate | 20002134     | 20             |
| Bombastus       | Isopropyl palmitate | 2001459      | 1              |
| Bombastus       | Isopropyl palmitate | 200201459    | 1              |
| Bombastus       | Isopropyl palmitate | 21002502     | 8              |
| Bombastus       | Isopropyl palmitate | 21004166     | 9              |
| Bombastus       | Isopropyl palmitate | 218U-02899   | 1              |
| Bombastus       | Isopropyl palmitate | 22001263     | 1              |
| Bombastus       | Isopropyl palmitate | 26041301     | 1              |
| Bombastus       | Isopropyl palmitate | 262190       | 1              |
| Bombastus       | Isopropyl palmitate | 266038       | 3              |
| Bombastus       | Isopropyl palmitate | 269359       | 2              |
| Bombastus       | Isopropyl palmitate | 271265       | 2              |
| Bombastus       | Isopropyl palmitate | 272307       | 3              |
| Bombastus       | Isopropyl palmitate | 273823       | 2              |
| Bombastus       | Isopropyl palmitate | 275014       | 6              |
| Bombastus       | Isopropyl palmitate | 276178       | 1              |
| Bombastus       | Isopropyl palmitate | 277740       | 3              |
| Bombastus       | Isopropyl palmitate | 279468       | 4              |
| Bombastus       | Isopropyl palmitate | 281057       | 8              |
| Bombastus       | Isopropyl palmitate | 281766       | 6              |
| Bombastus       | Isopropyl palmitate | 284060       | 7              |
| Bombastus       | Isopropyl palmitate | 285604       | 6              |
| Bombastus       | Isopropyl palmitate | 288083       | 9              |
| Bombastus       | Isopropyl palmitate | 290363       | 4              |
| Bombastus       | Isopropyl palmitate | 291043       | 10             |
| Bombastus       | Isopropyl palmitate | 293140       | 21             |
| Bombastus       | Isopropyl palmitate | 293410       | 1              |
| Bombastus       | Isopropyl palmitate | 297284       | 19             |
| Bombastus       | Isopropyl palmitate | 299989       | 14             |
| Bombastus       | Isopropyl palmitate | 3015I-02899  | 1              |
| Bombastus       | Isopropyl palmitate | 302669       | 25             |
| Bombastus       | Isopropyl palmitate | 306390       | 7              |
| Bombastus       | Isopropyl palmitate | 307838       | 19             |
| Bombastus       | Isopropyl palmitate | 309754       | 7              |
| Bombastus       | Isopropyl palmitate | 4082928      | 1              |
| Bombastus       | Isopropyl palmitate | 4613Q-02899  | 1              |
| Bombastus       | Isopropyl palmitate | 4816Q-02899  | 1              |
| Bombastus       | Isopropyl palmitate | 5218Q-02899  | 1              |
| Bombastus       | Isopropyl palmitate | 60092401     | 3              |
| Bombastus       | Isopropyl palmitate | 60092402     | 1              |
| Bombastus       | Isopropyl palmitate | 9082013B     | 1              |
| Bombastus       | Isopropyl palmitate | 306390       | 1              |
| Brückenapotheke | Isopropyl palmitate | 285604       | 1              |
| Caelo           | Isopropyl palmitate | 10071702     | 1              |
| Caelo           | Isopropyl palmitate | 11207301     | 6              |
| Caelo           | Isopropyl palmitate | 11207309     | 1              |
| Caelo           | Isopropyl palmitate | 12014106     | 2              |
| Caelo           | Isopropyl palmitate | 12229109     | 2              |
| Caelo           | Isopropyl palmitate | 13134903     | 3              |
| Caelo           | Isopropyl palmitate | 13134905     | 3              |
| Caelo           | Isopropyl palmitate | 13134906     | 2              |

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| Supplier | Substance           | Batch               | Spectra |
|----------|---------------------|---------------------|---------|
| Caelo    | Isopropyl palmitate | 13134909            | 1       |
| Caelo    | Isopropyl palmitate | 14034801            | 1       |
| Caelo    | Isopropyl palmitate | 14034806            | 5       |
| Caelo    | Isopropyl palmitate | 14034807            | 7       |
| Caelo    | Isopropyl palmitate | 14213111            | 3       |
| Caelo    | Isopropyl palmitate | 15071303            | 1       |
| Caelo    | Isopropyl palmitate | 15128803            | 10      |
| Caelo    | Isopropyl palmitate | 15169701            | 13      |
| Caelo    | Isopropyl palmitate | 15169702            | 2       |
| Caelo    | Isopropyl palmitate | 15169705            | 2       |
| Caelo    | Isopropyl palmitate | 1516975             | 1       |
| Caelo    | Isopropyl palmitate | 16021504            | 1       |
| Caelo    | Isopropyl palmitate | 16071504            | 1       |
| Caelo    | Isopropyl palmitate | 16081808            | 1       |
| Caelo    | Isopropyl palmitate | 16091701            | 11      |
| Caelo    | Isopropyl palmitate | 16091706            | 14      |
| Caelo    | Isopropyl palmitate | 16091706/1060217    | 1       |
| Caelo    | Isopropyl palmitate | 16091708            | 1       |
| Caelo    | Isopropyl palmitate | 16091709            | 3       |
| Caelo    | Isopropyl palmitate | 16333401            | 10      |
| Caelo    | Isopropyl palmitate | 16333404            | 14      |
| Caelo    | Isopropyl palmitate | 1633401             | 1       |
| Caelo    | Isopropyl palmitate | 17001786            | 1       |
| Caelo    | Isopropyl palmitate | 17021402            | 27      |
| Caelo    | Isopropyl palmitate | 17091205            | 1       |
| Caelo    | Isopropyl palmitate | 1721402             | 1       |
| Caelo    | Isopropyl palmitate | 17346502            | 1       |
| Caelo    | Isopropyl palmitate | 18001978            | 2       |
| Caelo    | Isopropyl palmitate | 18003207            | 1       |
| Caelo    | Isopropyl palmitate | 18004344            | 1       |
| Caelo    | Isopropyl palmitate | 18067201            | 25      |
| Caelo    | Isopropyl palmitate | 18067202            | 1       |
| Caelo    | Isopropyl palmitate | 18067204            | 9       |
| Caelo    | Isopropyl palmitate | 18234501            | 11      |
| Caelo    | Isopropyl palmitate | 18234504            | 16      |
| Caelo    | Isopropyl palmitate | 18234505            | 13      |
| Caelo    | Isopropyl palmitate | 18234508            | 4       |
| Caelo    | Isopropyl palmitate | 19003913            | 2       |
| Caelo    | Isopropyl palmitate | 192504001           | 24      |
| Caelo    | Isopropyl palmitate | 192504001P-200514-2 | 1       |
| Caelo    | Isopropyl palmitate | 192504003           | 16      |
| Caelo    | Isopropyl palmitate | 192504007           | 2       |
| Caelo    | Isopropyl palmitate | 20001459            | 1       |
| Caelo    | Isopropyl palmitate | 20002049001         | 8       |
| Caelo    | Isopropyl palmitate | 20004041001         | 9       |
| Caelo    | Isopropyl palmitate | 20210212-1          | 1       |
| Caelo    | Isopropyl palmitate | 2081401             | 1       |
| Caelo    | Isopropyl palmitate | 21002432002         | 4       |
| Caelo    | Isopropyl palmitate | 21003902001         | 1       |
| Caelo    | Isopropyl palmitate | 21111820            | 1       |
| Caelo    | Isopropyl palmitate | 25031302            | 1       |
| Caelo    | Isopropyl palmitate | 26021402            | 1       |
| Caelo    | Isopropyl palmitate | 273823              | 2       |
| Caelo    | Isopropyl palmitate | 28031801            | 1       |
| Caelo    | Isopropyl palmitate | 28111309            | 1       |
| Caelo    | Isopropyl palmitate | 281766              | 2       |
| Caelo    | Isopropyl palmitate | 291043              | 1       |
| Caelo    | Isopropyl palmitate | 293140              | 1       |
| Caelo    | Isopropyl palmitate | 297284              | 1       |
| Caelo    | Isopropyl palmitate | 306390              | 1       |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Caelo                      | Isopropyl palmitate | 307838       | 3              |
| Caelo                      | Isopropyl palmitate | 3297         | 1              |
| Caelo                      | Isopropyl palmitate | 4061201      | 1              |
| Caelo                      | Isopropyl palmitate | 60092401     | 1              |
| Caelo                      | Isopropyl palmitate | 9061814      | 1              |
| Caelo                      | Isopropyl palmitate | 9324202      | 1              |
| Caerol/Phoenix             | Isopropyl palmitate | 15169701     | 1              |
| Caerolo/Gehe               | Isopropyl palmitate | 18067201     | 1              |
| Caesar & Loretz GmbH / ... | Isopropyl palmitate | 18234505     | 1              |
| Caesar & Loretz GmbH/ G... | Isopropyl palmitate | 192504003    | 1              |
| Caesar & Loretz GmbH/AHD   | Isopropyl palmitate | 192504003    | 1              |
| Caesar & Loretz GmbH/GEHE  | Isopropyl palmitate | 21002432002  | 1              |
| Caesar & Loretz GmbH/Je... | Isopropyl palmitate | 20002049001  | 1              |
| Caesar & Loretz GmbH/Sa... | Isopropyl palmitate | 18234505     | 1              |
| Caesar & Loretz GmbH/Sa... | Isopropyl palmitate | 20002049001  | 1              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 18067201     | 1              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 18234501     | 3              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 18234504     | 2              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 18234505     | 4              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 18234508     | 2              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 192504001    | 1              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 192504003    | 6              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 20002049001  | 6              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 20004041001  | 3              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 21002432002  | 3              |
| Caesar & Loretz GmbH       | Isopropyl palmitate | 21003902001  | 1              |
| Caesar & Loretz            | Isopropyl palmitate | 16333404     | 1              |
| Caesar/Noweda              | Isopropyl palmitate | 16091701     | 1              |
| Caleo/ Noweda              | Isopropyl palmitate | 192504003    | 1              |
| Caelo/Sanacorp             | Isopropyl palmitate | 192504001    | 1              |
| Cealo / Otto Geilenkirc... | Isopropyl palmitate | 192504001    | 1              |
| Delta                      | Isopropyl palmitate | 307838       | 1              |
| Euro OTC                   | Isopropyl palmitate |              | 1              |
| Euro OTC                   | Isopropyl palmitate | 299989       | 2              |
| Fagron                     | Isopropyl palmitate | 293140       | 1              |
| Fagron                     | Isopropyl palmitate | 9G14-M08     | 1              |
| Fiebig 21.08.13 EK5,60     | Isopropyl palmitate | 13134903     | 1              |
| Gehe                       | Isopropyl palmitate | 12229112     | 1              |
| Gehe                       | Isopropyl palmitate | 134178       | 1              |
| Gehe                       | Isopropyl palmitate | 15128803     | 1              |
| Gehe                       | Isopropyl palmitate | 16091701     | 1              |
| Gehe                       | Isopropyl palmitate | 16091706     | 1              |
| Gehe                       | Isopropyl palmitate | 17021402     | 1              |
| Gehe                       | Isopropyl palmitate | 18001978     | 1              |
| GEHE                       | Isopropyl palmitate | 18067201     | 1              |
| gehe                       | Isopropyl palmitate | 192504003    | 1              |
| Gehe                       | Isopropyl palmitate | 21002502     | 1              |
| Gehe                       | Isopropyl palmitate | 21004166     | 1              |
| GEHE                       | Isopropyl palmitate | 269359       | 1              |
| Gehe                       | Isopropyl palmitate | 290363       | 1              |
| GUMO                       | Isopropyl palmitate | 192504001    | 1              |
| Gutenberg-Apotheke         | Isopropyl palmitate | 285604       | 1              |
| Hedinger                   | Isopropyl palmitate | 271265       | 1              |
| Ichthyol-Gesellschaft      | Isopropyl palmitate | 299989       | 1              |
| Lamotte/ Phönix            | Isopropyl palmitate | 302669       | 1              |
| Nachtstung-Verlängerung    | Isopropyl palmitate | 240/17       | 1              |
| Noweda                     | Isopropyl palmitate | 13134906     | 1              |
| Noweda                     | Isopropyl palmitate | 14213111     | 1              |
| Noweda                     | Isopropyl palmitate | 16333404     | 1              |
| Noweda                     | Isopropyl palmitate | 17000844     | 1              |

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| Supplier                   | Substance           | Batch     | Spectra |
|----------------------------|---------------------|-----------|---------|
| Noweda                     | Isopropyl palmitate | 18003207  | 2       |
| Noweda                     | Isopropyl palmitate | 18067201  | 1       |
| Noweda                     | Isopropyl palmitate | 19000596  | 1       |
| Noweda                     | Isopropyl palmitate | 19003913  | 1       |
| Noweda                     | Isopropyl palmitate | 19006540  | 2       |
| Noweda                     | Isopropyl palmitate | 192504001 | 1       |
| Noweda                     | Isopropyl palmitate | 192504003 | 1       |
| Noweda                     | Isopropyl palmitate | 20002134  | 2       |
| Noweda                     | Isopropyl palmitate | 307838    | 1       |
| Noweda                     | Isopropyl palmitate | 309754    | 1       |
| Phoenix                    | Isopropyl palmitate | 16333401  | 1       |
| Phoenix                    | Isopropyl palmitate | 18067201  | 1       |
| Phoenix                    | Isopropyl palmitate | 18234504  | 1       |
| Phoenix                    | Isopropyl palmitate | 19000596  | 1       |
| Phoenix                    | Isopropyl palmitate | 192504003 | 1       |
| Phoenix                    | Isopropyl palmitate | 281766    | 1       |
| Phönix                     | Isopropyl palmitate | 16333401  | 1       |
| Phönix                     | Isopropyl palmitate | 16333404  | 1       |
| Phönix                     | Isopropyl palmitate | 17001786  | 1       |
| Phönix                     | Isopropyl palmitate | 18067201  | 1       |
| Phönix                     | Isopropyl palmitate | 19000596  | 1       |
| Phönix                     | Isopropyl palmitate | 19003913  | 1       |
| phönix                     | Isopropyl palmitate | 299989    | 1       |
| Phönix                     | Isopropyl palmitate | 309754    | 1       |
| Sanacorp, 4,85EUR, 14.1.17 | Isopropyl palmitate | 302669    | 1       |
| Sanacorp                   | Isopropyl palmitate | 14034807  | 1       |
| Sanacorp                   | Isopropyl palmitate | 15128803  | 1       |
| Sanacorp                   | Isopropyl palmitate | 16091701  | 2       |
| Sanacorp                   | Isopropyl palmitate | 17021402  | 1       |
| Sanacorp                   | Isopropyl palmitate | 18005839  | 1       |
| Sanacorp                   | Isopropyl palmitate | 18067201  | 1       |
| Sanacorp                   | Isopropyl palmitate | 192504001 | 1       |
| Sanacorp                   | Isopropyl palmitate | 21004166  | 1       |
| Sanacorp                   | Isopropyl palmitate | 273823    | 1       |
| Sanacorp                   | Isopropyl palmitate | 290363    | 1       |
| VDL;4,53EUR;23.06.15       | Isopropyl palmitate | 29314     | 1       |

- 287853 spectra from 1294 *Apo-Ident* customers from a total of 51 764 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Isopropyl palmitate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Isopropyl palmitate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 280           | 0              | 66 879        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 854           | 2              | 287 853       |

The substance/substance group *Isopropyl palmitate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.8571 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.7664 % (> 99.4159 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Isopropyl palmitate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>                      | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|---------------------------------------|-------------------------------|---------------------------------------|
| Isopropyl myristate                   | 13.69                         | —                                     |
| Metronidazole 25% in white petrolatum | 15.56                         | —                                     |
| Wool fat                              | 19.96                         | —                                     |
| Shea butter, refined                  | 20.95                         | —                                     |
| Pasta Cordes <sup>®</sup>             | 24.62                         | —                                     |
| Softisan <sup>®</sup> 378             | 26.82                         | —                                     |
| Laurel oil                            | 27.85                         | —                                     |
| Camphor ointment                      | 37.68                         | —                                     |
| Permethrin 25% solution               | 38.15                         | —                                     |
| Triglycerides, medium-chain           | 39.15                         | —                                     |
| Paraffin, yellow                      | 41.84                         | —                                     |
| Emulsifying hydrophobic base gel DAC  | 42.35                         | —                                     |
| Peanut oil, refined                   | 46.35                         | —                                     |
| Paraffin, white                       | 47.77                         | —                                     |
| Wool alcohol ointment DAB             | 47.79                         | —                                     |
| Squalane                              | 47.86                         | —                                     |
| Olive oil, native                     | 48.70                         | —                                     |
| Paraffin, light liquid                | 48.74                         | —                                     |
| Avocado oil, refined                  | 53.62                         | —                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Isopropyl palmitate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:



| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30868     | 35453               | 4.08                         | 15.56                           |
| 31268     | 31364               | 2.71                         | 17.39                           |
| 31364     | 31364               | 0.00                         | 18.13                           |
| 32995     | 35453               | 11.43                        | 22.98                           |
| 33040     | 35453               | 9.81                         | 22.13                           |
| 35289     | 35453               | 1.37                         | 17.87                           |
| 35453     | 35453               | 0.00                         | 17.46                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Juniper oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30711-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Juniper oil; Juniperi aetheroleum

### Special notes

When selecting the *Juniper oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Juniper oil               | 5      | 2      | 17     |

## Second-stage model

For differentiation of the substance/substance group *Juniper oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Juniper oil*:

| Supplier | Substance   | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------|----------|-----------|---------|-------------|
| Caelo    | Juniper oil | 11379007 | 30711     | 40      | 1404599     |
| Caelo    | Juniper oil | 13240811 | 31665     | 60      | 20130726    |
| Caelo    | Juniper oil | 16160703 | 32918     | 40      | 1708747     |
| Caelo    | Juniper oil | 171597   | 33311     | 40      | 20170601*   |
| Caelo    | Juniper oil | 192077   | 34618     | 40      | 20190801*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Juniper oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 50 spectra of 2 reference samples from the substance/substance group *Juniper oil*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance   | Batch    | Sample ID | Spectra |
|----------|-------------|----------|-----------|---------|
| Caelo    | Juniper oil | 13240807 | 31244     | 10      |
| Caelo    | Juniper oil | 15185205 | 32352     | 40      |

- 107 313 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 32 spectra from 24 *Apo-Ident* customers from 18 batches from the substance/substance group *Juniper oil*.
- Among them are spectra of independent samples from 17 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance   | Batch        | Spectra |
|----------------------------|-------------|--------------|---------|
| Caelo                      | Juniper oil | 111275       | 1       |
| Caelo                      | Juniper oil | 11379003     | 1       |
| Caelo                      | Juniper oil | 11379006     | 1       |
| Caelo                      | Juniper oil | 11379007     | 1       |
| Caelo                      | Juniper oil | 11379012     | 2       |
| Caelo                      | Juniper oil | 12322707     | 1       |
| Caelo                      | Juniper oil | 13240802     | 3       |
| Caelo                      | Juniper oil | 14115802     | 3       |
| Caelo                      | Juniper oil | 15141302     | 1       |
| Caelo                      | Juniper oil | 15185205     | 1       |
| Caelo                      | Juniper oil | 16160702     | 1       |
| Caelo                      | Juniper oil | 18056101     | 6       |
| Caelo                      | Juniper oil | 18121306     | 1       |
| Caelo                      | Juniper oil | 18208815     | 1       |
| Caelo                      | Juniper oil | 19207701     | 1       |
| Caelo                      | Juniper oil | 19207702     | 1       |
| Caesar & Loretz GmbH/AHD   | Juniper oil | 19207701     | 1       |
| Caesar & Loretz GmbH/Sa... | Juniper oil | 192077005    | 1       |
| Caesar & Loretz GmbH       | Juniper oil | 19207701     | 1       |
| Kögl                       | Juniper oil | 104204171714 | 1       |
| Sanacorp                   | Juniper oil | 11379012     | 1       |
| VDL;15.05.15;9,95EUR       | Juniper oil | 14115802     | 1       |

- 288 677 spectra from 1294 *Apo-Ident* customers from a total of 51 870 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Juniper oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Juniper oil* and it was evaluated how

many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 220           | 0              | 66 939        |
| Type B | 0              | 48            | 2              | 107 313       |
| Type C | 0              | 30            | 2              | 288 677       |

The substance/substance group *Juniper oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| Type B | 100.0000 % (> 99.9676 %) | 96.0000 % (> 90.0000 %)  |
| Type C | 100.0000 % (> 99.6873 %) | 93.7500 % (> 84.3750 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Juniper oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in main model | Distance in second-stage model |
|-------------------------------|------------------------|--------------------------------|
| Dwarf pine oil                | 15.38                  | —                              |
| Cypress oil                   | 25.63                  | —                              |
| Cedar wood oil                | 27.40                  | —                              |
| Bergamot oil                  | 28.69                  | —                              |
| Spearmint oil                 | 29.74                  | —                              |
| Pine silvestris oil           | 31.87                  | —                              |
| Acorus oil                    | 32.33                  | —                              |
| Angelica root oil             | 32.63                  | —                              |
| Caraway oil                   | 33.25                  | —                              |
| Bitter orange oil             | 38.67                  | —                              |
| Peppermint oil                | 39.46                  | —                              |
| Citric oil                    | 41.09                  | —                              |
| Verbena oil, nature-identical | 42.84                  | —                              |
| Grapefruit oil                | 46.55                  | —                              |
| Turpentine oil                | 47.32                  | —                              |
| Eucalyptus oil                | 48.13                  | —                              |
| Myrtle oil                    | 48.34                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Juniper oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30711     | 30711               | 0.00                         | 28.92                           |
| 31665     | 30711               | 16.57                        | 25.63                           |
| 32918     | 32918               | 0.00                         | 32.63                           |
| 33311     | 33311               | 0.00                         | 25.49                           |
| 34618     | 34618               | 0.00                         | 27.22                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Lanette® ointment (conserved)**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30499-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Lanette® ointment (conserved); Unguentum Lanette®

### Special notes

When selecting the *Lanette® ointment (conserved)* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group     | Type A | Type B | Type C |
|-------------------------------|--------|--------|--------|
| Lanette® ointment (conserved) | 13     | 19     | 158    |

## Second-stage model

For differentiation of the substance/substance group *Lanette<sup>®</sup> ointment (conserved)* the following second-stage model is used:

- [Submodel 06](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Lanette<sup>®</sup> ointment (conserved)*:

| Supplier | Substance                       | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------------------|----------|-----------|---------|-------------|
| Caelo    | Lanette <sup>®</sup> ointmen... | 13257301 | 31166     | 37      | 1402587     |
| Caelo    | Lanette <sup>®</sup> ointmen... | 13257301 | 31225     | 40      | 1403113     |
| Caelo    | Lanette <sup>®</sup> ointmen... | 13393001 | 31454     | 40      | 20131206    |
| Caelo    | Lanette <sup>®</sup> ointmen... | 153481   | 31913     | 60      | 20151111*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 153482   | 31914     | 60      | 20151111*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 153483   | 31915     | 60      | 20151111*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 160894   | 32093     | 40      | 20160318*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 162580   | 32500     | 40      | 20160920*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 162580   | 32501     | 40      | 20160920*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 162581   | 32502     | 40      | 20160920*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 162581   | 32503     | 40      | 20160920*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 190107   | 34540     | 20      | 20190128*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 190508   | 34541     | 40      | 20190319*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 20003378 | 35220     | 40      | 20201113*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 21003909 | 35914     | 40      | 20211214*   |
| Caelo    | Lanette <sup>®</sup> ointmen... | 21004144 | 35915     | 40      | 20220118*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 677 spectra of 16 reference samples from the substance/substance group *Lanette<sup>®</sup> ointment (conserved)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 13 different batches.
- 66 482 spectra from a total of 1366 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

*Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 813 spectra of 22 reference samples from the substance/substance group *Lanette<sup>®</sup> ointment (conserved)*.
- Among them are spectra of independent samples from 19 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                                 | Batch    | Sample ID          | Spectra |
|----------|-------------------------------------------|----------|--------------------|---------|
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 162582   | 32504              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 170567   | 33144              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 170415   | 33145              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 172430   | 33752              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 172431   | 33753              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 173110   | 34008              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 180232   | 34196              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 180870   | 34197              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 181184   | 34198              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 182334   | 34263              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 20002187 | 35102              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 20003101 | 35168              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 21001236 | 35340              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 21001789 | 35525              | 50      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 21002597 | 35651              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 21002676 | 35652              | 50      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 21004145 | 35916              | 10      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 22001402 | 36330              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 22001403 | 36331              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 13257301 | 31166 <sup>†</sup> | 3       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 162582   | 32505              | 40      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 190107   | 34540 <sup>†</sup> | 20      |

- 106 550 spectra from a total of 2480 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1184 spectra from 316 *Apo-Ident* customers from 162 batches from the substance/substance group *Lanette<sup>®</sup> ointment (conserved)*.
- Among them are spectra of independent samples from 158 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

<sup>†</sup>These spectra were recorded from material of the same package as the corresponding calibration spectra (*Type A*). Hence, these spectra are not independent and are not of *Type B*.

| Supplier              | Substance                                 | Batch     | Spectra |
|-----------------------|-------------------------------------------|-----------|---------|
| AHD                   | Lanette <sup>®</sup> ointment (conserved) | 14089801  | 1       |
| Alliance H.           | Lanette <sup>®</sup> ointment (conserved) | 19050802  | 1       |
| Alliance              | Lanette <sup>®</sup> ointment (conserved) | 13046701  | 1       |
| Allianz Healthcare    | Lanette <sup>®</sup> ointment (conserved) | 19144301  | 1       |
| Anzah / Henry lamotte | Lanette <sup>®</sup> ointment (conserved) | 13257501  | 1       |
| Bombastus             | Lanette <sup>®</sup> ointment (conserved) | 16258001  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) |           | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 117311002 | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12081301  | 6       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12170301  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12223701  | 4       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 1222380   | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12223801  | 6       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12312101  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12312901  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12313001  | 3       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 1231302   | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12313101  | 7       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 12313102  | 2       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 130456601 | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13046501  | 2       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13046601  | 5       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13046701  | 15      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13046802  | 4       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13177301  | 3       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13177501  | 11      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13191201  | 7       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13234007  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13257301  | 12      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13257402  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13257501  | 9       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 1339201   | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13392701  | 11      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13392901  | 3       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 13393001  | 17      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 1391201   | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14089501  | 6       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14089601  | 5       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14089801  | 14      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14200601  | 8       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 1420061   | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14221601  | 2       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14277101  | 3       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14277201  | 3       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14277301  | 5       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 14277401  | 20      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15048801  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15048901  | 17      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15049001  | 12      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15095902  | 3       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15211102  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15211201  | 10      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 152113001 | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15211301  | 22      |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15211401  | 3       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 152114021 | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15258001  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15348201  | 9       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15348202  | 1       |
| Caelo                 | Lanette <sup>®</sup> ointment (conserved) | 15348301  | 17      |

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| Supplier | Substance                                 | Batch             | Spectra |
|----------|-------------------------------------------|-------------------|---------|
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 153483301         | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16071402          | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 160817UL          | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16089401          | 50      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16089402          | 23      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16089404          | 3       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16102013C         | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 161104UL/16188701 | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16184702          | 16      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16184703          | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16188701          | 2       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16188801          | 4       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 162580            | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16258001          | 30      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16258101          | 12      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 16258201          | 11      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 170328UL/16188801 | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17041501          | 20      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 170530UL/16188801 | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 170710UL/16188801 | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 171107UL/17134001 | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17133801          | 11      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17133901          | 20      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17133902          | 4       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17134001          | 7       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17243001          | 13      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17243102          | 21      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 1731002           | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17311001          | 16      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17311002          | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 173111001         | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 17311101          | 10      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18(18087001)      | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 180102UL/17134001 | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 1802302           | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18023202          | 8       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18023301          | 4       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 1807001           | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 180870001         | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18087001          | 50      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18087101          | 2       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 1811402           | 2       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18118401          | 9       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18118402          | 15      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18118502          | 3       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18233402          | 2       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18233501          | 24      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18233502          | 7       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18296701          | 8       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 18302001          | 15      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19010701          | 25      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19010702          | 6       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19050802          | 5       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19050803          | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19067003          | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19082015C         | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 1914401           | 1       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19144301          | 24      |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19144401          | 9       |
| Caelo    | Lanette <sup>®</sup> ointment (conserved) | 19144501          | 7       |

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| Supplier                   | Substance                                 | Batch        | Spectra |
|----------------------------|-------------------------------------------|--------------|---------|
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 19266903     | 9       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 19267003     | 33      |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 19267101     | 4       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 200002187001 | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20000221002  | 4       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20000702001  | 10      |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20000703001  | 26      |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 200021870003 | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20002187001  | 7       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20002187003  | 8       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20002187004  | 15      |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20003378001  | 4       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20003379001  | 4       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20003379002  | 9       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 2000703001   | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20021309     | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 2002187004   | 3       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 2003379001   | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20092014B    | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20110712-3   | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 20310812-5   | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 21000607002  | 11      |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 21000607004  | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 21000607005  | 3       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 21001236001  | 3       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 21001236002  | 4       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 21001789001  | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 21002676002  | 2       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 2187003      | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 23012015C    | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 24022014C    | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 24062014A    | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 280714B      | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 28111311     | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 309918023301 | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 35151-03211  | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 40/AKD2      | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 6012014D     | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 613Q-03211   | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | 8041502      | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | ChB280916    | 1       |
| Caelo                      | Lanette <sup>®</sup> ointment (conserved) | U-150513-3   | 1       |
| Caeolo/Sanacorp            | Lanette <sup>®</sup> ointment (conserved) | 18118401     | 1       |
| Caesar & Loretz GmbH / ... | Lanette <sup>®</sup> ointment (conserved) | 15211301     | 1       |
| Caesar & Loretz GmbH / ... | Lanette <sup>®</sup> ointment (conserved) | 19050802     | 1       |
| Caesar & Loretz GmbH / ... | Lanette <sup>®</sup> ointment (conserved) | 200003379001 | 1       |
| Caesar & Loretz GmbH/ N... | Lanette <sup>®</sup> ointment (conserved) | 19267003     | 1       |
| Caesar & Loretz GmbH/ N... | Lanette <sup>®</sup> ointment (conserved) | 20000703001  | 1       |
| Caesar & Loretz GmbH/ P... | Lanette <sup>®</sup> ointment (conserved) | 20002187004  | 1       |
| Caesar & Loretz GmbH/An... | Lanette <sup>®</sup> ointment (conserved) | 19144401     | 1       |
| Caesar & Loretz GmbH/Geh   | Lanette <sup>®</sup> ointment (conserved) | 20000703001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Lanette <sup>®</sup> ointment (conserved) | 19267003     | 2       |
| Caesar & Loretz GmbH/Gehe  | Lanette <sup>®</sup> ointment (conserved) | 20002187004  | 1       |
| Caesar & Loretz GmbH/Ge... | Lanette <sup>®</sup> ointment (conserved) | 20002187003  | 1       |
| Caesar & Loretz GmbH/No... | Lanette <sup>®</sup> ointment (conserved) | 19144401     | 1       |
| Caesar & Loretz GmbH/No... | Lanette <sup>®</sup> ointment (conserved) | 19267003     | 1       |
| Caesar & Loretz GmbH/Ph... | Lanette <sup>®</sup> ointment (conserved) | 19010702     | 1       |
| Caesar & Loretz GmbH/Sa... | Lanette <sup>®</sup> ointment (conserved) | 19266903     | 3       |
| Caesar & Loretz GmbH/Sa... | Lanette <sup>®</sup> ointment (conserved) | 20000702001  | 3       |
| Caesar & Loretz GmbH       | Lanette <sup>®</sup> ointment (conserved) | 15348201     | 1       |

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| Supplier                | Substance                                 | Batch       | Spectra |
|-------------------------|-------------------------------------------|-------------|---------|
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 18087001    | 1       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 18118401    | 1       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 18233501    | 2       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 18296701    | 1       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 18302001    | 9       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 19010701    | 3       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 19010702    | 1       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 19050802    | 6       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 19144301    | 8       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 19144401    | 4       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 19266903    | 11      |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 19267003    | 11      |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 20000702001 | 3       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 20000703001 | 7       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 20002187003 | 4       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 20002187004 | 4       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 20003379002 | 4       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 21000607002 | 4       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 21001236001 | 1       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 21001789002 | 2       |
| Caesar & Loretz GmbH    | Lanette <sup>®</sup> ointment (conserved) | 21002597002 | 2       |
| Caesar & Loretz         | Lanette <sup>®</sup> ointment (conserved) | 19050802    | 2       |
| Caesar/Lorenz           | Lanette <sup>®</sup> ointment (conserved) | 12313102    | 1       |
| Caesar/Lorenz           | Lanette <sup>®</sup> ointment (conserved) | 13046701    | 1       |
| Caesar/Lorenz           | Lanette <sup>®</sup> ointment (conserved) | 13257301    | 2       |
| Caesar/Lorenz           | Lanette <sup>®</sup> ointment (conserved) | 13257501    | 1       |
| Cealo/ Noweda           | Lanette <sup>®</sup> ointment (conserved) | 19267003    | 1       |
| Cealo/Phönix            | Lanette <sup>®</sup> ointment (conserved) | 18233502    | 1       |
| Cordes/Anzag            | Lanette <sup>®</sup> ointment (conserved) | 17041501    | 1       |
| Fagron                  | Lanette <sup>®</sup> ointment (conserved) | 13046601    | 1       |
| Fagron                  | Lanette <sup>®</sup> ointment (conserved) | 15348201    | 1       |
| Fagron                  | Lanette <sup>®</sup> ointment (conserved) | 18087001    | 2       |
| GEHE                    | Lanette <sup>®</sup> ointment (conserved) | 13046701    | 1       |
| gehe                    | Lanette <sup>®</sup> ointment (conserved) | 13177501    | 1       |
| GEHE                    | Lanette <sup>®</sup> ointment (conserved) | 16184702    | 1       |
| Gehe                    | Lanette <sup>®</sup> ointment (conserved) | 16258001    | 1       |
| GEHE                    | Lanette <sup>®</sup> ointment (conserved) | 16258101    | 2       |
| GEHE                    | Lanette <sup>®</sup> ointment (conserved) | 18023202    | 1       |
| GEHE                    | Lanette <sup>®</sup> ointment (conserved) | 9639910     | 1       |
| Hedinger                | Lanette <sup>®</sup> ointment (conserved) | 17133901    | 1       |
| Henry Lamotte Oils GmbH | Lanette <sup>®</sup> ointment (conserved) | 18087001    | 1       |
| Jenne                   | Lanette <sup>®</sup> ointment (conserved) | 19010702    | 1       |
| L12                     | Lanette <sup>®</sup> ointment (conserved) | 18087001    | 1       |
| L30                     | Lanette <sup>®</sup> ointment (conserved) | 16184702    | 1       |
| L30                     | Lanette <sup>®</sup> ointment (conserved) | 17133801    | 1       |
| Laborchemie/Gehe        | Lanette <sup>®</sup> ointment (conserved) | 19144301    | 2       |
| Noweda                  | Lanette <sup>®</sup> ointment (conserved) | 20000703001 | 1       |
| Phoenix                 | Lanette <sup>®</sup> ointment (conserved) | 14089501    | 1       |
| Phoenix                 | Lanette <sup>®</sup> ointment (conserved) | 16089402    | 2       |
| Phoenix                 | Lanette <sup>®</sup> ointment (conserved) | 19267003    | 1       |
| Phoenix                 | Lanette <sup>®</sup> ointment (conserved) | 20000703001 | 1       |
| Phoenix                 | Lanette <sup>®</sup> ointment (conserved) | 21001236002 | 1       |
| Phönix                  | Lanette <sup>®</sup> ointment (conserved) | 12223701    | 1       |
| Phönix                  | Lanette <sup>®</sup> ointment (conserved) | 17133901    | 1       |
| Phönix                  | Lanette <sup>®</sup> ointment (conserved) | 17243102    | 1       |
| PHÖNIX                  | Lanette <sup>®</sup> ointment (conserved) | 17311101    | 1       |
| Phönix                  | Lanette <sup>®</sup> ointment (conserved) | 19266903    | 2       |
| Phönix                  | Lanette <sup>®</sup> ointment (conserved) | 20000703001 | 1       |
| Phönix                  | Lanette <sup>®</sup> ointment (conserved) | 20003379002 | 1       |
| Sanacorp                | Lanette <sup>®</sup> ointment (conserved) | 14089801    | 1       |

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| Supplier             | Substance                                 | Batch       | Spectra |
|----------------------|-------------------------------------------|-------------|---------|
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 160258001   | 1       |
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 16089401    | 1       |
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 17133901    | 1       |
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 18233501    | 1       |
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 19266903    | 1       |
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 20000702001 | 2       |
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 20000708001 | 1       |
| Sanacorp             | Lanette <sup>®</sup> ointment (conserved) | 20002187001 | 1       |
| VDL;3,33EUR;22.10.14 | Lanette <sup>®</sup> ointment (conserved) | 14089801    | 2       |

- 287 525 spectra from 1294 *Apo-Ident* customers from a total of 51 731 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Lanette<sup>®</sup> ointment (conserved)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Lanette<sup>®</sup> ointment (conserved)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 677           | 0              | 66 482        |
| <b>Type B</b> | 0              | 812           | 1              | 106 550       |
| <b>Type C</b> | 0              | 1061          | 123            | 287 525       |

The substance/substance group *Lanette<sup>®</sup> ointment (conserved)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.1137 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 99.8770 % (> 99.5080 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 89.6115 % (> 89.3581 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Lanette<sup>®</sup> ointment (conserved)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                  | Distance in<br>main model | Distance in<br>second-stage model |
|--------------------------------------------|---------------------------|-----------------------------------|
| Anionic hydrophilic cream SR (NRF p.27)    | 15.38                     | —                                 |
| Non-ionic hydrophil ointment               | 15.63                     | 14.63                             |
| Wool alcohol cream SR                      | 16.32                     | 16.17                             |
| Psorisol base cream Audor <sup>®</sup>     | 16.55                     | —                                 |
| Anionic hydrophilic cream DAB              | 17.17                     | —                                 |
| Base cream DAC                             | 21.26                     | 26.87                             |
| Eucerin <sup>®</sup> cum Aqua              | 21.78                     | 30.75                             |
| Anionic hydrophilic cream without prese... | 22.83                     | —                                 |
| Hydrophilic cream, non-ionic SR (NRF p...  | 23.11                     | —                                 |
| Anionic hydrophilic cream with propyle...  | 25.26                     | —                                 |
| Base cream, hydrophobic DAC                | 25.29                     | —                                 |
| Wool alcohol cream DAB                     | 26.74                     | 27.52                             |
| Hydrophilic cream, non-ionic without p...  | 27.11                     | —                                 |
| Skin care ointment W/L SR (without pre...  | 30.19                     | —                                 |
| Transdermal base cream                     | 33.57                     | —                                 |
| Skin care ointment W/L SR                  | 38.05                     | —                                 |
| Glycolic acid 70%                          | 38.39                     | —                                 |
| Potash soap DAC                            | 54.66                     | —                                 |
| ⋮                                          | ⋮                         | ⋮                                 |
| 2-ethylhexyl laurate                       | >50                       | 198.87                            |
| Squalane                                   | >50                       | 249.79                            |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Lanette<sup>®</sup> ointment (conserved)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31166     | 31166                  | 0.00                            | 36.81                              |
| 31225     | 31225                  | 0.00                            | 25.79                              |
| 31454     | 31225                  | 2.51                            | 23.94                              |
| 31913     | 31913                  | 0.00                            | 35.04                              |
| 31914     | 31914                  | 0.00                            | 28.72                              |
| 31915     | 31915                  | 0.00                            | 32.32                              |
| 32093     | 32093                  | 0.00                            | 28.30                              |
| 32500     | 32500                  | 0.00                            | 26.62                              |
| 32501     | 32501                  | 0.00                            | 27.96                              |
| 32502     | 32502                  | 0.00                            | 24.04                              |
| 32503     | 32503                  | 0.00                            | 25.20                              |
| 34540     | 34540                  | 0.00                            | 20.75                              |
| 34541     | 34541                  | 0.00                            | 36.46                              |
| 35220     | 35220                  | 0.00                            | 27.11                              |
| 35914     | 35914                  | 0.00                            | 27.96                              |
| 35915     | 35915                  | 0.00                            | 27.93                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Lanolin DAB**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30013-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Lanolin DAB; Lanolinum DAB

### Special notes

When selecting the *Lanolin DAB* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Lanolin DAB               | 12     | 32     | 576    |

## Second-stage model

For differentiation of the substance/substance group *Lanolin DAB* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Lanolin DAB*:

| Supplier      | Substance   | Batch            | Sample ID | Spectra | Certificate        |
|---------------|-------------|------------------|-----------|---------|--------------------|
| Bombastus     | Lanolin DAB | 294969           | 31795     | 60      | 20150611           |
| Bombastus     | Lanolin DAB | 19001199         | 34518     | 40      | 20190301           |
| Caelo         | Lanolin DAB | 13062501         | 31003     | 40      | 20130226           |
| Caelo         | Lanolin DAB | 14032001         | 31439     | 40      | AR-15-FG-008283-01 |
| Caelo         | Lanolin DAB | 15255201         | 31746     | 60      | 20150727           |
| Caelo         | Lanolin DAB | 15405502         | 31798     | 60      | 20151130           |
| Caelo         | Lanolin DAB | 163026           | 32863     | 40      | 20161028*          |
| Caelo         | Lanolin DAB | 21000935         | 35373     | 40      | 20210421*          |
| Caelo         | Lanolin DAB | 21001590         | 35643     | 50      | 20210615*          |
| Fagron        | Lanolin DAB | 15G02-T11-024155 | 31794     | 60      | AR-16-FG-004053-01 |
| Fagron        | Lanolin DAB | 18L18-T08-062838 | 34597     | 40      | 20190227           |
| Henry Lamotte | Lanolin DAB | 8005213004       | 34686     | 40      | 20190306           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 570 spectra of 12 reference samples from the substance/substance group *Lanolin DAB*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 12 different batches.
- 66 589 spectra from a total of 1367 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples:

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 1190 spectra of 32 reference samples from the substance/substance group *Lanolin DAB*.
- Among them are spectra of independent samples from 32 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier      | Substance   | Batch    | Sample ID | Spectra |
|---------------|-------------|----------|-----------|---------|
| Bombastus     | Lanolin DAB | 21004075 | 36204     | 40      |
| Caelo         | Lanolin DAB | 163022   | 32859     | 40      |
| Caelo         | Lanolin DAB | 163023   | 32860     | 40      |
| Caelo         | Lanolin DAB | 163024   | 32861     | 40      |
| Caelo         | Lanolin DAB | 163025   | 32862     | 40      |
| Caelo         | Lanolin DAB | 163444   | 33181     | 40      |
| Caelo         | Lanolin DAB | 170184   | 33182     | 40      |
| Caelo         | Lanolin DAB | 170187   | 33183     | 40      |
| Caelo         | Lanolin DAB | 171351   | 33370     | 40      |
| Caelo         | Lanolin DAB | 171354   | 33371     | 40      |
| Caelo         | Lanolin DAB | 172965   | 34015     | 40      |
| Caelo         | Lanolin DAB | 180443   | 34151     | 40      |
| Caelo         | Lanolin DAB | 182302   | 34270     | 40      |
| Caelo         | Lanolin DAB | 191766   | 34816     | 40      |
| Caelo         | Lanolin DAB | 192252   | 34817     | 40      |
| Caelo         | Lanolin DAB | 20000836 | 34853     | 40      |
| Caelo         | Lanolin DAB | 20003100 | 35155     | 40      |
| Caelo         | Lanolin DAB | 20004309 | 35370     | 40      |
| Caelo         | Lanolin DAB | 20004311 | 35371     | 40      |
| Caelo         | Lanolin DAB | 20004312 | 35372     | 40      |
| Caelo         | Lanolin DAB | 21000936 | 35374     | 40      |
| Caelo         | Lanolin DAB | 21001189 | 35375     | 40      |
| Caelo         | Lanolin DAB | 21002198 | 35644     | 50      |
| Caelo         | Lanolin DAB | 21002199 | 35645     | 50      |
| Caelo         | Lanolin DAB | 21002476 | 35646     | 50      |
| Caelo         | Lanolin DAB | 21003000 | 35962     | 40      |
| Caelo         | Lanolin DAB | 21004178 | 35963     | 40      |
| Caelo         | Lanolin DAB | 21004179 | 35964     | 10      |
| Caelo         | Lanolin DAB | 21004182 | 35965     | 10      |
| Caelo         | Lanolin DAB | 22000106 | 35966     | 10      |
| Caelo         | Lanolin DAB | 22000069 | 35967     | 10      |
| Henry Lamotte | Lanolin DAB | 5264900  | 30922     | 40      |

- 106 173 spectra from a total of 2469 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 5671 spectra from 979 *Apo-Ident* customers from 601 batches from the substance/substance group *Lanolin DAB*.
- Among them are spectra of independent samples from 572 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.



| Supplier                   | Substance   | Batch            | Spectra |
|----------------------------|-------------|------------------|---------|
|                            | Lanolin DAB | 13H13-T10-006179 | 1       |
|                            | Lanolin DAB | 309000           | 1       |
| 26.07.2018                 | Lanolin DAB | 17000364         | 1       |
| 4,Caesar & Loretz GmbH     | Lanolin DAB | 21000936001      | 1       |
| AEP                        | Lanolin DAB | 20004311001      | 1       |
| AHD , 05.09.13             | Lanolin DAB | 274414           | 1       |
| AHD 14.03.17 Ek:6,91       | Lanolin DAB | 6003682006       | 1       |
| AHD 14.5.14, Preis 16,69   | Lanolin DAB |                  | 1       |
| AHD 27.05.20               | Lanolin DAB | 19267802         | 1       |
| AHD henry lamotte 05.04... | Lanolin DAB | 8002875002       | 2       |
| AHD Henry Lamotte 05.10... | Lanolin DAB | 8005213004       | 2       |
| AHD, 08.11.13              | Lanolin DAB | 280111           | 1       |
| AHD                        | Lanolin DAB | 16189401         | 1       |
| AHD                        | Lanolin DAB | 16302501         | 1       |
| AHD                        | Lanolin DAB | 17222601         | 1       |
| AHD                        | Lanolin DAB | 19071101         | 1       |
| AHD                        | Lanolin DAB | 19267802         | 1       |
| AHD                        | Lanolin DAB | 20004312001      | 1       |
| AHD                        | Lanolin DAB | 5517200          | 1       |
| AHDE/Cael030.12.16 EUR5,33 | Lanolin DAB | 16302401         | 1       |
| Alliance H.                | Lanolin DAB | 15405501         | 1       |
| Alliance health 12.01.15   | Lanolin DAB | 14A06-T05-0002   | 1       |
| Alliance Healthcare        | Lanolin DAB | 13062401         | 1       |
| Alliance Healthcare        | Lanolin DAB | 5375500          | 1       |
| Alliance Healthcare        | Lanolin DAB | 5447700          | 3       |
| Alliance                   | Lanolin DAB | 13102802         | 1       |
| Allianz Healthcare         | Lanolin DAB | 19176601         | 1       |
| Allianz Healthcare         | Lanolin DAB | 19267802         | 1       |
| Alte Apotheke              | Lanolin DAB | 16189602         | 1       |
| ANZAG 01.01.143            | Lanolin DAB | 14a06-t01-009011 | 1       |
| Anzag 10.04.13             | Lanolin DAB | 5264900          | 1       |
| Anzag/                     | Lanolin DAB | 12193901         | 1       |
| Anzag/Henry Lamotte        | Lanolin DAB | 5264900          | 1       |
| Anzag                      | Lanolin DAB | 11315101         | 1       |
| anzag                      | Lanolin DAB | 15255301         | 1       |
| Anzag                      | Lanolin DAB | 15405501         | 1       |
| Anzag                      | Lanolin DAB | 16189501         | 1       |
| Anzag                      | Lanolin DAB | 17222401         | 1       |
| Anzag                      | Lanolin DAB | 17A03-T02-040001 | 1       |
| Anzag                      | Lanolin DAB | 19H12-T03-070772 | 1       |
| Anzag                      | Lanolin DAB | 19J09-T09-072602 | 1       |
| Anzag                      | Lanolin DAB | 5264900          | 1       |
| api-ident                  | Lanolin DAB | 17296501         | 1       |
| Bom                        | Lanolin DAB | 18005862         | 2       |
| Bombasatus                 | Lanolin DAB | 288635           | 1       |
| Bombastus                  | Lanolin DAB | 124967           | 1       |
| Bombastus                  | Lanolin DAB | 13173601         | 1       |
| Bombastus                  | Lanolin DAB | 14032101         | 1       |
| Bombastus                  | Lanolin DAB | 14166001         | 1       |
| Bombastus                  | Lanolin DAB | 16189501         | 1       |
| Bombastus                  | Lanolin DAB | 163023           | 1       |
| Bombastus                  | Lanolin DAB | 16302401         | 1       |
| Bombastus                  | Lanolin DAB | 1700000363       | 1       |
| Bombastus                  | Lanolin DAB | 17000363         | 1       |
| Bombastus                  | Lanolin DAB | 17000364         | 10      |
| Bombastus                  | Lanolin DAB | 17000425         | 1       |
| Bombastus                  | Lanolin DAB | 17001446         | 2       |
| Bombastus                  | Lanolin DAB | 17001447         | 12      |
| Bombastus                  | Lanolin DAB | 17018401         | 1       |
| Bombastus                  | Lanolin DAB | 17222601         | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Bombastus       | Lanolin DAB      | 18001869         | 1              |
| Bombastus       | Lanolin DAB      | 18001870         | 11             |
| Bombastus       | Lanolin DAB      | 18003633         | 1              |
| Bombastus       | Lanolin DAB      | 18003634         | 1              |
| Bombastus       | Lanolin DAB      | 18003635         | 5              |
| Bombastus       | Lanolin DAB      | 18005860         | 1              |
| Bombastus       | Lanolin DAB      | 18005862         | 6              |
| Bombastus       | Lanolin DAB      | 18D11-T03-054713 | 1              |
| Bombastus       | Lanolin DAB      | 19000702         | 1              |
| Bombastus       | Lanolin DAB      | 19001199         | 9              |
| Bombastus       | Lanolin DAB      | 19002572         | 10             |
| Bombastus       | Lanolin DAB      | 19005480         | 11             |
| Bombastus       | Lanolin DAB      | 200000047        | 1              |
| Bombastus       | Lanolin DAB      | 20000047         | 15             |
| Bombastus       | Lanolin DAB      | 20001455         | 5              |
| Bombastus       | Lanolin DAB      | 20003460         | 4              |
| Bombastus       | Lanolin DAB      | 20004373         | 6              |
| Bombastus       | Lanolin DAB      | 21001410         | 3              |
| Bombastus       | Lanolin DAB      | 264721           | 1              |
| Bombastus       | Lanolin DAB      | 264723           | 1              |
| Bombastus       | Lanolin DAB      | 266981           | 1              |
| Bombastus       | Lanolin DAB      | 270439           | 1              |
| Bombastus       | Lanolin DAB      | 270443           | 1              |
| Bombastus       | Lanolin DAB      | 274412           | 1              |
| Bombastus       | Lanolin DAB      | 274413           | 1              |
| Bombastus       | Lanolin DAB      | 274414           | 1              |
| Bombastus       | Lanolin DAB      | 276824           | 1              |
| Bombastus       | Lanolin DAB      | 277967           | 2              |
| Bombastus       | Lanolin DAB      | 277968           | 1              |
| Bombastus       | Lanolin DAB      | 277969           | 1              |
| Bombastus       | Lanolin DAB      | 277970           | 4              |
| Bombastus       | Lanolin DAB      | 280111           | 3              |
| Bombastus       | Lanolin DAB      | 282979           | 2              |
| Bombastus       | Lanolin DAB      | 285096           | 2              |
| Bombastus       | Lanolin DAB      | 285097           | 4              |
| Bombastus       | Lanolin DAB      | 286688           | 1              |
| Bombastus       | Lanolin DAB      | 286690           | 1              |
| Bombastus       | Lanolin DAB      | 286691           | 2              |
| Bombastus       | Lanolin DAB      | 288636           | 2              |
| Bombastus       | Lanolin DAB      | 288637           | 5              |
| Bombastus       | Lanolin DAB      | 290885           | 4              |
| Bombastus       | Lanolin DAB      | 292904           | 1              |
| Bombastus       | Lanolin DAB      | 292905           | 1              |
| Bombastus       | Lanolin DAB      | 292906           | 5              |
| Bombastus       | Lanolin DAB      | 294967           | 2              |
| Bombastus       | Lanolin DAB      | 294968           | 1              |
| Bombastus       | Lanolin DAB      | 297583           | 7              |
| Bombastus       | Lanolin DAB      | 299082           | 5              |
| Bombastus       | Lanolin DAB      | 300144           | 2              |
| Bombastus       | Lanolin DAB      | 301169           | 2              |
| Bombastus       | Lanolin DAB      | 301170           | 5              |
| Bombastus       | Lanolin DAB      | 302807           | 1              |
| Bombastus       | Lanolin DAB      | 302808           | 2              |
| Bombastus       | Lanolin DAB      | 302809           | 7              |
| Bombastus       | Lanolin DAB      | 304540           | 2              |
| Bombastus       | Lanolin DAB      | 304541           | 7              |
| Bombastus       | Lanolin DAB      | 305411           | 2              |
| Bombastus       | Lanolin DAB      | 305440           | 1              |
| Bombastus       | Lanolin DAB      | 305441           | 3              |
| Bombastus       | Lanolin DAB      | 306633           | 4              |

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| <b>Supplier</b>          | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|--------------------------|------------------|---------------------|----------------|
| Bombastus                | Lanolin DAB      | 306634              | 2              |
| Bombastus                | Lanolin DAB      | 306635              | 2              |
| Bombastus                | Lanolin DAB      | 309000              | 7              |
| Bombastus                | Lanolin DAB      | 60080101            | 4              |
| Bombastus                | Lanolin DAB      | 9/14                | 1              |
| Bombstus                 | Lanolin DAB      | 273293              | 1              |
| caedo                    | Lanolin DAB      | 17296501            | 1              |
| Cael Sanacorp 05.02.2016 | Lanolin DAB      | 15255202            | 1              |
| cael                     | Lanolin DAB      | 18044101            | 1              |
| Caela/all                | Lanolin DAB      | 19J09-072602        | 1              |
| Caelo                    | Lanolin DAB      |                     | 6              |
| Caelo                    | Lanolin DAB      | 10358301            | 1              |
| Caelo                    | Lanolin DAB      | 1042014A            | 1              |
| Caelo                    | Lanolin DAB      | 1096249             | 3              |
| Caelo                    | Lanolin DAB      | 11011404            | 1              |
| Caelo                    | Lanolin DAB      | 11281701            | 2              |
| Caelo                    | Lanolin DAB      | 11281702            | 2              |
| Caelo                    | Lanolin DAB      | 11282001            | 2              |
| Caelo                    | Lanolin DAB      | 11315101            | 3              |
| Caelo                    | Lanolin DAB      | 11315102            | 2              |
| Caelo                    | Lanolin DAB      | 12037002            | 1              |
| Caelo                    | Lanolin DAB      | 12037101            | 7              |
| Caelo                    | Lanolin DAB      | 12037301            | 2              |
| Caelo                    | Lanolin DAB      | 12037401            | 4              |
| Caelo                    | Lanolin DAB      | 12065101            | 5              |
| Caelo                    | Lanolin DAB      | 12065102            | 1              |
| Caelo                    | Lanolin DAB      | 12193701            | 23             |
| Caelo                    | Lanolin DAB      | 12193702            | 2              |
| Caelo                    | Lanolin DAB      | 12193901            | 13             |
| Caelo                    | Lanolin DAB      | 12194201            | 4              |
| Caelo                    | Lanolin DAB      | 12260301            | 5              |
| Caelo                    | Lanolin DAB      | 12260302            | 3              |
| Caelo                    | Lanolin DAB      | 1230317             | 1              |
| Caelo                    | Lanolin DAB      | 12308601            | 6              |
| Caelo                    | Lanolin DAB      | 12308801            | 1              |
| Caelo                    | Lanolin DAB      | 12308802            | 21             |
| Caelo                    | Lanolin DAB      | 123456              | 1              |
| Caelo                    | Lanolin DAB      | 12H01-T01           | 1              |
| Caelo                    | Lanolin DAB      | 12H01-T02           | 1              |
| Caelo                    | Lanolin DAB      | 13062401            | 13             |
| Caelo                    | Lanolin DAB      | 13062501            | 11             |
| Caelo                    | Lanolin DAB      | 13062602            | 3              |
| Caelo                    | Lanolin DAB      | 13062701            | 6              |
| Caelo                    | Lanolin DAB      | 13062801            | 2              |
| Caelo                    | Lanolin DAB      | 1306501             | 1              |
| Caelo                    | Lanolin DAB      | 13102802            | 25             |
| Caelo                    | Lanolin DAB      | 1310802             | 1              |
| Caelo                    | Lanolin DAB      | 13227601            | 26             |
| Caelo                    | Lanolin DAB      | 13227602            | 5              |
| Caelo                    | Lanolin DAB      | 13227701            | 18             |
| Caelo                    | Lanolin DAB      | 13227801            | 6              |
| Caelo                    | Lanolin DAB      | 13326501            | 27             |
| Caelo                    | Lanolin DAB      | 13326502            | 6              |
| Caelo                    | Lanolin DAB      | 13326601            | 8              |
| Caelo                    | Lanolin DAB      | 13326701            | 29             |
| Caelo                    | Lanolin DAB      | 13326701-3455311103 | 1              |
| Caelo                    | Lanolin DAB      | 133326701           | 1              |
| Caelo                    | Lanolin DAB      | 13345901            | 1              |
| Caelo                    | Lanolin DAB      | 13345902            | 21             |
| Caelo                    | Lanolin DAB      | 135302              | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Lanolin DAB      | 13E07-T20-003399 | 1              |
| Caelo           | Lanolin DAB      | 13H13-To8-006173 | 1              |
| Caelo           | Lanolin DAB      | 14011304         | 1              |
| Caelo           | Lanolin DAB      | 14032001         | 25             |
| Caelo           | Lanolin DAB      | 14032101         | 24             |
| Caelo           | Lanolin DAB      | 14032201         | 5              |
| Caelo           | Lanolin DAB      | 14032301         | 11             |
| Caelo           | Lanolin DAB      | 14032302         | 2              |
| Caelo           | Lanolin DAB      | 14032401         | 8              |
| Caelo           | Lanolin DAB      | 14101306         | 1              |
| Caelo           | Lanolin DAB      | 14165601         | 39             |
| Caelo           | Lanolin DAB      | 14165701         | 4              |
| Caelo           | Lanolin DAB      | 14165901         | 34             |
| Caelo           | Lanolin DAB      | 14166001         | 16             |
| Caelo           | Lanolin DAB      | 141666001        | 1              |
| Caelo           | Lanolin DAB      | 1433001          | 1              |
| Caelo           | Lanolin DAB      | 14333601         | 1              |
| Caelo           | Lanolin DAB      | 14333602         | 41             |
| Caelo           | Lanolin DAB      | 14333701         | 5              |
| Caelo           | Lanolin DAB      | 14333901         | 10             |
| Caelo           | Lanolin DAB      | 14334001         | 33             |
| Caelo           | Lanolin DAB      | 1433602          | 4              |
| Caelo           | Lanolin DAB      | 14A06-T01-009011 | 1              |
| Caelo           | Lanolin DAB      | 14K11-T01-016976 | 2              |
| Caelo           | Lanolin DAB      | 15024003         | 1              |
| Caelo           | Lanolin DAB      | 15024101         | 2              |
| Caelo           | Lanolin DAB      | 15024102         | 31             |
| Caelo           | Lanolin DAB      | 15024201         | 32             |
| Caelo           | Lanolin DAB      | 15024301         | 5              |
| Caelo           | Lanolin DAB      | 15045502         | 1              |
| Caelo           | Lanolin DAB      | 1515Q-01765      | 1              |
| Caelo           | Lanolin DAB      | 15193401         | 29             |
| Caelo           | Lanolin DAB      | 15193501         | 30             |
| Caelo           | Lanolin DAB      | 1525501          | 1              |
| Caelo           | Lanolin DAB      | 15255201         | 33             |
| Caelo           | Lanolin DAB      | 15255202         | 31             |
| Caelo           | Lanolin DAB      | 15255301         | 9              |
| Caelo           | Lanolin DAB      | 15255501         | 2              |
| Caelo           | Lanolin DAB      | 15255601         | 9              |
| Caelo           | Lanolin DAB      | 15344401         | 1              |
| Caelo           | Lanolin DAB      | 1540502          | 1              |
| Caelo           | Lanolin DAB      | 15405501         | 32             |
| Caelo           | Lanolin DAB      | 15405502         | 38             |
| Caelo           | Lanolin DAB      | 15405505         | 1              |
| Caelo           | Lanolin DAB      | 15405601         | 44             |
| Caelo           | Lanolin DAB      | 15405702         | 2              |
| Caelo           | Lanolin DAB      | 15405801         | 7              |
| Caelo           | Lanolin DAB      | 15c1903020815    | 1              |
| Caelo           | Lanolin DAB      | 15C19-T01-020809 | 2              |
| Caelo           | Lanolin DAB      | 16011501         | 1              |
| Caelo           | Lanolin DAB      | 1602301          | 1              |
| Caelo           | Lanolin DAB      | 16054602         | 4              |
| Caelo           | Lanolin DAB      | 16054701         | 17             |
| Caelo           | Lanolin DAB      | 16054702         | 3              |
| Caelo           | Lanolin DAB      | 16054801         | 53             |
| Caelo           | Lanolin DAB      | 16054901         | 74             |
| Caelo           | Lanolin DAB      | 160614           | 1              |
| Caelo           | Lanolin DAB      | 16064901         | 1              |
| Caelo           | Lanolin DAB      | 16189401         | 55             |
| Caelo           | Lanolin DAB      | 16189402         | 4              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Lanolin DAB      | 16189501         | 48             |
| Caelo           | Lanolin DAB      | 16189501/160314L | 1              |
| Caelo           | Lanolin DAB      | 16189602         | 3              |
| Caelo           | Lanolin DAB      | 16189701         | 5              |
| Caelo           | Lanolin DAB      | 16302202         | 4              |
| Caelo           | Lanolin DAB      | 16302301         | 80             |
| Caelo           | Lanolin DAB      | 16302302         | 5              |
| Caelo           | Lanolin DAB      | 16302401         | 64             |
| Caelo           | Lanolin DAB      | 16302402         | 1              |
| Caelo           | Lanolin DAB      | 16302501         | 3              |
| Caelo           | Lanolin DAB      | 16302601         | 4              |
| Caelo           | Lanolin DAB      | 1634401          | 2              |
| Caelo           | Lanolin DAB      | 16344401         | 57             |
| Caelo           | Lanolin DAB      | 163444401        | 1              |
| Caelo           | Lanolin DAB      | 16549            | 1              |
| Caelo           | Lanolin DAB      | 16G01-T07-034861 | 1              |
| Caelo           | Lanolin DAB      | 170105186        | 1              |
| Caelo           | Lanolin DAB      | 1701801          | 1              |
| Caelo           | Lanolin DAB      | 170184           | 1              |
| Caelo           | Lanolin DAB      | 170184001        | 1              |
| Caelo           | Lanolin DAB      | 17018401         | 131            |
| Caelo           | Lanolin DAB      | 17018502         | 3              |
| Caelo           | Lanolin DAB      | 17018503         | 6              |
| Caelo           | Lanolin DAB      | 17018701         | 45             |
| Caelo           | Lanolin DAB      | 170614181        | 1              |
| Caelo           | Lanolin DAB      | 17082015D        | 1              |
| Caelo           | Lanolin DAB      | 17134201         | 2              |
| Caelo           | Lanolin DAB      | 1713510          | 1              |
| Caelo           | Lanolin DAB      | 17135101         | 78             |
| Caelo           | Lanolin DAB      | 171351011        | 1              |
| Caelo           | Lanolin DAB      | 17135102         | 4              |
| Caelo           | Lanolin DAB      | 17135201         | 66             |
| Caelo           | Lanolin DAB      | 17135302         | 6              |
| Caelo           | Lanolin DAB      | 17135401         | 6              |
| Caelo           | Lanolin DAB      | 1717135101       | 1              |
| Caelo           | Lanolin DAB      | 17222401         | 57             |
| Caelo           | Lanolin DAB      | 17222501         | 1              |
| Caelo           | Lanolin DAB      | 17222601         | 141            |
| Caelo           | Lanolin DAB      | 172226015502     | 1              |
| Caelo           | Lanolin DAB      | 17222691         | 1              |
| Caelo           | Lanolin DAB      | 17222701         | 11             |
| Caelo           | Lanolin DAB      | 1726602          | 1              |
| Caelo           | Lanolin DAB      | 172960025649     | 1              |
| Caelo           | Lanolin DAB      | 17296501         | 52             |
| Caelo           | Lanolin DAB      | 1729651          | 1              |
| Caelo           | Lanolin DAB      | 172966002        | 1              |
| Caelo           | Lanolin DAB      | 17296601         | 39             |
| Caelo           | Lanolin DAB      | 17296602         | 93             |
| Caelo           | Lanolin DAB      | 17296701         | 3              |
| Caelo           | Lanolin DAB      | 17296702         | 8              |
| Caelo           | Lanolin DAB      | 17323317         | 7              |
| Caelo           | Lanolin DAB      | 1735101          | 1              |
| Caelo           | Lanolin DAB      | 1735201          | 2              |
| Caelo           | Lanolin DAB      | 1796501          | 1              |
| Caelo           | Lanolin DAB      | 1796602          | 2              |
| Caelo           | Lanolin DAB      | 17A03-T02-040001 | 1              |
| Caelo           | Lanolin DAB      | 17A03-T03-040004 | 1              |
| Caelo           | Lanolin DAB      | 17A03-T05-040010 | 1              |
| Caelo           | Lanolin DAB      | 17A17296601      | 1              |
| Caelo           | Lanolin DAB      | 17H24T01047688   | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-----------------|------------------|----------------------|----------------|
| Caelo           | Lanolin DAB      | 17H24-T04-047697     | 1              |
| Caelo           | Lanolin DAB      | 17K27-T07-050540     | 2              |
| Caelo           | Lanolin DAB      | 17K27-T07-0550540    | 1              |
| Caelo           | Lanolin DAB      | 18/24-T07-060227     | 1              |
| Caelo           | Lanolin DAB      | 18001870             | 1              |
| Caelo           | Lanolin DAB      | 18003635             | 1              |
| Caelo           | Lanolin DAB      | 18044001             | 11             |
| Caelo           | Lanolin DAB      | 18044101             | 67             |
| Caelo           | Lanolin DAB      | 18044301             | 170            |
| Caelo           | Lanolin DAB      | 180443015739         | 1              |
| Caelo           | Lanolin DAB      | 18044301-L20181115Ma | 1              |
| Caelo           | Lanolin DAB      | 1807202              | 1              |
| Caelo           | Lanolin DAB      | 18092014B            | 1              |
| Caelo           | Lanolin DAB      | 18107020             | 1              |
| Caelo           | Lanolin DAB      | 18107201             | 3              |
| Caelo           | Lanolin DAB      | 18107202             | 80             |
| Caelo           | Lanolin DAB      | 181072020            | 1              |
| Caelo           | Lanolin DAB      | 18107203             | 1              |
| Caelo           | Lanolin DAB      | 18107302             | 13             |
| Caelo           | Lanolin DAB      | 18107401             | 10             |
| Caelo           | Lanolin DAB      | 18124-T07-060227     | 1              |
| Caelo           | Lanolin DAB      | 18230201             | 59             |
| Caelo           | Lanolin DAB      | 18230302             | 42             |
| Caelo           | Lanolin DAB      | 18230303             | 3              |
| Caelo           | Lanolin DAB      | 18242701             | 1              |
| Caelo           | Lanolin DAB      | 18242801             | 12             |
| Caelo           | Lanolin DAB      | 18320302             | 1              |
| Caelo           | Lanolin DAB      | 18325501             | 56             |
| Caelo           | Lanolin DAB      | 188044301            | 1              |
| Caelo           | Lanolin DAB      | 18912181             | 1              |
| Caelo           | Lanolin DAB      | 18D11-T04-054716     | 1              |
| Caelo           | Lanolin DAB      | 18I24-T08-060230     | 1              |
| Caelo           | Lanolin DAB      | 18K05-T04-061769     | 1              |
| Caelo           | Lanolin DAB      | 18L18-T08-062838     | 2              |
| Caelo           | Lanolin DAB      | 18L18-To-062839      | 1              |
| Caelo           | Lanolin DAB      | 190000701            | 1              |
| Caelo           | Lanolin DAB      | 190000702            | 1              |
| Caelo           | Lanolin DAB      | 19000602             | 4              |
| Caelo           | Lanolin DAB      | 19000701             | 15             |
| Caelo           | Lanolin DAB      | 19000702             | 77             |
| Caelo           | Lanolin DAB      | 19000703             | 1              |
| Caelo           | Lanolin DAB      | 1900701              | 1              |
| Caelo           | Lanolin DAB      | 19025302             | 1              |
| Caelo           | Lanolin DAB      | 19071101             | 54             |
| Caelo           | Lanolin DAB      | 19071201             | 94             |
| Caelo           | Lanolin DAB      | 19071301             | 5              |
| Caelo           | Lanolin DAB      | 1917601              | 1              |
| Caelo           | Lanolin DAB      | 19176601             | 79             |
| Caelo           | Lanolin DAB      | 19176701             | 43             |
| Caelo           | Lanolin DAB      | 19176801             | 2              |
| Caelo           | Lanolin DAB      | 19201802             | 2              |
| Caelo           | Lanolin DAB      | 19225203             | 5              |
| Caelo           | Lanolin DAB      | 19225301             | 35             |
| Caelo           | Lanolin DAB      | 19225302             | 30             |
| Caelo           | Lanolin DAB      | 19225303             | 3              |
| Caelo           | Lanolin DAB      | 19225401             | 9              |
| Caelo           | Lanolin DAB      | 19267701             | 55             |
| Caelo           | Lanolin DAB      | 19267802             | 91             |
| Caelo           | Lanolin DAB      | 19701201             | 1              |
| Caelo           | Lanolin DAB      | 1974001              | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Lanolin DAB      | 19C28-T09-065459 | 1              |
| Caelo           | Lanolin DAB      | 200000838002     | 1              |
| Caelo           | Lanolin DAB      | 200000839001     | 1              |
| Caelo           | Lanolin DAB      | 20000389001      | 1              |
| Caelo           | Lanolin DAB      | 2000083002       | 1              |
| Caelo           | Lanolin DAB      | 20000836002      | 1              |
| Caelo           | Lanolin DAB      | 20000837001      | 9              |
| Caelo           | Lanolin DAB      | 20000838001      | 7              |
| Caelo           | Lanolin DAB      | 20000838002      | 16             |
| Caelo           | Lanolin DAB      | 200008390001     | 1              |
| Caelo           | Lanolin DAB      | 20000839001      | 72             |
| Caelo           | Lanolin DAB      | 2000083901       | 1              |
| Caelo           | Lanolin DAB      | 200008391001     | 1              |
| Caelo           | Lanolin DAB      | 20000840001      | 21             |
| Caelo           | Lanolin DAB      | 2000084001       | 2              |
| Caelo           | Lanolin DAB      | 20001974001      | 43             |
| Caelo           | Lanolin DAB      | 20001974002      | 3              |
| Caelo           | Lanolin DAB      | 20002426001      | 22             |
| Caelo           | Lanolin DAB      | 2000246001       | 1              |
| Caelo           | Lanolin DAB      | 20003318001      | 8              |
| Caelo           | Lanolin DAB      | 20003318002      | 47             |
| Caelo           | Lanolin DAB      | 2000331802       | 1              |
| Caelo           | Lanolin DAB      | 200033188002     | 1              |
| Caelo           | Lanolin DAB      | 20004309003      | 2              |
| Caelo           | Lanolin DAB      | 20004311001      | 11             |
| Caelo           | Lanolin DAB      | 2000431101       | 1              |
| Caelo           | Lanolin DAB      | 20004312001      | 32             |
| Caelo           | Lanolin DAB      | 20004312002      | 1              |
| Caelo           | Lanolin DAB      | 2000439003       | 1              |
| Caelo           | Lanolin DAB      | 2000839001       | 1              |
| Caelo           | Lanolin DAB      | 2000839001-2     | 1              |
| Caelo           | Lanolin DAB      | 2003318002       | 1              |
| Caelo           | Lanolin DAB      | 20240912-1       | 1              |
| Caelo           | Lanolin DAB      | 20E12T07080151   | 2              |
| Caelo           | Lanolin DAB      | 21000935001      | 10             |
| Caelo           | Lanolin DAB      | 21000936001      | 25             |
| Caelo           | Lanolin DAB      | 2100093601       | 1              |
| Caelo           | Lanolin DAB      | 21001189002      | 4              |
| Caelo           | Lanolin DAB      | 21002198008      | 1              |
| Caelo           | Lanolin DAB      | 21002199001      | 9              |
| Caelo           | Lanolin DAB      | 21002199002      | 4              |
| Caelo           | Lanolin DAB      | 21003000001      | 2              |
| Caelo           | Lanolin DAB      | 21003000003      | 2              |
| Caelo           | Lanolin DAB      | 21004179001      | 1              |
| Caelo           | Lanolin DAB      | 213Q-01765       | 1              |
| Caelo           | Lanolin DAB      | 21H10-T02090855  | 1              |
| Caelo           | Lanolin DAB      | 23012015B        | 1              |
| Caelo           | Lanolin DAB      | 23051815         | 1              |
| Caelo           | Lanolin DAB      | 23121703         | 1              |
| Caelo           | Lanolin DAB      | 23326501         | 1              |
| Caelo           | Lanolin DAB      | 26052014B        | 1              |
| Caelo           | Lanolin DAB      | 26061401         | 1              |
| Caelo           | Lanolin DAB      | 290316L          | 1              |
| Caelo           | Lanolin DAB      | 2913U-01765      | 1              |
| Caelo           | Lanolin DAB      | 30081806         | 1              |
| Caelo           | Lanolin DAB      | 31121301         | 1              |
| Caelo           | Lanolin DAB      | 3285             | 1              |
| Caelo           | Lanolin DAB      | 3316             | 1              |
| Caelo           | Lanolin DAB      | 3431             | 1              |
| Caelo           | Lanolin DAB      | 3613A-01765      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Caelo                      | Lanolin DAB      | 42(17222601)     | 1              |
| Caelo                      | Lanolin DAB      | 43(17296602)     | 1              |
| Caelo                      | Lanolin DAB      | 44(18107202)     | 1              |
| Caelo                      | Lanolin DAB      | 4413M01765       | 1              |
| Caelo                      | Lanolin DAB      | 4616M-01765      | 1              |
| Caelo                      | Lanolin DAB      | 4817E-01765      | 1              |
| Caelo                      | Lanolin DAB      | 5113A-01765      | 1              |
| Caelo                      | Lanolin DAB      | 5211Q-01765      | 1              |
| Caelo                      | Lanolin DAB      | 5651400          | 1              |
| Caelo                      | Lanolin DAB      | 6003682006       | 1              |
| Caelo                      | Lanolin DAB      | 7071205          | 1              |
| Caelo                      | Lanolin DAB      | 713I-01765       | 1              |
| Caelo                      | Lanolin DAB      | 8004134012       | 1              |
| Caelo                      | Lanolin DAB      | 8061713          | 1              |
| Caelo                      | Lanolin DAB      | 8071503          | 1              |
| Caelo                      | Lanolin DAB      | 8072003          | 1              |
| Caelo                      | Lanolin DAB      | 8072014A         | 1              |
| Caelo                      | Lanolin DAB      | 80816            | 1              |
| Caelo                      | Lanolin DAB      | 8082014B         | 1              |
| Caelo                      | Lanolin DAB      | 9011406          | 1              |
| Caelo                      | Lanolin DAB      | 9041401          | 1              |
| Caelo                      | Lanolin DAB      | 9112013B         | 1              |
| Caelo                      | Lanolin DAB      | CH-B17222601     | 1              |
| Caelo                      | Lanolin DAB      | L-030120-1       | 1              |
| Caeol/ Noweda              | Lanolin DAB      | 18230302         | 2              |
| Caeol/Phönix               | Lanolin DAB      | 19267802         | 2              |
| Caeol/Sanacorp             | Lanolin DAB      | 17135101         | 1              |
| Caeol                      | Lanolin DAB      | 7022014A         | 1              |
| Caeolo/ Noweda             | Lanolin DAB      | 14333701         | 1              |
| Caeolo/Gehe                | Lanolin DAB      | 17135101         | 1              |
| Caeolo/Gehe                | Lanolin DAB      | 17296501         | 1              |
| Caeolo/Gehe                | Lanolin DAB      | 18044101         | 1              |
| Caeolo/Noweda              | Lanolin DAB      | 15193501         | 1              |
| Caeolo/Noweda              | Lanolin DAB      | 16302401         | 1              |
| Caesa / Alliance Health... | Lanolin DAB      | 20004312001      | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 19225301         | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 16189401         | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 19225301         | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 21000935001      | 2              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 200000839001     | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 19267802         | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 20000839001      | 2              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 18230302         | 2              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 19071301         | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 19267802         | 1              |
| Caesar & Loretz GmbH / ... | Lanolin DAB      | 20000839001      | 1              |
| Caesar & Loretz GmbH /AEP  | Lanolin DAB      | 20004312001      | 2              |
| Caesar & Loretz GmbH Hi... | Lanolin DAB      | 16189401         | 1              |
| Caesar & Loretz GmbH, 4... | Lanolin DAB      | 12037101         | 1              |
| Caesar & Loretz GmbH, 4... | Lanolin DAB      | 12260301         | 1              |
| Caesar & Loretz GmbH, 4... | Lanolin DAB      | 13062401         | 1              |
| Caesar & Loretz GmbH, P... | Lanolin DAB      | 20001974001      | 1              |
| Caesar & Loretz GmbH/ G... | Lanolin DAB      | 19267802         | 1              |
| Caesar & Loretz GmbH/ K... | Lanolin DAB      | 19267802         | 1              |
| Caesar & Loretz GmbH/ N... | Lanolin DAB      | 19/09-T09-072602 | 1              |
| Caesar & Loretz GmbH/ N... | Lanolin DAB      | 19176601         | 1              |
| Caesar & Loretz GmbH/ N... | Lanolin DAB      | 19176801         | 1              |
| Caesar & Loretz GmbH/ N... | Lanolin DAB      | 19225203         | 2              |
| Caesar & Loretz GmbH/ N... | Lanolin DAB      | 20000837001      | 1              |
| Caesar & Loretz GmbH/ N... | Lanolin DAB      | 20004312002      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH/ P... | Lanolin DAB      | 20000839001  | 3              |
| Caesar & Loretz GmbH/ S... | Lanolin DAB      | 20000839001  | 1              |
| Caesar & Loretz GmbH/AEP   | Lanolin DAB      | 19071201     | 1              |
| Caesar & Loretz GmbH/AEP   | Lanolin DAB      | 21000936001  | 1              |
| Caesar & Loretz GmbH/AHD   | Lanolin DAB      | 19000702     | 1              |
| Caesar & Loretz GmbH/AHD   | Lanolin DAB      | 19176701     | 1              |
| Caesar & Loretz GmbH/AHD   | Lanolin DAB      | 19225301     | 1              |
| Caesar & Loretz GmbH/AHD   | Lanolin DAB      | 19225302     | 1              |
| Caesar & Loretz GmbH/AHD   | Lanolin DAB      | 20004311001  | 1              |
| Caesar & Loretz GmbH/AHD   | Lanolin DAB      | 21000936001  | 1              |
| Caesar & Loretz GmbH/AHD   | Lanolin DAB      | 21002199002  | 1              |
| Caesar & Loretz GmbH/An... | Lanolin DAB      | 19000702     | 1              |
| Caesar & Loretz GmbH/Fi... | Lanolin DAB      | 18325501     | 1              |
| Caesar & Loretz GmbH/fi... | Lanolin DAB      | 19267701     | 1              |
| Caesar & Loretz GmbH/Fi... | Lanolin DAB      | 20002426001  | 1              |
| Caesar & Loretz GmbH/Fi... | Lanolin DAB      | 20003318002  | 1              |
| Caesar & Loretz GmbH/Fi... | Lanolin DAB      | 20004311001  | 2              |
| Caesar & Loretz GmbH/Fi... | Lanolin DAB      | 21000936001  | 1              |
| Caesar & Loretz GmbH/GEHE  | Lanolin DAB      | 18230302     | 1              |
| Caesar & Loretz GmbH/GEHE  | Lanolin DAB      | 19000702     | 2              |
| Caesar & Loretz GmbH/GEHE  | Lanolin DAB      | 19071101     | 1              |
| Caesar & Loretz GmbH/Gehe  | Lanolin DAB      | 19176601     | 1              |
| Caesar & Loretz GmbH/Gehe  | Lanolin DAB      | 19225301     | 1              |
| Caesar & Loretz GmbH/GEHE  | Lanolin DAB      | 19267701     | 1              |
| Caesar & Loretz GmbH/Gehe  | Lanolin DAB      | 19267802     | 1              |
| Caesar & Loretz GmbH/GEHE  | Lanolin DAB      | 20000839001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Lanolin DAB      | 20003318002  | 2              |
| Caesar & Loretz GmbH/Gehe  | Lanolin DAB      | 20004312001  | 1              |
| Caesar & Loretz GmbH/Ge... | Lanolin DAB      | 19071101     | 1              |
| Caesar & Loretz GmbH/Ge... | Lanolin DAB      | 19225302     | 2              |
| Caesar & Loretz GmbH/Ge... | Lanolin DAB      | 20002426001  | 1              |
| Caesar & Loretz GmbH/Go... | Lanolin DAB      | 19071101     | 1              |
| Caesar & Loretz GmbH/Gö... | Lanolin DAB      | 19000701     | 1              |
| Caesar & Loretz GmbH/Je... | Lanolin DAB      | 19267802     | 2              |
| Caesar & Loretz GmbH/Je... | Lanolin DAB      | 20000839001  | 1              |
| Caesar & Loretz GmbH/Kehr  | Lanolin DAB      | 21000936001  | 1              |
| Caesar & Loretz GmbH/Kr... | Lanolin DAB      | 20000839001  | 1              |
| Caesar & Loretz GmbH/Kr... | Lanolin DAB      | 20003318002  | 1              |
| Caesar & Loretz GmbH/MI... | Lanolin DAB      | 19071201     | 1              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 19176601     | 1              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 18230302     | 1              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 18325501     | 1              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 19000702     | 1              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 19071201     | 5              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 19176601     | 2              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 19267802     | 2              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 20000839001  | 6              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 20001974001  | 3              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 20003318002  | 1              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 21000936001  | 2              |
| Caesar & Loretz GmbH/No... | Lanolin DAB      | 21003000003  | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 19267802     | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20000838002  | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20000839001  | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 21002199001  | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 18230302     | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 19000702     | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 19071201     | 1              |
| Caesar & Loretz GmbH/ph... | Lanolin DAB      | 19176601     | 1              |
| Caesar & Loretz GmbH/ph... | Lanolin DAB      | 19267802     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20000838001      | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20000839001      | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20000840001      | 2              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20001974001      | 3              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20002426001      | 2              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20003318001      | 1              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 20004312001      | 4              |
| Caesar & Loretz GmbH/Ph... | Lanolin DAB      | 21000936001      | 1              |
| Caesar & Loretz GmbH/Sana  | Lanolin DAB      | 20003318002      | 1              |
| Caesar & Loretz GmbH/Sa... | Lanolin DAB      | 18242801         | 1              |
| Caesar & Loretz GmbH/Sa... | Lanolin DAB      | 19176601         | 1              |
| Caesar & Loretz GmbH/sa... | Lanolin DAB      | 19225301         | 1              |
| Caesar & Loretz GmbH/sa... | Lanolin DAB      | 19225401         | 1              |
| Caesar & Loretz GmbH/Sa... | Lanolin DAB      | 19267701         | 1              |
| Caesar & Loretz GmbH/Sa... | Lanolin DAB      | 20000839001      | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 12193701         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 13227601         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 14032001         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 14165601         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 15024102         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 16189401         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 16189501         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 16344401         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 17018701         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 17135101         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 17296601         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18044001         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18044101         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18044301         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18107202         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18107401         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18230201         | 6              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18230302         | 10             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18242801         | 2              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18325501         | 11             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 18L18-T08-062838 | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19000602         | 4              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19000701         | 5              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19000702         | 37             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 190267802        | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19035701         | 3              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19071101         | 32             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19071201         | 30             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19071301         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19176601         | 27             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19176602         | 3              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19176701         | 15             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19176801         | 8              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19201802         | 3              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19206301         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19225203         | 2              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19225301         | 6              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19225302         | 10             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19225303         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19225401         | 2              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19267701         | 21             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19267801         | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19267802         | 20             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 1926802          | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 19J09-T09-072602 | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH       | Lanolin DAB      | 200000840001 | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20000837001  | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20000839001  | 31             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20000840001  | 5              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20001974001  | 15             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20002426001  | 7              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20003318001  | 5              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20003318002  | 19             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20004311001  | 6              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 200043112001 | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20004312001  | 8              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 20004312002  | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21000935001  | 3              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21000936001  | 10             |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21002198002  | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21002199001  | 2              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21002199002  | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21003000001  | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21003000003  | 3              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21003000004  | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 21004182001  | 2              |
| Caesar & Loretz GmbHSan... | Lanolin DAB      | 20000839001  | 1              |
| Caesar & Loretz Hilden     | Lanolin DAB      | 19000701     | 1              |
| Caesar & Loretz Hilden     | Lanolin DAB      | 19176701     | 2              |
| Caesar & Loretz Hilden     | Lanolin DAB      | 20000840001  | 1              |
| Caesar & Loretz Hilden     | Lanolin DAB      | 20002426001  | 1              |
| Caesar & Loretz/ Noweda    | Lanolin DAB      | 17222601     | 1              |
| Caesar & Loretz/AHD        | Lanolin DAB      | 19071201     | 1              |
| Caesar & Loretz/Gehe       | Lanolin DAB      | 18325501     | 7              |
| Caesar & Loretz/Gehe       | Lanolin DAB      | 19225302     | 16             |
| Caesar & Loretz/Geilenk... | Lanolin DAB      | 18230302     | 2              |
| Caesar & Loretz/Geilenk... | Lanolin DAB      | 19176601     | 1              |
| Caesar & Loretz/Geilenk... | Lanolin DAB      | 20000839001  | 1              |
| Caesar & Loretz/Geilenk... | Lanolin DAB      | 20001974001  | 1              |
| Caesar & Loretz/Noweda     | Lanolin DAB      | 17018401     | 1              |
| caesar & Loretz            | Lanolin DAB      | 16054901     | 1              |
| Caesar & Loretz            | Lanolin DAB      | 16189401     | 1              |
| Caesar & Loretz            | Lanolin DAB      | 16302301     | 1              |
| Caesar & Loretz            | Lanolin DAB      | 16302401     | 3              |
| Caesar & Loretz            | Lanolin DAB      | 17296602     | 1              |
| Caesar & Loretz            | Lanolin DAB      | 18044301     | 1              |
| Caesar & Loretz GmbH       | Lanolin DAB      | 12193701     | 1              |
| Caesar Loretz/Fiebig       | Lanolin DAB      | 17222601     | 1              |
| Caesar und Loretz GmbH     | Lanolin DAB      | 18044301     | 1              |
| Caesar&Lorenz / Gehe       | Lanolin DAB      | 19176601     | 2              |
| Caesar&Lorenz              | Lanolin DAB      | 21000936001  | 1              |
| Caesar&Lorenz              | Lanolin DAB      | 21002199001  | 1              |
| Caesar&lorenz,Phoenix      | Lanolin DAB      | 14333602     | 1              |
| caesar&lorenz,Phönix       | Lanolin DAB      | 15405502     | 1              |
| Caesar/Lorenz              | Lanolin DAB      | 14032001     | 1              |
| Caleo/Gehe                 | Lanolin DAB      | 18044101     | 1              |
| Caleo                      | Lanolin DAB      | 16302401     | 1              |
| Caolo / Kehr               | Lanolin DAB      | 19267802     | 2              |
| Castor/Phönix              | Lanolin DAB      | 15255301     | 1              |
| Cealeo/Phönix              | Lanolin DAB      | 17222601     | 1              |
| Cealo/ AHD                 | Lanolin DAB      | 15405501     | 1              |
| Cealo/ AHD                 | Lanolin DAB      | 19267701     | 1              |
| Cealo/ Anzag               | Lanolin DAB      | 17135101     | 1              |
| Cealo/AHD                  | Lanolin DAB      | 16054801     | 2              |
| Cealo/AHD                  | Lanolin DAB      | 1634401      | 1              |

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| <b>Supplier</b>    | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|--------------------|------------------|------------------|----------------|
| Cealo/AHD          | Lanolin DAB      | 18044301         | 1              |
| Cealo/Gehe         | Lanolin DAB      | 17296602         | 1              |
| Cealo/Gehe         | Lanolin DAB      | 19176701         | 1              |
| Cealo/Phoenix      | Lanolin DAB      | 17222601         | 1              |
| cealo              | Lanolin DAB      | 16054701         | 2              |
| Cealo              | Lanolin DAB      | 16054701         | 1              |
| Cealo              | Lanolin DAB      | 17222401         | 2              |
| DAB 2008           | Lanolin DAB      | 11281701         | 1              |
| Delta              | Lanolin DAB      | 17222601         | 1              |
| Dr. Wolff/phönix   | Lanolin DAB      | 17222401         | 1              |
| E Plus             | Lanolin DAB      | 17296602         | 1              |
| Ebert & Jacobi     | Lanolin DAB      | 15405502         | 1              |
| Ebert & Jacobi     | Lanolin DAB      | 18044301         | 1              |
| Ebert & Jacobi     | Lanolin DAB      | 19176601         | 1              |
| Eigene Herstellung | Lanolin DAB      | 10052016         | 1              |
| EuRho              | Lanolin DAB      | 17018401         | 2              |
| Euro OTC           | Lanolin DAB      | 11281901         | 2              |
| Euro OTC           | Lanolin DAB      | 16054901         | 2              |
| Euro OTC           | Lanolin DAB      | 16189401         | 1              |
| Euro OTC           | Lanolin DAB      | 17222401         | 2              |
| Euro OTC           | Lanolin DAB      | 17K27-T07-050540 | 1              |
| Euro OTC           | Lanolin DAB      | 19000702         | 1              |
| Euro OTC           | Lanolin DAB      | 260416v1         | 1              |
| Euro OTC           | Lanolin DAB      | 2781             | 1              |
| Euro OTC           | Lanolin DAB      | 306635           | 1              |
| Euro OTC           | Lanolin DAB      | 4617A-01765      | 1              |
| Fagon/Noweda       | Lanolin DAB      | T09-0726002      | 1              |
| Fagon/Noweda       | Lanolin DAB      | T12-0778005      | 1              |
| Fagron             | Lanolin DAB      |                  | 1              |
| Fagron             | Lanolin DAB      | 1018E-01765      | 1              |
| Fagron             | Lanolin DAB      | 11k18-t01        | 1              |
| Fagron             | Lanolin DAB      | 11K27-T07-050540 | 1              |
| Fagron             | Lanolin DAB      | 12-07780005      | 1              |
| Fagron             | Lanolin DAB      | 12C06-T02        | 1              |
| Fagron             | Lanolin DAB      | 12E22-T04        | 4              |
| Fagron             | Lanolin DAB      | 12E22-T06        | 1              |
| Fagron             | Lanolin DAB      | 12E22-T07        | 1              |
| Fagron             | Lanolin DAB      | 12H01-T01        | 1              |
| Fagron             | Lanolin DAB      | 12H01-T04        | 2              |
| Fagron             | Lanolin DAB      | 13804-T22-0002   | 1              |
| Fagron             | Lanolin DAB      | 13B04-T20-00108  | 1              |
| Fagron             | Lanolin DAB      | 13B04-T20-001084 | 3              |
| Fagron             | Lanolin DAB      | 13B04-T20-0010B4 | 1              |
| Fagron             | Lanolin DAB      | 13B04-T21-001085 | 4              |
| Fagron             | Lanolin DAB      | 13B04-T22-001078 | 2              |
| Fagron             | Lanolin DAB      | 13B12-T01-001087 | 2              |
| Fagron             | Lanolin DAB      | 13E0760-0002     | 1              |
| Fagron             | Lanolin DAB      | 13E07-T18-003392 | 3              |
| Fagron             | Lanolin DAB      | 13E07-T20-003401 | 1              |
| Fagron             | Lanolin DAB      | 13E07-T21-003404 | 1              |
| Fagron             | Lanolin DAB      | 13E07-T22-003407 | 1              |
| Fagron             | Lanolin DAB      | 13E07-Trg-oo3395 | 1              |
| Fagron             | Lanolin DAB      | 13H13-12         | 1              |
| Fagron             | Lanolin DAB      | 13H13-T08_006173 | 1              |
| Fagron             | Lanolin DAB      | 13H13-T08-006173 | 1              |
| Fagron             | Lanolin DAB      | 13H13T11-006183  | 1              |
| Fagron             | Lanolin DAB      | 13H13T11006184   | 1              |
| Fagron             | Lanolin DAB      | 13H13-T12-006187 | 3              |
| Fagron             | Lanolin DAB      | 14166001         | 1              |
| Fagron             | Lanolin DAB      | 14A06T01009011   | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Lanolin DAB      | 14A06-T01-009011  | 4              |
| Fagron          | Lanolin DAB      | 14A06T02          | 3              |
| Fagron          | Lanolin DAB      | 14A06-T02-009014  | 2              |
| Fagron          | Lanolin DAB      | 14A06-T03-009017  | 3              |
| Fagron          | Lanolin DAB      | 14A06-T04-009021  | 1              |
| Fagron          | Lanolin DAB      | 14A06-T06-009028  | 1              |
| Fagron          | Lanolin DAB      | 14E06T07          | 1              |
| Fagron          | Lanolin DAB      | 14E06-T07         | 1              |
| Fagron          | Lanolin DAB      | 14E06-T07-012186  | 5              |
| Fagron          | Lanolin DAB      | 14E06-T09-012194  | 6              |
| Fagron          | Lanolin DAB      | 14E06-T10         | 1              |
| Fagron          | Lanolin DAB      | 14E06-T10-012197  | 1              |
| Fagron          | Lanolin DAB      | 14E06-T11-012200  | 2              |
| Fagron          | Lanolin DAB      | 14E06-TT08-012190 | 1              |
| Fagron          | Lanolin DAB      | 14K11-T01-016976  | 5              |
| Fagron          | Lanolin DAB      | 14K11-T03-016983  | 2              |
| Fagron          | Lanolin DAB      | 14K11-T03-016984  | 2              |
| Fagron          | Lanolin DAB      | 15255201          | 1              |
| Fagron          | Lanolin DAB      | 15405601          | 1              |
| Fagron          | Lanolin DAB      | 15C19-T01-0001    | 1              |
| Fagron          | Lanolin DAB      | 15C19-T01-020809  | 1              |
| Fagron          | Lanolin DAB      | 15c19-t02-020812  | 1              |
| Fagron          | Lanolin DAB      | 15C19-T02-020812  | 8              |
| Fagron          | Lanolin DAB      | 15C19T03          | 1              |
| Fagron          | Lanolin DAB      | 15c19-t03-020815  | 1              |
| Fagron          | Lanolin DAB      | 15C19-T03-020815  | 6              |
| Fagron          | Lanolin DAB      | 15C19-T04-020818  | 1              |
| Fagron          | Lanolin DAB      | 15c19-t05-020821  | 1              |
| Fagron          | Lanolin DAB      | 15C19-T05-020821  | 1              |
| Fagron          | Lanolin DAB      | 15C-9-T02020812   | 1              |
| Fagron          | Lanolin DAB      | 15E04-T01-022046  | 2              |
| Fagron          | Lanolin DAB      | 15G02-T10-024152  | 2              |
| Fagron          | Lanolin DAB      | 15G02-T11-024155  | 2              |
| Fagron          | Lanolin DAB      | 16189401          | 1              |
| Fagron          | Lanolin DAB      | 16302401          | 2              |
| Fagron          | Lanolin DAB      | 16G01-T03-034847  | 7              |
| Fagron          | Lanolin DAB      | 16G01-T04-034850  | 6              |
| Fagron          | Lanolin DAB      | 16G01-T05         | 1              |
| Fagron          | Lanolin DAB      | 16G01-T05-034853  | 7              |
| Fagron          | Lanolin DAB      | 16G01-T06         | 1              |
| Fagron          | Lanolin DAB      | 16G01-T06-034857  | 2              |
| Fagron          | Lanolin DAB      | 16G01-T07-034861  | 6              |
| Fagron          | Lanolin DAB      | 16G01-T08-034867  | 5              |
| Fagron          | Lanolin DAB      | 17018401          | 2              |
| Fagron          | Lanolin DAB      | 17135101          | 1              |
| Fagron          | Lanolin DAB      | 17222401          | 1              |
| Fagron          | Lanolin DAB      | 17A03-040004      | 1              |
| Fagron          | Lanolin DAB      | 17A03-T02-040001  | 5              |
| Fagron          | Lanolin DAB      | 17A03-T02-040010  | 1              |
| Fagron          | Lanolin DAB      | 17A03-T03-040004  | 2              |
| Fagron          | Lanolin DAB      | 17A03-T04-040007  | 3              |
| Fagron          | Lanolin DAB      | 17-A03-T04-040007 | 1              |
| Fagron          | Lanolin DAB      | 17A03-T05-040010  | 3              |
| Fagron          | Lanolin DAB      | 17H24-T01         | 1              |
| Fagron          | Lanolin DAB      | 17H24-T01-047688  | 5              |
| Fagron          | Lanolin DAB      | 17H24t02047691    | 1              |
| Fagron          | Lanolin DAB      | 17H24-T02-047691  | 7              |
| Fagron          | Lanolin DAB      | 17H24-T03-047694  | 2              |
| Fagron          | Lanolin DAB      | 17H24T04047697    | 1              |
| Fagron          | Lanolin DAB      | 17H24-T04-047697  | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Lanolin DAB      | 17H24-T05-047700  | 1              |
| Fagron          | Lanolin DAB      | 17H24-To1-047688  | 1              |
| Fagron          | Lanolin DAB      | 17H24-To4-047697  | 1              |
| Fagron          | Lanolin DAB      | 17K17-T07-050540  | 1              |
| Fagron          | Lanolin DAB      | 17k27-t07-050540  | 2              |
| Fagron          | Lanolin DAB      | 17k27-T07-050540  | 1              |
| Fagron          | Lanolin DAB      | 17K27-T07-050540  | 40             |
| Fagron          | Lanolin DAB      | 17k27-t07-0550540 | 1              |
| Fagron          | Lanolin DAB      | 18044101          | 1              |
| Fagron          | Lanolin DAB      | 18124-T07-060227  | 1              |
| Fagron          | Lanolin DAB      | 1824-T08-060230   | 1              |
| Fagron          | Lanolin DAB      | 18D11-T03-054713  | 2              |
| Fagron          | Lanolin DAB      | 18D11-T04-054716  | 4              |
| Fagron          | Lanolin DAB      | 18I24-T07-060227  | 1              |
| Fagron          | Lanolin DAB      | 18I24-T08-060230  | 1              |
| Fagron          | Lanolin DAB      | 18k05_t04_061769  | 1              |
| Fagron          | Lanolin DAB      | 18K05-T04061769   | 1              |
| Fagron          | Lanolin DAB      | 18K05-T04-061769  | 5              |
| Fagron          | Lanolin DAB      | 18K05-T05-061772  | 7              |
| Fagron          | Lanolin DAB      | 18L18-T08         | 2              |
| Fagron          | Lanolin DAB      | 18118-T08-062838  | 2              |
| Fagron          | Lanolin DAB      | 18L18-T08-062838  | 24             |
| Fagron          | Lanolin DAB      | 18L18-T08-062839  | 12             |
| Fagron          | Lanolin DAB      | 19267701          | 2              |
| Fagron          | Lanolin DAB      | 19C28-T09         | 1              |
| Fagron          | Lanolin DAB      | 19c28-T09-065459  | 1              |
| Fagron          | Lanolin DAB      | 19C28-T09-065459  | 11             |
| Fagron          | Lanolin DAB      | 19C28T09065460    | 1              |
| Fagron          | Lanolin DAB      | 19C28T09-065460   | 4              |
| Fagron          | Lanolin DAB      | 19C28-T09-065460  | 8              |
| Fagron          | Lanolin DAB      | 19C28-T09-265459  | 1              |
| Fagron          | Lanolin DAB      | 19C28-Tog-065459  | 2              |
| Fagron          | Lanolin DAB      | 19C28-Tog-065460  | 1              |
| Fagron          | Lanolin DAB      | 19H12-T03-070722  | 1              |
| Fagron          | Lanolin DAB      | 19H12T03070772    | 1              |
| Fagron          | Lanolin DAB      | 19H12-T03-070772  | 19             |
| Fagron          | Lanolin DAB      | 19H12T03070773    | 2              |
| Fagron          | Lanolin DAB      | 19H12-T03-070773  | 15             |
| Fagron          | Lanolin DAB      | 19J09-T09         | 1              |
| Fagron          | Lanolin DAB      | 19J09-T09072602   | 1              |
| Fagron          | Lanolin DAB      | 19J09-T09-072602  | 9              |
| Fagron          | Lanolin DAB      | 19J09-T-09-072602 | 1              |
| Fagron          | Lanolin DAB      | 19J09-T09-072603  | 3              |
| Fagron          | Lanolin DAB      | 19Jo9-To9-o726o2  | 1              |
| Fagron          | Lanolin DAB      | 19L18-T08-062839  | 1              |
| Fagron          | Lanolin DAB      | 2014173           | 1              |
| Fagron          | Lanolin DAB      | 20c19-t12-077805  | 1              |
| Fagron          | Lanolin DAB      | 20C19T12077805    | 1              |
| Fagron          | Lanolin DAB      | 20C19-T12-077805  | 20             |
| Fagron          | Lanolin DAB      | 20C19-T12-077806  | 1              |
| Fagron          | Lanolin DAB      | 20E12-T07_080151  | 1              |
| Fagron          | Lanolin DAB      | 20E12-T07-080151  | 5              |
| Fagron          | Lanolin DAB      | 20E12-T07-080152  | 7              |
| Fagron          | Lanolin DAB      | 20E12-To17080151  | 1              |
| Fagron          | Lanolin DAB      | 20J14-T13-083295  | 4              |
| Fagron          | Lanolin DAB      | 20J14-T13-083296  | 1              |
| Fagron          | Lanolin DAB      | 21B12-T04-086353  | 2              |
| Fagron          | Lanolin DAB      | 21B12-T04-086354  | 3              |
| Fagron          | Lanolin DAB      | 21B12-T04-086353  | 1              |
| Fagron          | Lanolin DAB      | 21H10-T02-090855  | 1              |

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*continued from previous page*

| <b>Supplier</b>  | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|------------------|------------------|------------------|----------------|
| Fagron           | Lanolin DAB      | 21hto702090855   | 1              |
| Fagron           | Lanolin DAB      | ngH12-T03-070773 | 1              |
| Fagron           | Lanolin DAB      | T02-0001         | 1              |
| Fagron           | Lanolin DAB      | T02-0908505      | 1              |
| Fagron           | Lanolin DAB      | T03-0707702      | 1              |
| Fagron           | Lanolin DAB      | T03-0707703      | 1              |
| Fagron           | Lanolin DAB      | T04-0863504      | 1              |
| Fagron           | Lanolin DAB      | T07-0801501      | 1              |
| Fagron           | Lanolin DAB      | T07-0801502      | 3              |
| Fagron           | Lanolin DAB      | t09-0726002      | 1              |
| Fagron           | Lanolin DAB      | T09-0726002      | 3              |
| Fagron           | Lanolin DAB      | T09-0726003      | 2              |
| Fagron           | Lanolin DAB      | T12-0078006      | 1              |
| Fagron           | Lanolin DAB      | T12-0778005      | 5              |
| Fagron           | Lanolin DAB      | T12-0778006      | 2              |
| Fagron           | Lanolin DAB      | T13-0832906      | 1              |
| Fargo            | Lanolin DAB      | 19C28-Tog-065459 | 1              |
| Fargon/Noweda    | Lanolin DAB      | 17K27-T07-050540 | 1              |
| Fargon/Noweda    | Lanolin DAB      | 18K05-T05-061772 | 1              |
| Fargon/Phönix    | Lanolin DAB      | 19H-12T03-070773 | 2              |
| Fargon/Phönix    | Lanolin DAB      | T03-0707702      | 1              |
| Fargon           | Lanolin DAB      | 14k11-t01-016976 | 1              |
| Fargon           | Lanolin DAB      | 16G01-T08-034867 | 1              |
| Fargon/Noweda    | Lanolin DAB      | 15C19-T01-020809 | 1              |
| Fiebig           | Lanolin DAB      | 15405702         | 2              |
| Fiebig           | Lanolin DAB      | 16189701         | 1              |
| Fiebig           | Lanolin DAB      | 16302601         | 1              |
| Fiebig           | Lanolin DAB      | 16344401         | 1              |
| Fiebig           | Lanolin DAB      | 17135201         | 1              |
| Fiebig           | Lanolin DAB      | 17135401         | 1              |
| Fiebig           | Lanolin DAB      | 17222401         | 1              |
| Fiebig           | Lanolin DAB      | 17222701         | 1              |
| Fiebig           | Lanolin DAB      | 17296702         | 1              |
| Fiebig           | Lanolin DAB      | 18044001         | 2              |
| Fiebig           | Lanolin DAB      | 18044101         | 1              |
| Fiebig           | Lanolin DAB      | 18044301         | 4              |
| Fiebig           | Lanolin DAB      | 181072202        | 1              |
| Fiebig           | Lanolin DAB      | 18107302         | 1              |
| Fiebig           | Lanolin DAB      | 18107401         | 1              |
| Fiebig           | Lanolin DAB      | 18325501         | 4              |
| Fiebig           | Lanolin DAB      | 19176601         | 4              |
| Fiebig           | Lanolin DAB      | 20000839001      | 1              |
| Fragon / Phoenix | Lanolin DAB      | 19C28-Tog-065460 | 1              |
| Fragon / PhönixF | Lanolin DAB      | 18L18-T08-062838 | 1              |
| Fragon/Anzag     | Lanolin DAB      | 18D11-T04-054716 | 1              |
| GEHE 26.11.2014  | Lanolin DAB      | 14A06-T04-009021 | 1              |
| Gehe 29.07.14    | Lanolin DAB      | 14032001         | 1              |
| Gehe am 21.2.14  | Lanolin DAB      | 13326501         | 2              |
| Gehe amax        | Lanolin DAB      | 18107202         | 1              |
| Gehe amax        | Lanolin DAB      | 18230302         | 1              |
| Gehe amax        | Lanolin DAB      | 19267802         | 1              |
| Gehe             | Lanolin DAB      | 12193701         | 1              |
| Gehe             | Lanolin DAB      | 13062501         | 1              |
| Gehe             | Lanolin DAB      | 13326601         | 2              |
| Gehe             | Lanolin DAB      | 13B04-T20-001084 | 1              |
| Gehe             | Lanolin DAB      | 14032001         | 1              |
| Gehe             | Lanolin DAB      | 14165601         | 1              |
| Gehe             | Lanolin DAB      | 14E06-T07-012186 | 1              |
| GEHE             | Lanolin DAB      | 14K11-T03-016984 | 1              |
| Gehe             | Lanolin DAB      | 15024102         | 1              |

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*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Gehe                       | Lanolin DAB      | 15024301         | 1              |
| Gehe                       | Lanolin DAB      | 15255201         | 2              |
| Gehe                       | Lanolin DAB      | 15255202         | 1              |
| Gehe                       | Lanolin DAB      | 15255302         | 1              |
| Gehe                       | Lanolin DAB      | 16054602         | 1              |
| Gehe                       | Lanolin DAB      | 16054701         | 1              |
| Gehe                       | Lanolin DAB      | 16054702         | 1              |
| Gehe                       | Lanolin DAB      | 16054801         | 1              |
| GEHE                       | Lanolin DAB      | 16189501         | 2              |
| Gehe                       | Lanolin DAB      | 16302301         | 1              |
| Gehe                       | Lanolin DAB      | 16344401         | 1              |
| Gehe                       | Lanolin DAB      | 17000364         | 1              |
| Gehe                       | Lanolin DAB      | 17018401         | 2              |
| GEHE                       | Lanolin DAB      | 17018401         | 1              |
| Gehe                       | Lanolin DAB      | 17018701         | 1              |
| GEHE                       | Lanolin DAB      | 17018701         | 1              |
| Gehe                       | Lanolin DAB      | 17043202         | 1              |
| GEHE                       | Lanolin DAB      | 17135101         | 1              |
| Gehe                       | Lanolin DAB      | 17135201         | 1              |
| Gehe                       | Lanolin DAB      | 17222601         | 1              |
| Gehe                       | Lanolin DAB      | 17H24-T02-047691 | 1              |
| GEHE                       | Lanolin DAB      | 18044301         | 3              |
| GEHE                       | Lanolin DAB      | 18107202         | 2              |
| Gehe                       | Lanolin DAB      | 18230201         | 1              |
| Gehe                       | Lanolin DAB      | 18325501         | 1              |
| Gehe                       | Lanolin DAB      | 18L18-T08-062838 | 1              |
| Gehe                       | Lanolin DAB      | 18L18To8062838   | 1              |
| Gehe                       | Lanolin DAB      | 19000702         | 1              |
| Gehe                       | Lanolin DAB      | 19071101         | 2              |
| Gehe                       | Lanolin DAB      | 19267802         | 1              |
| Gehe                       | Lanolin DAB      | 20000839001      | 2              |
| Gehe                       | Lanolin DAB      | 301170           | 1              |
| GEHE                       | Lanolin DAB      | 309000           | 1              |
| H.Lamotte                  | Lanolin DAB      | 8002875002       | 1              |
| H.Lamotte                  | Lanolin DAB      | 8004134012       | 2              |
| Hänseler                   | Lanolin DAB      |                  | 2              |
| harn                       | Lanolin DAB      | 17222601         | 1              |
| Hedinger                   | Lanolin DAB      | 16302301         | 2              |
| Hedinger                   | Lanolin DAB      | 19071201         | 1              |
| Henry Lamotte /AHD         | Lanolin DAB      | 8004134012       | 2              |
| Henry Lamotte Oils / AHD   | Lanolin DAB      | 5375500          | 3              |
| Henry Lamotte Oils GmbH... | Lanolin DAB      | 5264900          | 1              |
| Henry Lamotte Oils GmbH... | Lanolin DAB      | 5375500          | 2              |
| Henry Lamotte Oils GmbH... | Lanolin DAB      | 6000746001       | 2              |
| Henry Lamotte Oils GmbH... | Lanolin DAB      | 5860800          | 1              |
| Henry Lamotte Oils GmbH    | Lanolin DAB      | 6000746001       | 1              |
| Henry Lamotte Oils GmbH    | Lanolin DAB      | 6003682006       | 1              |
| Henry Lamotte Oils GmbH    | Lanolin DAB      | 8002875002       | 3              |
| Henry Lamotte Oils         | Lanolin DAB      | 1000010940       | 2              |
| Henry Lamotte Oils         | Lanolin DAB      | 5264900          | 1              |
| Henry Lamotte Oils         | Lanolin DAB      | 5316400          | 1              |
| Henry Lamotte/ Noweda      | Lanolin DAB      | 5517200          | 1              |
| Henry Lamotte/ Noweda      | Lanolin DAB      | 5651400          | 2              |
| Henry Lamotte/ Noweda      | Lanolin DAB      | 60000746001      | 1              |
| Henry Lamotte/ Noweda      | Lanolin DAB      | 6000746001       | 1              |
| Henry Lamotte/Noweda       | Lanolin DAB      | 5860800          | 1              |
| Henry Lamotte/Noweda       | Lanolin DAB      | 6003682006       | 3              |
| Henry Lamotte/Noweda       | Lanolin DAB      | 8002875002       | 1              |
| Henry Lamotte              | Lanolin DAB      | 1000014901       | 1              |
| Henry Lamotte              | Lanolin DAB      | 16302401         | 1              |

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| <b>Supplier</b>         | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-------------------------|------------------|------------------|----------------|
| Henry Lamotte           | Lanolin DAB      | 5375500          | 2              |
| Henry Lamotte           | Lanolin DAB      | 5860800          | 1              |
| Henry Lamotte           | Lanolin DAB      | 8002875002       | 1              |
| Henry/AHD               | Lanolin DAB      | 5651400          | 1              |
| Henry/Fiebig            | Lanolin DAB      | 5860800          | 3              |
| Henry                   | Lanolin DAB      | 5316400          | 1              |
| HenryLamotte/Alliance   | Lanolin DAB      | 5517200          | 1              |
| Hubertus Apotheke       | Lanolin DAB      | 16302401         | 1              |
| Ichthyol/Noveda         | Lanolin DAB      | 17135101         | 1              |
| ichthyol                | Lanolin DAB      | 14334001         | 1              |
| Ichthyol-Gesellschaft   | Lanolin DAB      | 16054701         | 1              |
| Jenne 20.04.20 EK:16,45 | Lanolin DAB      | 211019L          | 1              |
| Jenne                   | Lanolin DAB      | 17296501         | 1              |
| Jenne                   | Lanolin DAB      | 18044101         | 1              |
| Jenne                   | Lanolin DAB      | 18044301         | 1              |
| Jenne                   | Lanolin DAB      | 18230201         | 1              |
| Kehr                    | Lanolin DAB      | 17135201         | 1              |
| Kehr                    | Lanolin DAB      | 17296501         | 1              |
| Kehr                    | Lanolin DAB      | 18003635         | 1              |
| Klosterring             | Lanolin DAB      | 16302202         | 1              |
| Krieger                 | Lanolin DAB      | 133266012x       | 1              |
| Krieger                 | Lanolin DAB      | 17222601         | 2              |
| Krieger                 | Lanolin DAB      | 19176701         | 1              |
| L12                     | Lanolin DAB      | 17135101         | 1              |
| L12                     | Lanolin DAB      | 17222601         | 1              |
| L12                     | Lanolin DAB      | 18230302         | 1              |
| Lamotte / Anzag         | Lanolin DAB      | 8002875002       | 1              |
| Lamotte / AHC           | Lanolin DAB      | 1000010940       | 2              |
| Lamotte / AHC           | Lanolin DAB      | 8002875003       | 1              |
| Lamotte / AHC           | Lanolin DAB      | 8004134013       | 1              |
| Lamotte / AHD EK 6,75   | Lanolin DAB      | 5860800          | 1              |
| Lamotte GmbH            | Lanolin DAB      | 6000746001       | 1              |
| Lamotte/ Sanacorp       | Lanolin DAB      | 15405601         | 1              |
| Lamotte/ADH             | Lanolin DAB      | 1000014901       | 3              |
| Lamotte/Alliance        | Lanolin DAB      | 5517200          | 1              |
| Lamotte/Anzag           | Lanolin DAB      | 5447700          | 1              |
| Lamotte/Anzag           | Lanolin DAB      | 8004134012       | 1              |
| Lamotte/Noweda          | Lanolin DAB      | 5152000          | 1              |
| Lamotte/Noweda          | Lanolin DAB      | 5264900          | 1              |
| Lamotte/Noweda          | Lanolin DAB      | 5375500          | 1              |
| Lamotte/Noweda          | Lanolin DAB      | 8005213004       | 1              |
| Lamotte                 | Lanolin DAB      | 5651400          | 1              |
| Lamotte                 | Lanolin DAB      | 5860800          | 1              |
| Lamotte                 | Lanolin DAB      | 5860900          | 1              |
| Lamotte                 | Lanolin DAB      | 6000746001       | 2              |
| Lamotte                 | Lanolin DAB      | 600746001        | 1              |
| Maros Arznei            | Lanolin DAB      | 18044101         | 1              |
| Midas                   | Lanolin DAB      | 17222601         | 1              |
| Midas                   | Lanolin DAB      | 18044101         | 1              |
| Midas                   | Lanolin DAB      | 18044301         | 1              |
| Nachprüfung             | Lanolin DAB      | 123456           | 1              |
| Noveda                  | Lanolin DAB      | 20C19-T12-077805 | 1              |
| Noweda 5.6.2019         | Lanolin DAB      | 19000702         | 1              |
| Noweda                  | Lanolin DAB      | 12065101         | 1              |
| Noweda                  | Lanolin DAB      | 13102802         | 1              |
| Noweda                  | Lanolin DAB      | 13227701         | 1              |
| Noweda                  | Lanolin DAB      | 13345902         | 1              |
| Noweda                  | Lanolin DAB      | 14032301         | 1              |
| Noweda                  | Lanolin DAB      | 14165701         | 1              |
| Noweda                  | Lanolin DAB      | 14333901         | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Noweda                     | Lanolin DAB      | 15255501         | 2              |
| Noweda                     | Lanolin DAB      | 15255601         | 2              |
| Noweda                     | Lanolin DAB      | 15405501         | 1              |
| Noweda                     | Lanolin DAB      | 15C19-T02-020812 | 1              |
| Noweda                     | Lanolin DAB      | 16189401         | 1              |
| Noweda                     | Lanolin DAB      | 17018401         | 1              |
| Noweda                     | Lanolin DAB      | 17135101         | 1              |
| Noweda                     | Lanolin DAB      | 17222601         | 1              |
| Noweda                     | Lanolin DAB      | 17296501         | 2              |
| Noweda                     | Lanolin DAB      | 17A03-T02-040001 | 1              |
| Noweda                     | Lanolin DAB      | 18044301         | 2              |
| Noweda                     | Lanolin DAB      | 18107302         | 1              |
| Noweda                     | Lanolin DAB      | 18230201         | 1              |
| Noweda                     | Lanolin DAB      | 19071101         | 3              |
| Noweda                     | Lanolin DAB      | 19071201         | 2              |
| Noweda                     | Lanolin DAB      | 19176601         | 3              |
| Noweda                     | Lanolin DAB      | 19225301         | 2              |
| Noweda                     | Lanolin DAB      | 19267802         | 1              |
| Noweda                     | Lanolin DAB      | 19J09-T09-072602 | 2              |
| Noweda                     | Lanolin DAB      | 19J09-T09-072603 | 1              |
| Noweda                     | Lanolin DAB      | 20000838002      | 1              |
| Noweda                     | Lanolin DAB      | 20001974001      | 1              |
| Noweda                     | Lanolin DAB      | 20C19-T12-077805 | 2              |
| Noweda                     | Lanolin DAB      | 7102013A         | 1              |
| Phoenix 05.07.2019 4,65EUR | Lanolin DAB      | 18L18-T08-062838 | 1              |
| Phoenix 10.04.2014         | Lanolin DAB      | 14032001         | 2              |
| Phoenix 16.06.2017 4,33EUR | Lanolin DAB      | 17018401         | 1              |
| Phoenix WE:04.11.17 100... | Lanolin DAB      | 17135101         | 1              |
| Phoenix                    | Lanolin DAB      | 16054901         | 2              |
| Phoenix                    | Lanolin DAB      | 16189401         | 1              |
| Phoenix                    | Lanolin DAB      | 16302301         | 1              |
| Phoenix                    | Lanolin DAB      | 17018503         | 1              |
| Phoenix                    | Lanolin DAB      | 17018701         | 1              |
| Phoenix                    | Lanolin DAB      | 1701870118044101 | 1              |
| Phoenix                    | Lanolin DAB      | 17222601         | 1              |
| Phoenix                    | Lanolin DAB      | 18107202         | 1              |
| Phoenix                    | Lanolin DAB      | 18242801         | 1              |
| Phoenix                    | Lanolin DAB      | 19071201         | 1              |
| Phoenix                    | Lanolin DAB      | 19J09-T09-072603 | 1              |
| Phoenix                    | Lanolin DAB      | 20000839001      | 1              |
| Phoenix                    | Lanolin DAB      | 20001974001      | 1              |
| Phoenix                    | Lanolin DAB      | 20004312001      | 1              |
| Phoenix                    | Lanolin DAB      | 20C19-T12-077805 | 1              |
| Phoenix                    | Lanolin DAB      | 20E12-T07-080152 | 1              |
| Phoenix                    | Lanolin DAB      | 21002199001      | 1              |
| Phoenix                    | Lanolin DAB      | 218212-T04       | 1              |
| Phoenix                    | Lanolin DAB      | 3111             | 1              |
| Phoenix                    | Lanolin DAB      | 3230             | 1              |
| Phoenix                    | Lanolin DAB      | 3234             | 1              |
| Phönix 16.10.2019          | Lanolin DAB      | 19176601         | 1              |
| Phönix Gotha               | Lanolin DAB      | 12193901         | 1              |
| Phönix Gotha               | Lanolin DAB      | 12308802         | 1              |
| Phönix Gotha               | Lanolin DAB      | 13062401         | 2              |
| Phönix Gotha               | Lanolin DAB      | 13227701         | 2              |
| Phönix Gotha               | Lanolin DAB      | 14032101         | 1              |
| Phönix Gotha               | Lanolin DAB      | 14165901         | 2              |
| Phönix Gotha               | Lanolin DAB      | 14334001         | 1              |
| Phönix Gotha               | Lanolin DAB      | 15024201         | 2              |
| Phönix Gotha               | Lanolin DAB      | 15193401         | 1              |
| Phönix Gotha               | Lanolin DAB      | 18001870         | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Phönix Gotha               | Lanolin DAB      | 19176701         | 1              |
| phönix                     | Lanolin DAB      |                  | 1              |
| Phönix                     | Lanolin DAB      | 11113902         | 1              |
| Phönix                     | Lanolin DAB      | 13062401         | 1              |
| Phönix                     | Lanolin DAB      | 13326701         | 1              |
| Phönix                     | Lanolin DAB      | 14165601         | 1              |
| Phönix                     | Lanolin DAB      | 15024102         | 1              |
| Phönix                     | Lanolin DAB      | 16054901         | 1              |
| phönix                     | Lanolin DAB      | 16189401         | 2              |
| Phönix                     | Lanolin DAB      | 16344401         | 1              |
| Phönix                     | Lanolin DAB      | 17000363         | 1              |
| Phönix                     | Lanolin DAB      | 17000364         | 1              |
| phönix                     | Lanolin DAB      | 17135101         | 1              |
| Phönix                     | Lanolin DAB      | 17222601         | 1              |
| PHÖNIX                     | Lanolin DAB      | 17222601         | 1              |
| Phönix                     | Lanolin DAB      | 17296601         | 1              |
| PHÖNIX                     | Lanolin DAB      | 17296602         | 2              |
| Phönix                     | Lanolin DAB      | 17K27-T07-050540 | 2              |
| Phönix                     | Lanolin DAB      | 18230201         | 1              |
| Phönix                     | Lanolin DAB      | 18230302         | 1              |
| Phönix                     | Lanolin DAB      | 18325501         | 2              |
| Phönix                     | Lanolin DAB      | 19071101         | 3              |
| Phönix                     | Lanolin DAB      | 19176701         | 2              |
| Phönix                     | Lanolin DAB      | 19267701         | 1              |
| Phönix                     | Lanolin DAB      | 19H12-T03-070772 | 6              |
| Phönix                     | Lanolin DAB      | 200002426001     | 1              |
| Phönix                     | Lanolin DAB      | 20004312001      | 1              |
| PHÖNIX                     | Lanolin DAB      | 20004312001      | 1              |
| Phönix                     | Lanolin DAB      | 20E12-T07-080151 | 1              |
| Phönix                     | Lanolin DAB      | 306635           | 2              |
| Phönix                     | Lanolin DAB      | 3171             | 1              |
| phönix                     | Lanolin DAB      | 34/AKD2          | 1              |
| Phönix                     | Lanolin DAB      | 5316400          | 1              |
| Raben-Apotheke Mildenau    | Lanolin DAB      | 282976           | 1              |
| Rabenapotheker             | Lanolin DAB      | 288634           | 2              |
| Reichelt                   | Lanolin DAB      | 17001447         | 1              |
| Sanacorp W.E: 31.03.20...  | Lanolin DAB      | 17222601         | 1              |
| Sanacorp 31.12.14 EK 3,76  | Lanolin DAB      | 14333602         | 2              |
| Sanacorp henry lamotte ... | Lanolin DAB      | 8004134012       | 2              |
| Sanacorp Ulm               | Lanolin DAB      | 18325501         | 2              |
| Sanacorp, 25.2.17, 4,30EUR | Lanolin DAB      | 16302301         | 1              |
| Sanacorp,04.04.17, 4,30EUR | Lanolin DAB      | 17018401         | 1              |
| Sanacorp/ Henry Lamotte... | Lanolin DAB      | 5651400          | 1              |
| Sanacorp                   | Lanolin DAB      | 12193701         | 2              |
| Sanacorp                   | Lanolin DAB      | 12260301         | 1              |
| Sanacorp                   | Lanolin DAB      | 12308801         | 1              |
| Sanacorp                   | Lanolin DAB      | 12308802         | 2              |
| Sanacorp                   | Lanolin DAB      | 13062401         | 2              |
| Sanacorp                   | Lanolin DAB      | 13062501         | 1              |
| Sanacorp                   | Lanolin DAB      | 13227601         | 2              |
| sanacorp                   | Lanolin DAB      | 14032001         | 1              |
| Sanacorp                   | Lanolin DAB      | 14032301         | 1              |
| sanacorp                   | Lanolin DAB      | 14165901         | 1              |
| Sanacorp                   | Lanolin DAB      | 14165901         | 1              |
| Sanacorp                   | Lanolin DAB      | 14333602         | 2              |
| Sanacorp                   | Lanolin DAB      | 14333701         | 1              |
| Sanacorp                   | Lanolin DAB      | 14334001         | 1              |
| Sanacorp                   | Lanolin DAB      | 15193401         | 1              |
| Sanacorp                   | Lanolin DAB      | 15255301         | 1              |

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| Supplier                  | Substance   | Batch       | Spectra |
|---------------------------|-------------|-------------|---------|
| Sanacorp                  | Lanolin DAB | 16054801    | 1       |
| Sanacorp                  | Lanolin DAB | 17000364    | 3       |
| Sanacorp                  | Lanolin DAB | 17001447    | 4       |
| Sanacorp                  | Lanolin DAB | 17018701    | 1       |
| Sanacorp                  | Lanolin DAB | 17078401    | 1       |
| Sanacorp                  | Lanolin DAB | 17135101    | 2       |
| Sanacorp                  | Lanolin DAB | 17135302    | 1       |
| Sanacorp                  | Lanolin DAB | 17222401    | 1       |
| Sanacorp                  | Lanolin DAB | 17222601    | 3       |
| Sanacorp                  | Lanolin DAB | 18003635    | 3       |
| Sanacorp                  | Lanolin DAB | 18044101    | 1       |
| Sanacorp                  | Lanolin DAB | 18230201    | 1       |
| Sanacorp                  | Lanolin DAB | 18325501    | 4       |
| Sanacorp                  | Lanolin DAB | 19000701    | 1       |
| Sanacorp                  | Lanolin DAB | 19000702    | 2       |
| SANACORP                  | Lanolin DAB | 19000702    | 2       |
| Sanacorp                  | Lanolin DAB | 19071101    | 1       |
| Sanacorp                  | Lanolin DAB | 19176601    | 3       |
| Sanacorp                  | Lanolin DAB | 19225301    | 1       |
| Sanacorp                  | Lanolin DAB | 19225302    | 1       |
| Sanacorp                  | Lanolin DAB | 19267701    | 2       |
| Sanacorp                  | Lanolin DAB | 19267802    | 3       |
| Sanacorp                  | Lanolin DAB | 20J14-T13   | 3       |
| Sanacorp                  | Lanolin DAB | 21B12-T04   | 1       |
| Sanacorp                  | Lanolin DAB | 305411      | 2       |
| Sanacorp                  | Lanolin DAB | 306634      | 1       |
| Sanacorp                  | Lanolin DAB | 306635      | 1       |
| Sanacorp                  | Lanolin DAB | 34/AKD1     | 1       |
| Sanacorp                  | Lanolin DAB | T13-0832906 | 1       |
| SanacorpWE:12.12.2016 ... | Lanolin DAB | 16189401    | 1       |
| SanacorpWE:27.01.2017 ... | Lanolin DAB | 16302301    | 1       |
| Spangro_06.11.2018        | Lanolin DAB | 18044301    | 1       |
| Th. Geyer                 | Lanolin DAB | 17018701    | 2       |
| THCPharm/Noweda           | Lanolin DAB | 250696      | 1       |
| UNISAN                    | Lanolin DAB | 5651400     | 5       |
| VDL                       | Lanolin DAB | 12037301    | 1       |
| VDL                       | Lanolin DAB | 12065101/32 | 1       |
| WE:06.04.2016 Phönix      | Lanolin DAB | 16054901    | 3       |
| WE:18.03.2016 Sanacorp    | Lanolin DAB | 15405502    | 1       |

- 283038 spectra from 1294 *Apo-Ident* customers from a total of 51300 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Lanolin DAB* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Lanolin DAB* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 560           | 10             | 66 589        |
| Type B | 0              | 1190          | 0              | 106 093       |
| Type C | 0              | 5489          | 182            | 283 038       |

The substance/substance group *Lanolin DAB* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 98.2456 % (> 97.7193 %)  |
| Type B | 100.0000 % (> 99.9674 %) | 100.0000 % (> 99.4958 %) |
| Type C | 100.0000 % (> 99.6871 %) | 96.7907 % (> 96.7378 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Lanolin DAB* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                   | Distance in main model | Distance in second-stage model |
|-----------------------------|------------------------|--------------------------------|
| Cooling cream DAB           | 19.15                  | —                              |
| Basis Cordes® RK            | 32.46                  | —                              |
| Cooling ointment DAB 6      | 34.78                  | —                              |
| Clotrimazole 10% Cordes® RK | 61.45                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Lanolin DAB* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31003     | 32863               | 10.32                        | 25.52                           |
| 31439     | 31439               | 0.00                         | 37.23                           |
| 31746     | 31794               | 3.66                         | 26.81                           |
| 31794     | 31794               | 0.00                         | 26.41                           |
| 31795     | 31794               | 2.00                         | 27.24                           |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31798            | 31794                      | 4.02                                | 28.02                                  |
| 32863            | 32863                      | 0.00                                | 27.87                                  |
| 34518            | 31794                      | 9.15                                | 22.80                                  |
| 34597            | 31794                      | 2.75                                | 22.77                                  |
| 34686            | 31794                      | 4.25                                | 25.13                                  |
| 35373            | 35373                      | 0.00                                | 22.04                                  |
| 35643            | 35643                      | 0.00                                | 25.01                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Lavender oil / Clary sage oil</b>                             |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30861-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Lavender oil / Clary sage oil; Clary sage oil; Lavandulae aetheroleum; Lavender oil; Oleum salviae sclarea

### Special notes

When selecting the *Lavender oil / Clary sage oil* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group     | Type A | Type B | Type C |
|-------------------------------|--------|--------|--------|
| Lavender oil / Clary sage oil | 15     | 15     | 513    |

## Second-stage model

For differentiation of the substance/substance group *Lavender oil / Clary sage oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Lavender oil / Clary sage oil*:

| Supplier | Substance      | Batch            | Sample ID | Spectra | Certificate        |
|----------|----------------|------------------|-----------|---------|--------------------|
| Caelo    | Clary sage oil | 13334802         | 31413     | 40      | 1509218            |
| Caelo    | Clary sage oil | 1431102          | 31668     | 60      | 20141031           |
| Caelo    | Lavender oil   | 12201206         | 30861     | 40      | 20120721           |
| Caelo    | Lavender oil   | 12201213         | 31237     | 30      | 20120721           |
| Caelo    | Lavender oil   | 12334514         | 31238     | 30      | 20121120           |
| Caelo    | Lavender oil   | 13252605         | 31416     | 40      | 20130802           |
| Caelo    | Lavender oil   | 13252207         | 31422     | 60      | 20130802           |
| Euro OTC | Lavender oil   | 1312008-01       | 31528     | 60      | AR-15-FG-000438-01 |
| Euro OTC | Lavender oil   | 1507031          | 31721     | 60      | 0000010673         |
| Euro OTC | Lavender oil   | 1510040          | 31800     | 60      | 20151119*          |
| Euro OTC | Lavender oil   | 1608026          | 32710     | 40      | 20160902*          |
| Euro OTC | Lavender oil   | 2008011          | 35120     | 40      | 20200929*          |
| Euro OTC | Lavender oil   | 2009022          | 35125     | 40      | 20201007*          |
| Fagron   | Lavender oil   | 13D24-N01        | 31223     | 40      | AR-15-FG-009308-01 |
| Fagron   | Lavender oil   | 15I03-B01-314158 | 32996     | 40      | 20150916           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 680 spectra of 15 reference samples from the substance/substance group *Lavender oil / Clary sage oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 15 different batches.
- 66 479 spectra from a total of 1364 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

*Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 610 spectra of 15 reference samples from the substance/substance group *Lavender oil / Clary sage oil*.
- Among them are spectra of independent samples from 15 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance      | Batch    | Sample ID | Spectra |
|-----------|----------------|----------|-----------|---------|
| Caelo     | Clary sage oil | 16269902 | 33281     | 40      |
| Caelo     | Clary sage oil | 171087   | 33911     | 40      |
| Bombastus | Lavender oil   | 21002712 | 36191     | 40      |
| Caelo     | Lavender oil   | 162922   | 32684     | 40      |
| Caelo     | Lavender oil   | 191847   | 34612     | 40      |
| Caelo     | Lavender oil   | 192713   | 34724     | 40      |
| Euro OTC  | Lavender oil   | 1601053  | 31997     | 40      |
| Euro OTC  | Lavender oil   | 1606004  | 32458     | 40      |
| Euro OTC  | Lavender oil   | 1610029  | 32834     | 40      |
| Euro OTC  | Lavender oil   | 1701005  | 32986     | 40      |
| Euro OTC  | Lavender oil   | 1706003  | 33597     | 40      |
| Euro OTC  | Lavender oil   | 1710038  | 33846     | 40      |
| Euro OTC  | Lavender oil   | 1808034  | 34213     | 40      |
| Euro OTC  | Lavender oil   | 2004016  | 35061     | 40      |
| Euro OTC  | Lavender oil   | 2109006  | 35761     | 50      |

- 106 753 spectra from a total of 2487 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1991 spectra from 580 *Apo-Ident* customers from 528 batches from the substance/substance group *Lavender oil / Clary sage oil*.
- Among them are spectra of independent samples from 510 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance    | Batch     | Spectra |
|----------------------------|--------------|-----------|---------|
| ACM                        | Lavender oil | 4683Pos2  | 1       |
| AHC 22.08.13 EK5,83 25ml   | Lavender oil | 12334516  | 1       |
| AHD 06.02.17 E.k:6,40      | Lavender oil | 16023017  | 1       |
| AHD 15.10.14 EK 5,76       | Lavender oil | 13252220  | 1       |
| AHD, 25.11.13              | Lavender oil | 13G11-N04 | 1       |
| AHD                        | Lavender oil | 15363302  | 1       |
| AHD                        | Lavender oil | 16292214  | 1       |
| Anzag 10.04.13 ek: 5.83EUR | Lavender oil | 12334510  | 1       |
| Anzag 10.04.13 ek: 9,57EUR | Lavender oil | 273725    | 1       |

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| <b>Supplier</b>         | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-------------------------|------------------|--------------|----------------|
| Anzag 15.11.2012        | Lavender oil     | 270560       | 1              |
| Beiersdorf/Geibo        | Lavender oil     | 16292214     | 1              |
| Bergland Pharma / Anzag | Lavender oil     | K051367      | 1              |
| Bergland                | Lavender oil     | K700033      | 1              |
| Bombastus               | Lavender oil     |              | 1              |
| Bombastus               | Lavender oil     | 18000        | 1              |
| Bombastus               | Lavender oil     | 180004761    | 1              |
| Bombastus               | Lavender oil     | 18000582     | 2              |
| Bombastus               | Lavender oil     | 18002108     | 3              |
| Bombastus               | Lavender oil     | 18003212     | 2              |
| Bombastus               | Lavender oil     | 18004761     | 5              |
| Bombastus               | Lavender oil     | 18004853     | 1              |
| Bombastus               | Lavender oil     | 18005208     | 2              |
| Bombastus               | Lavender oil     | 18006811     | 1              |
| Bombastus               | Lavender oil     | 18006865     | 7              |
| Bombastus               | Lavender oil     | 18128204     | 2              |
| Bombastus               | Lavender oil     | 19001102     | 2              |
| Bombastus               | Lavender oil     | 19003633     | 2              |
| Bombastus               | Lavender oil     | 19004173     | 4              |
| Bombastus               | Lavender oil     | 19005998     | 2              |
| Bombastus               | Lavender oil     | 20000292     | 5              |
| Bombastus               | Lavender oil     | 20004133     | 1              |
| Bombastus               | Lavender oil     | 272797       | 4              |
| Bombastus               | Lavender oil     | 273007       | 1              |
| Bombastus               | Lavender oil     | 273725       | 1              |
| Bombastus               | Lavender oil     | 273980       | 2              |
| Bombastus               | Lavender oil     | 274960       | 1              |
| Bombastus               | Lavender oil     | 275898       | 1              |
| Bombastus               | Lavender oil     | 276644       | 1              |
| Bombastus               | Lavender oil     | 276783       | 2              |
| Bombastus               | Lavender oil     | 277773       | 1              |
| Bombastus               | Lavender oil     | 279919       | 6              |
| Bombastus               | Lavender oil     | 281214       | 1              |
| Bombastus               | Lavender oil     | 281980       | 1              |
| Bombastus               | Lavender oil     | 284486       | 3              |
| Bombastus               | Lavender oil     | 287254       | 3              |
| Bombastus               | Lavender oil     | 288979       | 5              |
| Bombastus               | Lavender oil     | 290711       | 1              |
| Bombastus               | Lavender oil     | 293661       | 4              |
| Bombastus               | Lavender oil     | 295593       | 3              |
| Bombastus               | Lavender oil     | 295738       | 3              |
| Bombastus               | Lavender oil     | 295873       | 1              |
| Bombastus               | Lavender oil     | 297007       | 3              |
| Bombastus               | Lavender oil     | 297733       | 2              |
| Bombastus               | Lavender oil     | 300666       | 3              |
| Bombastus               | Lavender oil     | 301109       | 1              |
| Bombastus               | Lavender oil     | 303303       | 2              |
| Bombastus               | Lavender oil     | 303335       | 2              |
| Bombastus               | Lavender oil     | 305279       | 1              |
| Bombastus               | Lavender oil     | 306049       | 1              |
| Bombastus               | Lavender oil     | 307666       | 1              |
| Bombastus               | Lavender oil     | 307859       | 1              |
| Bombastus               | Lavender oil     | 308369       | 2              |
| Bombastus               | Lavender oil     | 308745       | 2              |
| Bombastus               | Lavender oil     | 311260       | 1              |
| Bombastus               | Lavender oil     | 311261       | 4              |
| Bombastus               | Lavender oil     | 311562       | 6              |
| Caelo                   | Lavender oil     |              | 2              |
| Caelo                   | Lavender oil     | 1021403      | 1              |
| Caelo                   | Lavender oil     | 11053709     | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>    | <b>Spectra</b> |
|-----------------|------------------|-----------------|----------------|
| Caelo           | Lavender oil     | 11221308        | 1              |
| Caelo           | Lavender oil     | 11221315        | 1              |
| Caelo           | Lavender oil     | 12056802        | 4              |
| Caelo           | Lavender oil     | 12056804        | 2              |
| Caelo           | Lavender oil     | 12056809        | 16             |
| Caelo           | Lavender oil     | 12056814        | 5              |
| Caelo           | Lavender oil     | 12056815        | 1              |
| Caelo           | Lavender oil     | 12056816        | 2              |
| Caelo           | Lavender oil     | 12056821        | 2              |
| Caelo           | Lavender oil     | 12056822        | 9              |
| Caelo           | Lavender oil     | 12081301        | 1              |
| Caelo           | Lavender oil     | 12201201        | 1              |
| Caelo           | Lavender oil     | 12201206        | 2              |
| Caelo           | Lavender oil     | 12201213        | 2              |
| Caelo           | Lavender oil     | 12201215        | 1              |
| Caelo           | Lavender oil     | 123344514       | 1              |
| Caelo           | Lavender oil     | 12334501        | 8              |
| Caelo           | Lavender oil     | 12334503        | 3              |
| Caelo           | Lavender oil     | 12334507        | 3              |
| Caelo           | Lavender oil     | 12334510        | 7              |
| Caelo           | Lavender oil     | 12334513        | 12             |
| Caelo           | Lavender oil     | 12334514        | 6              |
| Caelo           | Lavender oil     | 12334516        | 5              |
| Caelo           | Lavender oil     | 1234501         | 1              |
| Caelo           | Lavender oil     | 1234514         | 2              |
| Caelo           | Lavender oil     | 123456          | 1              |
| Caelo           | Lavender oil     | 1245            | 1              |
| Caelo           | Lavender oil     | 12H15-No1       | 4              |
| Caelo           | Lavender oil     | 12H15-No1       | 1              |
| Caelo           | Lavender oil     | 13071302        | 1              |
| Caelo           | Lavender oil     | 13133703        | 16             |
| Caelo           | Lavender oil     | 13133705        | 2              |
| Caelo           | Lavender oil     | 13133706        | 19             |
| Caelo           | Lavender oil     | 13133715        | 14             |
| Caelo           | Lavender oil     | 1313375         | 1              |
| Caelo           | Lavender oil     | 13202218        | 1              |
| Caelo           | Lavender oil     | 13252201        | 5              |
| Caelo           | Lavender oil     | 13252202        | 7              |
| Caelo           | Lavender oil     | 13252204        | 8              |
| Caelo           | Lavender oil     | 13252206        | 3              |
| Caelo           | Lavender oil     | 13252207        | 5              |
| Caelo           | Lavender oil     | 13252212        | 1              |
| Caelo           | Lavender oil     | 13252218        | 2              |
| Caelo           | Lavender oil     | 13252220        | 9              |
| Caelo           | Lavender oil     | 13252224        | 1              |
| Caelo           | Lavender oil     | 13252225        | 4              |
| Caelo           | Lavender oil     | 13252603        | 1              |
| Caelo           | Lavender oil     | 13252605        | 1              |
| Caelo           | Lavender oil     | 13252607        | 1              |
| Caelo           | Lavender oil     | 13252611        | 2              |
| Caelo           | Lavender oil     | 13252616        | 4              |
| Caelo           | Lavender oil     | 13252621        | 2              |
| Caelo           | Lavender oil     | 132552218       | 1              |
| Caelo           | Lavender oil     | 13B22-No2       | 1              |
| Caelo           | Lavender oil     | 1414-B02-302035 | 1              |
| Caelo           | Lavender oil     | 14218301        | 3              |
| Caelo           | Lavender oil     | 1421831         | 1              |
| Caelo           | Lavender oil     | 14218310        | 2              |
| Caelo           | Lavender oil     | 14218311        | 7              |
| Caelo           | Lavender oil     | 14218314        | 10             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Lavender oil     | 14218321         | 2              |
| Caelo           | Lavender oil     | 14218322         | 6              |
| Caelo           | Lavender oil     | 14218324         | 6              |
| Caelo           | Lavender oil     | 14A07-B02-289955 | 1              |
| Caelo           | Lavender oil     | 15043504         | 8              |
| Caelo           | Lavender oil     | 15043505         | 11             |
| Caelo           | Lavender oil     | 15043512         | 1              |
| Caelo           | Lavender oil     | 15043516         | 2              |
| Caelo           | Lavender oil     | 15043518         | 4              |
| Caelo           | Lavender oil     | 15043519         | 6              |
| Caelo           | Lavender oil     | 15043520         | 4              |
| Caelo           | Lavender oil     | 15043525         | 12             |
| Caelo           | Lavender oil     | 15043526         | 9              |
| Caelo           | Lavender oil     | 15081301         | 1              |
| Caelo           | Lavender oil     | 15111741         | 1              |
| Caelo           | Lavender oil     | 15278101         | 15             |
| Caelo           | Lavender oil     | 15278102         | 4              |
| Caelo           | Lavender oil     | 1536007          | 1              |
| Caelo           | Lavender oil     | 1536016          | 1              |
| Caelo           | Lavender oil     | 15363001         | 5              |
| Caelo           | Lavender oil     | 15363002         | 1              |
| Caelo           | Lavender oil     | 15363004         | 7              |
| Caelo           | Lavender oil     | 15363007         | 3              |
| Caelo           | Lavender oil     | 15363011         | 1              |
| Caelo           | Lavender oil     | 15363013         | 1              |
| Caelo           | Lavender oil     | 15363015         | 1              |
| Caelo           | Lavender oil     | 15363016         | 2              |
| Caelo           | Lavender oil     | 15363019         | 6              |
| Caelo           | Lavender oil     | 15363302         | 19             |
| Caelo           | Lavender oil     | 15363303         | 6              |
| Caelo           | Lavender oil     | 15363304         | 6              |
| Caelo           | Lavender oil     | 15363305         | 2              |
| Caelo           | Lavender oil     | 15363310         | 15             |
| Caelo           | Lavender oil     | 15363311         | 1              |
| Caelo           | Lavender oil     | 15C26-B02-310275 | 5              |
| Caelo           | Lavender oil     | 15C26-B02-310775 | 2              |
| Caelo           | Lavender oil     | 16023001         | 12             |
| Caelo           | Lavender oil     | 16023002         | 18             |
| Caelo           | Lavender oil     | 16023002/1270217 | 1              |
| Caelo           | Lavender oil     | 16023003         | 6              |
| Caelo           | Lavender oil     | 16023014         | 7              |
| Caelo           | Lavender oil     | 16023015         | 1              |
| Caelo           | Lavender oil     | 16023017         | 18             |
| Caelo           | Lavender oil     | 16023018         | 2              |
| Caelo           | Lavender oil     | 16081806         | 1              |
| Caelo           | Lavender oil     | 16101203         | 1              |
| Caelo           | Clary sage oil   | 16269903         | 1              |
| Caelo           | Lavender oil     | 16292205         | 17             |
| Caelo           | Lavender oil     | 16292206         | 14             |
| Caelo           | Lavender oil     | 16292207         | 2              |
| Caelo           | Lavender oil     | 16292209         | 5              |
| Caelo           | Lavender oil     | 16292211         | 21             |
| Caelo           | Lavender oil     | 16292213         | 1              |
| Caelo           | Lavender oil     | 16292214         | 7              |
| Caelo           | Lavender oil     | 16292216         | 12             |
| Caelo           | Lavender oil     | 16292217         | 2              |
| Caelo           | Lavender oil     | 16292226         | 1              |
| Caelo           | Lavender oil     | 162992216        | 1              |
| Caelo           | Lavender oil     | 16A07-B01-32195  | 1              |
| Caelo           | Lavender oil     | 16A07-B01-32196  | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Caelo           | Lavender oil     | 16A07-B01-325888  | 2              |
| Caelo           | Lavender oil     | 16H01-B04         | 1              |
| Caelo           | Lavender oil     | 16H01-B04-335775  | 1              |
| Caelo           | Lavender oil     | 16H01-B04-336278  | 4              |
| Caelo           | Lavender oil     | 16H01-B04-337333  | 1              |
| Caelo           | Lavender oil     | 16H01-B04-338189  | 1              |
| Caelo           | Lavender oil     | 17041502          | 1              |
| Caelo           | Lavender oil     | 17051404          | 1              |
| Caelo           | Lavender oil     | 170531810         | 1              |
| Caelo           | Lavender oil     | 1706003-01        | 4              |
| Caelo           | Lavender oil     | 1710038-01        | 2              |
| Caelo           | Lavender oil     | 1712070L/16292216 | 1              |
| Caelo           | Lavender oil     | 17132701          | 6              |
| Caelo           | Lavender oil     | 17132702          | 2              |
| Caelo           | Lavender oil     | 17132707          | 5              |
| Caelo           | Lavender oil     | 17132709          | 1              |
| Caelo           | Lavender oil     | 17132710          | 15             |
| Caelo           | Lavender oil     | 17132711          | 43             |
| Caelo           | Lavender oil     | 17132712          | 7              |
| Caelo           | Lavender oil     | 17132713          | 1              |
| Caelo           | Lavender oil     | 17244101          | 11             |
| Caelo           | Lavender oil     | 17244102          | 1              |
| Caelo           | Lavender oil     | 17244103          | 1              |
| Caelo           | Lavender oil     | 17244104          | 3              |
| Caelo           | Lavender oil     | 17244109          | 1              |
| Caelo           | Lavender oil     | 17G20-B07-342691  | 1              |
| Caelo           | Lavender oil     | 17G20-B07-342692  | 1              |
| Caelo           | Lavender oil     | 17G20-B07-344584  | 1              |
| Caelo           | Lavender oil     | 18001512          | 1              |
| Caelo           | Lavender oil     | 18002108          | 2              |
| Caelo           | Lavender oil     | 18031703          | 1              |
| Caelo           | Lavender oil     | 18066104          | 1              |
| Caelo           | Lavender oil     | 18066105          | 1              |
| Caelo           | Lavender oil     | 1812204           | 1              |
| Caelo           | Lavender oil     | 181228202         | 1              |
| Caelo           | Lavender oil     | 18127611          | 1              |
| Caelo           | Lavender oil     | 18128201          | 2              |
| Caelo           | Lavender oil     | 18128202          | 44             |
| Caelo           | Lavender oil     | 18128203          | 4              |
| Caelo           | Lavender oil     | 18128204          | 29             |
| Caelo           | Lavender oil     | 18128205          | 1              |
| Caelo           | Lavender oil     | 18128302          | 1              |
| Caelo           | Lavender oil     | 1818202           | 1              |
| Caelo           | Lavender oil     | 182190009         | 1              |
| Caelo           | Lavender oil     | 18219001          | 26             |
| Caelo           | Lavender oil     | 18219004          | 28             |
| Caelo           | Lavender oil     | 18219005          | 5              |
| Caelo           | Lavender oil     | 18219012          | 20             |
| Caelo           | Lavender oil     | 1829004           | 1              |
| Caelo           | Lavender oil     | 18326201          | 12             |
| Caelo           | Lavender oil     | 18326202          | 2              |
| Caelo           | Lavender oil     | 18326203          | 1              |
| Caelo           | Lavender oil     | 18326207          | 15             |
| Caelo           | Lavender oil     | 18326208          | 1              |
| Caelo           | Lavender oil     | 18326211          | 1              |
| Caelo           | Lavender oil     | 18326213          | 12             |
| Caelo           | Lavender oil     | 18326214          | 10             |
| Caelo           | Lavender oil     | 18326215          | 2              |
| Caelo           | Lavender oil     | 18326216          | 3              |
| Caelo           | Lavender oil     | 18326231          | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Lavender oil     | 188128202        | 1              |
| Caelo           | Lavender oil     | 18B26-B02-351906 | 1              |
| Caelo           | Lavender oil     | 18B26-B02-351972 | 1              |
| Caelo           | Lavender oil     | 18B26-B02-352706 | 1              |
| Caelo           | Lavender oil     | 191847005        | 2              |
| Caelo           | Lavender oil     | 191847007        | 12             |
| Caelo           | Lavender oil     | 191847008        | 9              |
| Caelo           | Lavender oil     | 19184701         | 28             |
| Caelo           | Lavender oil     | 191847010        | 23             |
| Caelo           | Lavender oil     | 191847011        | 1              |
| Caelo           | Lavender oil     | 19184702         | 9              |
| Caelo           | Lavender oil     | 19184703         | 4              |
| Caelo           | Lavender oil     | 19271301         | 4              |
| Caelo           | Lavender oil     | 200000744005     | 1              |
| Caelo           | Lavender oil     | 200001640001     | 1              |
| Caelo           | Lavender oil     | 20000744001      | 1              |
| Caelo           | Lavender oil     | 20000744002      | 1              |
| Caelo           | Lavender oil     | 20000744003      | 4              |
| Caelo           | Lavender oil     | 20000744005      | 2              |
| Caelo           | Lavender oil     | 20000744008      | 2              |
| Caelo           | Lavender oil     | 20001640001      | 1              |
| Caelo           | Lavender oil     | 20001640003      | 8              |
| Caelo           | Lavender oil     | 2000164003       | 1              |
| Caelo           | Lavender oil     | 200038028010     | 1              |
| Caelo           | Lavender oil     | 20003808005      | 1              |
| Caelo           | Lavender oil     | 20003808006      | 6              |
| Caelo           | Lavender oil     | 20003808009      | 3              |
| Caelo           | Lavender oil     | 20003808010      | 7              |
| Caelo           | Lavender oil     | 2001640003       | 1              |
| Caelo           | Lavender oil     | 21001533001      | 1              |
| Caelo           | Lavender oil     | 21001533002      | 1              |
| Caelo           | Lavender oil     | 210016270006     | 1              |
| Caelo           | Lavender oil     | 21001627002      | 8              |
| Caelo           | Lavender oil     | 21001627007      | 4              |
| Caelo           | Lavender oil     | 21001627008      | 1              |
| Caelo           | Lavender oil     | 21001627016      | 2              |
| Caelo           | Lavender oil     | 21001627022      | 1              |
| Caelo           | Lavender oil     | 213A-01990       | 1              |
| Caelo           | Lavender oil     | 2189             | 1              |
| Caelo           | Lavender oil     | 26081707         | 1              |
| Caelo           | Lavender oil     | 273289           | 1              |
| Caelo           | Lavender oil     | 276783           | 1              |
| Caelo           | Lavender oil     | 30041807         | 1              |
| Caelo           | Lavender oil     | 30081301         | 1              |
| Caelo           | Lavender oil     | 30081810         | 1              |
| Caelo           | Lavender oil     | 30081811         | 1              |
| Caelo           | Lavender oil     | 3011401          | 1              |
| Caelo           | Lavender oil     | 305279           | 2              |
| Caelo           | Lavender oil     | 305280           | 1              |
| Caelo           | Lavender oil     | 308745           | 2              |
| Caelo           | Lavender oil     | 3091207          | 1              |
| Caelo           | Lavender oil     | 31031501         | 1              |
| Caelo           | Lavender oil     | 31101803         | 1              |
| Caelo           | Lavender oil     | 311562           | 3              |
| Caelo           | Lavender oil     | 3218E-01990      | 1              |
| Caelo           | Lavender oil     | 4110E-01990      | 1              |
| Caelo           | Lavender oil     | 480435519        | 1              |
| Caelo           | Lavender oil     | 516Q-01990       | 1              |
| Caelo           | Lavender oil     | 559621           | 1              |
| Caelo           | Lavender oil     | 617A-01990       | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|----------------------------|------------------|---------------------|----------------|
| Caelo                      | Lavender oil     | 7111403             | 1              |
| Caelo                      | Lavender oil     | 780162              | 1              |
| Caelo                      | Lavender oil     | 8061702             | 1              |
| Caelo                      | Lavender oil     | 8326201             | 1              |
| Caelo                      | Lavender oil     | 87(15363016)        | 1              |
| Caelo                      | Lavender oil     | 911624              | 1              |
| Caelo                      | Lavender oil     | 9229520             | 2              |
| Caelo                      | Lavender oil     | 949399              | 1              |
| Caelo                      | Lavender oil     | L12334511           | 1              |
| Caelo                      | Lavender oil     | P-14021926/18219009 | 1              |
| Caello / Phönix            | Lavender oil     | 18326207            | 1              |
| Caesaer/Jenne              | Lavender oil     | 18128202            | 1              |
| Caesar & Loretz GmbH / ... | Lavender oil     | 19184701            | 1              |
| Caesar & Loretz GmbH / ... | Lavender oil     | 18326213            | 1              |
| Caesar & Loretz GmbH D-... | Lavender oil     | 12334510            | 2              |
| Caesar & Loretz GmbH, 4... | Lavender oil     | 11355               | 1              |
| Caesar & Loretz GmbH, 4... | Lavender oil     | 12056804            | 1              |
| Caesar & Loretz GmbH, 4... | Lavender oil     | 13133706            | 1              |
| Caesar & Loretz GmbH/AHD   | Lavender oil     | 19184702            | 2              |
| Caesar & Loretz GmbH/Fi... | Lavender oil     | 18219012            | 1              |
| Caesar & Loretz GmbH/Gehe  | Lavender oil     | 18219012            | 1              |
| Caesar & Loretz GmbH/Gehe  | Lavender oil     | 18326207            | 3              |
| Caesar & Loretz GmbH/je... | Lavender oil     | 19184701            | 4              |
| Caesar & Loretz GmbH/Ph... | Lavender oil     | 18326207            | 1              |
| Caesar & Loretz GmbH/Ph... | Lavender oil     | 19184701            | 1              |
| Caesar & Loretz GmbH/Ph... | Lavender oil     | 20003808006         | 2              |
| Caesar & Loretz GmbH/Sa... | Lavender oil     | 17244109            | 1              |
| Caesar & Loretz GmbH/Sa... | Lavender oil     | 18326207            | 1              |
| Caesar & Loretz GmbH/Sa... | Lavender oil     | 18326214            | 1              |
| Caesar & Loretz GmbH/Sa... | Lavender oil     | 191847008           | 1              |
| Caesar & Loretz GmbH/Sa... | Lavender oil     | 19184702            | 1              |
| Caesar & Loretz GmbH/Sa... | Lavender oil     | 20003808010         | 1              |
| Caesar & Loretz GmbH/Sa... | Lavender oil     | 9229520             | 1              |
| Caesar & Loretz GmbH       | Clary sage oil   | 17108708            | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 17132710            | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 17244101            | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 17244109            | 2              |
| Caesar & Loretz GmbH       | Lavender oil     | 18086602            | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 18219004            | 3              |
| Caesar & Loretz GmbH       | Lavender oil     | 18219005            | 7              |
| Caesar & Loretz GmbH       | Lavender oil     | 18219012            | 3              |
| Caesar & Loretz GmbH       | Lavender oil     | 18326201            | 3              |
| Caesar & Loretz GmbH       | Lavender oil     | 18326202            | 2              |
| Caesar & Loretz GmbH       | Lavender oil     | 18326207            | 9              |
| Caesar & Loretz GmbH       | Lavender oil     | 18326214            | 3              |
| Caesar & Loretz GmbH       | Lavender oil     | 18326215            | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 191847005           | 5              |
| Caesar & Loretz GmbH       | Lavender oil     | 191847007           | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 191847008           | 3              |
| Caesar & Loretz GmbH       | Lavender oil     | 19184701            | 11             |
| Caesar & Loretz GmbH       | Lavender oil     | 191847010           | 4              |
| Caesar & Loretz GmbH       | Lavender oil     | 19184703            | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 20000744003         | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 20003808006         | 2              |
| Caesar & Loretz GmbH       | Lavender oil     | 20003808010         | 1              |
| Caesar & Loretz GmbH       | Lavender oil     | 21001627002         | 5              |
| Caesar & Loretz GmbH       | Lavender oil     | 21001627006         | 2              |
| Caesar & Loretz GmbH       | Lavender oil     | 21001627016         | 5              |
| Caesar & Loretz/ Noweda    | Lavender oil     | 12056816            | 1              |
| Caesar&Loretz GmbH         | Lavender oil     | 17244104            | 1              |

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| <b>Supplier</b>    | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|--------------------|------------------|------------------|----------------|
| Caesar&Loretz GmbH | Lavender oil     | 20000744003      | 1              |
| Caleo/ Noweda      | Lavender oil     | 17132710         | 1              |
| calo               | Lavender oil     | 15363016         | 2              |
| Cealo/ Sanacorp    | Lavender oil     | 17132711         | 1              |
| EuRho/ AHD         | Lavender oil     | 16292206         | 1              |
| Euro OTC           | Lavender oil     | 1177388          | 1              |
| Euro OTC           | Lavender oil     | 1210031-01       | 1              |
| Euro OTC           | Lavender oil     | 12334514         | 2              |
| Euro OTC           | Lavender oil     | 1302023-01       | 1              |
| Euro OTC           | Lavender oil     | 1503006-01       | 2              |
| Euro OTC           | Lavender oil     | 15043525         | 2              |
| Euro OTC           | Lavender oil     | 1507031-01       | 1              |
| Euro OTC           | Lavender oil     | 1510040-01       | 4              |
| Euro OTC           | Lavender oil     | 15B10-B07        | 1              |
| Euro OTC           | Lavender oil     | 160105301        | 1              |
| Euro OTC           | Lavender oil     | 1601053-01       | 1              |
| Euro OTC           | Lavender oil     | 1610029-01       | 3              |
| Euro OTC           | Lavender oil     | 16292214         | 1              |
| Euro OTC           | Lavender oil     | 1701005-01       | 5              |
| Euro OTC           | Lavender oil     | 1706003-01       | 1              |
| Euro OTC           | Lavender oil     | 1710038-02       | 3              |
| Euro OTC           | Lavender oil     | 1808034-02       | 7              |
| Euro OTC           | Lavender oil     | 191000901        | 1              |
| Euro OTC           | Lavender oil     | 1910009-01       | 5              |
| Euro OTC           | Lavender oil     | 2004016-01       | 2              |
| Euro OTC           | Lavender oil     | 2008011-01       | 2              |
| Euro OTC           | Lavender oil     | 200811-01        | 1              |
| Euro OTC           | Lavender oil     | 2009022-01       | 2              |
| Euro OTC           | Lavender oil     | 311562           | 1              |
| Fagron             | Lavender oil     | 1010548          | 2              |
| Fagron             | Lavender oil     | 1061076          | 1              |
| Fagron             | Lavender oil     | 1104461          | 3              |
| Fagron             | Lavender oil     | 1177388          | 2              |
| Fagron             | Lavender oil     | 1192553          | 2              |
| Fagron             | Lavender oil     | 11F09-N07        | 1              |
| Fagron             | Lavender oil     | 11K17-N06        | 1              |
| Fagron             | Lavender oil     | 11L22-N16        | 4              |
| Fagron             | Lavender oil     | 12334516         | 2              |
| Fagron             | Lavender oil     | 1252709          | 1              |
| Fagron             | Lavender oil     | 12B16-N02        | 4              |
| Fagron             | Lavender oil     | 12D05-N02        | 5              |
| Fagron             | Lavender oil     | 12H15-N01        | 9              |
| Fagron             | Lavender oil     | 13/11-b03-289423 | 1              |
| Fagron             | Lavender oil     | 13/11-B03-289423 | 1              |
| Fagron             | Lavender oil     | 13097R           | 1              |
| Fagron             | Lavender oil     | 13B22N02         | 2              |
| Fagron             | Lavender oil     | 13B22-N02        | 11             |
| Fagron             | Lavender oil     | 13B22-N02        | 1              |
| Fagron             | Lavender oil     | 13D24-0003       | 1              |
| Fagron             | Lavender oil     | 13D24N01         | 3              |
| Fagron             | Lavender oil     | 13D24-N01        | 3              |
| Fagron             | Lavender oil     | 13D24-N01        | 1              |
| Fagron             | Lavender oil     | 13E30-B01        | 4              |
| Fagron             | Lavender oil     | 13E30-B01-285543 | 2              |
| Fagron             | Lavender oil     | 13e30-b01-285544 | 1              |
| Fagron             | Lavender oil     | 13E30-B01-285544 | 5              |
| Fagron             | Lavender oil     | 13G11N04         | 1              |
| Fagron             | Lavender oil     | 13G11-N04        | 12             |
| Fagron             | Lavender oil     | 13J11B03         | 1              |
| Fagron             | Lavender oil     | 13J11-B03        | 4              |

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| Supplier | Substance    | Batch                | Spectra |
|----------|--------------|----------------------|---------|
| Fagron   | Lavender oil | 13J11-B03-289423     | 6       |
| Fagron   | Lavender oil | 13J11-B03-289424     | 1       |
| Fagron   | Lavender oil | 13J11-B03-780162     | 1       |
| Fagron   | Lavender oil | 13J11-BC3-289423     | 1       |
| Fagron   | Lavender oil | 140120277773         | 1       |
| Fagron   | Lavender oil | 14a07-B02            | 1       |
| Fagron   | Lavender oil | 14A07B02             | 1       |
| Fagron   | Lavender oil | 14A07-B02            | 4       |
| Fagron   | Lavender oil | 14A07-B02-289955     | 2       |
| Fagron   | Lavender oil | 14A07-B02-294930     | 1       |
| Fagron   | Lavender oil | 14A07-B02-294931     | 4       |
| Fagron   | Lavender oil | 14d14-b02            | 1       |
| Fagron   | Lavender oil | 14D14B02             | 1       |
| Fagron   | Lavender oil | 14D14-B02            | 5       |
| Fagron   | Lavender oil | 14D14-B02-302034     | 5       |
| Fagron   | Lavender oil | 14D14-B02-302035     | 1       |
| Fagron   | Lavender oil | 14D14-B02-302036     | 1       |
| Fagron   | Lavender oil | 14D-B02-302034       | 1       |
| Fagron   | Lavender oil | 15/03-B01-314158     | 3       |
| Fagron   | Lavender oil | 15/03-B01-317685     | 1       |
| Fagron   | Lavender oil | 15/03-B01-317686     | 1       |
| Fagron   | Lavender oil | 15/03-B01-317687     | 1       |
| Fagron   | Lavender oil | 1503B01317685        | 1       |
| Fagron   | Lavender oil | 15043518             | 2       |
| Fagron   | Lavender oil | 15810-B07-309880     | 2       |
| Fagron   | Lavender oil | 15b10-b07            | 1       |
| Fagron   | Lavender oil | 15B10-B07-304078     | 2       |
| Fagron   | Lavender oil | 15B10-B07-304079     | 2       |
| Fagron   | Lavender oil | 15B10-B07-309880     | 1       |
| Fagron   | Lavender oil | 15C26-B02            | 1       |
| Fagron   | Lavender oil | 15C26-B02-310775     | 3       |
| Fagron   | Lavender oil | 15C26-B02-314159     | 5       |
| Fagron   | Lavender oil | 15CV26-B02-309881    | 1       |
| Fagron   | Lavender oil | 15I03-B01-314160     | 2       |
| Fagron   | Lavender oil | 15I03-B01-317685     | 1       |
| Fagron   | Lavender oil | 15I03-B01-317686     | 1       |
| Fagron   | Lavender oil | 15I03-B01-317687     | 3       |
| Fagron   | Lavender oil | 15I03-B01-893241     | 1       |
| Fagron   | Lavender oil | 15I03-B01-317686     | 2       |
| Fagron   | Lavender oil | 1601311990           | 1       |
| Fagron   | Lavender oil | 16292216             | 1       |
| Fagron   | Lavender oil | 16A07-B01            | 4       |
| Fagron   | Lavender oil | 16A07-B01-321295     | 6       |
| Fagron   | Lavender oil | 16A07-B01-321296     | 5       |
| Fagron   | Lavender oil | 16A07-B01-32195      | 1       |
| Fagron   | Lavender oil | 16A07-B01-322523     | 2       |
| Fagron   | Lavender oil | 16A07B01322846       | 1       |
| Fagron   | Lavender oil | 16A07-B01-322846     | 3       |
| Fagron   | Lavender oil | 16A07-B01-324336     | 3       |
| Fagron   | Lavender oil | 16A07-B01-325888     | 3       |
| Fagron   | Lavender oil | 16A07-B01-321296     | 1       |
| Fagron   | Lavender oil | 16h01_b04_335505     | 1       |
| Fagron   | Lavender oil | 16H01-B04            | 4       |
| Fagron   | Lavender oil | 16H01-B04-327861     | 4       |
| Fagron   | Lavender oil | 16H01-B04-329684     | 1       |
| Fagron   | Lavender oil | 16H01-B04-329684-201 | 1       |
| Fagron   | Lavender oil | 16H01-B04-329685     | 8       |
| Fagron   | Lavender oil | 16H01-B04-332352     | 4       |
| Fagron   | Lavender oil | 16H01-B04-335505     | 4       |
| Fagron   | Lavender oil | 16H01-B04-335506     | 2       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Lavender oil     | 16H01-B04-335775  | 1              |
| Fagron          | Lavender oil     | 16H01-B04-336278  | 4              |
| Fagron          | Lavender oil     | 16H01-B04-337333  | 2              |
| Fagron          | Lavender oil     | 16H01B04338189    | 1              |
| Fagron          | Lavender oil     | 16H01-B04-338189  | 3              |
| Fagron          | Lavender oil     | 17-B07-349416     | 1              |
| Fagron          | Lavender oil     | 17G20-B07         | 6              |
| Fagron          | Lavender oil     | 17G20-B07342691   | 1              |
| Fagron          | Lavender oil     | 17G20-B07-342691  | 3              |
| Fagron          | Lavender oil     | 17G20-b07-342692  | 1              |
| Fagron          | Lavender oil     | 17G20-B07-342692  | 1              |
| Fagron          | Lavender oil     | 17G20-B07-342693  | 2              |
| Fagron          | Lavender oil     | 17G20-B07-344584  | 5              |
| Fagron          | Lavender oil     | 17G20-B07-349416  | 2              |
| Fagron          | Lavender oil     | 17G20-B07-349417  | 3              |
| Fagron          | Lavender oil     | 17G20-B07-349418  | 1              |
| Fagron          | Lavender oil     | 1826-B02-355045   | 1              |
| Fagron          | Lavender oil     | 18826-B02-351972  | 1              |
| Fagron          | Lavender oil     | 18826-B02-352705  | 2              |
| Fagron          | Lavender oil     | 18826-B02-355045  | 1              |
| Fagron          | Lavender oil     | 18B26-B02         | 8              |
| Fagron          | Lavender oil     | 18B26-B02-351906  | 1              |
| Fagron          | Lavender oil     | 18B-26B02-351906  | 1              |
| Fagron          | Lavender oil     | 18B26-B02-351972  | 5              |
| Fagron          | Lavender oil     | 18B26-B02-352541  | 1              |
| Fagron          | Lavender oil     | 18B26-B02-352705  | 3              |
| Fagron          | Lavender oil     | 18B26-B02-352706  | 1              |
| Fagron          | Lavender oil     | 18B26-B02-352706  | 1              |
| Fagron          | Lavender oil     | 18B26-B02-355045  | 4              |
| Fagron          | Lavender oil     | 18B26-B02-652705  | 1              |
| Fagron          | Lavender oil     | 18K19-B01         | 2              |
| Fagron          | Lavender oil     | 18K19-B01-356766  | 4              |
| Fagron          | Lavender oil     | 18K19-B01-356767  | 2              |
| Fagron          | Lavender oil     | 192900-0004       | 1              |
| Fagron          | Lavender oil     | 19B20-B01-191698  | 1              |
| Fagron          | Lavender oil     | 19B20-B01-191699  | 7              |
| Fagron          | Lavender oil     | 19B20-B02-1917000 | 1              |
| Fagron          | Lavender oil     | 19L03-B01         | 1              |
| Fagron          | Lavender oil     | 19L03-B01-197428  | 1              |
| Fagron          | Lavender oil     | 19L03-B01-197428  | 7              |
| Fagron          | Lavender oil     | 19L03-B01-197429  | 8              |
| Fagron          | Lavender oil     | 19L03-B01-197432  | 5              |
| Fagron          | Lavender oil     | 20C12803201856    | 1              |
| Fagron          | Lavender oil     | 20C12-B03         | 1              |
| Fagron          | Lavender oil     | 20C12-B03-200430  | 5              |
| Fagron          | Lavender oil     | 20C-12-B03-200430 | 1              |
| Fagron          | Lavender oil     | 20C12-B03-201354  | 2              |
| Fagron          | Lavender oil     | 20C12-B03-201865  | 6              |
| Fagron          | Lavender oil     | 20C12-B03-201866  | 2              |
| Fagron          | Lavender oil     | 21D06103064279    | 1              |
| Fagron          | Lavender oil     | 20C12-B03-201865  | 1              |
| Fagron          | Lavender oil     | 4A07-B02          | 1              |
| Fagron          | Lavender oil     | 5013I1990         | 1              |
| Fagron          | Lavender oil     | 612211990         | 2              |
| Fagron          | Lavender oil     | 652607            | 1              |
| Fagron          | Lavender oil     | 759243            | 1              |
| Fagron          | Lavender oil     | 780162            | 1              |
| Fagron          | Lavender oil     | 794323            | 1              |
| Fagron          | Lavender oil     | 856973            | 1              |
| Fagron          | Lavender oil     | 867858            | 1              |

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continued from previous page

| Supplier                | Substance    | Batch                | Spectra |
|-------------------------|--------------|----------------------|---------|
| Fagron                  | Lavender oil | 88(18B26-B02-352706) | 1       |
| Fagron                  | Lavender oil | 893241               | 3       |
| Fagron                  | Lavender oil | 911624               | 4       |
| Fagron                  | Lavender oil | 949399               | 2       |
| Fagron                  | Lavender oil | B01-1916908          | 1       |
| Fagron                  | Lavender oil | B01-1974208          | 2       |
| Fagron                  | Lavender oil | B03-2004300          | 1       |
| Fagron                  | Lavender oil | T03-0842709          | 1       |
| Fargon                  | Lavender oil | 16A07-B01            | 1       |
| Fiebi 29.09.12 ek:8,95  | Lavender oil | 271465               | 1       |
| Fiebig                  | Lavender oil | 18005115             | 1       |
| Fiebig                  | Lavender oil | 1812802              | 1       |
| Fiebig                  | Lavender oil | 18219005             | 1       |
| Fiebig                  | Lavender oil | 19184701             | 1       |
| Fiebig                  | Lavender oil | 266070               | 1       |
| Frey & Lau / Gehe       | Lavender oil | 18B26-B02-352705     | 1       |
| Frey & Lau GmbH/Phoenix | Lavender oil | 14A07-B02-289955     | 1       |
| Frey + Lau / Noweda     | Lavender oil | 1192553              | 1       |
| Gatt-Koller             | Lavender oil | 1900739              | 1       |
| GEHE 17.05.2014         | Lavender oil | 13133703             | 1       |
| Gehe/EuRo               | Lavender oil | 1601053-01           | 1       |
| Gehe                    | Lavender oil | 11221301             | 1       |
| Gehe                    | Lavender oil | 12H15-N01            | 2       |
| Gehe                    | Lavender oil | 13252220             | 1       |
| Gehe                    | Lavender oil | 13252601             | 1       |
| Gehe                    | Lavender oil | 14A07B02294930       | 1       |
| Gehe                    | Lavender oil | 15043525             | 1       |
| Gehe                    | Lavender oil | 15363016             | 1       |
| gehe                    | Lavender oil | 15363019             | 1       |
| Gehe                    | Lavender oil | 15363302             | 1       |
| Gehe                    | Lavender oil | 15C26-B02-310275     | 1       |
| Gehe                    | Lavender oil | 16023017             | 1       |
| Gehe                    | Lavender oil | 16292211             | 2       |
| Gehe                    | Lavender oil | 16292216             | 1       |
| GEHE                    | Lavender oil | 17132710             | 1       |
| Gehe                    | Lavender oil | 17132711             | 2       |
| Gehe                    | Lavender oil | 18004761             | 1       |
| Gehe                    | Lavender oil | 18219004             | 1       |
| Gehe                    | Lavender oil | 18B26-B02-355045     | 1       |
| Gehe                    | Lavender oil | 19271301             | 1       |
| Gehe                    | Lavender oil | 19B20-B01-191699     | 1       |
| Gehe                    | Lavender oil | 19L03-B01-197428     | 1       |
| Gehe                    | Lavender oil | 20001640003          | 1       |
| Gehe                    | Lavender oil | 294180               | 1       |
| Gehe                    | Lavender oil | 306049               | 1       |
| geile                   | Lavender oil | 12334516             | 1       |
| Hedinger                | Lavender oil | 273007               | 1       |
| InfectoPharm/Noweda     | Lavender oil | 297733               | 1       |
| Jenne                   | Lavender oil | 192900-0003          | 1       |
| Kehr                    | Lavender oil | 16292216             | 1       |
| Kögl                    | Lavender oil | 180050               | 1       |
| Kögl                    | Lavender oil | 1802634              | 3       |
| Kögl                    | Lavender oil | 20172255             | 2       |
| Kögl                    | Lavender oil | 225506172617         | 1       |
| Kögl                    | Lavender oil | 357910164416         | 1       |
| Krieger                 | Lavender oil | 18326213             | 1       |
| L10/Bambastus           | Lavender oil | 301109               | 1       |
| L10                     | Lavender oil | 17244101             | 4       |
| L12                     | Lavender oil | 16A07-B01-322523     | 2       |
| L12                     | Lavender oil | 18128204             | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Lamotte / Gehe             | Lavender oil     | 13E30-B01-285544 | 1              |
| Noweda/EuRho 05.02.21 E... | Lavender oil     | 2008011-01       | 1              |
| Noweda                     | Lavender oil     |                  | 1              |
| Noweda                     | Lavender oil     | 11221309         | 1              |
| Noweda                     | Lavender oil     | 11221315         | 2              |
| Noweda                     | Lavender oil     | 13252201         | 1              |
| Noweda                     | Lavender oil     | 15363011         | 1              |
| Noweda                     | Lavender oil     | 16H01-B04-338189 | 1              |
| Noweda                     | Lavender oil     | 17132711         | 2              |
| Noweda                     | Lavender oil     | 1808094-02       | 1              |
| Noweda                     | Lavender oil     | 18128202         | 1              |
| Noweda                     | Lavender oil     | 18219001         | 1              |
| Noweda                     | Lavender oil     | 18219004         | 5              |
| NOWEDA                     | Lavender oil     | 18326207         | 1              |
| Noweda                     | Lavender oil     | 19B20-B01-191699 | 1              |
| Noweda                     | Lavender oil     | 284691           | 1              |
| Noweda                     | Lavender oil     | 293661           | 1              |
| Ph/Euro                    | Lavender oil     | 1910009-01       | 1              |
| PHOENIX 05.05.2014         | Lavender oil     | 130202301        | 1              |
| Phoenix 08.06.2017 6,38EUR | Lavender oil     | 16292211         | 1              |
| Phoenix                    | Lavender oil     | 17G20-B07-342691 | 1              |
| Phoenix                    | Lavender oil     | 191847008        | 1              |
| Phoenix                    | Lavender oil     | 3073             | 1              |
| Phönix                     | Lavender oil     |                  | 1              |
| Phönix                     | Lavender oil     | 11L22-N16        | 1              |
| Phönix                     | Lavender oil     | 12D05-N02        | 1              |
| Phönix                     | Lavender oil     | 13252220         | 2              |
| PHÖNIX                     | Lavender oil     | 17132711         | 1              |
| Phönix                     | Lavender oil     | 18B26-B02-355045 | 1              |
| Phönix                     | Lavender oil     | 18k19-b01-356766 | 1              |
| Phönix                     | Lavender oil     | 19184701         | 1              |
| Phönix                     | Lavender oil     | 652607           | 1              |
| phönix                     | Lavender oil     | 759243           | 1              |
| Primavera/Phoenix          | Lavender oil     | 163H26           | 1              |
| Primavera/Phoenix          | Clary sage oil   | 416L25           | 1              |
| Primavera/Primavera        | Lavender oil     | 570L24           | 1              |
| Primavera/Sanacorp         | Lavender oil     | 184G26           | 1              |
| primavera                  | Lavender oil     | 1480513          | 1              |
| Primavera                  | Lavender oil     | 16E27            | 1              |
| Primavera                  | Lavender oil     | 8508143          | 1              |
| PVL                        | Lavender oil     | 1401110          | 1              |
| Retest                     | Lavender oil     |                  | 1              |
| Sanacorp WE: 09.04.18 E... | Lavender oil     | 17132710         | 1              |
| Sanacorp WE:15.04.16 EK... | Lavender oil     | 15278101         | 1              |
| Sanacorp WE11.04.17 -15... | Lavender oil     | 16023018         | 1              |
| Sanacorp                   | Lavender oil     | 12056821         | 1              |
| Sanacorp                   | Lavender oil     | 12334513         | 1              |
| Sanacorp                   | Lavender oil     | 13133703         | 2              |
| Sanacorp                   | Lavender oil     | 13G11-N04        | 1              |
| Sanacorp                   | Lavender oil     | 15278102         | 1              |
| Sanacorp                   | Lavender oil     | 15363302         | 1              |
| Sanacorp                   | Lavender oil     | 16292214         | 1              |
| Sanacorp                   | Lavender oil     | 17132710         | 1              |
| Sanacorp                   | Lavender oil     | 17132713         | 1              |
| Sanacorp                   | Lavender oil     | 1808034-02       | 1              |
| Sanacorp                   | Lavender oil     | 1808034-03       | 1              |
| Sanacorp                   | Lavender oil     | 18128204         | 3              |
| Sanacorp                   | Lavender oil     | 18128205         | 1              |
| Sanacorp                   | Lavender oil     | 18326202         | 1              |
| Sanacorp                   | Lavender oil     | 18326215         | 2              |

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| Supplier              | Substance      | Batch              | Spectra |
|-----------------------|----------------|--------------------|---------|
| Sanacorp              | Lavender oil   | 19184703           | 2       |
| Sanacorp              | Lavender oil   | 301109             | 2       |
| Sanacorp              | Lavender oil   | 308369             | 2       |
| Taoasis GmbH/ Taoasis | Lavender oil   | S05-18-8043        | 2       |
| Taoasis GmbH          | Lavender oil   | 30560              | 1       |
| Taoasis/Noweda        | Lavender oil   | 130201-117994      | 1       |
| Taoasis/Taoasis       | Lavender oil   | 22015-123165       | 1       |
| Taoasis/Taoasis       | Lavender oil   | 30560-112844       | 1       |
| Taoasis/Taoasis       | Lavender oil   | 66179-313          | 1       |
| Taoasis               | Lavender oil   | 102366-3048        | 1       |
| Taoasis               | Lavender oil   | 130201-115396      | 1       |
| Taoasis               | Lavender oil   | 130201-115678      | 1       |
| Taoasis               | Lavender oil   | 130201-116395      | 2       |
| Taoasis               | Lavender oil   | 130201-116899      | 6       |
| Taoasis               | Lavender oil   | 16082301/2016-2908 | 1       |
| Taoasis               | Clary sage oil | 1700-125289        | 1       |
| Taoasis               | Lavender oil   | 2015-2395          | 1       |
| Taoasis               | Lavender oil   | 22015-122102       | 1       |
| Taoasis               | Lavender oil   | 22015-122995       | 2       |
| Taoasis               | Lavender oil   | 30560-108326       | 1       |
| Taoasis               | Lavender oil   | 30560-110088       | 1       |
| Taoasis               | Lavender oil   | 30560-111202       | 1       |
| Taoasis               | Lavender oil   | 30560-111623       | 1       |
| Taoasis               | Lavender oil   | 30560-113018       | 1       |
| Taoasis               | Lavender oil   | 30560-113019       | 1       |
| Taoasis               | Lavender oil   | 43703-122404       | 1       |
| Taoasis               | Lavender oil   | 4651010118091      | 1       |
| Taoasis               | Lavender oil   | 4651010-118091     | 1       |
| Taoasis               | Lavender oil   | 66179-128588       | 1       |
| Taoasis               | Lavender oil   | 66179-857          | 2       |
| Taoasis               | Lavender oil   | 96336-4015         | 1       |
| Taoasis               | Lavender oil   | LOG2014-119488     | 2       |
| Taoasis               | Lavender oil   | LOG2014-120278     | 1       |
| Taoasis               | Lavender oil   | LOG2014-121513     | 2       |
| Taoasis               | Lavender oil   | S05-19-13374       | 1       |
| VDL;15.12.14;20.19EUR | Lavender oil   | 12201213           | 1       |
| VDL;7,53EUR;13.4.15   | Lavender oil   | 13252611           | 2       |

- 286 718 spectra from 1294 *Apo-Ident* customers from a total of 51 368 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Lavender oil* / *Clary sage oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Lavender oil* / *Clary sage oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 680           | 0              | 66 479        |
| <b>Type B</b> | 0              | 610           | 0              | 106 753       |
| <b>Type C</b> | 0              | 1963          | 28             | 286 718       |

The substance/substance group *Lavender oil / Clary sage oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.1176 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.0164 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.5937 % (> 98.4430 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Lavender oil / Clary sage oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b> | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|------------------|-------------------------------|---------------------------------------|
| Coriander oil    | 31.78                         | –                                     |
| Bergamot oil     | 44.69                         | –                                     |
| Acorus oil       | 57.41                         | –                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Lavender oil / Clary sage oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 30861            | 32710                      | 17.85                               | 56.60                                  |
| 31223            | 31223                      | 0.00                                | 56.84                                  |
| 31237            | 32710                      | 17.05                               | 63.56                                  |
| 31238            | 31721                      | 2.69                                | 54.73                                  |
| 31413            | 31413                      | 0.00                                | 71.26                                  |
| 31416            | 32710                      | 18.02                               | 58.67                                  |
| 31422            | 31223                      | 1.96                                | 57.75                                  |
| 31528            | 31528                      | 0.00                                | 60.97                                  |
| 31668            | 31413                      | 7.10                                | 69.74                                  |
| 31721            | 31721                      | 0.00                                | 58.89                                  |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31800            | 31800                      | 0.00                                | 57.70                                  |
| 32710            | 32710                      | 0.00                                | 58.29                                  |
| 32996            | 31721                      | 3.37                                | 50.68                                  |
| 35120            | 35120                      | 0.00                                | 57.47                                  |
| 35125            | 35125                      | 0.00                                | 57.75                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Liniment ointments</b>                                        |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 10002320-2022-09-10                                              |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

## Relevant substance names

Liniment ointments; Hydrated liniment SR/DAC (NRF p.40); Linimentum aquosum N (NRF S. 39); Linimentum aquosum SR/DAC (NRF S.40); Non-ionic hydrous liniment SR/DAC (NRF P. 39)

## Special notes

When selecting the *Liniment ointments* substance/substance group, the following information is displayed to the user:

*no information*

## Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

## Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

## Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Liniment ointments        | 19     | 48     | 1581   |



## Second-stage model

For differentiation of the substance/substance group *Liniment ointments* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Liniment ointments*:

| Supplier    | Substance           | Batch     | Sample ID | Spectra | Certificate |
|-------------|---------------------|-----------|-----------|---------|-------------|
| apomix      | Hydrated linimen... | 73A041113 | 31170     | 40      | 1405106     |
| apomix      | Hydrated linimen... | 08B010216 | 32305     | 40      | 20160203    |
| apomix      | Hydrated linimen... | 32B090516 | 32727     | 30      | 20160509    |
| Caelo       | Hydrated linimen... | 14063201  | 31438     | 40      | 20140513    |
| Caelo       | Hydrated linimen... | 160217    | 31938     | 60      | 20160127*   |
| Caelo       | Hydrated linimen... | 153244    | 31939     | 60      | 20150922*   |
| Caelo       | Hydrated linimen... | 160217    | 32089     | 40      | 20160127*   |
| Caelo       | Hydrated linimen... | 20001810  | 35111     | 40      | 20200728*   |
| Caelo       | Hydrated linimen... | 21001310  | 35546     | 40      | 20210507*   |
| Leyh Pharma | Hydrated linimen... | 124611    | 30982     | 80      | 20121123    |
| Leyh Pharma | Hydrated linimen... | 191511    | 34505     | 40      | 20190423    |
| Bombastus   | Non-ionic hydrou... | 282335    | 31169     | 40      | 1405256     |
| Bombastus   | Non-ionic hydrou... | 297176    | 31830     | 60      | 20150909    |
| Caelo       | Non-ionic hydrou... | 14134601  | 31476     | 40      | 20140516    |
| Caelo       | Non-ionic hydrou... | 15420901  | 31827     | 60      | 20151221    |
| Caelo       | Non-ionic hydrou... | 153267    | 31943     | 60      | 20150922*   |
| Caelo       | Non-ionic hydrou... | 153342    | 31945     | 60      | 20151008*   |
| Caelo       | Non-ionic hydrou... | 153342    | 31946     | 60      | 20151008*   |
| Caelo       | Non-ionic hydrou... | 160216    | 31947     | 60      | 20160127*   |
| Caelo       | Non-ionic hydrou... | 161138    | 32090     | 40      | 20160415*   |
| Caelo       | Non-ionic hydrou... | 21002412  | 35615     | 50      | 20210819*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 1040 spectra of 21 reference samples from the substance/substance group *Liniment ointments*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 19 different batches.
- 66 119 spectra from a total of 1360 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 2600 spectra of 67 reference samples from the substance/substance group *Liniment ointments*.
- Among them are spectra of independent samples from 48 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance                       | Batch     | Sample ID | Spectra |
|-----------|---------------------------------|-----------|-----------|---------|
| apomix    | Hydrated liniment SR/DAC (NR... | 48B131221 | 36237     | 40      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 22001380  | 36213     | 40      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 161824    | 32395     | 40      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 171989    | 33572     | 40      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 173334    | 34014     | 40      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 181848    | 34158     | 40      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 192964    | 34780     | 40      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 20003910  | 35219     | 40      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 21002123  | 35616     | 50      |
| Caelo     | Hydrated liniment SR/DAC (NR... | 21003572  | 35927     | 40      |
| apomix    | Non-ionic hydrous liniment S... | 07B280322 | 36239     | 40      |
| Bombastus | Non-ionic hydrous liniment S... | 22000841  | 36203     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 153341    | 31944     | 60      |
| Caelo     | Non-ionic hydrous liniment S... | 161139    | 32091     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 161140    | 32092     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 161767    | 32398     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 161768    | 32401     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 162035    | 32404     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 162181    | 32605     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 162182    | 32609     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 162183    | 32611     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 162584    | 32615     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 162585    | 32616     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 163188    | 32874     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 171173    | 33400     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 171444    | 33401     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 171446    | 33402     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 171445    | 33403     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 172088    | 33569     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 172089    | 33570     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 172090    | 33571     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 172611    | 33746     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 172612    | 33747     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 173125    | 34013     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 180507    | 34146     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 180867    | 34147     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 181744    | 34148     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 182331    | 34254     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 182789    | 34355     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 192014    | 34782     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 20003002  | 35217     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 20003577  | 35218     | 40      |
| Caelo     | Non-ionic hydrous liniment S... | 21001823  | 35544     | 50      |
| Caelo     | Non-ionic hydrous liniment S... | 21001822  | 35545     | 40      |

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| Supplier | Substance                       | Batch     | Sample ID          | Spectra |
|----------|---------------------------------|-----------|--------------------|---------|
| Caelo    | Non-ionic hydrous liniment S... | 21003958  | 35926              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 22000259  | 36081              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 22000260  | 36082              | 10      |
| Caelo    | Non-ionic hydrous liniment S... | 22000261  | 36083              | 10      |
| apomix   | Hydrated liniment SR/DAC (NR... | 32B090516 | 32727 <sup>†</sup> | 10      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 161824    | 32396              | 40      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 161824    | 32397              | 40      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 21001310  | 35546 <sup>†</sup> | 10      |
| Caelo    | Non-ionic hydrous liniment S... | 161767    | 32399              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 161767    | 32400              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 161768    | 32402              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 161768    | 32403              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162035    | 32405              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 161139    | 32604              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162181    | 32606              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162181    | 32607              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162181    | 32608              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162182    | 32610              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162183    | 32612              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162183    | 32613              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162183    | 32614              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162585    | 32617              | 40      |
| Caelo    | Non-ionic hydrous liniment S... | 162585    | 32618              | 40      |

- 104 763 spectra from a total of 2451 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 6146 spectra from 861 *Apo-Ident* customers from 1582 batches from the substance/substance group *Liniment ointments*.
- Among them are spectra of independent samples from 1539 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                                                                                         | Substance                       | Batch       | Spectra |
|--------------------------------------------------------------------------------------------------|---------------------------------|-------------|---------|
| /Noweda<br>10260682<br>18050701<br>20.05.19/AHD/Leyh Pharma<br>AEP<br>AHD /LeyhPharma<br>AHD PKH | Non-ionic hydrous liniment S... | 14350703    | 1       |
|                                                                                                  | Non-ionic hydrous liniment S... | 288452      | 1       |
|                                                                                                  | Hydrated liniment SR/DAC (NR... | 37B190514   | 1       |
|                                                                                                  | Non-ionic hydrous liniment S... | 4A010317    | 1       |
|                                                                                                  | Non-ionic hydrous liniment S... | 281562      | 1       |
|                                                                                                  | Non-ionic hydrous liniment S... | 19055702    | 1       |
|                                                                                                  | Non-ionic hydrous liniment S... | 17261201    | 1       |
|                                                                                                  | Hydrated liniment SR/DAC (NR... | 191511      | 1       |
|                                                                                                  | Non-ionic hydrous liniment S... | 20003577001 | 1       |
|                                                                                                  | Hydrated liniment SR/DAC (NR... | 150321      | 1       |
|                                                                                                  | Hydrated liniment SR/DAC (NR... | 62A021017   | 1       |

continued on the next page

<sup>†</sup>These spectra were recorded from material of the same package as the corresponding calibration spectra (*Type A*). Hence, these spectra are not independent and are not of *Type B*.

*continued from previous page*

| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| AHD/23.07.14/Leyh Pharma   | Hydrated liniment SR/DAC (NR... | 142231     | 1       |
| AHD/Leyh Pharma/25.10.14   | Hydrated liniment SR/DAC (NR... | 144031     | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 17144401   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 18005138   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 18006450   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 18153501   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 19001295   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 19001297   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 19002434   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 19006547   | 1       |
| AHD                        | Non-ionic hydrous liniment S... | 19006548   | 1       |
| AHL                        | Non-ionic hydrous liniment S... | 17312501   | 1       |
| Alli/Leyh                  | Hydrated liniment SR/DAC (NR... | 191021     | 1       |
| Alliance Health 09.05.2... | Non-ionic hydrous liniment S... | 14134601   | 2       |
| Alliance health            | Non-ionic hydrous liniment S... | 14350703   | 2       |
| Alliance                   | Non-ionic hydrous liniment S... | 18005541   | 1       |
| Alliance                   | Non-ionic hydrous liniment S... | 19055702   | 1       |
| Alliance                   | Hydrated liniment SR/DAC (NR... | 65A250918  | 1       |
| Allianz Healthcare         | Non-ionic hydrous liniment S... | 19136701   | 1       |
| AMH Niemann GmbH & Co KG   | Hydrated liniment SR/DAC (NR... | 38B200720  | 1       |
| AMH Niemann GmbH & Co KG   | Hydrated liniment SR/DAC (NR... | 46B240820  | 1       |
| AMH Niemann GmbH & Co. ... | Hydrated liniment SR/DAC (NR... | 28B240518  | 2       |
| AMH Niemann GmbH & Co. ... | Hydrated liniment SR/DAC (NR... | 45B120718  | 1       |
| AMH Niemann GmbH und Co... | Hydrated liniment SR/DAC (NR... | 30B040515  | 1       |
| AMH Niemann/ Phoenix       | Hydrated liniment SR/DAC (NR... | 59B030918  | 1       |
| AMH Niemann/Noweda         | Hydrated liniment SR/DAC (NR... | 26A130415  | 1       |
| AMH Niemann/Noweda         | Hydrated liniment SR/DAC (NR... | 83A021214  | 1       |
| AMH Niemann/Ph             | Hydrated liniment SR/DAC (NR... | 59B030918  | 2       |
| AMH Niemann/Sanacorp       | Hydrated liniment SR/DAC (NR... | 46B260514  | 1       |
| AMH Niemann                | Hydrated liniment SR/DAC (NR... | 45A200819  | 1       |
| AMH NiemannGmbH&CO KG      | Hydrated liniment SR/DAC (NR... | 11B240220  | 1       |
| Angag Leyh                 | Hydrated liniment SR/DAC (NR... | 4580715    | 1       |
| Anzag/Anzag 14.09.18       | Non-ionic hydrous liniment S... | 18003529   | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 16021601   | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 17027801   | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 19001298   | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 19006137   | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 20004409   | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 274016     | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 275786     | 1       |
| Anzag                      | Non-ionic hydrous liniment S... | 275788     | 1       |
| Anzag                      | Hydrated liniment SR/DAC (NR... | 30B130513  | 1       |
| Anzag                      | Hydrated liniment SR/DAC (NR... | 33A190515  | 1       |
| Anzag                      | Hydrated liniment SR/DAC (NR... | 74B081012  | 2       |
| aopmix/Phoenix             | Hydrated liniment SR/DAC (NR... | 62A110814  | 1       |
| api-ident                  | Non-ionic hydrous liniment S... | 18050701   | 1       |
| apo                        | Non-ionic hydrous liniment S... | 23B280920  | 1       |
| apo                        | Hydrated liniment SR/DAC (NR... | 47A020919  | 1       |
| apo                        | Hydrated liniment SR/DAC (NR... | 56A240712  | 2       |
| apomix                     | Hydrated liniment SR/DAC (NR... |            | 1       |
| apomix                     | Non-ionic hydrous liniment S... | 108070420  | 1       |
| apomix                     | Non-ionic hydrous liniment S... | 10A070420  | 2       |
| apomix                     | Hydrated liniment SR/DAC (NR... | 10A080216  | 1       |
| apomix                     | Non-ionic hydrous liniment S... | 10A110515  | 1       |
| apomix                     | Non-ionic hydrous liniment S... | 10A1206013 | 1       |
| apomix                     | Non-ionic hydrous liniment S... | 10A150512  | 2       |
| apomix                     | Non-ionic hydrous liniment S... | 10A150514  | 1       |
| apomix                     | Hydrated liniment SR/DAC (NR... | 10A170220  | 2       |
| apomix                     | Hydrated liniment SR/DAC (NR... | 10A25019   | 1       |
| apomix                     | Hydrated liniment SR/DAC (NR... | 10A260213  | 1       |

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| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 10A260218  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 10A310516  | 4       |
| apomix   | Non-ionic hydrous liniment S... | 10B010719  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 10B160215  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 10C010719  | 4       |
| apomix   | Non-ionic hydrous liniment S... | 10C070420  | 4       |
| apomix   | Non-ionic hydrous liniment S... | 11A010713  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 11A040618  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 11A070217  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 11A110319  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 11A210420  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 11A230719  | 9       |
| apomix   | Hydrated liniment SR/DAC (NR... | 11a270217  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 11A270217  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 11A270218  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 11B270515  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 11C060521  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 12A100615  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 12A100713  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 12A150212  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 12a200616  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 12A200616  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 12A200819  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 12A240220  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 12A270514  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 12B110214  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 12B180319  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 12C050520  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 13A040614  | 5       |
| apomix   | Non-ionic hydrous liniment S... | 13A090919  | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 13A110214  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 13A160216  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 13A180319  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 13A260617  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 13a260618  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 13A260618  | 6       |
| apomix   | Non-ionic hydrous liniment S... | 13A26068   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 14A150317  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 14A180520  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 14a180716  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 14A180716  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 14a190318  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 14A260617  | 5       |
| apomix   | Non-ionic hydrous liniment S... | 14A300615  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 14B070621  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 14B220216  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 15A090321  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 15A110717  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 15A140714  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 15A140721  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 15A150715  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 15A170718  | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 15A210318  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 15A250319  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 15A260813  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 15A300712  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 15B071019  | 4       |
| apomix   | Non-ionic hydrous liniment S... | 15B160320  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 15C080620  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 16A0101419 | 1       |

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| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 16A010419  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 16A020817  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 16A040814  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 16A050815  | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 16A070312  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 16A080620  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 16A081019  | 8       |
| apomix   | Hydrated liniment SR/DAC (NR... | 16A140320  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 16A170718  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 16a200317  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 16A200317  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 16B140721  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 16B190716  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 16B270318  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 17A020818  | 7       |
| apomix   | Hydrated liniment SR/DAC (NR... | 17A030314  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 17A030912  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 17A100821  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 17A130720  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 17A140817  | 4       |
| apomix   | Non-ionic hydrous liniment S... | 17A220816  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 17A230913  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 17A270318  | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 17A290216  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 17B050313  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 17B230320  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 17B270317  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 18A020218  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 18A020818  | 5       |
| apomix   | Non-ionic hydrous liniment S... | 18A031219  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 18a070915  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 18A070915  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 18A140720  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 18A200814  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 18A230320  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 18B010916  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 18B030417  | 5       |
| apomix   | Non-ionic hydrous liniment S... | 18B140720  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 19001299   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 19004234   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 190182501  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 1902004-03 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 1913080419 | 1       |
| apomix   | Non-ionic hydrous liniment S... | 19A010916  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 19a040917  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 19A040917  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 19A070316  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 19B040417  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 19B080419  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 19B100314  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 19C120820  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 1A020117   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 1A070119   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 1a100117   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 1A100117   | 2       |
| apomix   | Non-ionic hydrous liniment S... | 1A110121   | 2       |
| apomix   | Non-ionic hydrous liniment S... | 1A200115   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 1B130120   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 1B200120   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 20A051113  | 3       |

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| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 20A100418  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 20A120820  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 20A121211  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 20a150316  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 20A150914  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 20A170315  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 20A221012  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 20A270818  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 20A280915  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 20A301219  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 20B180313  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 20B310320  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 21013      | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 21A060519  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 21A180313  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 21A241016  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 21A250917  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 22A100918  | 6       |
| apomix   | Non-ionic hydrous liniment S... | 22A101114  | 6       |
| apomix   | Hydrated liniment SR/DAC (NR... | 22A180417  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 22a210316  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 22a231017  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 22A231017  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 22A250314  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 22a251016  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 22B060519  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 23A020413  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 23A081018  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 23A111213  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 23a181115  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 23A181115  | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 23A240417  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 23A250521  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 23A270312  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 23B060519  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 23B080518  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 23B280920  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 24A070415  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 24A0801018 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 24A080518  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 24A080621  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 24A081018  | 9       |
| apomix   | Non-ionic hydrous liniment S... | 24A101212  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 24A151117  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 24A231116  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 24A240417  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 24A271114  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 24A280920  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 24A290316  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 24A310314  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 25A021214  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 25a071217  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 25A071217  | 5       |
| apomix   | Non-ionic hydrous liniment S... | 25a081215  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 25A081215  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 25A090518  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 25A140519  | 4       |
| apomix   | Non-ionic hydrous liniment S... | 25A181217  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 25A191213  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 25A220413  | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 25A310314   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 25B130415   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 25B210420   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 26B140519   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 26A020517   | 2       |
| apomix   | Non-ionic hydrous liniment S... | 26A281215   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 26A28125    | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 26B140519   | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 26B240518   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 27A050416   | 6       |
| apomix   | Non-ionic hydrous liniment S... | 27A111218   | 8       |
| apomix   | Hydrated liniment SR/DAC (NR... | 27A150517   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 27A181217   | 2       |
| apomix   | Non-ionic hydrous liniment S... | 27A221214   | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 27A230413   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 27B030619   | 3       |
| apomix   | Non-ionic hydrous liniment S... | 27B091221   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 27B230413   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 286417      | 1       |
| apomix   | Non-ionic hydrous liniment S... | 286420      | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 28A030619   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 28A060416   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 28A121218   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 28B110520   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 28B160517   | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 28B240518   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 297052      | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 299338      | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 29A060513   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 29A160517   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 29A280518   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 2A010217    | 2       |
| apomix   | Non-ionic hydrous liniment S... | 2A020216    | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 2a080118    | 1       |
| apomix   | Non-ionic hydrous liniment S... | 2A100215    | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 2A120115    | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 2A130120    | 1       |
| apomix   | Non-ionic hydrous liniment S... | 2A170118    | 2       |
| apomix   | Non-ionic hydrous liniment S... | 2A200120    | 1       |
| apomix   | Non-ionic hydrous liniment S... | 2A290119    | 6       |
| apomix   | Hydrated liniment SR/DAC (NR... | 2B090117    | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 2B140119    | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 2B14019     | 1       |
| apomix   | Non-ionic hydrous liniment S... | 301558      | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 306060      | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 30A280518   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 30B250520   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 31A040515   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 31A17060619 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 31A170619   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 31A250520   | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 31A290517   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 31A290518   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 32A120515   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 32b180619   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 32B180619   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 33A070514   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 33A090620   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 33A190515   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 33A210513   | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 33B120617 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 33b180618 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 33B180618 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 34A170821 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 34A180618 | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 34B080514 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 34B120617 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 34B240619 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 35A080514 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 35A120617 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 35A170516 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 35A240619 | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 35A290512 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 36A120514 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 36B060720 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 36B130617 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 36B250619 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 36B270513 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 37B010615 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 37B020718 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 37B080719 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 38A040613 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 38a060616 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 38A070921 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 38A080719 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 38B020718 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 38B190617 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 39A020718 | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 39A190617 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 39B150719 | 1       |
| apomix   | Non-ionic hydrous liniment S... | 3A060319  | 7       |
| apomix   | Hydrated liniment SR/DAC (NR... | 3A070114  | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 3a080118  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 3A080118  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 3A100215  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 3A100220  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 3A140119  | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 3B090117  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 3B130115  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 3B180214  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 40A030718 | 9       |
| apomix   | Hydrated liniment SR/DAC (NR... | 40A150719 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 40A170613 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 40A200617 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 41A080615 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 41A260514 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 41A270720 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 41B090718 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 41B140616 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 41B280921 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 42290719  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 428140616 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 42A020614 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 42B030717 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 42B090718 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 42B140616 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 42B240613 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 42B280720 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 43A010713 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 43A090718 | 5       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 43A140616 | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 43A290719 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 43B040614 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 44A040717 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 44A100718 | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 44A120612 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 44B120819 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 4576872   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 45A170614 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 45A170820 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 45A200819 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 45A270606 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 45A270616 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 46A280616 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 46A290615 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 46B150713 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 46B170717 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 46B240820 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 46B260514 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 47A020919 | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 47a170717 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 47B170614 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 47B300718 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48A020712 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48A170713 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48a170717 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48A170717 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48A250820 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48A300718 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48b160919 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 48B160919 | 5       |
| apomix   | Hydrated liniment SR/DAC (NR... | 49A300718 | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 49B170713 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 49B240717 | 1       |
| apomix   | Non-ionic hydrous liniment S... | 4a010316  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 4A010316  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 4a010317  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 4A090117  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 4A110112  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 4a190218  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 4A190218  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 4A250214  | 2       |
| apomix   | Non-ionic hydrous liniment S... | 4A250220  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 4A270120  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 50A130715 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 50A160919 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 51A130716 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 51A230713 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 51B060818 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 51B170712 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 51B230919 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 52A060818 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 52a130716 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 52A220920 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 52A230919 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 52A23919  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 53030815  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 53A060818 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 53B140716 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 54A030815 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 54A210817 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 55A040815 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 55A221019 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 55A250716 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 55B121020 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 56A120813 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 56A130818 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 56A240712 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 56B100815 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 56B210817 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 56B221019 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 57a010816 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 57A041119 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 57a070917 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 57A070917 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 57B030918 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 58A010812 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 58A010816 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 58a180815 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 59A050814 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 59A261020 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 59B030918 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 59B180917 | 1       |
| apomix   | Non-ionic hydrous liniment S... | 5A110315  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 5a120318  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 5A120318  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 5A150118  | 3       |
| apomix   | Non-ionic hydrous liniment S... | 5A150419  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 5A210110  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 5A210113  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 5B030220  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 5B040219  | 1       |
| apomix   | Non-ionic hydrous liniment S... | 5B170414  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 5B250121  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 60A020812 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 60A150816 | 9       |
| apomix   | Hydrated liniment SR/DAC (NR... | 60A180917 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 60B021219 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 60B040918 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 60B171120 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 61A010915 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 61A110814 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 61B021017 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 62A021017 | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 62A110814 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 62A170918 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 62B050913 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 638091219 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 63A120814 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 63A170918 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 63B050916 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 63B091219 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 64A050916 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 64a091017 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 64A091017 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 64A140915 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 64A240918 | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 65a060916 | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 65A060916 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 65B221019 | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| apomix   | Hydrated liniment SR/DAC (NR... | 65B290812  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 66A161017  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 66A210915  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 66b120916  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 67A010914  | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 67A220915  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 68A080914  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 68A300913  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 68A301017  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 68B210915  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 69A120912  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 69A200916  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 69A220915  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 69B051118  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 69B071013  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 6A010322   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 6A080413   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 6A090320   | 5       |
| apomix   | Non-ionic hydrous liniment S... | 6a120318   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 6A120318   | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 6A180112   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 6A2000114  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 6A200114   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 6A290317   | 2       |
| apomix   | Non-ionic hydrous liniment S... | 6A310316   | 4       |
| apomix   | Non-ionic hydrous liniment S... | 6B010321   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 6B180315   | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 70A071013  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 70A201117  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 71A051015  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 71A291013  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72A011012  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72A031218  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72A041217  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72a101016  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72A220914  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72a270916  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72A270916  | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 72B041113  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 73A041217  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 73A101016  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 73B101218  | 3       |
| apomix   | Hydrated liniment SR/DAC (NR... | 73B131014  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 74A131014  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 74B111016  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 74B271217  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 75A131113  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 75A171218  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 75A271217  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 75B191016  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 76A031115  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 76A271014  | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 76B1611012 | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 77A251113  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 78A161115  | 2       |
| apomix   | Hydrated liniment SR/DAC (NR... | 79011215   | 1       |
| apomix   | Hydrated liniment SR/DAC (NR... | 79A091213  | 4       |
| apomix   | Hydrated liniment SR/DAC (NR... | 7A040220   | 1       |
| apomix   | Non-ionic hydrous liniment S... | 7A070320   | 3       |
| apomix   | Non-ionic hydrous liniment S... | 7A170414   | 2       |

continued on the next page



continued from previous page

| Supplier               | Substance                       | Batch        | Spectra |
|------------------------|---------------------------------|--------------|---------|
| apomix                 | Hydrated liniment SR/DAC (NR... | 7A250116     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 7A300321     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 7A300419     | 4       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 7B050218     | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 7B060217     | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 80A061112    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 80A211116    | 2       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 80A241114    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 81A161213    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 81A211116    | 7       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 81A251114    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 81B071215    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 83A071112    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 83B051216    | 2       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 84a141215    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 84A271216    | 2       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 84B021214    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 85A091214    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 85A281112    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 85A281215    | 2       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 86A161214    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 88A061211    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 88A161214    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 8A050218     | 3       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 8a070217     | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 8A070217     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 8A080415     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 8a100516     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 8A100516     | 4       |
| apomix                 | Non-ionic hydrous liniment S... | 8A170412     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 8A250417     | 2       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 90A171212    | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 9A010216     | 4       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 9A020215     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 9A120619     | 2       |
| apomix                 | Non-ionic hydrous liniment S... | 9A190516     | 3       |
| apomix                 | Non-ionic hydrous liniment S... | 9A230518     | 5       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 9A270114     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | 9A290513     | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 9B170220     | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 9B25019      | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | 9B250219     | 1       |
| apomix                 | Non-ionic hydrous liniment S... | A150914      | 1       |
| apomix                 | Non-ionic hydrous liniment S... | apomix       | 1       |
| apomix                 | Hydrated liniment SR/DAC (NR... | CHB12B190318 | 1       |
| aponorm/WEPA           | Non-ionic hydrous liniment S... | 18003534     | 1       |
| Audor Pharma           | Non-ionic hydrous liniment S... | 17312601     | 1       |
| Beiersdorf/Kehr        | Non-ionic hydrous liniment S... | 302849       | 1       |
| Bomastus Werke         | Hydrated liniment SR/DAC (NR... | 307264       | 1       |
| Bomastus Werke         | Hydrated liniment SR/DAC (NR... | 307265       | 1       |
| Bomastus/Noweda        | Non-ionic hydrous liniment S... | 19005453     | 1       |
| Bomastus/Phönix        | Non-ionic hydrous liniment S... | 290610       | 1       |
| Bomastus               | Hydrated liniment SR/DAC (NR... | 19003408     | 1       |
| Bomastus               | Non-ionic hydrous liniment S... | 19004514     | 1       |
| bomb                   | Non-ionic hydrous liniment S... | 18005144     | 1       |
| Bombaltus/Sanac        | Non-ionic hydrous liniment S... | 279498       | 1       |
| Bombas/Phoenix         | Non-ionic hydrous liniment S... | 19002805     | 1       |
| Bombast/Phön           | Non-ionic hydrous liniment S... | 19006549     | 1       |
| BOMBASTU Gehe 29:01.18 | Non-ionic hydrous liniment S... | 170011409    | 1       |
| Bombastu/ Noweda       | Non-ionic hydrous liniment S... | 309802       | 1       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch           | Spectra |
|-----------|---------------------------------|-----------------|---------|
| Bombastus | Hydrated liniment SR/DAC (NR... |                 | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 10025682        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 108006454       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 131648          | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 15192502        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 15421002        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 16318801        | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17000556        | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17000557        | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17000558        | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17000559        | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17000560        | 7       |
| Bombastus | Non-ionic hydrous liniment S... | 17000574        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 17000575        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 17000577        | 12      |
| Bombastus | Non-ionic hydrous liniment S... | 17001403        | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 17001405        | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 17001406        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 17001407        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 17001408        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 17001409        | 10      |
| Bombastus | Non-ionic hydrous liniment S... | 17001410        | 7       |
| Bombastus | Non-ionic hydrous liniment S... | 17001411        | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 17001412        | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17001837        | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17001838        | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17001839        | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17001840        | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 17001841        | 13      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 171207WL/310644 | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 171229WL/310644 | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 17144502        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 17208901        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18(310355)      | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 180000058       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 180000054       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 180000055       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 180000056       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 180000057       | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 180000058       | 16      |
| Bombastus | Non-ionic hydrous liniment S... | 180000059       | 16      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 180004545       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18000059        | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18001654        | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18001655        | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18001656        | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18001657        | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18001658        | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18001659        | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18001660        | 10      |
| Bombastus | Non-ionic hydrous liniment S... | 18001761        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18001762        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18001764        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18001766        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18001767        | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 18001768        | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 18002331        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18002332        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18002333        | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 18002335        | 19      |

continued on the next page



continued from previous page

| Supplier  | Substance                       | Batch           | Spectra |
|-----------|---------------------------------|-----------------|---------|
| Bombastus | Non-ionic hydrous liniment S... | 18002355        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18002884        | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 18002885        | 8       |
| Bombastus | Non-ionic hydrous liniment S... | 18002886        | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 18002887        | 18      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18002956        | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18002957        | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18002958        | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18002959        | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18002960        | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18002961        | 13      |
| Bombastus | Non-ionic hydrous liniment S... | 18003527        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18003529        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18003530        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18003531        | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 18003532        | 8       |
| Bombastus | Non-ionic hydrous liniment S... | 18003533        | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 18003534        | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 18004182        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18004183        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18004184        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18004185        | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 18004187        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18004188        | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 18004190        | 12      |
| Bombastus | Non-ionic hydrous liniment S... | 18004191        | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18004545        | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18004546        | 10      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18004547        | 11      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18004548        | 11      |
| Bombastus | Non-ionic hydrous liniment S... | 18005137        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18005139        | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 18005140        | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 18005142        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18005143        | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 18005144        | 12      |
| Bombastus | Non-ionic hydrous liniment S... | 18005145        | 7       |
| Bombastus | Non-ionic hydrous liniment S... | 18005536        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18005539        | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 18005540        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18005541        | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18005582        | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18005583        | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18005584        | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18005585        | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18005586        | 11      |
| Bombastus | Non-ionic hydrous liniment S... | 18006449        | 8       |
| Bombastus | Non-ionic hydrous liniment S... | 18006450        | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 18006451        | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 18006452        | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 18006453        | 12      |
| Bombastus | Non-ionic hydrous liniment S... | 18006454        | 25      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18006888        | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18006889        | 18      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18006890        | 10      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 18006980        | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 180305WL/307264 | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 18174401        | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 19(17000575)    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 19000518        | 1       |

continued on the next page

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Non-ionic hydrous liniment S... | 19000519     | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 19000520     | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 19000521     | 13             |
| Bombastus       | Non-ionic hydrous liniment S... | 19001224     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19001293     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19001295     | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 19001296     | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 19001297     | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 19001298     | 22             |
| Bombastus       | Non-ionic hydrous liniment S... | 19001299     | 21             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19001957     | 7              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19001958     | 14             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19001959     | 6              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19001960     | 8              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19001961     | 13             |
| Bombastus       | Non-ionic hydrous liniment S... | 19002435     | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002436     | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002437     | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002438     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002439     | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002440     | 11             |
| Bombastus       | Non-ionic hydrous liniment S... | 19002441     | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002801     | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002802     | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002803     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002804     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19002805     | 10             |
| Bombastus       | Non-ionic hydrous liniment S... | 19002806     | 12             |
| Bombastus       | Non-ionic hydrous liniment S... | 19002842     | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19002913     | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19002914     | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 19003329     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19003330     | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 19003331     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19003332     | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19003333     | 11             |
| Bombastus       | Non-ionic hydrous liniment S... | 19003334     | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 19003335     | 7              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19003404     | 6              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19003405     | 7              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19003406     | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19003407     | 8              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19003408     | 13             |
| Bombastus       | Non-ionic hydrous liniment S... | 19004230     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19004232     | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 19004233     | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 19004234     | 20             |
| Bombastus       | Non-ionic hydrous liniment S... | 19004264     | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19004637     | 3              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19004638     | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19004640     | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19004641     | 7              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 19004642     | 12             |
| Bombastus       | Non-ionic hydrous liniment S... | 19004810     | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 19004811     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19004812     | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 19004813     | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 19004814     | 17             |
| Bombastus       | Non-ionic hydrous liniment S... | 19004815     | 11             |
| Bombastus       | Non-ionic hydrous liniment S... | 19005449     | 1              |

*continued on the next page*

continued from previous page

| Supplier  | Substance                       | Batch        | Spectra |
|-----------|---------------------------------|--------------|---------|
| Bombastus | Non-ionic hydrous liniment S... | 19005450     | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 19005451     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 19005453     | 13      |
| Bombastus | Non-ionic hydrous liniment S... | 19006134     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 19006135     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 19006136     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 19006137     | 18      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 19006509     | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 19006510     | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 19006511     | 9       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 19006512     | 6       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 19006513     | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 19006514     | 8       |
| Bombastus | Non-ionic hydrous liniment S... | 19006547     | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 19006549     | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 19006550     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 1902806      | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 190420904    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 190641906    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 1906549      | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 190782607    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 190793007    | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 191132210    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 192621       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 198001299    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20(17000575) | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 200000988    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 200003823    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20000417     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20000423     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 20000424     | 13      |
| Bombastus | Non-ionic hydrous liniment S... | 20000425     | 10      |
| Bombastus | Non-ionic hydrous liniment S... | 20000986     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 20000987     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20000988     | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 20000989     | 18      |
| Bombastus | Non-ionic hydrous liniment S... | 20001325     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20001326     | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 20001327     | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 20001329     | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 20001330     | 16      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20001408     | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 200014113    | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20001412     | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20001413     | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20001414     | 11      |
| Bombastus | Non-ionic hydrous liniment S... | 20002000     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 20002001     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 20002003     | 16      |
| Bombastus | Non-ionic hydrous liniment S... | 20002004     | 23      |
| Bombastus | Non-ionic hydrous liniment S... | 20002760     | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 20002761     | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 20002762     | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 20002981     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20002983     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20002984     | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20002985     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20002986     | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 20002987     | 8       |
| Bombastus | Non-ionic hydrous liniment S... | 20002988     | 12      |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch        | Spectra |
|-----------|---------------------------------|--------------|---------|
| Bombastus | Non-ionic hydrous liniment S... | 20002989     | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20003070     | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20003071     | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20003072     | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20003073     | 13      |
| Bombastus | Non-ionic hydrous liniment S... | 20003817     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20003822     | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 20003823     | 13      |
| Bombastus | Non-ionic hydrous liniment S... | 20003824     | 16      |
| Bombastus | Non-ionic hydrous liniment S... | 20003825     | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 20003826     | 17      |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20004042     | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20004045     | 7       |
| Bombastus | Non-ionic hydrous liniment S... | 20004406     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20004407     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 20004408     | 11      |
| Bombastus | Non-ionic hydrous liniment S... | 20004409     | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20005299     | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20005301     | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 20005302     | 10      |
| Bombastus | Non-ionic hydrous liniment S... | 2000988      | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 2002001      | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 2002989      | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 2003825      | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21(17001405) | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21000617     | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 21000619     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21000621     | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 21000622     | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 21002325     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21002326     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21002329     | 7       |
| Bombastus | Non-ionic hydrous liniment S... | 21002330     | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 21002568     | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 21002569     | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 21003175     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21003176     | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 21003177     | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 21003178     | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 21003861     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21004486     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 21004487     | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 21005029     | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 21005030     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 22(18000057) | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 22000840     | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 229263       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 23(18002332) | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 23B280920    | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 24(125336)   | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 25031-05-01  | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 258820       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 26(18005138) | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 264191       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 265946       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 267329       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 267339       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 268124       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 268125       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 268572       | 1       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch        | Spectra |
|-----------|---------------------------------|--------------|---------|
| Bombastus | Non-ionic hydrous liniment S... | 269131       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 269132       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 269133       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 269843       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 269847       | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 269848       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 26A281216    | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 26B0590416   | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 27(18006450) | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 270673       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 271236       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 271242       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 271245       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 271249       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 271302       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 271304       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 272614       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 272615       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 272647       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 273371       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 273373       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 273374       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 273375       | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 273773       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 273774       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 274014       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 274016       | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 274772       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 274813       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 274815       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 274819       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 274820       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 274869       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 275626       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 275785       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 275786       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 275787       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 275788       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 275789       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 275790       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 275792       | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 275864       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 275869       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 2764         | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 276523       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 276524       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 276525       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 276526       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 277778       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 277781       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 277782       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 278255       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 278256       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 278258       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 278259       | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 278260       | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 279397       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 279399       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 279400       | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 279496       | 3       |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Non-ionic hydrous liniment S... | 279497       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 279498       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 279499       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 279500       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 279501       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 279502       | 6              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 280805       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 280876       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 280877       | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 2809         | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 281558       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 281560       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 281561       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 281562       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 281563       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 281564       | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 281642       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 281644       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 281645       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 281646       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 2819         | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 282332       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 282333       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 282334       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 282335       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 282882       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 282884       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 282885       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 282945       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 282946       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 282947       | 6              |
| Bombastus       | Non-ionic hydrous liniment S... | 284231       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 284233       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 284234       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 284236       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 284237       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 284338       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 284339       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 284340       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 285023       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 285024       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 285025       | 3              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 285737       | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 285738       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 285739       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 285740       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 285790       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 285791       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 285792       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 285793       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 285795       | 6              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 285838       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 286417       | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 286418       | 8              |
| Bombastus       | Non-ionic hydrous liniment S... | 286419       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 286420       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 286421       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 286935       | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 286936       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 287318       | 7              |

*continued on the next page*

continued from previous page

| Supplier  | Substance                       | Batch        | Spectra |
|-----------|---------------------------------|--------------|---------|
| Bombastus | Non-ionic hydrous liniment S... | 287319       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 287320       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 287321       | 6       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 287323       | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 287409       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 287410       | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 287411       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 287412       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 288386       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 288387       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 288389       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 288390       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 288451       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 288452       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 288453       | 8       |
| Bombastus | Non-ionic hydrous liniment S... | 288454       | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 288533       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 288535       | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 288536       | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 288537       | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 288538       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 289205       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 289206       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 289207       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 289208       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 289209       | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 289862       | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 289863       | 7       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 289864       | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 29(19000519) | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 290121       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 290610       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 290611       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 290612       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 290613       | 8       |
| Bombastus | Non-ionic hydrous liniment S... | 291220       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 291221       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 291222       | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 291223       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 291286       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 291859       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 291860       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 291861       | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 291866       | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 291867       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 292491       | 7       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 292492       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 292493       | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 292618       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 292619       | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 292621       | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 292742       | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 293574       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 293577       | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 293578       | 5       |
| Bombastus | Non-ionic hydrous liniment S... | 293579       | 8       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 293590       | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 293591       | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 294211       | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 294212       | 1       |

continued on the next page



*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Bombastus       | Non-ionic hydrous liniment S... | 294213       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 294277       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 294433       | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 294434       | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 294435       | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 295068       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 295069       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 295070       | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 295071       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 295072       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 295073       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 295852       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 295853       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 295854       | 5              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 295857       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 295910       | 6              |
| Bombastus       | Non-ionic hydrous liniment S... | 295911       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 296106       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 296107       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 296108       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 296109       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 296110       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 296111       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 296503       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 296504       | 6              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 296505       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 296506       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 296584       | 10             |
| Bombastus       | Non-ionic hydrous liniment S... | 296585       | 8              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 296589       | 3              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 297052       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 297053       | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 297054       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 29715        | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 297171       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 297172       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 297173       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 297174       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 297175       | 6              |
| Bombastus       | Non-ionic hydrous liniment S... | 297176       | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 297177       | 11             |
| Bombastus       | Non-ionic hydrous liniment S... | 297178       | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 298465       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 298466       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 298467       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 298468       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 298572       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 299132       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 299133       | 5              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 299338       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 299986       | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 299987       | 3              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 299988       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 30(19001296) | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 300195       | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 300196       | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 300197       | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 300198       | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 300199       | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 300200       | 13             |

*continued on the next page*

continued from previous page

| Supplier  | Substance                       | Batch   | Spectra |
|-----------|---------------------------------|---------|---------|
| Bombastus | Non-ionic hydrous liniment S... | 300858  | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 300859  | 7       |
| Bombastus | Non-ionic hydrous liniment S... | 300860  | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 300861  | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 300862  | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 300863  | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 300864  | 9       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 300965  | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 300966  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 300967  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 300968  | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 301555  | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 301556  | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 301557  | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 301558  | 9       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 301561  | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 301562  | 4       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 301989  | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 301992  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 301993  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 301995  | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 302283  | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 302284  | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 302285  | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 302286  | 14      |
| Bombastus | Non-ionic hydrous liniment S... | 302287  | 12      |
| Bombastus | Non-ionic hydrous liniment S... | 302849  | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 302851  | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 302852  | 11      |
| Bombastus | Non-ionic hydrous liniment S... | 302887  | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 302930  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 302931  | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 302932  | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 302933  | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 303893  | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 303894  | 7       |
| Bombastus | Non-ionic hydrous liniment S... | 303895  | 4       |
| Bombastus | Non-ionic hydrous liniment S... | 303896  | 3       |
| Bombastus | Non-ionic hydrous liniment S... | 303897  | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 303898  | 9       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 303959  | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 303960  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 303961  | 3       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 303962  | 7       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 303963  | 9       |
| Bombastus | Non-ionic hydrous liniment S... | 304496  | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 304840  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 304841  | 1       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 304842  | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 304843  | 2       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 304844  | 5       |
| Bombastus | Hydrated liniment SR/DAC (NR... | 3048843 | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 304932  | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 304933  | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 304934  | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 304935  | 6       |
| Bombastus | Non-ionic hydrous liniment S... | 304936  | 11      |
| Bombastus | Non-ionic hydrous liniment S... | 305591  | 1       |
| Bombastus | Non-ionic hydrous liniment S... | 305593  | 2       |
| Bombastus | Non-ionic hydrous liniment S... | 305594  | 2       |

continued on the next page

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|---------------------------------|--------------------|----------------|
| Bombastus       | Non-ionic hydrous liniment S... | 305595             | 6              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 305596             | 11             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 306059             | 7              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 306060             | 4              |
| Bombastus       | Non-ionic hydrous liniment S... | 306357             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 306358             | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 306359             | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 306360             | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 306361             | 16             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 306362             | 12             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 307263             | 15             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 307264             | 11             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 307265             | 6              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 307680             | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 307681             | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 307682             | 1              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 307683             | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 307684             | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 307685             | 10             |
| Bombastus       | Non-ionic hydrous liniment S... | 308622             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 308623             | 6              |
| Bombastus       | Non-ionic hydrous liniment S... | 308624             | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 308625             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 308626             | 5              |
| Bombastus       | Non-ionic hydrous liniment S... | 308627             | 9              |
| Bombastus       | Non-ionic hydrous liniment S... | 308628             | 16             |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 308909             | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 308910             | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 308911             | 2              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 308912             | 10             |
| Bombastus       | Non-ionic hydrous liniment S... | 30898              | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 309786             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 309790             | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 309791             | 6              |
| Bombastus       | Non-ionic hydrous liniment S... | 309792             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 309794             | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 309795             | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 309796             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 309797             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 309798             | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 309799             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 309801             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 309802             | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 309803             | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 309804             | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 310355             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 310356             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 310357             | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 310358             | 7              |
| Bombastus       | Non-ionic hydrous liniment S... | 310358-20180112Ma4 | 1              |
| Bombastus       | Non-ionic hydrous liniment S... | 310359             | 5              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 310641             | 7              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 310642             | 5              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 310643             | 4              |
| Bombastus       | Hydrated liniment SR/DAC (NR... | 310644             | 18             |
| Bombastus       | Non-ionic hydrous liniment S... | 311039             | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 311040             | 2              |
| Bombastus       | Non-ionic hydrous liniment S... | 311041             | 15             |
| Bombastus       | Non-ionic hydrous liniment S... | 311609             | 3              |
| Bombastus       | Non-ionic hydrous liniment S... | 311610             | 3              |

*continued on the next page*

continued from previous page

| Supplier               | Substance                       | Batch            | Spectra |
|------------------------|---------------------------------|------------------|---------|
| Bombastus              | Non-ionic hydrous liniment S... | 311611           | 7       |
| Bombastus              | Non-ionic hydrous liniment S... | 32(19002434)     | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 3249             | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 33(19001295)     | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 3451             | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 388627           | 1       |
| Bombastus              | Hydrated liniment SR/DAC (NR... | 4114E-03266      | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 418M-03266       | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 488451           | 1       |
| Bombastus              | Hydrated liniment SR/DAC (NR... | 4A070114         | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 5A150419         | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 60091111         | 3       |
| Bombastus              | Non-ionic hydrous liniment S... | 60091112         | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 600991111        | 1       |
| Bombastus              | Hydrated liniment SR/DAC (NR... | 61A040918        | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 7021402          | 1       |
| Bombastus              | Hydrated liniment SR/DAC (NR... | 88A161214        | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 98434            | 1       |
| Bombastus              | Non-ionic hydrous liniment S... | 9A120619         | 1       |
| Bombastu-Werke AG/Gehe | Non-ionic hydrous liniment S... | 281564           | 1       |
| Bombastu-Werke AG/Gehe | Non-ionic hydrous liniment S... | 282947           | 1       |
| Bombastu-Werke AG/Gehe | Non-ionic hydrous liniment S... | 285025           | 1       |
| Bombastu-Werke AG/Gehe | Non-ionic hydrous liniment S... | 288452           | 1       |
| Bombatus               | Hydrated liniment SR/DAC (NR... | 18006888         | 5       |
| Bombatus               | Hydrated liniment SR/DAC (NR... | 19001957         | 3       |
| Bombstus/ Gehe         | Non-ionic hydrous liniment S... | 19004234         | 1       |
| Bombstus/ Sanacorp     | Hydrated liniment SR/DAC (NR... | 281643           | 2       |
| Bombstus               | Non-ionic hydrous liniment S... | 300199           | 1       |
| Cael/Phönix            | Non-ionic hydrous liniment S... | 15326702         | 1       |
| Caelo                  | Non-ionic hydrous liniment S... |                  | 2       |
| Caelo                  | Non-ionic hydrous liniment S... | 102600630        | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 10260630         | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 10260682         | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 10A110515        | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 10A310516        | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 11A040618        | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 122304           | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 123304           | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 123test          | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 1290617/17064402 | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 13A260617        | 2       |
| Caelo                  | Non-ionic hydrous liniment S... | 14024102         | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 14024104         | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 140918           | 4       |
| Caelo                  | Non-ionic hydrous liniment S... | 14092015A        | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 14134601         | 9       |
| Caelo                  | Non-ionic hydrous liniment S... | 14173601         | 3       |
| Caelo                  | Non-ionic hydrous liniment S... | 14209501         | 8       |
| Caelo                  | Non-ionic hydrous liniment S... | 14276001         | 5       |
| Caelo                  | Non-ionic hydrous liniment S... | 14276002         | 7       |
| Caelo                  | Non-ionic hydrous liniment S... | 14328402         | 3       |
| Caelo                  | Hydrated liniment SR/DAC (NR... | 14350002         | 2       |
| Caelo                  | Non-ionic hydrous liniment S... | 14350703         | 3       |
| Caelo                  | Hydrated liniment SR/DAC (NR... | 15002302         | 5       |
| Caelo                  | Non-ionic hydrous liniment S... | 15014601         | 9       |
| Caelo                  | Hydrated liniment SR/DAC (NR... | 150321           | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 15096001         | 1       |
| Caelo                  | Non-ionic hydrous liniment S... | 15096002         | 11      |
| Caelo                  | Non-ionic hydrous liniment S... | 15096101         | 8       |
| Caelo                  | Non-ionic hydrous liniment S... | 15192301         | 8       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Non-ionic hydrous liniment S... | 15192391  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 15192401  | 10      |
| Caelo    | Non-ionic hydrous liniment S... | 15192502  | 9       |
| Caelo    | Non-ionic hydrous liniment S... | 1519252   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 15279702  | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 15324402  | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 15324403  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 15326702  | 12      |
| Caelo    | Non-ionic hydrous liniment S... | 15326703  | 8       |
| Caelo    | Non-ionic hydrous liniment S... | 15420901  | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 15420902  | 5       |
| Caelo    | Non-ionic hydrous liniment S... | 15421002  | 4       |
| Caelo    | Non-ionic hydrous liniment S... | 16021601  | 22      |
| Caelo    | Non-ionic hydrous liniment S... | 16113801  | 14      |
| Caelo    | Non-ionic hydrous liniment S... | 16113901  | 13      |
| Caelo    | Non-ionic hydrous liniment S... | 16113902  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 16114002  | 17      |
| Caelo    | Non-ionic hydrous liniment S... | 1616701   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 16176701  | 25      |
| Caelo    | Non-ionic hydrous liniment S... | 16176802  | 6       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 16182403  | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 16218201  | 19      |
| Caelo    | Non-ionic hydrous liniment S... | 1621821   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 16218301  | 12      |
| Caelo    | Non-ionic hydrous liniment S... | 162258402 | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 16248301  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1625401   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1625801   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 16258401  | 9       |
| Caelo    | Non-ionic hydrous liniment S... | 16258501  | 19      |
| Caelo    | Non-ionic hydrous liniment S... | 16258801  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1631880   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 16318801  | 55      |
| Caelo    | Non-ionic hydrous liniment S... | 16318802  | 9       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 16330502  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1676802   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 16A050815 | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 16B190716 | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 17001404  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 17001409  | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 17022202  | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 17027801  | 27      |
| Caelo    | Non-ionic hydrous liniment S... | 17027901  | 13      |
| Caelo    | Non-ionic hydrous liniment S... | 17053187  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 170644    | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 17064401  | 17      |
| Caelo    | Non-ionic hydrous liniment S... | 17064402  | 46      |
| Caelo    | Non-ionic hydrous liniment S... | 17117303  | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 1714401   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 17144401  | 26      |
| Caelo    | Non-ionic hydrous liniment S... | 17144502  | 8       |
| Caelo    | Non-ionic hydrous liniment S... | 17175201  | 19      |
| Caelo    | Non-ionic hydrous liniment S... | 17175301  | 21      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 17198902  | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 17198903  | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 17208802  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 17208901  | 11      |
| Caelo    | Non-ionic hydrous liniment S... | 17209001  | 30      |
| Caelo    | Non-ionic hydrous liniment S... | 17209901  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 17261101  | 17      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Non-ionic hydrous liniment S... | 17261201     | 28      |
| Caelo    | Non-ionic hydrous liniment S... | 17312501     | 30      |
| Caelo    | Non-ionic hydrous liniment S... | 17312601     | 26      |
| Caelo    | Non-ionic hydrous liniment S... | 17313102     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 17313201     | 12      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 17333401     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1744401      | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1761201      | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 17A140817    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18000058     | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18001658     | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18001660     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18001760     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18002885     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18002886     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18002887     | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18002957     | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18002961     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18003533     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18003534     | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 18004190     | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18004548     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 180050701    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18005144     | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18005586     | 4       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18050701     | 90      |
| Caelo    | Non-ionic hydrous liniment S... | 18050702     | 21      |
| Caelo    | Non-ionic hydrous liniment S... | 18055703     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1805702      | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18074403     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18086702     | 14      |
| Caelo    | Non-ionic hydrous liniment S... | 18086801     | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 18106503     | 30      |
| Caelo    | Non-ionic hydrous liniment S... | 181065035784 | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18109001     | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18109002     | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 18153501     | 29      |
| Caelo    | Non-ionic hydrous liniment S... | 18153602     | 5       |
| Caelo    | Non-ionic hydrous liniment S... | 18174401     | 11      |
| Caelo    | Non-ionic hydrous liniment S... | 18174501     | 15      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18233002     | 4       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18233003     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 1823301      | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18233101     | 3       |
| Caelo    | Non-ionic hydrous liniment S... | 18233201     | 38      |
| Caelo    | Non-ionic hydrous liniment S... | 18233302     | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 18266401     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 18278801     | 10      |
| Caelo    | Non-ionic hydrous liniment S... | 18278901     | 31      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 18313901     | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 19000521     | 4       |
| Caelo    | Non-ionic hydrous liniment S... | 19002435     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19002441     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19002801     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19004301     | 4       |
| Caelo    | Non-ionic hydrous liniment S... | 19004303     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19004501     | 22      |
| Caelo    | Non-ionic hydrous liniment S... | 19004815     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19006137     | 3       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 19016402     | 1       |

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continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Non-ionic hydrous liniment S... | 190351403     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 190555703     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19055702      | 15      |
| Caelo    | Non-ionic hydrous liniment S... | 19055703      | 55      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 19068801      | 3       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 19068803      | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19084105      | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19121801      | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19136701      | 62      |
| Caelo    | Non-ionic hydrous liniment S... | 191367012x    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 19136702      | 17      |
| Caelo    | Non-ionic hydrous liniment S... | 19136704      | 4       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 19166302      | 5       |
| Caelo    | Non-ionic hydrous liniment S... | 19201301      | 8       |
| Caelo    | Non-ionic hydrous liniment S... | 19201401      | 39      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 19296403      | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 19296404      | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 19313903      | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 2/AD1         | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 200000904004  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 200002511003  | 3       |
| Caelo    | Non-ionic hydrous liniment S... | 200002511004  | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 200002513001  | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 20000904003   | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 20000904004   | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 20001810003   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 20002511003   | 10      |
| Caelo    | Non-ionic hydrous liniment S... | 20002511004   | 18      |
| Caelo    | Non-ionic hydrous liniment S... | 20002513001   | 18      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 20002915001   | 4       |
| Caelo    | Non-ionic hydrous liniment S... | 2000300200    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 20003002001   | 31      |
| Caelo    | Non-ionic hydrous liniment S... | 20003002003   | 8       |
| Caelo    | Non-ionic hydrous liniment S... | 2000302003    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 20003577001   | 13      |
| Caelo    | Non-ionic hydrous liniment S... | 20003577002   | 6       |
| Caelo    | Non-ionic hydrous liniment S... | 20003577004   | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 20003910002   | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 20003910003   | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 2002511004    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 2003002001    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 200618        | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 20170829Ma1   | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 20614         | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 21000510003   | 5       |
| Caelo    | Non-ionic hydrous liniment S... | 21000510004   | 10      |
| Caelo    | Hydrated liniment SR/DAC (NR... | 21001310003   | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 21001822001   | 4       |
| Caelo    | Non-ionic hydrous liniment S... | 21001823001   | 6       |
| Caelo    | Non-ionic hydrous liniment S... | 21002411001   | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 21003958001   | 4       |
| Caelo    | Non-ionic hydrous liniment S... | 2110002511003 | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 21A201113     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 22A100918     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 22A101114     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 23A111213     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 24A081018     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 24A271114     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 269134        | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 26A281216     | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Non-ionic hydrous liniment S... | 270819Mo     | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 275785       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 275787       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 276526       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 278260       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 281562       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 281564       | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 281646       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 282333       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 284237       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 285791       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 287323       | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 287410       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 288454       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 289208       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 291222       | 3       |
| Caelo    | Non-ionic hydrous liniment S... | 291286       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 293579       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 294211       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 295070       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 295072       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 295910       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 296585       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 297171       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 297175       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 297178       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 298466       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 299133       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 300199       | 3       |
| Caelo    | Non-ionic hydrous liniment S... | 300862       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 300863       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 300864       | 3       |
| Caelo    | Non-ionic hydrous liniment S... | 302283       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 302285       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 302287       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 303898       | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 304842       | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 304844       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 304936       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 306362       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 307658       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 307685       | 2       |
| Caelo    | Non-ionic hydrous liniment S... | 308627       | 2       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 308912       | 3       |
| Caelo    | Non-ionic hydrous liniment S... | 309791       | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 30A280518    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 31(19136701) | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 310355       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 310359       | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 310641       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 311039       | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 311611       | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 31a290517    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 3269         | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 3291         | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 3305         | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 3331         | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 34B170516    | 1       |
| Caelo    | Hydrated liniment SR/DAC (NR... | 38A080719    | 1       |
| Caelo    | Non-ionic hydrous liniment S... | 4063101      | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caelo                      | Hydrated liniment SR/DAC (NR... | 43A030717   | 1       |
| Caelo                      | Non-ionic hydrous liniment S... | 4617M-03366 | 1       |
| Caelo                      | Non-ionic hydrous liniment S... | 4717Q-03266 | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 47B020712   | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 52B010817   | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 57A041119   | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 59b030918   | 1       |
| Caelo                      | Non-ionic hydrous liniment S... | 5A110315    | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 5B040219    | 1       |
| Caelo                      | Non-ionic hydrous liniment S... | 60091111    | 2       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 63A170918   | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 67A12092916 | 1       |
| Caelo                      | Non-ionic hydrous liniment S... | 6A290317    | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 70717       | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 70B191118   | 1       |
| Caelo                      | Hydrated liniment SR/DAC (NR... | 8A040220    | 1       |
| Caelo                      | Non-ionic hydrous liniment S... | 9A230518    | 1       |
| Caeol/ Noweda              | Non-ionic hydrous liniment S... | 16318801    | 1       |
| Caeol/Phornix              | Non-ionic hydrous liniment S... | 17261201    | 1       |
| Caeolo / Anzag             | Non-ionic hydrous liniment S... | 308627      | 1       |
| Caesar & Lorenz GmbH       | Non-ionic hydrous liniment S... | 16318801    | 1       |
| Caesar & Loretz GmbH / ... | Non-ionic hydrous liniment S... | 3114041     | 1       |
| Caesar & Loretz GmbH / ... | Hydrated liniment SR/DAC (NR... | 196512      | 1       |
| Caesar & Loretz GmbH/ A... | Non-ionic hydrous liniment S... | 19136701    | 1       |
| Caesar & Loretz GmbH/ A... | Non-ionic hydrous liniment S... | 19201401    | 1       |
| Caesar & Loretz GmbH/ N... | Hydrated liniment SR/DAC (NR... | 19068802    | 1       |
| Caesar & Loretz GmbH/ P... | Non-ionic hydrous liniment S... | 20003577001 | 2       |
| Caesar & Loretz GmbH//G... | Non-ionic hydrous liniment S... | 19201401    | 2       |
| Caesar & Loretz GmbH/AHD   | Non-ionic hydrous liniment S... | 19201401    | 1       |
| Caesar & Loretz GmbH/Fi... | Non-ionic hydrous liniment S... | 19136702    | 3       |
| Caesar & Loretz GmbH/Fi... | Non-ionic hydrous liniment S... | 19136701    | 1       |
| Caesar & Loretz GmbH/Fi... | Non-ionic hydrous liniment S... | 20004408    | 1       |
| Caesar & Loretz GmbH/Gehe  | Non-ionic hydrous liniment S... | 19004501    | 1       |
| Caesar & Loretz GmbH/Je... | Non-ionic hydrous liniment S... | 19136702    | 1       |
| Caesar & Loretz GmbH/Je... | Hydrated liniment SR/DAC (NR... | 20001810003 | 1       |
| Caesar & Loretz GmbH/Kr... | Non-ionic hydrous liniment S... | 19136702    | 2       |
| Caesar & Loretz GmbH/No... | Non-ionic hydrous liniment S... | 18278901    | 1       |
| Caesar & Loretz GmbH/No... | Non-ionic hydrous liniment S... | 19055703    | 1       |
| Caesar & Loretz GmbH/No... | Non-ionic hydrous liniment S... | 19136701    | 1       |
| Caesar & Loretz GmbH/Ph... | Non-ionic hydrous liniment S... | 19136701    | 2       |
| Caesar & Loretz GmbH/Sana  | Non-ionic hydrous liniment S... | 20003002001 | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrated liniment SR/DAC (NR... | 20000904003 | 1       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 18153501    | 1       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 18174503    | 1       |
| Caesar & Loretz GmbH       | Hydrated liniment SR/DAC (NR... | 18184802    | 1       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 18233101    | 1       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 18233201    | 1       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 18278901    | 3       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 18307406    | 1       |
| Caesar & Loretz GmbH       | Hydrated liniment SR/DAC (NR... | 18313901    | 1       |
| Caesar & Loretz GmbH       | Hydrated liniment SR/DAC (NR... | 18313902    | 3       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19004301    | 6       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19004501    | 5       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19006549    | 1       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19055702    | 4       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19055703    | 8       |
| Caesar & Loretz GmbH       | Hydrated liniment SR/DAC (NR... | 19068802    | 1       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19136701    | 22      |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19136702    | 9       |
| Caesar & Loretz GmbH       | Non-ionic hydrous liniment S... | 19136704    | 1       |

continued on the next page

continued from previous page

| Supplier                    | Substance                       | Batch         | Spectra |
|-----------------------------|---------------------------------|---------------|---------|
| Caesar & Loretz GmbH        | Hydrated liniment SR/DAC (NR... | 19166302      | 4       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 19201301      | 3       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 19201401      | 4       |
| Caesar & Loretz GmbH        | Hydrated liniment SR/DAC (NR... | 192827002     | 1       |
| Caesar & Loretz GmbH        | Hydrated liniment SR/DAC (NR... | 20000904004   | 1       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 20000989      | 1       |
| Caesar & Loretz GmbH        | Hydrated liniment SR/DAC (NR... | 20001810003   | 1       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 20002511003   | 1       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 20002511004   | 6       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 20002513001   | 1       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 20003002001   | 9       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 20003002003   | 2       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 20003577001   | 5       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 21000510003   | 1       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 21001822001   | 3       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 21001823001   | 2       |
| Caesar & Loretz GmbH        | Non-ionic hydrous liniment S... | 21003958001   | 2       |
| Caesar & Loretz GmbH/AHD    | Non-ionic hydrous liniment S... | 19055703      | 1       |
| Caesar & Loretz GmbH/Fie... | Non-ionic hydrous liniment S... | 19055702      | 1       |
| Caesar & Loretz/ Noweda     | Non-ionic hydrous liniment S... | 278260        | 1       |
| Caesar & Loretz             | Non-ionic hydrous liniment S... | 17313201      | 1       |
| Caesar & Loretz             | Non-ionic hydrous liniment S... | 18086702      | 1       |
| Caesar & Loretz             | Non-ionic hydrous liniment S... | 19136701      | 1       |
| Caesar und Loretz GmbH      | Non-ionic hydrous liniment S... | 18050701      | 1       |
| Caesar/Noweda               | Non-ionic hydrous liniment S... | 14173601      | 1       |
| Caesar/Noweda               | Non-ionic hydrous liniment S... | 15326703      | 1       |
| Caleo/Alliance              | Non-ionic hydrous liniment S... | 18278801      | 1       |
| Cealo / Otto Geilenkirc...  | Non-ionic hydrous liniment S... | 19136701      | 2       |
| Cealo/ Anzag                | Non-ionic hydrous liniment S... | 17144401      | 2       |
| Cealo/Noweda                | Non-ionic hydrous liniment S... | 15096101      | 1       |
| Cealo/Noweda                | Non-ionic hydrous liniment S... | 17027801      | 1       |
| Cealo                       | Hydrated liniment SR/DAC (NR... | 20000904002   | 1       |
| Celo                        | Non-ionic hydrous liniment S... | 16113801      | 1       |
| Chiesi/Phoenix              | Non-ionic hydrous liniment S... | 18050701      | 1       |
| Delta                       | Non-ionic hydrous liniment S... | 18050701      | 1       |
| E Plus                      | Non-ionic hydrous liniment S... | 18001767      | 1       |
| E Plus                      | Non-ionic hydrous liniment S... | 18002887      | 1       |
| E Plus                      | Non-ionic hydrous liniment S... | 309802        | 1       |
| Ebert & Jacobi              | Non-ionic hydrous liniment S... | 18005541      | 1       |
| Ebert u. Jacobi 16.0...     | Non-ionic hydrous liniment S... | 300864        | 1       |
| Eigen                       | Non-ionic hydrous liniment S... |               | 1       |
| eigene Herstellung 5.8...   | Non-ionic hydrous liniment S... | 20200805      | 1       |
| Eigene Herstellung          | Non-ionic hydrous liniment S... | 1546          | 1       |
| Eigene Herstellung          | Non-ionic hydrous liniment S... | 1567          | 1       |
| Eigenherstellung            | Non-ionic hydrous liniment S... | RD200731-0001 | 1       |
| Euro OTC                    | Non-ionic hydrous liniment S... | 15192401      | 1       |
| Euro OTC                    | Non-ionic hydrous liniment S... | 16218301      | 2       |
| Euro OTC                    | Non-ionic hydrous liniment S... | 16C190716     | 1       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 17A010419     | 1       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 18004547      | 1       |
| Euro OTC                    | Non-ionic hydrous liniment S... | 18050701      | 2       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 18313901      | 1       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 19004641      | 1       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 300968        | 1       |
| Euro OTC                    | Non-ionic hydrous liniment S... | 307684        | 1       |
| Euro OTC                    | Non-ionic hydrous liniment S... | 309802        | 1       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 310644        | 1       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 33A210513     | 1       |
| Euro OTC                    | Hydrated liniment SR/DAC (NR... | 42B160615     | 1       |
| Euro OTC                    | Non-ionic hydrous liniment S... | 4A190218      | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch     | Spectra |
|----------------------------|---------------------------------|-----------|---------|
| Euro OTC                   | Non-ionic hydrous liniment S... | 6A120318  | 1       |
| Euro OTC                   | Hydrated liniment SR/DAC (NR... | 70B191118 | 1       |
| Euro Pharmachem/Phönix     | Hydrated liniment SR/DAC (NR... | 110315    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 122304    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 123304    | 2       |
| Fagron                     | Non-ionic hydrous liniment S... | 125304    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 14350703  | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 16113901  | 1       |
| Fagron                     | Hydrated liniment SR/DAC (NR... | 16182403  | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 17001403  | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 17027801  | 1       |
| Fagron                     | Hydrated liniment SR/DAC (NR... | 17A030314 | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 18000059  | 2       |
| Fagron                     | Non-ionic hydrous liniment S... | 1805070   | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 18086801  | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 18174501  | 2       |
| Fagron                     | Non-ionic hydrous liniment S... | 18233201  | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 18278801  | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 20000989  | 1       |
| Fagron                     | Hydrated liniment SR/DAC (NR... | 24A080518 | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 257210    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 258210    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 27301     | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 288452    | 1       |
| Fagron                     | Hydrated liniment SR/DAC (NR... | 289863    | 1       |
| Fagron                     | Hydrated liniment SR/DAC (NR... | 294434    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 296111    | 2       |
| Fagron                     | Non-ionic hydrous liniment S... | 301558    | 1       |
| Fagron                     | Hydrated liniment SR/DAC (NR... | 302933    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 307684    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 310358    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 311038    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 311040    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 311041    | 1       |
| Fagron                     | Non-ionic hydrous liniment S... | 5A110315  | 1       |
| Fiebig                     | Non-ionic hydrous liniment S... | 17312601  | 1       |
| Fiebig                     | Non-ionic hydrous liniment S... | 18050701  | 1       |
| Fiebig                     | Non-ionic hydrous liniment S... | 18153501  | 1       |
| Gehe / PKH                 | Non-ionic hydrous liniment S... | 5A150419  | 1       |
| Gehe 18.08.14              | Non-ionic hydrous liniment S... | 288387    | 4       |
| Gehe amax                  | Non-ionic hydrous liniment S... | 18005144  | 1       |
| Gehe amax                  | Non-ionic hydrous liniment S... | 19001298  | 1       |
| Gehe amax                  | Non-ionic hydrous liniment S... | 19002806  | 1       |
| Gehe amax                  | Non-ionic hydrous liniment S... | 19004234  | 1       |
| Gehe amax                  | Hydrated liniment SR/DAC (NR... | 34B200515 | 1       |
| Gehe Kassel                | Non-ionic hydrous liniment S... | 15014601  | 2       |
| Gehe/18.08.14              | Hydrated liniment SR/DAC (NR... | 42A020614 | 3       |
| GEHE/LEYH Parma/09.04.2... | Hydrated liniment SR/DAC (NR... | 134211    | 2       |
| Gehe/Pharmachem /13.06...  | Hydrated liniment SR/DAC (NR... | 250412    | 1       |
| GEHE/Pharmachem/20.04.2... | Hydrated liniment SR/DAC (NR... | 91211     | 1       |
| GEHE                       | Non-ionic hydrous liniment S... | 14A260617 | 1       |
| Gehe                       | Non-ionic hydrous liniment S... | 15192401  | 2       |
| Gehe                       | Non-ionic hydrous liniment S... | 15326702  | 1       |
| Gehe                       | Non-ionic hydrous liniment S... | 16021601  | 1       |
| Gehe                       | Non-ionic hydrous liniment S... | 16318801  | 1       |
| GEHE                       | Non-ionic hydrous liniment S... | 16A020817 | 1       |
| GEHE                       | Non-ionic hydrous liniment S... | 17001403  | 1       |
| Gehe                       | Hydrated liniment SR/DAC (NR... | 17001837  | 1       |
| Gehe                       | Hydrated liniment SR/DAC (NR... | 17001841  | 3       |
| Gehe                       | Non-ionic hydrous liniment S... | 17027801  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Gehe     | Non-ionic hydrous liniment S... | 17064402  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 17064404  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 17175201  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 17312501  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 17312501  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 18000054  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 18000058  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 18002332  | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 18002960  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 18003529  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 18004188  | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 18004546  | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 18005584  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 18006450  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 18006453  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 18050701  | 2       |
| GEHE     | Non-ionic hydrous liniment S... | 18050701  | 2       |
| Gehe     | Non-ionic hydrous liniment S... | 18050702  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 1815301   | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 18174501  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 1823201   | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 18278801  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 19001296  | 3       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 19001959  | 3       |
| Gehe     | Non-ionic hydrous liniment S... | 19004234  | 2       |
| Gehe     | Non-ionic hydrous liniment S... | 19055703  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 19136701  | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 191511    | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 193521    | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 20005301  | 2       |
| Gehe     | Non-ionic hydrous liniment S... | 21000622  | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 21002562  | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 21003859  | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 21A250917 | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 22B060519 | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 24A231116 | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 25A071217 | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 269845    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 269846    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 271303    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 272611    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 274014    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 275792    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 278253    | 2       |
| Gehe     | Non-ionic hydrous liniment S... | 279498    | 2       |
| GEHE     | Non-ionic hydrous liniment S... | 27A181217 | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 280873    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 280877    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 282335    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 284236    | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 284338    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 285024    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 289205    | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 2A010217  | 3       |
| Gehe     | Non-ionic hydrous liniment S... | 2A1700118 | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 2A170118  | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 306361    | 1       |
| GEHE     | Non-ionic hydrous liniment S... | 307684    | 1       |
| Gehe     | Non-ionic hydrous liniment S... | 310641    | 1       |
| Gehe     | Hydrated liniment SR/DAC (NR... | 310642    | 1       |

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| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b>  | <b>Spectra</b> |
|----------------------------|---------------------------------|---------------|----------------|
| Gehe                       | Hydrated liniment SR/DAC (NR... | 310643        | 1              |
| Gehe                       | Hydrated liniment SR/DAC (NR... | 6B260115      | 1              |
| Gehe                       | Non-ionic hydrous liniment S... | 81019         | 1              |
| Hageda                     | Non-ionic hydrous liniment S... | 19002441      | 1              |
| Hageda                     | Non-ionic hydrous liniment S... | 20000424      | 1              |
| Hageda                     | Non-ionic hydrous liniment S... | 20000988      | 1              |
| Hageda                     | Non-ionic hydrous liniment S... | 20002762      | 1              |
| Hedinger                   | Non-ionic hydrous liniment S... | 107312501     | 1              |
| Hedinger                   | Non-ionic hydrous liniment S... | P2018/118     | 1              |
| Henry Lamotte Oils         | Non-ionic hydrous liniment S... | 284234        | 1              |
| hochhaus-Apotheke          | Non-ionic hydrous liniment S... | 16318801      | 1              |
| hochhaus-Apotheke          | Non-ionic hydrous liniment S... | 2116617027801 | 1              |
| Ichthyol/Phönix            | Non-ionic hydrous liniment S... | 16113901      | 2              |
| Infectopharm / Noweda      | Hydrated liniment SR/DAC (NR... | 18001660      | 4              |
| jenne                      | Non-ionic hydrous liniment S... | 18050701      | 2              |
| jenne                      | Non-ionic hydrous liniment S... | 297176        | 2              |
| Kehr/ PKH GmbH             | Non-ionic hydrous liniment S... | 14A260617     | 1              |
| Kehr/ PKH GmbH             | Non-ionic hydrous liniment S... | 15A170718     | 1              |
| Kehr                       | Non-ionic hydrous liniment S... | 14A260617     | 1              |
| Kehr                       | Non-ionic hydrous liniment S... | 16A170718     | 1              |
| Kehr                       | Non-ionic hydrous liniment S... | 22A231017     | 1              |
| Kehr                       | Hydrated liniment SR/DAC (NR... | 56B210817     | 1              |
| Lamotte/Sanacorp           | Non-ionic hydrous liniment S... | 18106503      | 1              |
| Leyh Phama                 | Hydrated liniment SR/DAC (NR... | 154111        | 1              |
| Leyh Pharma / Alliance ... | Hydrated liniment SR/DAC (NR... | 153511        | 1              |
| Leyh Pharma / Phönix       | Hydrated liniment SR/DAC (NR... | 174431        | 1              |
| Leyh Pharma / Phönix       | Hydrated liniment SR/DAC (NR... | 183651        | 1              |
| Leyh Pharma / Phönix       | Hydrated liniment SR/DAC (NR... | 191511        | 1              |
| Leyh Pharma GmbH / Alli... | Hydrated liniment SR/DAC (NR... | 191511        | 1              |
| Leyh Pharma GmbH / Phönix  | Hydrated liniment SR/DAC (NR... | 181831        | 2              |
| Leyh Pharma GmbH / Phönix  | Hydrated liniment SR/DAC (NR... | 193521        | 3              |
| Leyh Pharma GmbH Brotte... | Hydrated liniment SR/DAC (NR... | 201641        | 3              |
| Leyh Pharma GmbH Brotte... | Hydrated liniment SR/DAC (NR... | 191021        | 1              |
| Leyh Pharma GmbH Brotte... | Hydrated liniment SR/DAC (NR... | 191511        | 1              |
| Leyh Pharma GmbH Brotte... | Hydrated liniment SR/DAC (NR... | 193521        | 3              |
| Leyh Pharma GmbH Brotte... | Hydrated liniment SR/DAC (NR... | 194721        | 1              |
| Leyh Pharma GmbH Brotte... | Hydrated liniment SR/DAC (NR... | 203951        | 1              |
| Leyh Pharma GmbH Brotte... | Hydrated liniment SR/DAC (NR... | 210211        | 1              |
| LEYH PHARMA GmbH/Allian... | Hydrated liniment SR/DAC (NR... | 202751        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 110531        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 173041        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 181831        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 183651        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 183731        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 191021        | 2              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 193031        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 193521        | 2              |
| Leyh pharma GmbH           | Hydrated liniment SR/DAC (NR... | 200751        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 201641        | 1              |
| Leyh Pharma GmbH           | Hydrated liniment SR/DAC (NR... | 203951        | 1              |
| Leyh Pharma GmbH           | Non-ionic hydrous liniment S... | 27A111218     | 1              |
| leyh Pharma/ Sanacorp      | Hydrated liniment SR/DAC (NR... | 124941        | 1              |
| Leyh pharma/AHD/23.10.19   | Hydrated liniment SR/DAC (NR... | 193521        | 1              |
| Leyh Pharma/Anzag/16.12... | Hydrated liniment SR/DAC (NR... | 194721        | 1              |
| Leyh Pharma/Noweda         | Hydrated liniment SR/DAC (NR... | 164021        | 1              |
| Leyh Pharma/Phönix         | Hydrated liniment SR/DAC (NR... | 174431        | 1              |
| Leyh Pharma/Sanacorp       | Hydrated liniment SR/DAC (NR... | 164641        | 1              |
| Leyh Pharma                | Hydrated liniment SR/DAC (NR... | 151621        | 1              |
| Leyh Pharma                | Non-ionic hydrous liniment S... | 153811        | 1              |
| Leyh Pharma                | Hydrated liniment SR/DAC (NR... | 155041        | 1              |

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| Supplier              | Substance                       | Batch       | Spectra |
|-----------------------|---------------------------------|-------------|---------|
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 160551      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 161421      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 162141      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 162741      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 170631      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 171411      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 172121      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 173051      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 174431      | 5       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 180141      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 181151      | 2       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 181831      | 1       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 182841      | 2       |
| Leyh Pharma           | Hydrated liniment SR/DAC (NR... | 4580715     | 1       |
| Leyh/Gehe             | Hydrated liniment SR/DAC (NR... | 131121      | 1       |
| Leyh                  | Hydrated liniment SR/DAC (NR... | 124941      | 1       |
| Leyh                  | Hydrated liniment SR/DAC (NR... | 153511      | 1       |
| Leyh                  | Hydrated liniment SR/DAC (NR... | 162141      | 2       |
| Leyh-Pharma GmbH      | Hydrated liniment SR/DAC (NR... | 133721      | 1       |
| Leyh-Pharma GmbH      | Hydrated liniment SR/DAC (NR... | 142231      | 1       |
| LeyhPharma/AlianceH.  | Hydrated liniment SR/DAC (NR... | 173051      | 1       |
| LeyhPharma/AlianceH.  | Hydrated liniment SR/DAC (NR... | 180141      | 1       |
| LeyhPharma/AllianceH. | Hydrated liniment SR/DAC (NR... | 181151      | 1       |
| LeyhPharma/AllianceH. | Hydrated liniment SR/DAC (NR... | 191021      | 1       |
| Leyhs Pharma GmbH     | Hydrated liniment SR/DAC (NR... | 161121      | 1       |
| Leyhs                 | Hydrated liniment SR/DAC (NR... | 162231      | 1       |
| Leyhs                 | Hydrated liniment SR/DAC (NR... | 163541      | 1       |
| Leyhs                 | Hydrated liniment SR/DAC (NR... | 164541      | 2       |
| Nachprüfung           | Non-ionic hydrous liniment S... | AP210716-03 | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 19055703    | 1       |
| Noweda / PKH GmbH     | Non-ionic hydrous liniment S... | 10C070420   | 1       |
| Noweda 27.08.15       | Non-ionic hydrous liniment S... | 15192301    | 1       |
| Noweda PKH Halle      | Hydrated liniment SR/DAC (NR... | 31A170619   | 1       |
| Noweda PKH Halle      | Hydrated liniment SR/DAC (NR... | 31A290517   | 1       |
| Noweda PKH Halle      | Hydrated liniment SR/DAC (NR... | 55A221019   | 1       |
| Noweda PKH Halle      | Hydrated liniment SR/DAC (NR... | 7A040220    | 1       |
| Noweda/AEP            | Non-ionic hydrous liniment S... | 309802      | 1       |
| noweda/anzag          | Hydrated liniment SR/DAC (NR... | 15A250319   | 1       |
| noweda/anzag          | Non-ionic hydrous liniment S... | 2A292119    | 1       |
| noweda/anzag          | Hydrated liniment SR/DAC (NR... | 38A080719   | 2       |
| Noweda/Noweda         | Non-ionic hydrous liniment S... | 20002988    | 1       |
| Noweda/pharmachem     | Non-ionic hydrous liniment S... | 18233201    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 10A150514   | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 10C010719   | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 15096002    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 15192502    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 15420902    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 15421002    | 1       |
| Noweda                | Hydrated liniment SR/DAC (NR... | 15A040315   | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 16258401    | 2       |
| Noweda                | Non-ionic hydrous liniment S... | 16318802    | 2       |
| Noweda                | Non-ionic hydrous liniment S... | 17208901    | 2       |
| Noweda                | Non-ionic hydrous liniment S... | 18002335    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 18003532    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 18005143    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 18006453    | 1       |
| Noweda                | Hydrated liniment SR/DAC (NR... | 180141      | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 18050701    | 1       |
| Noweda                | Non-ionic hydrous liniment S... | 18050702    | 2       |
| Noweda                | Non-ionic hydrous liniment S... | 18086801    | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Noweda                     | Non-ionic hydrous liniment S... | 18233201     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 18278801     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 18278901     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 19000521     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 19002441     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 19004301     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 19004501     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 19005453     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 19006550     | 1       |
| Noweda                     | Hydrated liniment SR/DAC (NR... | 191021       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 19136701     | 2       |
| Noweda                     | Non-ionic hydrous liniment S... | 19136702     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 200002511004 | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 20001330     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 20002988     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 20003002001  | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 20004409     | 2       |
| Noweda                     | Non-ionic hydrous liniment S... | 22A101114    | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 25A191213    | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 271243       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 274820       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 276525       | 2       |
| Noweda                     | Non-ionic hydrous liniment S... | 281562       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 285795       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 287323       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 292618       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 296109       | 1       |
| Noweda                     | Hydrated liniment SR/DAC (NR... | 304844       | 2       |
| Noweda                     | Hydrated liniment SR/DAC (NR... | 307263       | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 308628       | 1       |
| Noweda                     | Hydrated liniment SR/DAC (NR... | 39B150719    | 1       |
| Noweda                     | Hydrated liniment SR/DAC (NR... | 74A261015    | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 7A070320     | 2       |
| Noweda                     | Non-ionic hydrous liniment S... | 7A300419     | 1       |
| Noweda                     | Non-ionic hydrous liniment S... | 8A080415     | 1       |
| Pharmachem / AHD           | Hydrated liniment SR/DAC (NR... | 307264       | 1       |
| Pharmachem / Gehe          | Non-ionic hydrous liniment S... | 91118        | 1       |
| Pharmachem GmbH & Co KG    | Hydrated liniment SR/DAC (NR... | 100315       | 4       |
| Pharmachem GmbH Pößneck    | Hydrated liniment SR/DAC (NR... | 190416       | 1       |
| Pharmachem GmbH und Co.KG  | Hydrated liniment SR/DAC (NR... | 160129       | 1       |
| Pharmachem GmbH/Phönix     | Hydrated liniment SR/DAC (NR... | 30815        | 1       |
| Pharmachem GmbH            | Hydrated liniment SR/DAC (NR... | 20614        | 2       |
| Pharmachem Pößneck GmbH... | Hydrated liniment SR/DAC (NR... | 10916        | 1       |
| Pharmachem Pößneck GmbH... | Hydrated liniment SR/DAC (NR... | 141016       | 1       |
| Pharmachem Pößneck GmbH... | Hydrated liniment SR/DAC (NR... | 250516       | 2       |
| Pharmachem Pößneck         | Hydrated liniment SR/DAC (NR... | 270918       | 1       |
| Pharmachem/ Anzag          | Hydrated liniment SR/DAC (NR... | 301018       | 1       |
| Pharmachem/ Noweda         | Hydrated liniment SR/DAC (NR... | 310715       | 1       |
| Pharmachem/Alliance Hea... | Hydrated liniment SR/DAC (NR... | 70717        | 1       |
| Pharmachem/Anzag/10.07...  | Hydrated liniment SR/DAC (NR... | 60513        | 1       |
| Pharmachem/ANZAG/27.03...  | Hydrated liniment SR/DAC (NR... | 210113       | 1       |
| Pharmachem/Noweda          | Hydrated liniment SR/DAC (NR... | 10916        | 1       |
| Pharmachem/Phoenix         | Non-ionic hydrous liniment S... | 10218        | 1       |
| Pharmachem/Phoenix         | Non-ionic hydrous liniment S... | 10819        | 1       |
| Pharmachem/Phoenix         | Non-ionic hydrous liniment S... | 110418       | 1       |
| Pharmachem/Phoenix         | Non-ionic hydrous liniment S... | 200618       | 1       |
| Pharmachem/Phoenix         | Non-ionic hydrous liniment S... | 290419       | 1       |
| Pharmachem/Phoenix         | Non-ionic hydrous liniment S... | 9118         | 1       |
| Pharmachem/Phönix          | Hydrated liniment SR/DAC (NR... | 160115       | 1       |
| Pharmachem/Phönix          | Hydrated liniment SR/DAC (NR... | 190416       | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Pharmachem/Phönix          | Hydrated liniment SR/DAC (NR... | 21013       | 1       |
| Pharmachem/Phönix          | Hydrated liniment SR/DAC (NR... | 50318       | 2       |
| PharmaChem                 | Non-ionic hydrous liniment S... | 140814      | 1       |
| Pharmachem                 | Hydrated liniment SR/DAC (NR... | 160115      | 1       |
| Pharmachem                 | Hydrated liniment SR/DAC (NR... | 160129      | 1       |
| Pharmachem                 | Hydrated liniment SR/DAC (NR... | 190416      | 1       |
| Pharmachem                 | Hydrated liniment SR/DAC (NR... | 300415      | 1       |
| Pharmachem                 | Non-ionic hydrous liniment S... | 309802      | 1       |
| Pharmachem                 | Hydrated liniment SR/DAC (NR... | 41119       | 2       |
| PHK GmbH                   | Hydrated liniment SR/DAC (NR... | 66A160913   | 1       |
| PHK GmbH                   | Hydrated liniment SR/DAC (NR... | 71A291013   | 2       |
| Phoenix (PKH Halle)        | Hydrated liniment SR/DAC (NR... | 5A210113    | 1       |
| Phoenix (PKH Halle)        | Hydrated liniment SR/DAC (NR... | 7A290113    | 1       |
| Phoenix 21.06.2017 2,78EUR | Non-ionic hydrous liniment S... | 17064402    | 1       |
| Phoenix 24.04.2018 4,68EUR | Non-ionic hydrous liniment S... | 18000058    | 1       |
| Phoenix 24.04.2019 2,65EUR | Non-ionic hydrous liniment S... | 19055703    | 1       |
| Phoenix 25.04.2018 4,63EUR | Non-ionic hydrous liniment S... | 1800058     | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 110418      | 2       |
| Phoenix                    | Non-ionic hydrous liniment S... | 16318801    | 1       |
| Phoenix                    | Hydrated liniment SR/DAC (NR... | 17000560    | 2       |
| Phoenix                    | Non-ionic hydrous liniment S... | 17261101    | 1       |
| Phoenix                    | Hydrated liniment SR/DAC (NR... | 18002960    | 1       |
| Phoenix                    | Hydrated liniment SR/DAC (NR... | 18005585    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 18050701    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 18086702    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 18233201    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 19001298    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 191312111   | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 19201401    | 2       |
| Phoenix                    | Non-ionic hydrous liniment S... | 20002513001 | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 20003826    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 200132101   | 1       |
| Phoenix                    | Hydrated liniment SR/DAC (NR... | 200842808   | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 21003176    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 21004485    | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 300860      | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 302283      | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 3027        | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 303895      | 1       |
| phoenix                    | Non-ionic hydrous liniment S... | 309791      | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 3128        | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 3196        | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 3371        | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 3373        | 1       |
| Phoenix                    | Non-ionic hydrous liniment S... | 91118       | 2       |
| Phönix (PKH Halle)         | Non-ionic hydrous liniment S... | 16A060812   | 1       |
| Phönix (PKH Halle)         | Hydrated liniment SR/DAC (NR... | 60A020812   | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 12A200819   | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 17312501    | 1       |
| Phönix Gotha               | Hydrated liniment SR/DAC (NR... | 174431      | 1       |
| Phönix Gotha               | Hydrated liniment SR/DAC (NR... | 181831      | 1       |
| Phönix Gotha               | Hydrated liniment SR/DAC (NR... | 182841      | 1       |
| Phönix Gotha               | Hydrated liniment SR/DAC (NR... | 191021      | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 270008      | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 273375      | 2       |
| Phönix Gotha               | Hydrated liniment SR/DAC (NR... | 274014      | 1       |
| Phönix Gotha               | Hydrated liniment SR/DAC (NR... | 275789      | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 275792      | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 278255      | 1       |
| Phönix Gotha               | Hydrated liniment SR/DAC (NR... | 279496      | 1       |

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| Supplier                   | Substance                       | Batch     | Spectra |
|----------------------------|---------------------------------|-----------|---------|
| Phönix Gotha               | Non-ionic hydrous liniment S... | 281559    | 2       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 282946    | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 287316    | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 290610    | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 292617    | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 295072    | 1       |
| Phönix Gotha               | Non-ionic hydrous liniment S... | 296108    | 1       |
| Phönix/Gehe                | Non-ionic hydrous liniment S... | 18106503  | 1       |
| Phönix/Leyh Pharma         | Hydrated liniment SR/DAC (NR... | 182841    | 2       |
| Phönix/Leyh Pharma         | Hydrated liniment SR/DAC (NR... | 183651    | 1       |
| Phönix                     | Hydrated liniment SR/DAC (NR... |           | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 16318801  | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 17001410  | 1       |
| phönix                     | Non-ionic hydrous liniment S... | 17027801  | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 17175201  | 2       |
| Phönix                     | Non-ionic hydrous liniment S... | 17312501  | 2       |
| Phönix                     | Hydrated liniment SR/DAC (NR... | 174431    | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 18006454  | 2       |
| Phönix                     | Non-ionic hydrous liniment S... | 19055702  | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 19055703  | 2       |
| Phönix                     | Non-ionic hydrous liniment S... | 20000988  | 2       |
| Phönix                     | Non-ionic hydrous liniment S... | 20002000  | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 200962209 | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 307684    | 1       |
| PHÖNIX                     | Non-ionic hydrous liniment S... | 311040    | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 311611    | 1       |
| Phönix                     | Non-ionic hydrous liniment S... | 3173      | 1       |
| Phönix                     | Hydrated liniment SR/DAC (NR... | 39A190617 | 1       |
| Phönix                     | Hydrated liniment SR/DAC (NR... | 67B301017 | 1       |
| PhR Neidhard/Noweda        | Hydrated liniment SR/DAC (NR... | 7A040220  | 1       |
| PKH / Phoenix Leipzig      | Hydrated liniment SR/DAC (NR... | 14A040315 | 1       |
| PKH Gehe                   | Non-ionic hydrous liniment S... | 11A040618 | 2       |
| PKH Gehe                   | Non-ionic hydrous liniment S... | 17A020818 | 1       |
| PKH Gehe                   | Non-ionic hydrous liniment S... | 20A301219 | 1       |
| PKH Gehe                   | Non-ionic hydrous liniment S... | 25A071217 | 1       |
| PKH Gehe                   | Non-ionic hydrous liniment S... | 27A111218 | 1       |
| PKH Gehe                   | Non-ionic hydrous liniment S... | 4A190218  | 1       |
| PKH GmbH / Phönix          | Non-ionic hydrous liniment S... | 11B270515 | 1       |
| PKH GmbH / Phönix          | Hydrated liniment SR/DAC (NR... | 27B030619 | 1       |
| PKH GmbH / Phönix          | Hydrated liniment SR/DAC (NR... | 58B030918 | 1       |
| PKH GmbH Halle/ AHD        | Hydrated liniment SR/DAC (NR... | 45A200819 | 1       |
| PKH GmbH/ Alliance Heal... | Non-ionic hydrous liniment S... | 15A170718 | 1       |
| PKH GmbH/ Alliance Heal... | Non-ionic hydrous liniment S... | 6A120318  | 1       |
| PKH GmbH/ Phönix           | Hydrated liniment SR/DAC (NR... | 23A020413 | 1       |
| PKH GmbH/ Sanacorp         | Hydrated liniment SR/DAC (NR... | 78B031213 | 1       |
| PKH GmbH/Kehr              | Non-ionic hydrous liniment S... | 24A231116 | 1       |
| PKH GmbH/Kehr              | Hydrated liniment SR/DAC (NR... | 588181119 | 1       |
| PKH GmbH/Phoenix           | Non-ionic hydrous liniment S... | 18A031219 | 1       |
| PKH GmbH/Phoenix           | Non-ionic hydrous liniment S... | 200110    | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 12a200616 | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 12A200819 | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 17A140817 | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 21A241016 | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 22A251016 | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 25A071217 | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 27A291215 | 1       |
| PKH GmbH                   | Hydrated liniment SR/DAC (NR... | 35A120617 | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 6B180315  | 1       |
| PKH GmbH                   | Non-ionic hydrous liniment S... | 7A300316  | 1       |
| PKH Halle / Noweda         | Non-ionic hydrous liniment S... | 10B010719 | 1       |

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| Supplier                   | Substance                       | Batch     | Spectra |
|----------------------------|---------------------------------|-----------|---------|
| PKH Halle / Phoenix        | Non-ionic hydrous liniment S... | 10A150514 | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 15A050313 | 1       |
| PKH Halle / Phoenix        | Non-ionic hydrous liniment S... | 15A140714 | 1       |
| PKH Halle / Phoenix        | Non-ionic hydrous liniment S... | 15A150715 | 1       |
| PKH Halle / Phoenix        | Non-ionic hydrous liniment S... | 17A230913 | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 22A250314 | 1       |
| PKH Halle / Phoenix        | Non-ionic hydrous liniment S... | 25A021214 | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 2A120115  | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 44A220615 | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 45A170614 | 1       |
| PKH Halle / Phoenix        | Non-ionic hydrous liniment S... | 4A110313  | 1       |
| PKH Halle / Phoenix        | Non-ionic hydrous liniment S... | 4A250214  | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 59A050814 | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 5A190115  | 1       |
| PKH Halle / Phoenix        | Hydrated liniment SR/DAC (NR... | 71A291013 | 2       |
| PKH Halle,Anzag            | Non-ionic hydrous liniment S... | 20A221012 | 1       |
| PKH Halle,Phönix           | Non-ionic hydrous liniment S... | 17A030912 | 1       |
| PKH Halle/ Alliance Hea... | Hydrated liniment SR/DAC (NR... | 11A270218 | 1       |
| PKH Halle/ Alliance Hea... | Hydrated liniment SR/DAC (NR... | 8A050218  | 1       |
| PKH Halle/ GEHE            | Hydrated liniment SR/DAC (NR... | 3A080118  | 1       |
| PKH Halle/ Noweda          | Hydrated liniment SR/DAC (NR... | 41A150719 | 1       |
| PKH Halle/ Noweda          | Hydrated liniment SR/DAC (NR... | 49A300718 | 1       |
| PKH Halle/ Noweda          | Hydrated liniment SR/DAC (NR... | 57A041119 | 2       |
| PKH Halle/ Phoenix / 12... | Hydrated liniment SR/DAC (NR... | 33a090516 | 1       |
| PKH Halle/ Phoenix Lepz... | Non-ionic hydrous liniment S... | 10A110515 | 1       |
| PKH Halle/ Phoenix Lepz... | Non-ionic hydrous liniment S... | 8A250417  | 2       |
| PKH Halle/ Phoenix Lepz... | Hydrated liniment SR/DAC (NR... | 47A060715 | 1       |
| PKH Halle/AHD              | Non-ionic hydrous liniment S... | 24A081018 | 1       |
| PKH Halle/AHD              | Non-ionic hydrous liniment S... | 3A060319  | 1       |
| PKH Halle/Holdermann       | Non-ionic hydrous liniment S... | 10A100517 | 1       |
| PKH Halle/Kehr             | Hydrated liniment SR/DAC (NR... |           | 1       |
| PKH Halle/Noweda           | Non-ionic hydrous liniment S... | 15C080620 | 1       |
| PKH Halle/Noweda           | Non-ionic hydrous liniment S... | 25A081215 | 1       |
| PKH Halle/Noweda           | Non-ionic hydrous liniment S... | 4A190218  | 1       |
| PKH Halle/Phönix           | Non-ionic hydrous liniment S... | 10B070420 | 1       |
| PKH Halle/Phönix           | Non-ionic hydrous liniment S... | 12A200616 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 13A200616 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 13A260618 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 16A080620 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 16A081019 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 17A020818 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 22A020920 | 1       |
| PKH Halle                  | Hydrated liniment SR/DAC (NR... | 24A310314 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 27A181217 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 2A200120  | 1       |
| PKH Halle                  | Hydrated liniment SR/DAC (NR... | 30B250520 | 1       |
| PKH Halle                  | Hydrated liniment SR/DAC (NR... | 42A020614 | 1       |
| PKH Halle                  | Hydrated liniment SR/DAC (NR... | 56A120813 | 4       |
| PKH Halle                  | Hydrated liniment SR/DAC (NR... | 69A080914 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 6A120312  | 1       |
| PKH Halle                  | Hydrated liniment SR/DAC (NR... | 72A101016 | 1       |
| PKH Halle                  | Non-ionic hydrous liniment S... | 7A300419  | 1       |
| PKH Halle                  | Hydrated liniment SR/DAC (NR... | 85A281215 | 1       |
| pkh, Phönix                | Hydrated liniment SR/DAC (NR... | 14B170214 | 1       |
| pkh, Phönix                | Hydrated liniment SR/DAC (NR... | 32A120515 | 1       |
| PKH/ Phoenix Leipzig 04... | Hydrated liniment SR/DAC (NR... | 24a080518 | 1       |
| PKH/Noweda                 | Non-ionic hydrous liniment S... | 21A250917 | 1       |
| PKH/Phönix                 | Non-ionic hydrous liniment S... | 9A190516  | 1       |
| Pößneek Pharma / Gehe      | Non-ionic hydrous liniment S... | 23A181115 | 2       |
| Raben-Apotheke Mildenau    | Hydrated liniment SR/DAC (NR... | 49A230614 | 1       |

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| Supplier                 | Substance                       | Batch        | Spectra |
|--------------------------|---------------------------------|--------------|---------|
| Raben-Apotheke Mildenau  | Hydrated liniment SR/DAC (NR... | 63A120814    | 2       |
| Rabenapotheke            | Hydrated liniment SR/DAC (NR... | 76A271014    | 1       |
| Rondell Apotheke         | Non-ionic hydrous liniment S... | 297175       | 1       |
| Rosen-Apotheke           | Non-ionic hydrous liniment S... | 20002511003  | 1       |
| Sanacorp 21.10.15 und... | Non-ionic hydrous liniment S... | 15192301     | 1       |
| Sanacorp/ Leyh Pharma    | Hydrated liniment SR/DAC (NR... | 115051       | 1       |
| Sanacorp/ Leyh Pharma    | Hydrated liniment SR/DAC (NR... | 122141       | 1       |
| Sanacorp/ Leyh Pharma    | Hydrated liniment SR/DAC (NR... | 123011       | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 15002302     | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 15014601     | 1       |
| sanacorp                 | Non-ionic hydrous liniment S... | 15096002     | 1       |
| Sanacorp                 | Hydrated liniment SR/DAC (NR... | 16182403     | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 16318801     | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 17064402     | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 17312501     | 2       |
| Sanacorp                 | Hydrated liniment SR/DAC (NR... | 18109002     | 1       |
| Sanacorp                 | Hydrated liniment SR/DAC (NR... | 21B060420    | 1       |
| sanacorp                 | Hydrated liniment SR/DAC (NR... | 24A310314    | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 274820       | 1       |
| Sanacorp                 | Hydrated liniment SR/DAC (NR... | 275869       | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 279500       | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 279501       | 1       |
| Sanacorp                 | Hydrated liniment SR/DAC (NR... | 2A120115     | 1       |
| Sanacorp                 | Non-ionic hydrous liniment S... | 8/AKD101     | 1       |
| Selbsthersteller         | Non-ionic hydrous liniment S... | 20140116     | 1       |
| Th. Geyer                | Non-ionic hydrous liniment S... | 27A111218    | 1       |
| wepa/Sanaco              | Non-ionic hydrous liniment S... | 1542102      | 1       |
| Wolf Apotheke            | Non-ionic hydrous liniment S... | 28(18006449) | 1       |
| Wolf-Apotheke            | Non-ionic hydrous liniment S... | 285793       | 1       |
| Wolff/Gehe               | Non-ionic hydrous liniment S... | 19004301     | 1       |

- 282 563 spectra from 1293 *Apo-Ident* customers from a total of 50 342 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Liniment ointments* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Liniment ointments* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 1040          | 0              | 66 119        |
| <b>Type B</b> | 0              | 2596          | 4              | 104 763       |
| <b>Type C</b> | 0              | 5964          | 182            | 282 456       |

The substance/substance group *Liniment ointments* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.4231 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 99.8462 % (> 99.7308 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6859 %) | 97.0387 % (> 96.9899 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Liniment ointments* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Hydrophilic cream, non-ionic SR (NRF p... | 19.36                  | —                              |
| Hydrophilic cream, non-ionic without p... | 25.34                  | —                              |
| Base cream, hydrophobic DAC               | 26.05                  | —                              |
| Sodium laureth sulfate solution 27%       | 27.22                  | —                              |
| Anionic hydrophilic cream SR (NRF p.27)   | 29.13                  | —                              |
| Hydrophilic base emulsion (NRF p.25)      | 29.25                  | —                              |
| Glycolic acid 70%                         | 29.99                  | —                              |
| Anionic hydrophilic cream with propyle... | 30.30                  | —                              |
| Anionic hydrophilic cream DAB             | 31.36                  | —                              |
| Wolff <sup>®</sup> base half-fat cream    | 34.26                  | —                              |
| Anionic hydrophic cream without prese...  | 35.75                  | —                              |
| Sodium-(s)-lactate solution 50%           | 36.45                  | —                              |
| Skin care ointment W/L SR (without pre... | 36.56                  | —                              |
| Base cream, diluted                       | 41.20                  | —                              |
| Lotio Cordes <sup>®</sup>                 | 45.12                  | —                              |
| Skin care ointment W/L SR                 | 46.33                  | —                              |
| Gel Cordes <sup>®</sup>                   | 46.57                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Liniment ointments* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30982     | 31939               | 7.95                         | 37.11                           |
| 31169     | 31169               | 0.00                         | 36.63                           |
| 31170     | 31170               | 0.00                         | 42.33                           |
| 31438     | 31938               | 3.31                         | 40.66                           |
| 31476     | 31945               | 5.53                         | 40.08                           |
| 31827     | 31947               | 2.21                         | 39.51                           |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31830            | 31947                      | 1.11                                | 36.55                                  |
| 31938            | 31938                      | 0.00                                | 42.44                                  |
| 31939            | 31939                      | 0.00                                | 40.95                                  |
| 31943            | 31943                      | 0.00                                | 36.88                                  |
| 31945            | 31945                      | 0.00                                | 37.53                                  |
| 31946            | 31946                      | 0.00                                | 38.26                                  |
| 31947            | 31947                      | 0.00                                | 36.92                                  |
| 32089            | 32089                      | 0.00                                | 44.17                                  |
| 32090            | 32090                      | 0.00                                | 38.28                                  |
| 32305            | 31170                      | 5.12                                | 35.61                                  |
| 32727            | 32089                      | 3.72                                | 39.53                                  |
| 34505            | 31939                      | 5.05                                | 40.44                                  |
| 35111            | 35111                      | 0.00                                | 42.08                                  |
| 35546            | 35546                      | 0.00                                | 46.69                                  |
| 35615            | 35615                      | 0.00                                | 32.63                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Lipo Lotio Cordes®**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 10004544-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Lipo Lotio Cordes®

### Special notes

When selecting the *Lipo Lotio Cordes®* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Lipo Lotio Cordes®        | 2      | 1      | 0      |

## Second-stage model

For differentiation of the substance/substance group *Lipo Lotio Cordes*<sup>®</sup> the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Lipo Lotio Cordes*<sup>®</sup>:

| Supplier | Substance                      | Batch   | Sample ID | Spectra | Certificate |
|----------|--------------------------------|---------|-----------|---------|-------------|
| Ichthyol | Lipo Lotio Cordes <sup>®</sup> | 21D0005 | 35753     | 50      | 20210929    |
| Ichthyol | Lipo Lotio Cordes <sup>®</sup> | 19D010  | 35759     | 50      | 2202215     |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 100 spectra of 2 reference samples from the substance/substance group *Lipo Lotio Cordes*<sup>®</sup>. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 059 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Lipo Lotio Cordes*<sup>®</sup>.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                      | Batch  | Sample ID | Spectra |
|----------|--------------------------------|--------|-----------|---------|
| Ichthyol | Lipo Lotio Cordes <sup>®</sup> | 19D009 | 35073     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 0 spectra from 0 *Apo-Ident* customers from 0 batches from the substance/substance group *Lipo Lotio Cordes*<sup>®</sup>.
- Among them are spectra of independent samples from 0 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.
- 288 709 spectra from 1294 *Apo-Ident* customers from a total of 51 888 batches from a further 344 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Lipo Lotio Cordes*<sup>®</sup> can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Lipo Lotio Cordes*<sup>®</sup> and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 100           | 0              | 67 059        |
| <b>Type B</b> | 0              | 0             | 40             | 107 323       |
| <b>Type C</b> | 0              | 0             | 0              | 288 709       |

The substance/substance group *Lipo Lotio Cordes*<sup>®</sup> can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 94.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 0.0000 % (≥ 0.0000 %)    |
| <b>Type C</b> | 100.0000 % (> 99.6894 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Lipo Lotio Cordes*<sup>®</sup> in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                              | Distance in<br>main model | Distance in<br>second-stage model |
|----------------------------------------|---------------------------|-----------------------------------|
| Base cream DAC                         | 14.63                     | —                                 |
| Eucerin <sup>®</sup> cum Aqua          | 34.36                     | —                                 |
| Non-ionic hydrophil ointment           | 37.87                     | —                                 |
| Psorisol base cream Audor <sup>®</sup> | 41.72                     | —                                 |
| Wool alcohol cream SR                  | 45.81                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Lipo Lotio Cordes<sup>®</sup>* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 35753     | 35759                  | 7.80                            | 24.76                              |
| 35759     | 35759                  | 0.00                            | 24.33                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 10004572-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40; Lauromacrogol 400; Lauromacrogolum 400; Macrogol 4 lauryl ether; Macrogolglycerol hydroxystearate 40; Macrogolglyceroli hydroxystearas; Macrogoli aether laurilicus

### Special notes

When selecting the *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                     | Type A | Type B | Type C |
|-----------------------------------------------|--------|--------|--------|
| Macrogol 4 lauryl ether / Lauromacrogol 400 / | 19     | 17     | 1132   |
| Macrogolglycerol hydroxystearate 40           |        |        |        |

## Second-stage model

For differentiation of the substance/substance group *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40* the following second-stage model is used:

- [Submodel 10](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40*:

| Supplier | Substance           | Batch            | Sample ID | Spectra | Certificate        |
|----------|---------------------|------------------|-----------|---------|--------------------|
| Caelo    | Lauromacrogol 400   | 13095802         | 31025     | 40      | 20130523           |
| Caelo    | Lauromacrogol 400   | 13340701         | 31372     | 40      | AR-14-FG-012474-01 |
| Caelo    | Lauromacrogol 400   | 192957           | 35020     | 40      | 20200326*          |
| Euro OTC | Lauromacrogol 400   | 1510024          | 31768     | 58      | 20151102*          |
| Euro OTC | Lauromacrogol 400   | 1605006          | 32283     | 40      | 20160531*          |
| Euro OTC | Lauromacrogol 400   | 1610034          | 32816     | 40      | 20161202*          |
| Fagron   | Lauromacrogol 400   | 12E03-N05        | 30594     | 40      | 20120608           |
| Fagron   | Lauromacrogol 400   | 16E18-B04-326089 | 32824     | 40      | 20160527           |
| Fagron   | Lauromacrogol 400   | 20D20-T12-076662 | 35150     | 40      | 20200722           |
| Caelo    | Macrogol 4 laury... | 14054401         | 31381     | 40      | 1507230            |
| Caelo    | Macrogol 4 laury... | 14225301         | 31583     | 60      | 20140820           |
| Caelo    | Macrogol 4 laury... | 16100205         | 33216     | 40      | 20160527           |
| Caelo    | Macrogol 4 laury... | 19000420004      | 35141     | 40      | 20200416           |
| Caelo    | Macrogol 4 laury... | 21000436003      | 35737     | 50      | 20210302           |
| Caelo    | Macrogolglycerol... | 14283808         | 31625     | 60      | AR-15-FG-010151-01 |
| Caelo    | Macrogolglycerol... | 20002214004      | 35140     | 40      | 20200901           |
| Fagron   | Macrogolglycerol... | 12L06-N02        | 30765     | 40      | 1405328            |
| Fagron   | Macrogolglycerol... | 21A05-F01-376301 | 35464     | 40      | 20210210           |
| Fagron   | Macrogolglycerol... | 21A29-F02-376809 | 35582     | 50      | 2111538            |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 838 spectra of 19 reference samples from the substance/substance group *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 19 different batches.
- 66 321 spectra from a total of 1360 batches from further 226 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 730 spectra of 17 reference samples from the substance/substance group *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40*.
- Among them are spectra of independent samples from 17 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch      | Sample ID | Spectra |
|----------|---------------------------------|------------|-----------|---------|
| Caelo    | Lauromacrogol 400               | 172509     | 33899     | 40      |
| Caelo    | Lauromacrogol 400               | 181755     | 34235     | 40      |
| Caelo    | Lauromacrogol 400               | 191310     | 34630     | 40      |
| Euro OTC | Lauromacrogol 400               | 1703033    | 33448     | 40      |
| Euro OTC | Lauromacrogol 400               | 1710026    | 33844     | 40      |
| Euro OTC | Lauromacrogol 400               | 1801043    | 34007     | 40      |
| Euro OTC | Lauromacrogol 400               | 1901029    | 34421     | 40      |
| Euro OTC | Lauromacrogol 400               | 1907010    | 34700     | 40      |
| Euro OTC | Lauromacrogol 400               | 1911015    | 34749     | 40      |
| Euro OTC | Lauromacrogol 400               | 2003031-01 | 35076     | 40      |
| Euro OTC | Lauromacrogol 400               | 2007042    | 35132     | 40      |
| Euro OTC | Lauromacrogol 400               | 2106011    | 35627     | 50      |
| Caelo    | Macrogol 4 lauryl ether         | 161002     | 33690     | 40      |
| Caelo    | Macrogol 4 lauryl ether         | 17028303   | 33950     | 40      |
| Caelo    | Macrogolglycerol hydroxystea... | 14283805   | 31608     | 60      |
| Caelo    | Macrogolglycerol hydroxystea... | 16349304   | 33935     | 40      |
| Fagron   | Macrogolglycerol hydroxystea... | 14K28-B01  | 31640     | 60      |

- 106 633 spectra from a total of 2484 batches from further 348 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 7920 spectra from 1119 *Apo-Ident* customers from 1123 batches from the substance/substance group *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40*.
- Among them are spectra of independent samples from 1055 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance                       | Batch     | Spectra |
|-----------|---------------------------------|-----------|---------|
| /Sanacorp | Macrogolglycerol hydroxystea... | 13D23-N03 | 1       |
|           | Lauromacrogol 400               | 160312    | 1       |
|           | Lauromacrogol 400               | 160312    | 1       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| 16816637                   | Macrogolglycerol hydroxystea... | 2100060003       | 1       |
| AEP Gepepharm              | Lauromacrogol 400               | 160312A          | 1       |
| AEP                        | Lauromacrogol 400               | 19064501         | 1       |
| agron/ Phönix              | Lauromacrogol 400               | 18A18-B98-0596   | 1       |
| AHD 09.12.14               | Lauromacrogol 400               | 130109           | 2       |
| AHD 21.03.16 EK 36,71      | Lauromacrogol 400               | 140911           | 1       |
| AHD, 25.07.2013            | Macrogol 4 lauryl ether         | 13136202         | 1       |
| AHD/ Spinnrad              | Macrogol 4 lauryl ether         | 314400031        | 1       |
| AHD/09.10.20 EK: 9,45EUR   | Lauromacrogol 400               | 2003031-01       | 2       |
| AHD/Gepepharm              | Lauromacrogol 400               | 160312A          | 1       |
| AHD                        | Lauromacrogol 400               | 140911           | 1       |
| AHD                        | Macrogolglycerol hydroxystea... | 14B14-B06-295486 | 1       |
| AHD                        | Lauromacrogol 400               | 160312           | 2       |
| AHD                        | Lauromacrogol 400               | 160312A          | 2       |
| AHD                        | Lauromacrogol 400               | 19054203         | 1       |
| AHD;2,32EUR;19.06.15       | Macrogol 4 lauryl ether         | 1014400032       | 1       |
| AHL                        | Lauromacrogol 400               | 160312A          | 1       |
| ALH                        | Lauromacrogol 400               | 160312           | 6       |
| Allianc. Health. / gepe... | Lauromacrogol 400               | 160312           | 1       |
| Allianc. Health. / gepe... | Lauromacrogol 400               | 160312A          | 1       |
| Allianc. Healthc./ Gepe    | Lauromacrogol 400               | 140911           | 2       |
| Alliance H.                | Macrogolglycerol hydroxystea... | 15378302         | 1       |
| Alliance Healtcare         | Lauromacrogol 400               | 19064501A        | 1       |
| Alliance health            | Macrogolglycerol hydroxystea... | 14283808         | 1       |
| Alliance Healthcare        | Lauromacrogol 400               | 20001966001      | 1       |
| Alliance/ gepepharm GmbH   | Lauromacrogol 400               | 16-0290          | 1       |
| Alliance                   | Macrogolglycerol hydroxystea... | 13K07-N02        | 1       |
| Alliance                   | Lauromacrogol 400               | 160312           | 1       |
| Alliance                   | Lauromacrogol 400               | 19054203         | 3       |
| Allianz Healthcare         | Macrogolglycerol hydroxystea... | 18g13-b05        | 1       |
| Allianz                    | Lauromacrogol 400               | 160312A          | 1       |
| Allianz                    | Macrogolglycerol hydroxystea... | 18204507         | 1       |
| Anzag 07.02.13 ek:4,70EUR  | Macrogolglycerol hydroxystea... | 12103807         | 1       |
| anzag gepepharm            | Lauromacrogol 400               | 160312           | 1       |
| Anzag/ gepepharm GmbH      | Lauromacrogol 400               | 182744           | 1       |
| Anzag/Anzag 28.08.18       | Lauromacrogol 400               | 17250913         | 1       |
| Anzag                      | Lauromacrogol 400               | 110408           | 3       |
| ANZAG                      | Lauromacrogol 400               | 110408           | 2       |
| Anzag                      | Macrogol 4 lauryl ether         | 12180204         | 1       |
| Anzag                      | Lauromacrogol 400               | 13A31N04         | 1       |
| Anzag                      | Lauromacrogol 400               | 140911           | 1       |
| Anzag                      | Macrogol 4 lauryl ether         | 15323701         | 1       |
| Anzag                      | Lauromacrogol 400               | 160312           | 2       |
| Anzag                      | Macrogolglycerol hydroxystea... | 16247401         | 1       |
| Anzag                      | Macrogolglycerol hydroxystea... | 18204507         | 1       |
| Anzag                      | Lauromacrogol 400               | 19054203         | 1       |
| Anzag                      | Lauromacrogol 400               | 19064501         | 3       |
| Anzag                      | Lauromacrogol 400               | 19064501A        | 1       |
| Anzag                      | Lauromacrogol 400               | 21000678010      | 1       |
| Anzag                      | Macrogol 4 lauryl ether         | 818400032        | 1       |
| Apinnrad/Gehe              | Macrogol 4 lauryl ether         | 417400031        | 1       |
| apo/Noweda                 | Lauromacrogol 400               | 180802501        | 1       |
| Apo-Ident/ Sanacorp        | Lauromacrogol 400               | 1703678          | 1       |
| apo-ident                  | Lauromacrogol 400               | 1589415          | 1       |
| apomix                     | Lauromacrogol 400               | 140911           | 11      |
| apomix                     | Lauromacrogol 400               | 15A26B02-30362   | 1       |
| apomix                     | Lauromacrogol 400               | 3B280217         | 1       |
| Audor Pharma               | Lauromacrogol 400               | 140911           | 2       |
| Audor Pharma               | Lauromacrogol 400               | 19054203         | 3       |
| Audor Pharma               | Lauromacrogol 400               | 2003031-01       | 1       |

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| Supplier        | Substance                       | Batch            | Spectra |
|-----------------|---------------------------------|------------------|---------|
| BASF SE/ Phönix | Macrogolglycerol hydroxystea... | 39658724U0       | 1       |
| BASF SE/Phö.    | Macrogolglycerol hydroxystea... | 17546624U0       | 1       |
| BASF SE         | Macrogolglycerol hydroxystea... | 14B14B06292160   | 1       |
| Bombastus       | Macrogolglycerol hydroxystea... | 14196805         | 1       |
| Bombastus       | Macrogolglycerol hydroxystea... | 14B14-B06        | 1       |
| Bombastus       | Macrogolglycerol hydroxystea... | 14K28-B01-309197 | 1       |
| Bombastus       | Macrogolglycerol hydroxystea... | 15378304         | 1       |
| Bombastus       | Lauromacrogol 400               | 15G10-B05-318670 | 1       |
| Bombastus       | Lauromacrogol 400               | 160312           | 1       |
| Bombastus       | Lauromacrogol 400               | 16102912         | 1       |
| Bombastus       | Lauromacrogol 400               | 16E18-B04-328582 | 1       |
| Bombastus       | Lauromacrogol 400               | 17250913         | 2       |
| Bombastus       | Macrogolglycerol hydroxystea... | 17257003         | 1       |
| Bombastus       | Macrogol 4 lauryl ether         | 18040101         | 1       |
| Bombastus       | Macrogol 4 lauryl ether         | 18040103         | 1       |
| Bombastus       | Macrogolglycerol hydroxystea... | 18278406         | 1       |
| BTC             | Macrogolglycerol hydroxystea... | 22006            | 6       |
| Caeleo/ Krieger | Macrogol 4 lauryl ether         | 18215508         | 1       |
| Caelo           | Macrogol 4 lauryl ether         |                  | 6       |
| Caelo           | Macrogol 4 lauryl ether         | 1013400032       | 1       |
| Caelo           | Macrogol 4 lauryl ether         | 1014400032       | 4       |
| Caelo           | Macrogolglycerol hydroxystea... | 10236606         | 1       |
| Caelo           | Lauromacrogol 400               | 110408           | 19      |
| Caelo           | Lauromacrogol 400               | 11107804         | 1       |
| Caelo           | Lauromacrogol 400               | 11107901         | 1       |
| Caelo           | Lauromacrogol 400               | 11107905         | 1       |
| Caelo           | Macrogolglycerol hydroxystea... | 11161504         | 5       |
| Caelo           | Macrogol 4 lauryl ether         | 11220306         | 1       |
| Caelo           | Lauromacrogol 400               | 1142238          | 1       |
| Caelo           | Lauromacrogol 400               | 1184359          | 1       |
| Caelo           | Macrogol 4 lauryl ether         | 12057804         | 4       |
| Caelo           | Macrogol 4 lauryl ether         | 12057806         | 3       |
| Caelo           | Macrogolglycerol hydroxystea... | 12071402         | 1       |
| Caelo           | Lauromacrogol 400               | 12092501         | 1       |
| Caelo           | Lauromacrogol 400               | 12092512         | 3       |
| Caelo           | Lauromacrogol 400               | 12092516         | 2       |
| Caelo           | Lauromacrogol 400               | 12092525         | 3       |
| Caelo           | Lauromacrogol 400               | 12092530         | 2       |
| Caelo           | Macrogolglycerol hydroxystea... | 12103803         | 4       |
| Caelo           | Macrogolglycerol hydroxystea... | 12103807         | 5       |
| Caelo           | Macrogolglycerol hydroxystea... | 1215614          | 1       |
| Caelo           | Macrogolglycerol hydroxystea... | 12158602         | 2       |
| Caelo           | Macrogolglycerol hydroxystea... | 12158606         | 9       |
| Caelo           | Macrogolglycerol hydroxystea... | 12158610         | 2       |
| Caelo           | Macrogolglycerol hydroxystea... | 12158611         | 4       |
| Caelo           | Macrogolglycerol hydroxystea... | 12158614         | 4       |
| Caelo           | Macrogol 4 lauryl ether         | 12180202         | 3       |
| Caelo           | Macrogol 4 lauryl ether         | 12180204         | 2       |
| Caelo           | Macrogol 4 lauryl ether         | 123400033        | 1       |
| Caelo           | Lauromacrogol 400               | 12345            | 1       |
| Caelo           | Lauromacrogol 400               | 1298974          | 2       |
| Caelo           | Lauromacrogol 400               | 12A26-N08        | 1       |
| Caelo           | Lauromacrogol 400               | 12E03-N04        | 2       |
| Caelo           | Lauromacrogol 400               | 13-0108          | 1       |
| Caelo           | Lauromacrogol 400               | 130109           | 23      |
| Caelo           | Lauromacrogol 400               | 1302014-01       | 1       |
| Caelo           | Macrogol 4 lauryl ether         | 13041702         | 4       |
| Caelo           | Macrogol 4 lauryl ether         | 13041706         | 3       |
| Caelo           | Lauromacrogol 400               | 13-0599          | 1       |
| Caelo           | Lauromacrogol 400               | 130600401        | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Lauromacrogol 400               | 1306004-01           | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 13072004             | 12      |
| Caelo    | Macrogolglycerol hydroxystea... | 13072005             | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 13072008             | 5       |
| Caelo    | Lauromacrogol 400               | 13095801             | 4       |
| Caelo    | Lauromacrogol 400               | 13095802             | 9       |
| Caelo    | Lauromacrogol 400               | 13095809             | 3       |
| Caelo    | Lauromacrogol 400               | 13095811             | 5       |
| Caelo    | Lauromacrogol 400               | 13095817             | 4       |
| Caelo    | Macrogol 4 lauryl ether         | 13136202             | 2       |
| Caelo    | Macrogol 4 lauryl ether         | 13136206             | 1       |
| Caelo    | Lauromacrogol 400               | 13175513             | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 13229801             | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 13229805             | 6       |
| Caelo    | Macrogol 4 lauryl ether         | 13229808             | 2       |
| Caelo    | Lauromacrogol 400               | 13340701             | 6       |
| Caelo    | Lauromacrogol 400               | 13340703             | 4       |
| Caelo    | Lauromacrogol 400               | 13340706             | 1       |
| Caelo    | Lauromacrogol 400               | 13340710             | 3       |
| Caelo    | Lauromacrogol 400               | 13340712             | 2       |
| Caelo    | Lauromacrogol 400               | 13340715             | 2       |
| Caelo    | Lauromacrogol 400               | 1359415              | 2       |
| Caelo    | Lauromacrogol 400               | 13B13-N01            | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 13K07-N02            | 1       |
| Caelo    | Lauromacrogol 400               | 13K18-B30            | 1       |
| Caelo    | Lauromacrogol 400               | 13K18-B30-288163     | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 140415C              | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 14054401             | 8       |
| Caelo    | Macrogol 4 lauryl ether         | 14054405             | 7       |
| Caelo    | Lauromacrogol 400               | 140911               | 11      |
| Caelo    | Lauromacrogol 400               | 1410010-10           | 1       |
| Caelo    | Lauromacrogol 400               | 1412296              | 1       |
| Caelo    | Lauromacrogol 400               | 14-1414              | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 14196805             | 14      |
| Caelo    | Lauromacrogol 400               | 14220805             | 3       |
| Caelo    | Lauromacrogol 400               | 14220807             | 2       |
| Caelo    | Lauromacrogol 400               | 14220808             | 3       |
| Caelo    | Lauromacrogol 400               | 14220813             | 3       |
| Caelo    | Lauromacrogol 400               | 14220815             | 1       |
| Caelo    | Lauromacrogol 400               | 14220816             | 11      |
| Caelo    | Lauromacrogol 400               | 14220818             | 2       |
| Caelo    | Lauromacrogol 400               | 14220820             | 4       |
| Caelo    | Macrogol 4 lauryl ether         | 14225301             | 7       |
| Caelo    | Macrogol 4 lauryl ether         | 14225303             | 5       |
| Caelo    | Macrogol 4 lauryl ether         | 14225306             | 3       |
| Caelo    | Macrogol 4 lauryl ether         | 14225308             | 4       |
| Caelo    | Macrogolglycerol hydroxystea... | 14283805             | 7       |
| Caelo    | Macrogolglycerol hydroxystea... | 14283808             | 8       |
| Caelo    | Macrogolglycerol hydroxystea... | 14283810             | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 14283813             | 13      |
| Caelo    | Macrogolglycerol hydroxystea... | 14B14-B06-292160     | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 14b14-b06-2921600855 | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 14C28-b01            | 1       |
| Caelo    | Lauromacrogol 400               | 14H04-B03-297071     | 2       |
| Caelo    | Lauromacrogol 400               | 14H04-B03-301517     | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 14K28-B01            | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 14k28-b01-301467     | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 14K28-B01-301467     | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 14K28-B01-301468     | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 14K28-B01-309197     | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Lauromacrogol 400               | 15032018         | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 15041704         | 12      |
| Caelo    | Macrogol 4 lauryl ether         | 15041801         | 8       |
| Caelo    | Macrogol 4 lauryl ether         | 15041802         | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 15051801         | 1       |
| Caelo    | Lauromacrogol 400               | 15-0596          | 1       |
| Caelo    | Lauromacrogol 400               | 151002402        | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 1510024-02       | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 15102001         | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 15169403         | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 15169404         | 17      |
| Caelo    | Macrogolglycerol hydroxystea... | 15169405         | 12      |
| Caelo    | Macrogolglycerol hydroxystea... | 15169410         | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 15169805         | 1       |
| Caelo    | Lauromacrogol 400               | 15192202         | 3       |
| Caelo    | Lauromacrogol 400               | 15192203         | 4       |
| Caelo    | Lauromacrogol 400               | 15192205         | 14      |
| Caelo    | Lauromacrogol 400               | 15192206         | 1       |
| Caelo    | Lauromacrogol 400               | 15192208         | 8       |
| Caelo    | Lauromacrogol 400               | 15192209         | 4       |
| Caelo    | Macrogol 4 lauryl ether         | 15323701         | 19      |
| Caelo    | Macrogol 4 lauryl ether         | 15323704         | 10      |
| Caelo    | Lauromacrogol 400               | 15363701         | 1       |
| Caelo    | Lauromacrogol 400               | 15363702         | 9       |
| Caelo    | Lauromacrogol 400               | 15363703         | 5       |
| Caelo    | Lauromacrogol 400               | 15363705         | 2       |
| Caelo    | Lauromacrogol 400               | 15363706         | 1       |
| Caelo    | Lauromacrogol 400               | 15363707         | 3       |
| Caelo    | Lauromacrogol 400               | 15363710         | 6       |
| Caelo    | Lauromacrogol 400               | 15363712         | 9       |
| Caelo    | Macrogolglycerol hydroxystea... | 15378302         | 28      |
| Caelo    | Macrogolglycerol hydroxystea... | 15378304         | 10      |
| Caelo    | Macrogolglycerol hydroxystea... | 15378309         | 4       |
| Caelo    | Lauromacrogol 400               | 15A26-802        | 1       |
| Caelo    | Lauromacrogol 400               | 15A26-B02        | 2       |
| Caelo    | Lauromacrogol 400               | 15A26-B02-303627 | 1       |
| Caelo    | Lauromacrogol 400               | 15a26-b02-303628 | 1       |
| Caelo    | Lauromacrogol 400               | 15G10-B05        | 1       |
| Caelo    | Lauromacrogol 400               | 15G10-B05-313605 | 1       |
| Caelo    | Lauromacrogol 400               | 15G10-B05-315343 | 1       |
| Caelo    | Lauromacrogol 400               | 16/077/M         | 1       |
| Caelo    | Lauromacrogol 400               | 16-0290          | 1       |
| Caelo    | Lauromacrogol 400               | 160312           | 35      |
| Caelo    | Lauromacrogol 400               | 160312A          | 50      |
| Caelo    | Macrogolglycerol hydroxystea... | 16045403         | 21      |
| Caelo    | Macrogolglycerol hydroxystea... | 16045406         | 2       |
| Caelo    | Lauromacrogol 400               | 160500602        | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 16100201         | 21      |
| Caelo    | Macrogol 4 lauryl ether         | 16100205         | 14      |
| Caelo    | Macrogol 4 lauryl ether         | 16100207         | 22      |
| Caelo    | Lauromacrogol 400               | 1610034-01       | 1       |
| Caelo    | Lauromacrogol 400               | 16102901         | 1       |
| Caelo    | Lauromacrogol 400               | 16102902         | 11      |
| Caelo    | Lauromacrogol 400               | 16102903         | 1       |
| Caelo    | Lauromacrogol 400               | 16102904         | 9       |
| Caelo    | Lauromacrogol 400               | 16102908         | 5       |
| Caelo    | Lauromacrogol 400               | 16102909         | 4       |
| Caelo    | Macrogol 4 lauryl ether         | 16102911         | 8       |
| Caelo    | Lauromacrogol 400               | 16102912         | 2       |
| Caelo    | Lauromacrogol 400               | 16102914         | 6       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Lauromacrogol 400               | 16102916          | 22      |
| Caelo    | Lauromacrogol 400               | 16102919          | 1       |
| Caelo    | Lauromacrogol 400               | 16102920          | 8       |
| Caelo    | Lauromacrogol 400               | 16-1155           | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 16215504          | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 1624401           | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 16247401          | 29      |
| Caelo    | Macrogolglycerol hydroxystea... | 16247405          | 23      |
| Caelo    | Macrogolglycerol hydroxystea... | 16247405/1060217  | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 16247410          | 9       |
| Caelo    | Lauromacrogol 400               | 163012            | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 16349303          | 28      |
| Caelo    | Macrogolglycerol hydroxystea... | 16349304          | 20      |
| Caelo    | Macrogolglycerol hydroxystea... | 16349305          | 18      |
| Caelo    | Macrogolglycerol hydroxystea... | 16349310          | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 163493105682      | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 1647401           | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 169040306         | 1       |
| Caelo    | Lauromacrogol 400               | 16D18-B04         | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04         | 2       |
| Caelo    | Lauromacrogol 400               | 16E-18B04         | 1       |
| Caelo    | Lauromacrogol 400               | 16E18B04321109    | 1       |
| Caelo    | Lauromacrogol 400               | 16E18B04-321110   | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-321377  | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-322723  | 2       |
| Caelo    | Lauromacrogol 400               | 16E18B04324095    | 2       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-324095  | 2       |
| Caelo    | Lauromacrogol 400               | 16E18B04326089    | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-326089  | 1       |
| Caelo    | Lauromacrogol 400               | 16E-18-B04-326089 | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-327811  | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-328699  | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-328737  | 1       |
| Caelo    | Lauromacrogol 400               | 16E18-B04-326090  | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 17028301          | 41      |
| Caelo    | Macrogol 4 lauryl ether         | 17028303          | 18      |
| Caelo    | Lauromacrogol 400               | 1703033-01        | 5       |
| Caelo    | Lauromacrogol 400               | 1704606           | 1       |
| Caelo    | Lauromacrogol 400               | 17046401          | 23      |
| Caelo    | Lauromacrogol 400               | 17046404          | 1       |
| Caelo    | Lauromacrogol 400               | 17046406          | 7       |
| Caelo    | Lauromacrogol 400               | 17046408          | 11      |
| Caelo    | Lauromacrogol 400               | 17046409          | 2       |
| Caelo    | Lauromacrogol 400               | 17046411          | 22      |
| Caelo    | Lauromacrogol 400               | 17046412          | 10      |
| Caelo    | Lauromacrogol 400               | 17046461          | 1       |
| Caelo    | Lauromacrogol 400               | 17046502          | 9       |
| Caelo    | Lauromacrogol 400               | 17046552          | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 170828301         | 1       |
| Caelo    | Lauromacrogol 400               | 170845            | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 1710026           | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 1710026-01        | 4       |
| Caelo    | Macrogolglycerol hydroxystea... | 17111202          | 1       |
| Caelo    | Lauromacrogol 400               | 17175502          | 1       |
| Caelo    | Lauromacrogol 400               | 17250901          | 9       |
| Caelo    | Lauromacrogol 400               | 17250902          | 26      |
| Caelo    | Lauromacrogol 400               | 1725090217250902  | 1       |
| Caelo    | Lauromacrogol 400               | 17250904          | 22      |
| Caelo    | Lauromacrogol 400               | 17250908          | 26      |
| Caelo    | Lauromacrogol 400               | 17250909          | 25      |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Lauromacrogol 400               | 17250913           | 20      |
| Caelo    | Lauromacrogol 400               | 17250914           | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 17257003           | 41      |
| Caelo    | Macrogolglycerol hydroxystea... | 17257004           | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 17257007           | 2       |
| Caelo    | Lauromacrogol 400               | 1725902            | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 17325413           | 1       |
| Caelo    | Lauromacrogol 400               | 17A23B01330983     | 1       |
| Caelo    | Lauromacrogol 400               | 17A23-B01-330983   | 5       |
| Caelo    | Lauromacrogol 400               | 17A23-B01-332867   | 1       |
| Caelo    | Lauromacrogol 400               | 17A23-B01-332868   | 1       |
| Caelo    | Lauromacrogol 400               | 17A23-B01-33287    | 1       |
| Caelo    | Lauromacrogol 400               | 17A23-B01-333329   | 1       |
| Caelo    | Lauromacrogol 400               | 17A23-B01-332868   | 1       |
| Caelo    | Lauromacrogol 400               | 17H21-B07          | 2       |
| Caelo    | Lauromacrogol 400               | 17H21-B07-339504   | 1       |
| Caelo    | Lauromacrogol 400               | 17h21b07341796     | 1       |
| Caelo    | Lauromacrogol 400               | 17H21B07341796     | 2       |
| Caelo    | Lauromacrogol 400               | 17H21-B07-341796   | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 18(17028301)       | 1       |
| Caelo    | Lauromacrogol 400               | 18-0103            | 4       |
| Caelo    | Lauromacrogol 400               | 1801043-01         | 5       |
| Caelo    | Macrogol 4 lauryl ether         | 18040101           | 30      |
| Caelo    | Macrogol 4 lauryl ether         | 18040103           | 14      |
| Caelo    | Macrogol 4 lauryl ether         | 18040106           | 5       |
| Caelo    | Lauromacrogol 400               | 180802501          | 1       |
| Caelo    | Lauromacrogol 400               | 1808025-01         | 2       |
| Caelo    | Lauromacrogol 400               | 18111708           | 1       |
| Caelo    | Lauromacrogol 400               | 1815502            | 1       |
| Caelo    | Lauromacrogol 400               | 1815508            | 1       |
| Caelo    | Lauromacrogol 400               | 18175501           | 16      |
| Caelo    | Lauromacrogol 400               | 18175502           | 19      |
| Caelo    | Lauromacrogol 400               | 18175503           | 12      |
| Caelo    | Lauromacrogol 400               | 18175504           | 21      |
| Caelo    | Lauromacrogol 400               | 181755040120       | 1       |
| Caelo    | Lauromacrogol 400               | 18175508           | 21      |
| Caelo    | Lauromacrogol 400               | 18175509           | 17      |
| Caelo    | Lauromacrogol 400               | 18175509P-190225-1 | 1       |
| Caelo    | Lauromacrogol 400               | 18175512           | 1       |
| Caelo    | Lauromacrogol 400               | 18175513           | 15      |
| Caelo    | Lauromacrogol 400               | 18175515           | 6       |
| Caelo    | Lauromacrogol 400               | 18175516           | 1       |
| Caelo    | Lauromacrogol 400               | 18175517           | 14      |
| Caelo    | Lauromacrogol 400               | 18175520           | 4       |
| Caelo    | Lauromacrogol 400               | 18175521           | 5       |
| Caelo    | Lauromacrogol 400               | 18175608           | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 182004507          | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 18204501           | 5       |
| Caelo    | Macrogolglycerol hydroxystea... | 18204504           | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 18204506           | 9       |
| Caelo    | Macrogolglycerol hydroxystea... | 18204507           | 35      |
| Caelo    | Macrogolglycerol hydroxystea... | 18204507P-190325-7 | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 18204509           | 29      |
| Caelo    | Macrogol 4 lauryl ether         | 18215501           | 41      |
| Caelo    | Macrogol 4 lauryl ether         | 18215504           | 15      |
| Caelo    | Macrogol 4 lauryl ether         | 18215506           | 20      |
| Caelo    | Macrogol 4 lauryl ether         | 18215508           | 15      |
| Caelo    | Macrogol 4 lauryl ether         | 1825504            | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 182784             | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 18278403           | 41      |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Macrogolglycerol hydroxystea... | 18278404         | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 18278406         | 24      |
| Caelo    | Macrogolglycerol hydroxystea... | 18278407         | 3       |
| Caelo    | Macrogolglycerol hydroxystea... | 18278410         | 32      |
| Caelo    | Macrogolglycerol hydroxystea... | 18278411         | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 18278412         | 1       |
| Caelo    | Lauromacrogol 400               | 188175504        | 1       |
| Caelo    | Lauromacrogol 400               | 18826806347342   | 1       |
| Caelo    | Lauromacrogol 400               | 18826-B06-346397 | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 188B26-B06       | 1       |
| Caelo    | Lauromacrogol 400               | 18912184         | 1       |
| Caelo    | Lauromacrogol 400               | 18B26-B06_346397 | 1       |
| Caelo    | Lauromacrogol 400               | 18B26-B06-346397 | 3       |
| Caelo    | Lauromacrogol 400               | 18b26-b06-346398 | 1       |
| Caelo    | Lauromacrogol 400               | 18B26-B06-346398 | 1       |
| Caelo    | Lauromacrogol 400               | 18B26-B06-347341 | 1       |
| Caelo    | Lauromacrogol 400               | 18B26-B06-347342 | 3       |
| Caelo    | Lauromacrogol 400               | 18D30-350642     | 1       |
| Caelo    | Lauromacrogol 400               | 18D30-B09        | 1       |
| Caelo    | Lauromacrogol 400               | 18D30B09-350640  | 1       |
| Caelo    | Lauromacrogol 400               | 18D30-B09-350640 | 3       |
| Caelo    | Lauromacrogol 400               | 18D30-B09-350641 | 3       |
| Caelo    | Lauromacrogol 400               | 18D30-B09-350642 | 2       |
| Caelo    | Macrogol 4 lauryl ether         | 18D30-B09-352738 | 4       |
| Caelo    | Lauromacrogol 400               | 18D30-B09-352739 | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 18G13-B05        | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 18G13-B05-355855 | 1       |
| Caelo    | Lauromacrogol 400               | 18J08-B03-355982 | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 19(18215504)     | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 190000420003     | 2       |
| Caelo    | Macrogol 4 lauryl ether         | 19000420003      | 23      |
| Caelo    | Macrogol 4 lauryl ether         | 19000420004      | 9       |
| Caelo    | Macrogol 4 lauryl ether         | 1900042003       | 1       |
| Caelo    | Lauromacrogol 400               | 1901029-01       | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 19013603         | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 19021802         | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 19040302         | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 19040303         | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 19040305         | 26      |
| Caelo    | Macrogolglycerol hydroxystea... | 19040306         | 10      |
| Caelo    | Macrogolglycerol hydroxystea... | 1904305          | 1       |
| Caelo    | Lauromacrogol 400               | 19054203         | 16      |
| Caelo    | Lauromacrogol 400               | 19064501         | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 19067001         | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 190967001        | 15      |
| Caelo    | Macrogol 4 lauryl ether         | 19096701         | 20      |
| Caelo    | Lauromacrogol 400               | 191111510        | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 19111202         | 1       |
| Caelo    | Lauromacrogol 400               | 19130004         | 1       |
| Caelo    | Lauromacrogol 400               | 1913003          | 2       |
| Caelo    | Lauromacrogol 400               | 1913100004       | 1       |
| Caelo    | Lauromacrogol 400               | 191310003        | 41      |
| Caelo    | Lauromacrogol 400               | 191310004        | 15      |
| Caelo    | Lauromacrogol 400               | 19131002         | 15      |
| Caelo    | Lauromacrogol 400               | 19131003         | 32      |
| Caelo    | Lauromacrogol 400               | 1913100309       | 1       |
| Caelo    | Lauromacrogol 400               | 19131004         | 5       |
| Caelo    | Lauromacrogol 400               | 19131005         | 8       |
| Caelo    | Lauromacrogol 400               | 19131006         | 30      |
| Caelo    | Lauromacrogol 400               | 19131008         | 45      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Lauromacrogol 400               | 19131009         | 1       |
| Caelo    | Lauromacrogol 400               | 19131010         | 6       |
| Caelo    | Macrogolglycerol hydroxystea... | 191835003        | 1       |
| Caelo    | Lauromacrogol 400               | 1919A-02384      | 1       |
| Caelo    | Lauromacrogol 400               | 1919B-02384      | 1       |
| Caelo    | Lauromacrogol 400               | 1919E-02384      | 1       |
| Caelo    | Lauromacrogol 400               | 1925957002       | 1       |
| Caelo    | Lauromacrogol 400               | 19291570         | 1       |
| Caelo    | Lauromacrogol 400               | 192957001        | 22      |
| Caelo    | Lauromacrogol 400               | 192957002        | 33      |
| Caelo    | Lauromacrogol 400               | 192957003        | 1       |
| Caelo    | Lauromacrogol 400               | 192957005        | 19      |
| Caelo    | Lauromacrogol 400               | 1929570058       | 1       |
| Caelo    | Lauromacrogol 400               | 19297001         | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 19G09-B02        | 1       |
| Caelo    | Lauromacrogol 400               | 19G09-B02-072831 | 1       |
| Caelo    | Lauromacrogol 400               | 200000841002     | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 200002214004     | 5       |
| Caelo    | Lauromacrogol 400               | 20000841001      | 2       |
| Caelo    | Lauromacrogol 400               | 20000841002      | 11      |
| Caelo    | Lauromacrogol 400               | 20001966001      | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 2000214004       | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 200022114004     | 2       |
| Caelo    | Macrogolglycerol hydroxystea... | 20002214003      | 3       |
| Caelo    | Macrogolglycerol hydroxystea... | 20002214004      | 42      |
| Caelo    | Lauromacrogol 400               | 2000269          | 1       |
| Caelo    | Lauromacrogol 400               | 20002697001      | 17      |
| Caelo    | Lauromacrogol 400               | 20002697002      | 42      |
| Caelo    | Lauromacrogol 400               | 20002697004      | 1       |
| Caelo    | Lauromacrogol 400               | 20002697005      | 6       |
| Caelo    | Macrogol 4 lauryl ether         | 20003967001      | 2       |
| Caelo    | Lauromacrogol 400               | 2000448003       | 1       |
| Caelo    | Lauromacrogol 400               | 20004481003      | 1       |
| Caelo    | Lauromacrogol 400               | 20004484003      | 26      |
| Caelo    | Lauromacrogol 400               | 20004484004      | 12      |
| Caelo    | Lauromacrogol 400               | 2002697002       | 2       |
| Caelo    | Macrogol 4 lauryl ether         | 20121112-1       | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 20130912-1       | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 2019Q-01308      | 1       |
| Caelo    | Lauromacrogol 400               | 20D20-T12-076662 | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 21000060003      | 11      |
| Caelo    | Macrogol 4 lauryl ether         | 21000436001      | 2       |
| Caelo    | Macrogol 4 lauryl ether         | 21000436002      | 1       |
| Caelo    | Macrogol 4 lauryl ether         | 21000436003      | 9       |
| Caelo    | Macrogol 4 lauryl ether         | 21000436006      | 2       |
| Caelo    | Macrogol 4 lauryl ether         | 21000436008      | 3       |
| Caelo    | Lauromacrogol 400               | 21000678003      | 1       |
| Caelo    | Lauromacrogol 400               | 21000678004      | 6       |
| Caelo    | Lauromacrogol 400               | 21000678005      | 16      |
| Caelo    | Lauromacrogol 400               | 21000678009      | 2       |
| Caelo    | Lauromacrogol 400               | 21000678010      | 5       |
| Caelo    | Lauromacrogol 400               | 21000678011      | 6       |
| Caelo    | Macrogolglycerol hydroxystea... | 21001311002      | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 21001311005      | 13      |
| Caelo    | Macrogolglycerol hydroxystea... | 21002749002      | 3       |
| Caelo    | Macrogolglycerol hydroxystea... | 21002749003      | 4       |
| Caelo    | Macrogolglycerol hydroxystea... | 21002749006      | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 2100311005       | 1       |
| Caelo    | Lauromacrogol 400               | 21011501         | 1       |
| Caelo    | Macrogolglycerol hydroxystea... | 2101415          | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch               | Spectra |
|----------------------------|---------------------------------|---------------------|---------|
| Caelo                      | Macrogolglycerol hydroxystea... | 21071201            | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 21111816            | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 21121203            | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 2115E-01308         | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 2184                | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 218400031           | 4       |
| Caelo                      | Macrogol 4 lauryl ether         | 2184001             | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 221542              | 1       |
| Caelo                      | Lauromacrogol 400               | 2319E-02384(1)      | 1       |
| Caelo                      | Lauromacrogol 400               | 2319F-02384(2)      | 1       |
| Caelo                      | Lauromacrogol 400               | 2319G-02384(3)      | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 26061303            | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 29091402            | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 2917E-01308         | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 2918E-01308         | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 3005682             | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 30091404            | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 30378697V0          | 1       |
| Caelo                      | Lauromacrogol 400               | 3121505             | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 3272779             | 1       |
| Caelo                      | Lauromacrogol 400               | 3298                | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 332418278406        | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 3447210004363       | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 3452                | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 417400031           | 2       |
| Caelo                      | Macrogol 4 lauryl ether         | 417400313           | 1       |
| Caelo                      | Lauromacrogol 400               | 41796               | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 4214A-02868         | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 4613M-01308         | 1       |
| Caelo                      | Lauromacrogol 400               | 4617M02384          | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 5041801             | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 54764324U0          | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 6021304             | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 616A-02868          | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | 70201688Q0          | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 7028303             | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 7121201             | 1       |
| Caelo                      | Macrogol 4 lauryl ether         | 715400031           | 1       |
| Caelo                      | Lauromacrogol 400               | 7250901             | 1       |
| Caelo                      | Lauromacrogol 400               | 8727                | 1       |
| Caelo                      | Lauromacrogol 400               | 90807               | 1       |
| Caelo                      | Lauromacrogol 400               | B14-1414            | 1       |
| Caelo                      | Lauromacrogol 400               | CHB17250902         | 1       |
| Caelo                      | Lauromacrogol 400               | gepepharm           | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | P-05021920/18204501 | 1       |
| Caelo                      | Macrogolglycerol hydroxystea... | P146/14             | 1       |
| Caelo/Phönix               | Macrogolglycerol hydroxystea... | 19040305            | 1       |
| Caesa / Alliance Health... | Lauromacrogol 400               | 18175504            | 1       |
| Caesar & Lorenz GmbH       | Macrogol 4 lauryl ether         | 19096701            | 1       |
| Caesar & Lorenz            | Lauromacrogol 400               | 13095802            | 1       |
| Caesar & Loretz /Phönix    | Lauromacrogol 400               | 21000678009         | 1       |
| Caesar & Loretz GmbH / ... | Lauromacrogol 400               | 18175509            | 3       |
| Caesar & Loretz GmbH / ... | Lauromacrogol 400               | 19131003            | 1       |
| Caesar & Loretz GmbH / ... | Macrogol 4 lauryl ether         | 18215504            | 1       |
| Caesar & Loretz GmbH / ... | Macrogolglycerol hydroxystea... | 18278410            | 1       |
| Caesar & Loretz GmbH / ... | Lauromacrogol 400               | 192957001           | 1       |
| Caesar & Loretz GmbH / ... | Macrogol 4 lauryl ether         | 18040101            | 1       |
| Caesar & Loretz GmbH / ... | Macrogol 4 lauryl ether         | 417400031           | 2       |
| Caesar & Loretz GmbH / ... | Lauromacrogol 400               | 18175517            | 1       |
| Caesar & Loretz GmbH / ... | Lauromacrogol 400               | 19131008            | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH /G... | Lauromacrogol 400               | 192957001   | 1       |
| Caesar & Loretz GmbH Hi... | Macrogol 4 lauryl ether         | 14283001    | 1       |
| Caesar & Loretz GmbH Hi... | Macrogolglycerol hydroxystea... | 16247401    | 1       |
| Caesar & Loretz GmbH, 4... | Macrogol 4 lauryl ether         | 11220306    | 1       |
| Caesar & Loretz GmbH/ G... | Lauromacrogol 400               | 191310003   | 3       |
| Caesar & Loretz GmbH/ G... | Lauromacrogol 400               | 19131003    | 2       |
| Caesar & Loretz GmbH/ G... | Lauromacrogol 400               | 19131008    | 1       |
| Caesar & Loretz GmbH/ G... | Lauromacrogol 400               | 19131008    | 1       |
| Caesar & Loretz GmbH/ G... | Macrogolglycerol hydroxystea... | 20002214004 | 1       |
| Caesar & Loretz GmbH/ P... | Macrogolglycerol hydroxystea... | 21000678003 | 1       |
| Caesar & Loretz GmbH/AHD   | Macrogolglycerol hydroxystea... | 19040305    | 1       |
| Caesar & Loretz GmbH/AHD   | Lauromacrogol 400               | 19131002    | 1       |
| Caesar & Loretz GmbH/AHD   | Lauromacrogol 400               | 19131010    | 1       |
| Caesar & Loretz GmbH/AHD   | Lauromacrogol 400               | 192957002   | 1       |
| Caesar & Loretz GmbH/AHD   | Lauromacrogol 400               | 20004484004 | 1       |
| Caesar & Loretz GmbH/Fi... | Lauromacrogol 400               | 192957005   | 1       |
| Caesar & Loretz GmbH/Fi... | Lauromacrogol 400               | 20002697005 | 1       |
| Caesar & Loretz GmbH/Fi... | Macrogolglycerol hydroxystea... | 2100006001  | 1       |
| Caesar & Loretz GmbH/Gehe  | Macrogolglycerol hydroxystea... | 18278403    | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | 191310003   | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | 19131005    | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | 192957002   | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | 192957005   | 1       |
| Caesar & Loretz GmbH/Gehe  | Macrogolglycerol hydroxystea... | 20002214004 | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | 20002697001 | 2       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | 20004484004 | 1       |
| Caesar & Loretz GmbH/GEHE  | Macrogolglycerol hydroxystea... | 21001311005 | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | AP200918-02 | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | AP200918-03 | 1       |
| Caesar & Loretz GmbH/Gehe  | Lauromacrogol 400               | AP200918-04 | 1       |
| Caesar & Loretz GmbH/Ge... | Macrogolglycerol hydroxystea... | 19040305    | 1       |
| Caesar & Loretz GmbH/ho... | Macrogolglycerol hydroxystea... | 21002749003 | 1       |
| Caesar & Loretz GmbH/Je... | Macrogolglycerol hydroxystea... | 19040306    | 1       |
| Caesar & Loretz GmbH/Je... | Lauromacrogol 400               | 19131006    | 1       |
| Caesar & Loretz GmbH/Je... | Lauromacrogol 400               | 192957005   | 1       |
| Caesar & Loretz GmbH/Kehr  | Macrogol 4 lauryl ether         | 18215506    | 1       |
| Caesar & Loretz GmbH/Kehr  | Macrogolglycerol hydroxystea... | 18278410    | 1       |
| Caesar & Loretz GmbH/Kehr  | Macrogol 4 lauryl ether         | 190967001   | 1       |
| Caesar & Loretz GmbH/Kr... | Macrogol 4 lauryl ether         | 19000420003 | 2       |
| Caesar & Loretz GmbH/Kr... | Macrogol 4 lauryl ether         | 19000420004 | 2       |
| Caesar & Loretz GmbH/Kr... | Macrogol 4 lauryl ether         | 190967001   | 1       |
| Caesar & Loretz GmbH/Kr... | Lauromacrogol 400               | 20002697002 | 1       |
| Caesar & Loretz GmbH/No... | Macrogolglycerol hydroxystea... | 18204507    | 1       |
| Caesar & Loretz GmbH/No... | Macrogol 4 lauryl ether         | 19096701    | 1       |
| Caesar & Loretz GmbH/No... | Lauromacrogol 400               | 192957001   | 1       |
| Caesar & Loretz GmbH/NO... | Lauromacrogol 400               | 192957005   | 1       |
| Caesar & Loretz GmbH/No... | Macrogolglycerol hydroxystea... | 20002214003 | 1       |
| Caesar & Loretz GmbH/No... | Lauromacrogol 400               | 20002697002 | 1       |
| Caesar & Loretz GmbH/No... | Lauromacrogol 400               | 20004484003 | 2       |
| Caesar & Loretz GmbH/No... | Lauromacrogol 400               | 21000678005 | 1       |
| Caesar & Loretz GmbH/Ph... | Macrogolglycerol hydroxystea... | 19040305    | 1       |
| Caesar & Loretz GmbH/Ph... | Macrogolglycerol hydroxystea... | 18278406    | 1       |
| Caesar & Loretz GmbH/Ph... | Lauromacrogol 400               | 192957001   | 1       |
| Caesar & Loretz GmbH/Ph... | Lauromacrogol 400               | 192957002   | 1       |
| Caesar & Loretz GmbH/Ph... | Macrogolglycerol hydroxystea... | 20002214004 | 1       |
| Caesar & Loretz GmbH/Ph... | Lauromacrogol 400               | 20002697001 | 1       |
| Caesar & Loretz GmbH/Sana  | Macrogolglycerol hydroxystea... | 18278406    | 1       |
| Caesar & Loretz GmbH/Sa... | Macrogolglycerol hydroxystea... | 19040305    | 1       |
| Caesar & Loretz GmbH/Sa... | Lauromacrogol 400               | 191310003   | 2       |
| Caesar & Loretz GmbH/Sa... | Lauromacrogol 400               | 192957005   | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Sa... | Lauromacrogol 400               | 20001966001 | 1       |
| Caesar & Loretz GmbH/Sa... | Lauromacrogol 400               | 20002697002 | 1       |
| Caesar & Loretz GmbH/Sa... | Lauromacrogol 400               | 20002697005 | 1       |
| Caesar & Loretz GmbH/Sa... | Macrogol 4 lauryl ether         | 21000436008 | 1       |
| Caesar & Loretz GmbH/Sa... | Macrogolglycerol hydroxystea... | 21001311005 | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 14054405    | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 14225308    | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 16100201    | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 16102911    | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 17028301    | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 17028303    | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 17046411    | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 18040101    | 2       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 18040103    | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175504    | 2       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175508    | 10      |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175509    | 4       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175512    | 3       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175513    | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175515    | 3       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175517    | 4       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18175520    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 18204507    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 18204509    | 2       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 18215501    | 3       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 18215504    | 2       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 18215506    | 2       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 18215508    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 18278403    | 4       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 18278404    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 18278406    | 3       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 18278410    | 9       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 18D30-B09   | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 19000420003 | 2       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 19000420004 | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19002901    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 19040303    | 2       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 19040305    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 19040306    | 4       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19054203    | 2       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 190967001   | 3       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 191310003   | 4       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 191310004   | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131002    | 10      |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131003    | 8       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131004    | 2       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131005    | 3       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131006    | 11      |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131008    | 11      |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131009    | 2       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 19131010    | 2       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 192957001   | 5       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 192957002   | 6       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 192957005   | 3       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 20000841001 | 2       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 20000841002 | 5       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 20002214003 | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 20002214004 | 4       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 20002697001 | 6       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 20002697002 | 10      |

continued on the next page



continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 20002697005 | 4       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 20004484004 | 2       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 21000060001 | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 21000060003 | 1       |
| Caesar & Loretz GmbH       | Macrogol 4 lauryl ether         | 21000436003 | 2       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 21000678004 | 2       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 21000678005 | 5       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 21000678010 | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | 21000678011 | 4       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 21001311005 | 6       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 21002749002 | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 21002749003 | 2       |
| Caesar & Loretz GmbH       | Macrogolglycerol hydroxystea... | 24244888Q0  | 1       |
| Caesar & Loretz GmbH       | Lauromacrogol 400               | B02-0728302 | 1       |
| Caesar & Loretz GmbH7Sa... | Macrogolglycerol hydroxystea... | 20002214004 | 1       |
| Caesar & Loretz Hilden/... | Lauromacrogol 400               | 20002697005 | 1       |
| Caesar & Loretz/Geilenk... | Lauromacrogol 400               | 192957001   | 1       |
| Caesar & Loretz/Noweda     | Lauromacrogol 400               | 19131003    | 1       |
| Caesar & Loretz/Noweda     | Lauromacrogol 400               | 20002697002 | 1       |
| Caesar & Loretz/Noweda     | Macrogol 4 lauryl ether         | 715400031   | 1       |
| Caesar & Loretz/Sanacorp   | Lauromacrogol 400               | 15363712    | 1       |
| Caesar & Loretz            | Lauromacrogol 400               | 17250908    | 1       |
| Caesar & Loretz            | Lauromacrogol 400               | 17250913    | 2       |
| Caesar & Loretz            | Lauromacrogol 400               | 18175503    | 1       |
| Caesar & Loretz            | Lauromacrogol 400               | 18175504    | 4       |
| Caesar & Loretz            | Macrogolglycerol hydroxystea... | 18204509    | 1       |
| CAESAR & LORETZ            | Lauromacrogol 400               | 19131003    | 1       |
| Caesar &Loretz GmbH        | Macrogolglycerol hydroxystea... | 12158610    | 1       |
| Caesar &Loretz GmbH        | Macrogol 4 lauryl ether         | 13229802    | 1       |
| Caesar u. Loretz/Noweda    | Macrogolglycerol hydroxystea... | 14196805    | 1       |
| Caesar&Lorenz              | Macrogolglycerol hydroxystea... | 21001311005 | 1       |
| Caesar&Loretz GmbH/ All... | Lauromacrogol 400               | 17250913    | 1       |
| Caesar&Loretz GmbH         | Macrogolglycerol hydroxystea... | 21002749003 | 1       |
| Caesar&loretz,Anzag        | Macrogol 4 lauryl ether         | 13041702    | 1       |
| Caesar&loretz,Phoenix      | Macrogol 4 lauryl ether         | 14225308    | 1       |
| Caesar/Loretz              | Lauromacrogol 400               | 18175513    | 1       |
| Caesar/Loretz              | Lauromacrogol 400               | 18175515    | 5       |
| Caesar/Noweda              | Lauromacrogol 400               | 13B13-N01   | 1       |
| Caleo/Phönix               | Macrogol 4 lauryl ether         | 14225308    | 1       |
| Caleo                      | Lauromacrogol 400               | 192957005   | 1       |
| Calo/AHD                   | Lauromacrogol 400               | 14-0731     | 1       |
| Calo/AHD                   | Macrogolglycerol hydroxystea... | 16247401    | 1       |
| Cealo/Jenne                | Macrogol 4 lauryl ether         | 18215506    | 1       |
| Cealo/Sanacorp             | Lauromacrogol 400               | 20004484003 | 1       |
| Cealo                      | Macrogol 4 lauryl ether         | 19000420003 | 3       |
| cealo                      | Macrogol 4 lauryl ether         | 19000420004 | 1       |
| Cepepharm / Gehe           | Lauromacrogol 400               | 140911      | 3       |
| Cesar&Loretz GmbH Noweda   | Lauromacrogol 400               | 20002697002 | 1       |
| Chemische Fabrik/Noweda    | Lauromacrogol 400               | 19054203    | 3       |
| Chem. Fab. Schärer und ... | Lauromacrogol 400               | 19054203    | 1       |
| Chem. Fabrik Schärer & ... | Lauromacrogol 400               | 19131002    | 1       |
| Chem. Fabrik Schärer&Sc... | Lauromacrogol 400               | 20001966001 | 1       |
| Chem.Fabr.Schärer/Sana     | Lauromacrogol 400               | 20001966001 | 1       |
| Chemische Fabrik / Phönix  | Lauromacrogol 400               | 19054203    | 1       |
| Chemische Fabrik / Phönix  | Lauromacrogol 400               | 19054203A   | 4       |
| Chemische Fabrik / Phönix  | Lauromacrogol 400               | 19064501    | 4       |
| Chemische Fabrik / Phönix  | Lauromacrogol 400               | 19064501A   | 2       |
| chemische Fabrik : Schä... | Lauromacrogol 400               | 19064501    | 1       |
| Chemische Fabrik Phoenix   | Lauromacrogol 400               | 19064501    | 1       |
| Chemische Fabrik Schäre... | Lauromacrogol 400               | 20001966001 | 1       |

continued on the next page

*continued from previous page*

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Chemische Fabrik Schäre... | Lauromacrogol 400               | 19054203         | 1       |
| Chemische Fabrik Schäre... | Lauromacrogol 400               | 19064501         | 1       |
| Chemische Fabrik Schäre... | Lauromacrogol 400               | 19064501A        | 1       |
| Chemische Fabrik Schäre... | Lauromacrogol 400               | 19064501         | 1       |
| Chemische Fabrik Schäre... | Lauromacrogol 400               | 20001966001      | 1       |
| Chemische Fabrik Schäre... | Lauromacrogol 400               | 19064501A        | 1       |
| Chemische Fabrik Schärer   | Lauromacrogol 400               | 19064501A        | 1       |
| Chemische Fabrik, Schär... | Lauromacrogol 400               | 19054203         | 1       |
| Chemische Fabrik/ sanac... | Lauromacrogol 400               | 19064501A        | 1       |
| Chemische Fabrik/AHD       | Lauromacrogol 400               | 19054203         | 1       |
| Chemische Fabrik/Phoenix   | Lauromacrogol 400               | 20-0945          | 1       |
| Chemische Fabrik           | Lauromacrogol 400               | 19064501         | 1       |
| Corda Iberica,SA.          | Lauromacrogol 400               | 1911015-01       | 1       |
| Croda Iberica              | Lauromacrogol 400               | 1510024-02       | 1       |
| Delta                      | Lauromacrogol 400               | 17H21-B07-341795 | 1       |
| Depepharm/Sanacorp         | Lauromacrogol 400               | 140911           | 2       |
| Dermapharm                 | Lauromacrogol 400               | 110408           | 1       |
| Devesa/NOW                 | Lauromacrogol 400               | 15363712         | 1       |
| Dr.rer.nat. S. Wissel      | Lauromacrogol 400               | 160312           | 1       |
| E Plus                     | Lauromacrogol 400               | 17046502         | 1       |
| E Plus                     | Lauromacrogol 400               | 17250909         | 1       |
| E Plus                     | Macrogolglycerol hydroxystea... | 17257003         | 1       |
| E Plus                     | Lauromacrogol 400               | 18175502         | 2       |
| Ebert & Jacobi 31.05...    | Lauromacrogol 400               | 140911           | 2       |
| Ebert & Jacobi             | Lauromacrogol 400               | 18D30-B09-352738 | 1       |
| Ebert+ Jacobi Hdh          | Lauromacrogol 400               | 18175509         | 1       |
| Ebert+Jacobi               | Lauromacrogol 400               | 12A26-N08        | 1       |
| EuRho                      | Lauromacrogol 400               | 1302014-01       | 2       |
| EuRho / Sanacorp           | Lauromacrogol 400               | 1901029-01       | 1       |
| EuRho >Ph                  | Macrogol 4 lauryl ether         | 1710026-01       | 1       |
| EuRHO/Jenne 13.04.22 8,... | Lauromacrogol 400               | 210611-02        | 1       |
| EuRho/Noweda               | Macrogol 4 lauryl ether         | 1801043-01       | 1       |
| EuRho/Sanacorp             | Lauromacrogol 400               | 1703033-01       | 1       |
| EuRho/VDL                  | Lauromacrogol 400               | 1907010-01       | 1       |
| EuRho                      | Lauromacrogol 400               | 130109           | 2       |
| EuRho                      | Lauromacrogol 400               | 1808025-01       | 3       |
| eurho                      | Lauromacrogol 400               | 197010-01        | 1       |
| Euro OTC                   | Lauromacrogol 400               |                  | 1       |
| Euro OTC                   | Lauromacrogol 400               | 1009020-02       | 2       |
| Euro OTC                   | Lauromacrogol 400               | 1109011-01       | 2       |
| Euro OTC                   | Macrogol 4 lauryl ether         | 1142238          | 3       |
| Euro OTC                   | Lauromacrogol 400               | 1184359          | 1       |
| Euro OTC                   | Lauromacrogol 400               | 1210035-01       | 2       |
| Euro OTC                   | Lauromacrogol 400               | 1275280          | 3       |
| Euro OTC                   | Lauromacrogol 400               | 127580           | 1       |
| Euro OTC                   | Macrogol 4 lauryl ether         | 1298974          | 1       |
| Euro OTC                   | Lauromacrogol 400               | 130109           | 1       |
| Euro OTC                   | Lauromacrogol 400               | 1302014-01       | 5       |
| Euro OTC                   | Lauromacrogol 400               | 1306004-01       | 9       |
| Euro OTC                   | Lauromacrogol 400               | 1306004-02       | 3       |
| Euro OTC                   | Macrogol 4 lauryl ether         | 1359415          | 4       |
| Euro OTC                   | Lauromacrogol 400               | 13F13-N07        | 1       |
| Euro OTC                   | Macrogol 4 lauryl ether         | 14054401         | 1       |
| Euro OTC                   | Lauromacrogol 400               | 140700701        | 1       |
| Euro OTC                   | Macrogol 4 lauryl ether         | 1407007-01       | 7       |
| Euro OTC                   | Lauromacrogol 400               | 140911           | 3       |
| Euro OTC                   | Lauromacrogol 400               | 14100100-01      | 1       |
| Euro OTC                   | Lauromacrogol 400               | 1410010-01       | 2       |
| Euro OTC                   | Lauromacrogol 400               | 1410010-02       | 1       |
| Euro OTC                   | Lauromacrogol 400               | 1412296          | 3       |

*continued on the next page*



continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Euro OTC | Macrogolglycerol hydroxystea... | 1483808             | 1       |
| Euro OTC | Lauromacrogol 400               | 1503032             | 1       |
| Euro OTC | Lauromacrogol 400               | 150303201           | 1       |
| Euro OTC | Lauromacrogol 400               | 1503032-01          | 3       |
| Euro OTC | Macrogol 4 lauryl ether         | 1503032-02          | 8       |
| Euro OTC | Lauromacrogol 400               | 151002401           | 1       |
| Euro OTC | Lauromacrogol 400               | 1510024-01          | 8       |
| Euro OTC | Lauromacrogol 400               | 1510024-02          | 11      |
| Euro OTC | Lauromacrogol 400               | 1510025-01          | 1       |
| Euro OTC | Macrogolglycerol hydroxystea... | 15169404            | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 15323704            | 1       |
| Euro OTC | Lauromacrogol 400               | 1551417             | 3       |
| Euro OTC | Lauromacrogol 400               | 1589415             | 2       |
| Euro OTC | Lauromacrogol 400               | 15A26-B02_303628    | 1       |
| Euro OTC | Lauromacrogol 400               | 160312              | 7       |
| Euro OTC | Lauromacrogol 400               | 160312A             | 2       |
| Euro OTC | Lauromacrogol 400               | 160500601           | 1       |
| Euro OTC | Lauromacrogol 400               | 1605006-01          | 12      |
| Euro OTC | Lauromacrogol 400               | 160500602           | 3       |
| Euro OTC | Macrogol 4 lauryl ether         | 1605006-02          | 12      |
| Euro OTC | Lauromacrogol 400               | 1610034             | 1       |
| Euro OTC | Lauromacrogol 400               | 161003401           | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 1610034-01          | 17      |
| Euro OTC | Macrogolglycerol hydroxystea... | 16247401            | 1       |
| Euro OTC | Lauromacrogol 400               | 1656188             | 2       |
| Euro OTC | Lauromacrogol 400               | 170303301           | 4       |
| Euro OTC | Macrogol 4 lauryl ether         | 1703033-01          | 32      |
| Euro OTC | Lauromacrogol 400               | 170333-01           | 1       |
| Euro OTC | Lauromacrogol 400               | 171002601           | 2       |
| Euro OTC | Macrogol 4 lauryl ether         | 1710026-01          | 36      |
| Euro OTC | Lauromacrogol 400               | 1710026-01/180606P  | 1       |
| Euro OTC | Lauromacrogol 400               | 171116PC/1703033-01 | 1       |
| Euro OTC | Lauromacrogol 400               | 1781002601          | 1       |
| Euro OTC | Lauromacrogol 400               | 17A23-B01-332869    | 1       |
| Euro OTC | Lauromacrogol 400               | 17A23-B01-335355    | 1       |
| Euro OTC | Lauromacrogol 400               | 17H21-B07-341797    | 1       |
| Euro OTC | Lauromacrogol 400               | 180002541           | 1       |
| Euro OTC | Lauromacrogol 400               | 18008025-01         | 1       |
| Euro OTC | Lauromacrogol 400               | 180101043-01        | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 180104301           | 5       |
| Euro OTC | Lauromacrogol 400               | 1801043-01          | 32      |
| Euro OTC | Lauromacrogol 400               | 180143-01           | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 18040101            | 2       |
| Euro OTC | Lauromacrogol 400               | 180802501           | 2       |
| Euro OTC | Macrogol 4 lauryl ether         | 1808025-01          | 31      |
| Euro OTC | Lauromacrogol 400               | 181043-01           | 1       |
| Euro OTC | Macrogolglycerol hydroxystea... | 18278403            | 1       |
| Euro OTC | Lauromacrogol 400               | 1901029             | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 190102901           | 3       |
| Euro OTC | Macrogol 4 lauryl ether         | 1901029-01          | 34      |
| Euro OTC | Lauromacrogol 400               | 19054203            | 1       |
| Euro OTC | Lauromacrogol 400               | 190701001           | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 1907010-01          | 40      |
| Euro OTC | Lauromacrogol 400               | 191029-01           | 1       |
| Euro OTC | Lauromacrogol 400               | 191101501           | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 1911015-01          | 32      |
| Euro OTC | Lauromacrogol 400               | 1919-02384          | 1       |
| Euro OTC | Lauromacrogol 400               | 1919G-02384         | 1       |
| Euro OTC | Macrogol 4 lauryl ether         | 19G09-B02           | 1       |
| Euro OTC | Lauromacrogol 400               | 20001966001         | 1       |

continued on the next page

*continued from previous page*

| Supplier               | Substance                       | Batch             | Spectra |
|------------------------|---------------------------------|-------------------|---------|
| Euro OTC               | Lauromacrogol 400               | 2003031           | 1       |
| Euro OTC               | Lauromacrogol 400               | 200303101         | 1       |
| Euro OTC               | Macrogol 4 lauryl ether         | 2003031-01        | 21      |
| Euro OTC               | Lauromacrogol 400               | 2007042-01        | 23      |
| Euro OTC               | Lauromacrogol 400               | 2007042-02        | 3       |
| Euro OTC               | Lauromacrogol 400               | 207042-01         | 1       |
| Euro OTC               | Lauromacrogol 400               | 2106011-01        | 2       |
| Euro OTC               | Lauromacrogol 400               | 221542            | 1       |
| Euro OTC               | Lauromacrogol 400               | 260315/1          | 1       |
| Euro OTC               | Macrogolglycerol hydroxystea... | 28227168E0        | 1       |
| Euro OTC               | Lauromacrogol 400               | 502956            | 1       |
| Euro OTC               | Lauromacrogol 400               | 9139415           | 1       |
| Euro OTC               | Lauromacrogol 400               | MLE2018625        | 1       |
| Euro                   | Lauromacrogol 400               | 1510024-01        | 1       |
| EuRoh/ Gehe            | Macrogol 4 lauryl ether         | 18215501          | 1       |
| Fa. BTC                | Macrogolglycerol hydroxystea... | 101818            | 6       |
| Fa. BTC                | Macrogolglycerol hydroxystea... | 81830             | 2       |
| Fafron/Anzag           | Macrogolglycerol hydroxystea... | 49426297V0        | 1       |
| Fagaron                | Lauromacrogol 400               | 15G10-B05         | 1       |
| Fagon / Gehe           | Lauromacrogol 400               | 19G09-B02-072832  | 1       |
| Fagon                  | Lauromacrogol 400               | 15G10-B05-318670  | 1       |
| fagr                   | Lauromacrogol 400               | 16-0290           | 1       |
| Fagro, Gehe 01.02.2019 | Lauromacrogol 400               | 18D30-B09-352738  | 1       |
| Fagro/ Sanacorp        | Lauromacrogol 400               | 18B26-B06-346396  | 2       |
| Fagro/Noweda           | Lauromacrogol 400               | 18826-806-346397  | 1       |
| Fagrom/VDL             | Macrogolglycerol hydroxystea... | 14K28-B01-301467  | 1       |
| Fagron                 | Lauromacrogol 400               |                   | 1       |
| Fagron                 | Macrogolglycerol hydroxystea... | 1(18G13B05355855) | 1       |
| Fagron                 | Macrogol 4 lauryl ether         | 112-0766602       | 1       |
| Fagron                 | Lauromacrogol 400               | 117A23-B01-330982 | 1       |
| Fagron                 | Lauromacrogol 400               | 11B11-N15         | 2       |
| Fagron                 | Lauromacrogol 400               | 11D28-N20         | 1       |
| Fagron                 | Lauromacrogol 400               | 11f28-n08         | 1       |
| Fagron                 | Lauromacrogol 400               | 11F28-N08         | 4       |
| Fagron                 | Lauromacrogol 400               | 11I07-N05         | 1       |
| Fagron                 | Macrogolglycerol hydroxystea... | 11K16-N09         | 3       |
| Fagron                 | Lauromacrogol 400               | 12/18-N04         | 5       |
| Fagron                 | Lauromacrogol 400               | 12-0719           | 1       |
| Fagron                 | Lauromacrogol 400               | 12-1074           | 1       |
| Fagron                 | Lauromacrogol 400               | 1298974           | 1       |
| Fagron                 | Lauromacrogol 400               | 12a26-n08         | 1       |
| Fagron                 | Lauromacrogol 400               | 12A26-N08         | 9       |
| Fagron                 | Lauromacrogol 400               | 12A26-N08         | 1       |
| Fagron                 | Macrogolglycerol hydroxystea... | 12D23-N03         | 1       |
| Fagron                 | Lauromacrogol 400               | 12e03-n04         | 1       |
| Fagron                 | Lauromacrogol 400               | 12E03-N04         | 24      |
| Fagron                 | Macrogolglycerol hydroxystea... | 12E11-N03         | 4       |
| Fagron                 | Macrogolglycerol hydroxystea... | 12H24N06          | 1       |
| Fagron                 | Macrogolglycerol hydroxystea... | 12H24-N06         | 4       |
| Fagron                 | Lauromacrogol 400               | 12I18-n04         | 1       |
| Fagron                 | Lauromacrogol 400               | 12I18-N04         | 2       |
| Fagron                 | Macrogolglycerol hydroxystea... | 12L06-N02         | 13      |
| Fagron                 | Lauromacrogol 400               | 12I18-N04         | 1       |
| Fagron                 | Lauromacrogol 400               | 130109            | 1       |
| Fagron                 | Lauromacrogol 400               | 130599            | 1       |
| Fagron                 | Lauromacrogol 400               | 13-0599           | 2       |
| Fagron                 | Macrogol 4 lauryl ether         | 13136202          | 1       |
| Fagron                 | Lauromacrogol 400               | 1314A-02384       | 1       |
| Fagron                 | Lauromacrogol 400               | 13-1827           | 3       |
| Fagron                 | Lauromacrogol 400               | 13813-n01         | 1       |

*continued on the next page*

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Fagron   | Lauromacrogol 400               | 13813-N01          | 3       |
| Fagron   | Lauromacrogol 400               | 13A31-N04          | 3       |
| Fagron   | Macrogol 4 lauryl ether         | 13B13_N01          | 1       |
| Fagron   | Lauromacrogol 400               | 13b13-n01          | 1       |
| Fagron   | Lauromacrogol 400               | 13B13N01           | 1       |
| Fagron   | Lauromacrogol 400               | 13B13-N01          | 26      |
| Fagron   | Lauromacrogol 400               | 13B13-No1          | 1       |
| Fagron   | Lauromacrogol 400               | 13B13-N01          | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 13d23-n03          | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 13D23N03           | 3       |
| Fagron   | Macrogolglycerol hydroxystea... | 13D23-N03          | 14      |
| Fagron   | Macrogolglycerol hydroxystea... | 13D23-N03          | 2       |
| Fagron   | Lauromacrogol 400               | 13F13-N07          | 5       |
| Fagron   | Lauromacrogol 400               | 13g02-n03          | 1       |
| Fagron   | Lauromacrogol 400               | 13G02N03           | 3       |
| Fagron   | Lauromacrogol 400               | 13G02-N03          | 16      |
| Fagron   | Lauromacrogol 400               | 13G02-N030021/1084 | 1       |
| Fagron   | Lauromacrogol 400               | 13G02-N030047/1084 | 1       |
| Fagron   | Lauromacrogol 400               | 13G02-N030515/1084 | 1       |
| Fagron   | Lauromacrogol 400               | 13G02-No3          | 2       |
| Fagron   | Macrogolglycerol hydroxystea... | 13G03-N18          | 4       |
| Fagron   | Lauromacrogol 400               | 13J01-N03          | 2       |
| Fagron   | Macrogolglycerol hydroxystea... | 13K07N02           | 3       |
| Fagron   | Macrogolglycerol hydroxystea... | 13K07-N02          | 6       |
| Fagron   | Lauromacrogol 400               | 13K18-B30          | 5       |
| Fagron   | Lauromacrogol 400               | 13K18-B30_288163   | 1       |
| Fagron   | Lauromacrogol 400               | 13K18-B30-28816    | 2       |
| Fagron   | Lauromacrogol 400               | 13k18-b30-288163   | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 13K18-B30-288163   | 11      |
| Fagron   | Lauromacrogol 400               | 13K18-B30-288164   | 4       |
| Fagron   | Lauromacrogol 400               | 13K18-B30-288165   | 2       |
| Fagron   | Lauromacrogol 400               | 14-0731            | 6       |
| Fagron   | Lauromacrogol 400               | 140911             | 1       |
| Fagron   | Lauromacrogol 400               | 1412296            | 1       |
| Fagron   | Lauromacrogol 400               | 14-1492            | 1       |
| Fagron   | Lauromacrogol 400               | 1416A-02384        | 1       |
| Fagron   | Lauromacrogol 400               | 14220816           | 1       |
| Fagron   | Lauromacrogol 400               | 14371706           | 1       |
| Fagron   | Lauromacrogol 400               | 148D30-B09-350640  | 1       |
| Fagron   | Lauromacrogol 400               | 14A23B01332867     | 2       |
| Fagron   | Lauromacrogol 400               | 14A26-B02-303629   | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14B06           | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14-B06          | 7       |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14-B06-29212160 | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14-B06292160    | 2       |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14-B06-292160   | 14      |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14-B06-295468   | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14-B06-295486   | 9       |
| Fagron   | Macrogolglycerol hydroxystea... | 14B14-B06-2965486  | 1       |
| Fagron   | Lauromacrogol 400               | 14e06-b05          | 1       |
| Fagron   | Lauromacrogol 400               | 14E06-B05          | 1       |
| Fagron   | Lauromacrogol 400               | 14E06-B05293846    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 14E06-B05-293846   | 5       |
| Fagron   | Lauromacrogol 400               | 14e06-b05-293847   | 1       |
| Fagron   | Lauromacrogol 400               | 14E06-B05-293847   | 14      |
| Fagron   | Lauromacrogol 400               | 14E06-B05293848    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 14E06-B05-293848   | 4       |
| Fagron   | Lauromacrogol 400               | 14E06-B05-293849   | 1       |
| Fagron   | Lauromacrogol 400               | 14E06-B05-295979   | 4       |
| Fagron   | Lauromacrogol 400               | 14E06-B05-29847    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Lauromacrogol 400               | 14H04B03          | 1       |
| Fagron   | Lauromacrogol 400               | 14H04-B03         | 7       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-297070  | 5       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-297071  | 2       |
| Fagron   | Lauromacrogol 400               | 14h04-b03-297073  | 1       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-297073  | 4       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-297074  | 2       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-301517  | 5       |
| Fagron   | Lauromacrogol 400               | 14h04-b03-301518  | 1       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-301518  | 3       |
| Fagron   | Lauromacrogol 400               | 14H-04-B03-301518 | 2       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-301519  | 6       |
| Fagron   | Lauromacrogol 400               | 14H04-B03-301520  | 4       |
| Fagron   | Macrogolglycerol hydroxystea... | 14K28-801-301467  | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 14K28-B01         | 6       |
| Fagron   | Macrogolglycerol hydroxystea... | 14K28B01301467    | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 14K28-B01-301467  | 16      |
| Fagron   | Macrogolglycerol hydroxystea... | 14K28-B01-301468  | 12      |
| Fagron   | Macrogolglycerol hydroxystea... | 14K28-B01-309197  | 3       |
| Fagron   | Macrogolglycerol hydroxystea... | 150056P0          | 1       |
| Fagron   | Lauromacrogol 400               | 15-0596           | 3       |
| Fagron   | Lauromacrogol 400               | 1510024-02        | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 153356P0          | 1       |
| Fagron   | Lauromacrogol 400               | 15a26-B02         | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 15A26B02          | 1       |
| Fagron   | Lauromacrogol 400               | 15A26-B02         | 10      |
| Fagron   | Lauromacrogol 400               | 15A26-B02_303626  | 1       |
| Fagron   | Lauromacrogol 400               | 15a26-b02-303625  | 1       |
| Fagron   | Lauromacrogol 400               | 15A26-B02-303625  | 10      |
| Fagron   | Lauromacrogol 400               | 15A26-B02-303626  | 6       |
| Fagron   | Lauromacrogol 400               | 15A26B02303627    | 1       |
| Fagron   | Lauromacrogol 400               | 15A26B02-303627   | 1       |
| Fagron   | Lauromacrogol 400               | 15A26-B02-303627  | 6       |
| Fagron   | Lauromacrogol 400               | 15a26-b02-303628  | 1       |
| Fagron   | Lauromacrogol 400               | 15A26-B02303628   | 1       |
| Fagron   | Lauromacrogol 400               | 15A26-B02-303628  | 24      |
| Fagron   | Lauromacrogol 400               | 15A26-B02-303629  | 7       |
| Fagron   | Lauromacrogol 400               | 15A26-B02-30628   | 1       |
| Fagron   | Lauromacrogol 400               | 15A26-B02-303626  | 1       |
| Fagron   | Lauromacrogol 400               | 15C10-B05-314366  | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 15E18-B10         | 3       |
| Fagron   | Macrogolglycerol hydroxystea... | 15E18-B10-309198  | 5       |
| Fagron   | Lauromacrogol 400               | 15E27-B99-308668  | 1       |
| Fagron   | Lauromacrogol 400               | 15G10             | 2       |
| Fagron   | Lauromacrogol 400               | 15G10-B025-318670 | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 15G10-B05         | 9       |
| Fagron   | Lauromacrogol 400               | 15G10-B05_315343  | 1       |
| Fagron   | Lauromacrogol 400               | 15g10-b05-313605  | 2       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-313605  | 6       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-313606  | 1       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-314366  | 5       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-31457   | 1       |
| Fagron   | Lauromacrogol 400               | 15G10B05315343    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 15G10-B05-315343  | 7       |
| Fagron   | Macrogol 4 lauryl ether         | 15G10-B05-315605  | 1       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-31745   | 1       |
| Fagron   | Lauromacrogol 400               | 15g10-b05-317456  | 1       |
| Fagron   | Lauromacrogol 400               | 15G10-B05317456   | 2       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-317456  | 7       |
| Fagron   | Lauromacrogol 400               | 15g10-b05-317457  | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Fagron   | Lauromacrogol 400               | 15G10-B05-317457   | 6       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-317458   | 1       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-317-56   | 1       |
| Fagron   | Lauromacrogol 400               | 15G10-B05-318670   | 4       |
| Fagron   | Lauromacrogol 400               | 15G1-B05-313605    | 1       |
| Fagron   | Lauromacrogol 400               | 16/149/P           | 1       |
| Fagron   | Lauromacrogol 400               | 16-0290            | 7       |
| Fagron   | Lauromacrogol 400               | 160312             | 3       |
| Fagron   | Lauromacrogol 400               | 160312/A           | 1       |
| Fagron   | Lauromacrogol 400               | 160312A            | 2       |
| Fagron   | Lauromacrogol 400               | 1605006-01         | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 160516172          | 1       |
| Fagron   | Lauromacrogol 400               | 16-1155            | 1       |
| Fagron   | Lauromacrogol 400               | 1618B04-324095     | 1       |
| Fagron   | Lauromacrogol 400               | 16B18-B04-321109   | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-804-321110   | 1       |
| Fagron   | Lauromacrogol 400               | 16E18804-322722    | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-804-324095   | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-804-326090   | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B            | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04          | 25      |
| Fagron   | Lauromacrogol 400               | 16E-18-B04         | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04_326089   | 2       |
| Fagron   | Lauromacrogol 400               | 16E18-B04_328699   | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-0290     | 1       |
| Fagron   | Lauromacrogol 400               | 16e18-b04-32109    | 1       |
| Fagron   | Lauromacrogol 400               | 16e18-b04-321109   | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-321109   | 7       |
| Fagron   | Lauromacrogol 400               | 16E-18-B04-321109  | 1       |
| Fagron   | Lauromacrogol 400               | 16e18-b04-321110   | 1       |
| Fagron   | Lauromacrogol 400               | 16E18B04-321110    | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-321110   | 5       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-322722   | 14      |
| Fagron   | Lauromacrogol 400               | 16E18-B04-322723   | 8       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-322724   | 3       |
| Fagron   | Lauromacrogol 400               | 16e18-b04-324095   | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 16E18-B04-324095   | 15      |
| Fagron   | Lauromacrogol 400               | 16E-18-B04-324095  | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-32495    | 1       |
| Fagron   | Lauromacrogol 400               | 16E18B04326089     | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-326089   | 11      |
| Fagron   | Lauromacrogol 400               | 16E18-B04-326090   | 11      |
| Fagron   | Lauromacrogol 400               | 16E18-B04-326091   | 6       |
| Fagron   | Macrogol 4 lauryl ether         | 16E18-B04-326871   | 2       |
| Fagron   | Macrogol 4 lauryl ether         | 16E18-B04-327811   | 8       |
| Fagron   | Lauromacrogol 400               | 16E-18-B04-327811  | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-328582   | 4       |
| Fagron   | Lauromacrogol 400               | 16E-18-B04-328582  | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-328699   | 16      |
| Fagron   | Macrogol 4 lauryl ether         | 16E18-B04-328737   | 2       |
| Fagron   | Lauromacrogol 400               | 16E-18-BB04-324095 | 1       |
| Fagron   | Lauromacrogol 400               | 16E18-B04-324095   | 1       |
| Fagron   | Lauromacrogol 400               | 16E-B04-328737     | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 17028303           | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 170303301          | 1       |
| Fagron   | Lauromacrogol 400               | 170845             | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 17-0845            | 6       |
| Fagron   | Lauromacrogol 400               | 1723-335356        | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 17257003           | 2       |
| Fagron   | Macrogolglycerol hydroxystea... | 17546624U0         | 1       |

continued on the next page

*continued from previous page*

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Fagron   | Lauromacrogol 400               | 17A21-B07          | 1       |
| Fagron   | Lauromacrogol 400               | 17a23801335355     | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 17A23-B01          | 22      |
| Fagron   | Lauromacrogol 400               | 17A23-B01_332867   | 1       |
| Fagron   | Lauromacrogol 400               | 17A23B01-330982    | 1       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-330982   | 7       |
| Fagron   | Lauromacrogol 400               | 17A23B01330983     | 2       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-330983   | 12      |
| Fagron   | Lauromacrogol 400               | 17A23-B01-331156   | 4       |
| Fagron   | Macrogol 4 lauryl ether         | 17A23-B01-332867   | 13      |
| Fagron   | Macrogol 4 lauryl ether         | 17A23-B01-332868   | 7       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-332869   | 6       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-334909   | 1       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-335355   | 8       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-335356   | 2       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-355355   | 1       |
| Fagron   | Lauromacrogol 400               | 17A23-B10-335356   | 1       |
| Fagron   | Lauromacrogol 400               | 17A23-B01-332867   | 2       |
| Fagron   | Lauromacrogol 400               | 17AB23-B01-332868  | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 17D03-B04-333357   | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-807          | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-B06-341764   | 1       |
| Fagron   | Lauromacrogol 400               | 17H21B07           | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-B07          | 21      |
| Fagron   | Lauromacrogol 400               | 17H21-b07-339504   | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-B07339504    | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-B07-339504   | 8       |
| Fagron   | Macrogol 4 lauryl ether         | 17H21-B07-339505   | 5       |
| Fagron   | Lauromacrogol 400               | 17H21-B07-339506   | 9       |
| Fagron   | Lauromacrogol 400               | 17H21-B07-339507   | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-B07-3411795  | 1       |
| Fagron   | Lauromacrogol 400               | 17h21-b07-341795   | 1       |
| Fagron   | Lauromacrogol 400               | 17H21B07341795     | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-B07-341795   | 19      |
| Fagron   | Macrogol 4 lauryl ether         | 17H21-B07-341796   | 19      |
| Fagron   | Lauromacrogol 400               | 17H21-B-07-341796  | 1       |
| Fagron   | Lauromacrogol 400               | 17H21-B07-341797   | 2       |
| Fagron   | Lauromacrogol 400               | 17H21-B07-339505   | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 17H21-B07-341795   | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 17J05-B99-341057   | 1       |
| Fagron   | Lauromacrogol 400               | 18003513P-190312-7 | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18-0103            | 17      |
| Fagron   | Lauromacrogol 400               | 1808025-01         | 1       |
| Fagron   | Lauromacrogol 400               | 1808-B03-355981    | 1       |
| Fagron   | Lauromacrogol 400               | 1817309            | 1       |
| Fagron   | Lauromacrogol 400               | 18175502           | 1       |
| Fagron   | Lauromacrogol 400               | 18175508           | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 18204509           | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18215501           | 1       |
| Fagron   | Lauromacrogol 400               | 18826-06-346396    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18826-B06          | 2       |
| Fagron   | Lauromacrogol 400               | 18826-B06-346396   | 1       |
| Fagron   | Lauromacrogol 400               | 18826-B06-346397   | 2       |
| Fagron   | Lauromacrogol 400               | 18826-B06-346398   | 2       |
| Fagron   | Lauromacrogol 400               | 18826-B06347341    | 1       |
| Fagron   | Lauromacrogol 400               | 18826-B06-347341   | 1       |
| Fagron   | Lauromacrogol 400               | 18826-B06-347342   | 1       |
| Fagron   | Lauromacrogol 400               | 18826-B06-347343   | 2       |
| Fagron   | Lauromacrogol 400               | 188B26-B06-346396  | 3       |
| Fagron   | Lauromacrogol 400               | 18A18-B98          | 3       |

*continued on the next page*



continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Lauromacrogol 400               | 18A18-B98-344789  | 1       |
| Fagron   | Lauromacrogol 400               | 18A18B98344797    | 1       |
| Fagron   | Lauromacrogol 400               | 18A18-B98-344797  | 2       |
| Fagron   | Lauromacrogol 400               | 18A-18-B98-344797 | 1       |
| Fagron   | Lauromacrogol 400               | 18a18b98344798    | 1       |
| Fagron   | Lauromacrogol 400               | 18A18-B98-344798  | 9       |
| Fagron   | Lauromacrogol 400               | 18a18-b98-344799  | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18A18-B98-344799  | 10      |
| Fagron   | Lauromacrogol 400               | 18A18-B98-344800  | 2       |
| Fagron   | Lauromacrogol 400               | 18A19-B98-344798  | 1       |
| Fagron   | Lauromacrogol 400               | 18B26-B03-347343  | 1       |
| Fagron   | Lauromacrogol 400               | 18b26-b06         | 1       |
| Fagron   | Lauromacrogol 400               | 18B26B06          | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18B26-B06         | 13      |
| Fagron   | Lauromacrogol 400               | 18B26-B06-0103    | 1       |
| Fagron   | Lauromacrogol 400               | 18B26-B06-346369  | 1       |
| Fagron   | Lauromacrogol 400               | 18B26B06346396    | 2       |
| Fagron   | Macrogol 4 lauryl ether         | 18B26-B06-346396  | 7       |
| Fagron   | Lauromacrogol 400               | 18b26-b06-346397  | 1       |
| Fagron   | Lauromacrogol 400               | 18B26B06346397    | 2       |
| Fagron   | Macrogol 4 lauryl ether         | 18B26-B06-346397  | 11      |
| Fagron   | Macrogol 4 lauryl ether         | 18B26-B06346398   | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18B26-B06-346398  | 9       |
| Fagron   | Lauromacrogol 400               | 18b26-b06-347341  | 1       |
| Fagron   | Lauromacrogol 400               | 18B26-B06347341   | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18B26-B06-347341  | 16      |
| Fagron   | Macrogol 4 lauryl ether         | 18B26B06347342    | 2       |
| Fagron   | Lauromacrogol 400               | 18B26-B06-347342  | 16      |
| Fagron   | Macrogol 4 lauryl ether         | 18B26-B06-347343  | 8       |
| Fagron   | Lauromacrogol 400               | 18B26-B06-347344  | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18B2-B06          | 1       |
| Fagron   | Lauromacrogol 400               | 18B30-B09         | 1       |
| Fagron   | Lauromacrogol 400               | 18D30             | 1       |
| Fagron   | Lauromacrogol 400               | 18D30-309-350641  | 1       |
| Fagron   | Lauromacrogol 400               | 18D30-B03-352739  | 1       |
| Fagron   | Lauromacrogol 400               | 18D30B09          | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18D30-B09         | 17      |
| Fagron   | Lauromacrogol 400               | 18D30-B09         | 1       |
| Fagron   | Lauromacrogol 400               | 18D30-B09-349679  | 3       |
| Fagron   | Macrogol 4 lauryl ether         | 18d30-b09-350640  | 4       |
| Fagron   | Lauromacrogol 400               | 18D30B09350640    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18D30-B09-350640  | 15      |
| Fagron   | Lauromacrogol 400               | 18D30B09350641    | 2       |
| Fagron   | Macrogol 4 lauryl ether         | 18D30-B09-350641  | 16      |
| Fagron   | Lauromacrogol 400               | 18D30B09-350642   | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18D30-B09-350642  | 7       |
| Fagron   | Lauromacrogol 400               | 18d30b09352738    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18D30-B09-352738  | 18      |
| Fagron   | Lauromacrogol 400               | 18d30b09352739    | 1       |
| Fagron   | Lauromacrogol 400               | 18D30B09-352739   | 1       |
| Fagron   | Lauromacrogol 400               | 18D30-B09352739   | 1       |
| Fagron   | Lauromacrogol 400               | 18D30-B09-352739  | 12      |
| Fagron   | Lauromacrogol 400               | 18D30B09352740    | 1       |
| Fagron   | Lauromacrogol 400               | 18D30-B09-352740  | 10      |
| Fagron   | Lauromacrogol 400               | 18D30B221542      | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 18G13-B05         | 5       |
| Fagron   | Macrogolglycerol hydroxystea... | 18G13-B05_355855  | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 18G13-B05-33855   | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 18G13-B05-351723  | 11      |
| Fagron   | Macrogolglycerol hydroxystea... | 18G13B05355855    | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Fagron   | Macrogolglycerol hydroxystea... | 18G13-B05355855     | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 18G13-B05-355855    | 13      |
| Fagron   | Macrogolglycerol hydroxystea... | 18G13-B05-357024    | 5       |
| Fagron   | Lauromacrogol 400               | 18I08-B03-355980    | 1       |
| Fagron   | Lauromacrogol 400               | 18I08-B03-355981    | 1       |
| Fagron   | Lauromacrogol 400               | 18J08-B03           | 6       |
| Fagron   | Lauromacrogol 400               | 18J08-B03-3555980   | 2       |
| Fagron   | Lauromacrogol 400               | 18J08-B03-3555981   | 1       |
| Fagron   | Lauromacrogol 400               | 18J08B03355980      | 1       |
| Fagron   | Lauromacrogol 400               | 18J08-B03355980     | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 18J08-B03-355980    | 15      |
| Fagron   | Lauromacrogol 400               | 18J08-B03-355981    | 6       |
| Fagron   | Macrogol 4 lauryl ether         | 18J08-B03-355982    | 11      |
| Fagron   | Lauromacrogol 400               | 18J08-B03           | 2       |
| Fagron   | Lauromacrogol 400               | 18jo8b03355982      | 1       |
| Fagron   | Lauromacrogol 400               | 19054203            | 4       |
| Fagron   | Lauromacrogol 400               | 19064501            | 2       |
| Fagron   | Lauromacrogol 400               | 19064501A           | 1       |
| Fagron   | Lauromacrogol 400               | 19-0653             | 2       |
| Fagron   | Macrogol 4 lauryl ether         | 1907010-01          | 3       |
| Fagron   | Lauromacrogol 400               | 19096701            | 1       |
| Fagron   | Lauromacrogol 400               | 191310003           | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 19248475L0          | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 19248475L0          | 2       |
| Fagron   | Macrogolglycerol hydroxystea... | 19D30-B03           | 2       |
| Fagron   | Macrogolglycerol hydroxystea... | 19D30-B03_362727    | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 19D30-B03-3622727   | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 19D30-B03-362726    | 10      |
| Fagron   | Macrogolglycerol hydroxystea... | 19D30-B03-362727    | 11      |
| Fagron   | Macrogolglycerol hydroxystea... | 19D30B03362776      | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09               | 1       |
| Fagron   | Lauromacrogol 400               | 19G09_B02_072831    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-802           | 2       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09B02            | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-B02           | 31      |
| Fagron   | Lauromacrogol 400               | 19G09-B02-0002      | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-B02-072831    | 38      |
| Fagron   | Macrogol 4 lauryl ether         | 19G09B02072832      | 2       |
| Fagron   | Lauromacrogol 400               | 19G09B02-072832     | 2       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-B02-072832    | 32      |
| Fagron   | Lauromacrogol 400               | 19G09-B02072835     | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-B02-072835    | 18      |
| Fagron   | Lauromacrogol 400               | 19G09-B02-072836    | 5       |
| Fagron   | Lauromacrogol 400               | 19G09-B02-072837    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-B02-072841    | 16      |
| Fagron   | Lauromacrogol 400               | 19g09-b02-072842    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-B02-072842    | 8       |
| Fagron   | Macrogol 4 lauryl ether         | 19G09-B02-072843    | 3       |
| Fagron   | Lauromacrogol 400               | 19G09-B02-072844    | 3       |
| Fagron   | Lauromacrogol 400               | 19G09-B02P-191206-4 | 1       |
| Fagron   | Lauromacrogol 400               | 19G11307            | 1       |
| Fagron   | Lauromacrogol 400               | 19G-B02-072831      | 1       |
| Fagron   | Lauromacrogol 400               | 19G0-B02-072841     | 1       |
| Fagron   | Lauromacrogol 400               | 1BB26-B06-346398    | 2       |
| Fagron   | Lauromacrogol 400               | 200020-T12-076662   | 1       |
| Fagron   | Lauromacrogol 400               | 20020112076662      | 1       |
| Fagron   | Lauromacrogol 400               | 20020-112-076662    | 1       |
| Fagron   | Macrogol 4 lauryl ether         | 20020-112-076663    | 1       |
| Fagron   | Lauromacrogol 400               | 20020-T12-060213    | 1       |
| Fagron   | Lauromacrogol 400               | 20020-T12-076662    | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Fagron   | Macrogol 4 lauryl ether         | 20020-T12-076663   | 3       |
| Fagron   | Macrogol 4 lauryl ether         | 20020-T12-0766662  | 1       |
| Fagron   | Lauromacrogol 400               | 20020-T12-080213   | 3       |
| Fagron   | Lauromacrogol 400               | 20020T99-090484    | 2       |
| Fagron   | Lauromacrogol 400               | 20020-T99090484    | 1       |
| Fagron   | Lauromacrogol 400               | 20-0212            | 1       |
| Fagron   | Lauromacrogol 400               | 2020-T12-076662    | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 20B030-F13-368511  | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 20B03-F13          | 3       |
| Fagron   | Macrogolglycerol hydroxystea... | 20B03-F13-368511   | 12      |
| Fagron   | Macrogolglycerol hydroxystea... | 20B03-F13-368512   | 12      |
| Fagron   | Lauromacrogol 400               | 20D20-0002         | 1       |
| Fagron   | Lauromacrogol 400               | 20D20-T12          | 3       |
| Fagron   | Lauromacrogol 400               | 20D20-T12-076662   | 14      |
| Fagron   | Lauromacrogol 400               | 20D20T12076663     | 1       |
| Fagron   | Lauromacrogol 400               | 20D20-T12-076663   | 12      |
| Fagron   | Lauromacrogol 400               | 20D20-T12-080208   | 3       |
| Fagron   | Lauromacrogol 400               | 20D20-T12-0802103  | 3       |
| Fagron   | Lauromacrogol 400               | 20D20-T12-080213   | 4       |
| Fagron   | Lauromacrogol 400               | 20D20-T12-080231   | 1       |
| Fagron   | Lauromacrogol 400               | 20D20-T90090484    | 1       |
| Fagron   | Lauromacrogol 400               | 20D20-T99-090482   | 1       |
| Fagron   | Lauromacrogol 400               | 20D20-T99-090484   | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 20G09-F02          | 5       |
| Fagron   | Macrogolglycerol hydroxystea... | 20G09-F02-0001     | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 20G09F02372328     | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 20G09-F02-372328   | 7       |
| Fagron   | Macrogolglycerol hydroxystea... | 20G09-F02-372329   | 4       |
| Fagron   | Lauromacrogol 400               | 21/16-T04-092172   | 1       |
| Fagron   | Lauromacrogol 400               | 21-0820            | 1       |
| Fagron   | Lauromacrogol 400               | 21121201           | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 21A05-F01-376300   | 4       |
| Fagron   | Macrogolglycerol hydroxystea... | 21A05-F01-376301   | 11      |
| Fagron   | Macrogolglycerol hydroxystea... | 21A29-F02          | 2       |
| Fagron   | Macrogolglycerol hydroxystea... | 21A29-F02-376809   | 6       |
| Fagron   | Lauromacrogol 400               | 21I16-T04-0921702  | 1       |
| Fagron   | Lauromacrogol 400               | 21I16-T04-092172   | 1       |
| Fagron   | Lauromacrogol 400               | 21I1-T04-092171    | 1       |
| Fagron   | Lauromacrogol 400               | 21J27-T17-0917306  | 1       |
| Fagron   | Lauromacrogol 400               | 21J27-T17-0917307  | 1       |
| Fagron   | Lauromacrogol 400               | 21M16-T04-09217002 | 1       |
| Fagron   | Lauromacrogol 400               | 21M6T04092170      | 1       |
| Fagron   | Lauromacrogol 400               | 21M6-T04-092171    | 1       |
| Fagron   | Lauromacrogol 400               | 21M6-T04-0927170   | 1       |
| Fagron   | Lauromacrogol 400               | 221542-0004        | 1       |
| Fagron   | Lauromacrogol 400               | 2215I-02384        | 1       |
| Fagron   | Lauromacrogol 400               | 2220-T12-076663    | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 24244888Q0         | 1       |
| Fagron   | Lauromacrogol 400               | 2517I-02384        | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 267209T0           | 3       |
| Fagron   | Macrogolglycerol hydroxystea... | 2815               | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 2G09-F02-372328    | 1       |
| Fagron   | Lauromacrogol 400               | 20D20-T12-076663   | 1       |
| Fagron   | Lauromacrogol 400               | 3018I-02868        | 1       |
| Fagron   | Lauromacrogol 400               | 303628             | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 303786970V0        | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 30378697V0         | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 30378697Vo         | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 31547575L0         | 1       |
| Fagron   | Macrogolglycerol hydroxystea... | 31547575Lo         | 2       |

continued on the next page

continued from previous page

| Supplier                 | Substance                       | Batch            | Spectra |
|--------------------------|---------------------------------|------------------|---------|
| Fagron                   | Macrogolglycerol hydroxystea... | 31547575L0       | 1       |
| Fagron                   | Macrogol 4 lauryl ether         | 316400031        | 2       |
| Fagron                   | Lauromacrogol 400               | 330983           | 1       |
| Fagron                   | Lauromacrogol 400               | 332867           | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 3415M01308       | 1       |
| Fagron                   | Macrogol 4 lauryl ether         | 341796           | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 36344697V0       | 2       |
| Fagron                   | Lauromacrogol 400               | 3713U-02384      | 1       |
| Fagron                   | Lauromacrogol 400               | 4-09217001       | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 49426297V0       | 2       |
| Fagron                   | Macrogolglycerol hydroxystea... | 509A372          | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 54764324U0       | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 61788-85-0       | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 700362-0001      | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 702016880o       | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 70201688Q0       | 2       |
| Fagron                   | Lauromacrogol 400               | 72842            | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 79793775L0       | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 85739256P0       | 1       |
| Fagron                   | Lauromacrogol 400               | 8581634          | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 87712168E0       | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 87712168E0       | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | 8771216E0        | 1       |
| Fagron                   | Lauromacrogol 400               | 9002-92-0        | 1       |
| Fagron                   | Lauromacrogol 400               | B02-0728301      | 1       |
| Fagron                   | Macrogol 4 lauryl ether         | B02-0728305      | 1       |
| Fagron                   | Macrogol 4 lauryl ether         | B02-0728402      | 2       |
| Fagron                   | Lauromacrogol 400               | B02-0728403      | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | F01-3763001      | 2       |
| Fagron                   | Macrogolglycerol hydroxystea... | F02-3768009      | 2       |
| Fagron                   | Macrogolglycerol hydroxystea... | F13-3685102      | 1       |
| Fagron                   | Macrogolglycerol hydroxystea... | F02-3768009      | 1       |
| Fagron                   | Lauromacrogol 400               | T04-0921700      | 1       |
| Fagron                   | Macrogol 4 lauryl ether         | T12-0766602      | 4       |
| Fagron                   | Lauromacrogol 400               | T12-0802103      | 1       |
| Fagron                   | Lauromacrogol 400               | T17-0917306      | 1       |
| Fagron                   | Lauromacrogol 400               | T-190116-1       | 1       |
| Fargon / Gehe            | Lauromacrogol 400               | 19G09-B02        | 1       |
| Fargon / Sanacorp        | Macrogolglycerol hydroxystea... | 19D30-B03-362727 | 1       |
| Fargon /Sanacorp         | Lauromacrogol 400               | 18J08-B03        | 1       |
| Fargon /Sanacorp         | Lauromacrogol 400               | 19G09-B02        | 1       |
| Fargon GmbH & Co.KG      | Lauromacrogol 400               | 16E18-B04-326091 | 1       |
| Fargon/ Noweda           | Lauromacrogol 400               | 18J08-B03-355980 | 1       |
| Fargon/18.07.2013/Noweda | Lauromacrogol 400               | 13B13-N01        | 2       |
| Fargon/Gehe              | Macrogolglycerol hydroxystea... | 17D03-B04-333357 | 1       |
| Fargon/GEHE              | Lauromacrogol 400               | 19G09-B02-072831 | 1       |
| Fargon/Gehe              | Macrogolglycerol hydroxystea... | 54764324U0       | 1       |
| Fargon/Phönix            | Lauromacrogol 400               | 18D30-B09-350640 | 1       |
| Fargon                   | Macrogolglycerol hydroxystea... | 13G03-N18        | 1       |
| Fargon                   | Lauromacrogol 400               | 13K18-B30-288166 | 1       |
| Fargon/ Sanacorp         | Lauromacrogol 400               | 18826b0634639    | 1       |
| Faron/Noweda             | Lauromacrogol 400               | 1909-B02-072832  | 1       |
| Fgron                    | Lauromacrogol 400               | 18D30-B09-352738 | 1       |
| Fiebig/ gepepharm        | Lauromacrogol 400               | 140911           | 1       |
| Fiebig                   | Lauromacrogol 400               | 15A26-B02-303629 | 1       |
| Fiebig                   | Macrogolglycerol hydroxystea... | 16349305         | 1       |
| Fiebig                   | Lauromacrogol 400               | 18175517         | 1       |
| Fiebig                   | Macrogol 4 lauryl ether         | b02-0728402      | 1       |
| Frago/Gehe               | Lauromacrogol 400               | 17A23-B01-332869 | 1       |
| Frago/Noweda             | Lauromacrogol 400               | 17H21-B07        | 2       |

continued on the next page

continued from previous page

| Supplier                    | Substance                       | Batch            | Spectra |
|-----------------------------|---------------------------------|------------------|---------|
| Fragon/ Noweda              | Lauromacrogol 400               | 16E18-B04-328699 | 1       |
| Fragon/Noweda               | Lauromacrogol 400               | 17A23-B01-330982 | 1       |
| Fragon/Noweda               | Lauromacrogol 400               | 17H21-B07-339507 | 1       |
| Gatt-Koller                 | Lauromacrogol 400               | 1504/05153915    | 2       |
| Gatt-Koller                 | Lauromacrogol 400               | 1900852          | 2       |
| Gebepharma GmbH             | Lauromacrogol 400               | 130109           | 2       |
| gebepharma N PZN 01915345   | Lauromacrogol 400               | 130109           | 1       |
| Gebepharma/Anzag            | Lauromacrogol 400               | 110408           | 1       |
| Gebepharma/Anzag            | Lauromacrogol 400               | 130109           | 1       |
| Gebepharma/Phönix           | Lauromacrogol 400               | 19054203         | 13      |
| gebepharma                  | Lauromacrogol 400               | 20030412-1       | 1       |
| gebepharma                  | Lauromacrogol 400               | 813E-02384       | 1       |
| gebepharma                  | Lauromacrogol 400               | 813Q-02384       | 1       |
| Gegep / Krieger             | Lauromacrogol 400               | 19054203         | 1       |
| Gegep / Phoenix             | Lauromacrogol 400               | 19064500         | 1       |
| Gegepharma / Kehr           | Lauromacrogol 400               | 140911           | 1       |
| Gegepharma / Phoenix        | Lauromacrogol 400               | 160312A          | 1       |
| Gegepharma / Phoenix        | Lauromacrogol 400               | 19054203         | 1       |
| Gegepharma GmbH /Phönix     | Lauromacrogol 400               | 19054203         | 8       |
| gegepharma GmbH/ Noweda     | Lauromacrogol 400               | 130109           | 1       |
| Gegepharma GmbH             | Lauromacrogol 400               | 19054203A        | 2       |
| Gegepharma GmbH             | Lauromacrogol 400               | 19064501A        | 2       |
| Gegepharma GmbH             | Lauromacrogol 400               | 20000841         | 1       |
| gegepharma GmbH             | Lauromacrogol 400               | 20001966001      | 1       |
| gegepharma PH               | Lauromacrogol 400               | 16-0290          | 1       |
| gegepharma PH               | Lauromacrogol 400               | 160312A          | 2       |
| gegepharma PH               | Lauromacrogol 400               | 19054203         | 2       |
| gegepharma,Anzag            | Lauromacrogol 400               | 110408           | 2       |
| Gegepharma/ Phoenix         | Lauromacrogol 400               | 20000841         | 1       |
| gegepharma/Anzag            | Lauromacrogol 400               | 160312           | 2       |
| Gegepharma/Ebert            | Lauromacrogol 400               | 140911           | 1       |
| Gegepharma/Gehe             | Lauromacrogol 400               | 130109           | 3       |
| gegepharma/Gehe             | Lauromacrogol 400               | 160312           | 2       |
| gegepharma/GEHE             | Lauromacrogol 400               | 160312A          | 4       |
| gegepharma/Gehe             | Lauromacrogol 400               | 182743           | 1       |
| gegepharma/Gehe             | Lauromacrogol 400               | 19064501         | 4       |
| Gegepharma/N/26.02.13 PZ... | Lauromacrogol 400               | 110408           | 1       |
| gegepharma/Noweda           | Lauromacrogol 400               | 160312           | 3       |
| gegepharma/Noweda           | Lauromacrogol 400               | 160312A          | 1       |
| gegepharma/Noweda           | Lauromacrogol 400               | 19054203         | 4       |
| Gegepharma/Noweda           | Lauromacrogol 400               | 19064501         | 1       |
| Gegepharma/Noweda           | Lauromacrogol 400               | 19064501A        | 1       |
| gegepharma/Phönix Kunde     | Lauromacrogol 400               | 160312A          | 2       |
| Gegepharma/Phönix           | Lauromacrogol 400               | 160312           | 1       |
| Gegepharma/Phönix           | Lauromacrogol 400               | 160312A          | 1       |
| gegepharma                  | Lauromacrogol 400               | 130109           | 1       |
| gegepharma                  | Lauromacrogol 400               | 140911           | 6       |
| gegepharma                  | Lauromacrogol 400               | 160312           | 3       |
| Gegepharma                  | Lauromacrogol 400               | 160312           | 1       |
| gegepharma                  | Lauromacrogol 400               | 1603125281       | 1       |
| gegepharma                  | Lauromacrogol 400               | 1603125464       | 1       |
| gegepharma                  | Lauromacrogol 400               | 160312A          | 1       |
| Gegepharma                  | Lauromacrogol 400               | 160312A          | 1       |
| Gehe /Caleo                 | Lauromacrogol 400               | 17250908         | 1       |
| Gehe /Caleo                 | Lauromacrogol 400               | 17250909         | 1       |
| Gehe /Caleo                 | Lauromacrogol 400               | 18175502         | 2       |
| GEHE 02.01.2019             | Macrogolglycerol hydroxystea... | 18204509         | 1       |
| Gehe 16.11.21, 9,08EUR      | Lauromacrogol 400               | 211125           | 1       |
| GEHE 28.11.2014             | Lauromacrogol 400               | 14H04-B03-297070 | 1       |
| Gehe amax                   | Lauromacrogol 400               | 15G10-B05-314366 | 1       |

continued on the next page

*continued from previous page*

| Supplier               | Substance                       | Batch             | Spectra |
|------------------------|---------------------------------|-------------------|---------|
| Gehe amax              | Lauromacrogol 400               | 1907010-01        | 1       |
| Gehe gepepharmn        | Lauromacrogol 400               | 110408            | 1       |
| GEHE Kassel 02.01.2019 | Macrogolglycerol hydroxystea... | 18278403          | 1       |
| Gehe/ gepepharm GmbH   | Lauromacrogol 400               | 160312A           | 1       |
| Gehe/ Spinnrad         | Macrogol 4 lauryl ether         | 715400031         | 1       |
| Gehe/Fragon            | Lauromacrogol 400               | 15A26B02303627    | 1       |
| Gehe/Fragon            | Lauromacrogol 400               | 15G10B05317456    | 1       |
| Gehe/Fragon            | Lauromacrogol 400               | 17A23B01332868    | 1       |
| Gehe/gepepharm         | Lauromacrogol 400               | 140911            | 2       |
| gehe/gepepharm         | Lauromacrogol 400               | 160312            | 1       |
| Gehe/gepepharm         | Lauromacrogol 400               | 160312            | 1       |
| Gehe/gepepharm         | Lauromacrogol 400               | 160312A           | 3       |
| Gehe/Gepepharm         | Lauromacrogol 400               | 160312A           | 1       |
| Gehe/Gepepharm         | Lauromacrogol 400               | 19054203          | 1       |
| Gehe/Noweda            | Macrogolglycerol hydroxystea... | 17257003          | 1       |
| Gehe/Spinnrad          | Macrogol 4 lauryl ether         | 715400031         | 1       |
| Gehe                   | Lauromacrogol 400               | 110408            | 3       |
| Gehe                   | Macrogol 4 lauryl ether         | 11220306          | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 11K16-N09         | 1       |
| Gehe                   | Lauromacrogol 400               | 130109            | 6       |
| GEHE                   | Lauromacrogol 400               | 130109            | 1       |
| Gehe                   | Macrogol 4 lauryl ether         | 13136206          | 1       |
| GEHE                   | Lauromacrogol 400               | 13B13-N01         | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 13K07-N02         | 1       |
| Gehe                   | Macrogol 4 lauryl ether         | 14054401          | 1       |
| Gehe                   | Lauromacrogol 400               | 140911            | 9       |
| Gehe                   | Macrogolglycerol hydroxystea... | 14196804          | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 14K28-B01-301     | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 151694050300      | 1       |
| GEHE                   | Macrogol 4 lauryl ether         | 15323704          | 1       |
| Gehe                   | Lauromacrogol 400               | 1551417           | 1       |
| Gehe                   | Lauromacrogol 400               | 15A26-B02-303628  | 2       |
| Gehe                   | Lauromacrogol 400               | 15G10-Bo5-317457  | 1       |
| Gehe                   | Lauromacrogol 400               | 16-0290           | 2       |
| Gehe                   | Lauromacrogol 400               | 160312            | 7       |
| GEHE                   | Lauromacrogol 400               | 160312            | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 16247401          | 1       |
| Gehe                   | Lauromacrogol 400               | 16E18-B04         | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 16H05-B04-324748  | 1       |
| Gehe                   | Lauromacrogol 400               | 17250901          | 1       |
| Gehe                   | Lauromacrogol 400               | 17250902          | 1       |
| GEHE                   | Lauromacrogol 400               | 17250904          | 1       |
| GEHE                   | Lauromacrogol 400               | 17250909          | 2       |
| Gehe                   | Lauromacrogol 400               | 17250913          | 3       |
| Gehe                   | Macrogolglycerol hydroxystea... | 17257003          | 4       |
| Gehe                   | Lauromacrogol 400               | 17A23-B01-330983  | 2       |
| Gehe                   | Lauromacrogol 400               | 17A23-B01-332867  | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 17D362-B04-333357 | 1       |
| Gehe                   | Lauromacrogol 400               | 17H21-B07-341795  | 1       |
| Gehe                   | Lauromacrogol 400               | 17H21-b07-341796  | 1       |
| Gehe                   | Macrogol 4 lauryl ether         | 17H21-B07341796   | 1       |
| GEHE                   | Lauromacrogol 400               | 18175501          | 2       |
| GEHE                   | Lauromacrogol 400               | 18175502          | 2       |
| GEHE                   | Lauromacrogol 400               | 18175507          | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 18204509          | 2       |
| Gehe                   | Macrogol 4 lauryl ether         | 18215501          | 1       |
| Gehe                   | Macrogolglycerol hydroxystea... | 18278410          | 1       |
| Gehe                   | Lauromacrogol 400               | 18D30-B09-350641  | 2       |
| Gehe                   | Macrogol 4 lauryl ether         | 18D30-B09-352738  | 1       |
| Gehe                   | Macrogol 4 lauryl ether         | 18D30-B09-352739  | 1       |

*continued on the next page*

continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Gehe                       | Lauromacrogol 400               | 18J8-B03-355980  | 1       |
| Gehe                       | Macrogol 4 lauryl ether         | 1901029-01       | 1       |
| Gehe                       | Lauromacrogol 400               | 19054203         | 4       |
| Gehe                       | Macrogol 4 lauryl ether         | 1907010-01       | 2       |
| Gehe                       | Macrogol 4 lauryl ether         | 190967001        | 1       |
| GEHE                       | Lauromacrogol 400               | 19131004         | 2       |
| Gehe                       | Macrogolglycerol hydroxystea... | 19d30-b03-362727 | 1       |
| Gehe                       | Lauromacrogol 400               | 20002697002      | 3       |
| GEHE                       | Lauromacrogol 400               | 20002697002      | 1       |
| Gehe                       | Lauromacrogol 400               | 21000678010      | 2       |
| GEHE                       | Macrogol 4 lauryl ether         | 21021172/5       | 1       |
| Gehe                       | Macrogol 4 lauryl ether         | 218400031        | 1       |
| Gehe                       | Macrogol 4 lauryl ether         | 2240003          | 1       |
| Gehe                       | Macrogol 4 lauryl ether         | 417400031        | 1       |
| Gehe                       | Macrogolglycerol hydroxystea... | 79793775L0       | 1       |
| Gehe                       | Macrogol 4 lauryl ether         | 818400032        | 1       |
| Gehe                       | Lauromacrogol 400               | 9759896          | 1       |
| Geibo/ Fargron             | Lauromacrogol 400               | 18D30-B09-352740 | 1       |
| Geibo/Spinnrad 10.6.21     | Macrogol 4 lauryl ether         | 121400031        | 1       |
| geopharm /Gehe             | Lauromacrogol 400               | 160312A          | 1       |
| Geopharm/Alliance          | Lauromacrogol 400               | 163012A          | 1       |
| gepharm GmbH               | Lauromacrogol 400               | 140911           | 1       |
| GEPE/Anzag                 | Lauromacrogol 400               | 110408           | 2       |
| gepe/Gehe                  | Lauromacrogol 400               | 130109           | 1       |
| gepegepharm/Phoenix        | Lauromacrogol 400               | 160321A          | 1       |
| Gepegepharm                | Lauromacrogol 400               | 130109           | 1       |
| gepharm / Fiebig           | Lauromacrogol 400               | 130109           | 1       |
| gepharm/AHD                | Lauromacrogol 400               | 130109           | 1       |
| gepharm/Gehe               | Lauromacrogol 400               | 140911           | 3       |
| Gepeharm/Sanacorp          | Lauromacrogol 400               | 1954203          | 1       |
| Gepeharm                   | Lauromacrogol 400               | 160312           | 1       |
| Gepehpharm                 | Lauromacrogol 400               | 160312           | 1       |
| gepeoharm / Anzag          | Lauromacrogol 400               | 140911           | 1       |
| gepep/Phoenix              | Lauromacrogol 400               | 140911           | 1       |
| Gepeph/Phönix              | Lauromacrogol 400               | 160312           | 1       |
| gepepharm / G              | Lauromacrogol 400               | 160312A          | 1       |
| Gepepharm Anzag            | Lauromacrogol 400               | 22(160312A)      | 1       |
| gepepharm (Thesit)         | Lauromacrogol 400               | 16-0290          | 1       |
| gepepharm (Thesit)         | Lauromacrogol 400               | 160312           | 1       |
| gepepharm (Thesit)         | Lauromacrogol 400               | 160312A          | 1       |
| gepepharm / Alliance he... | Lauromacrogol 400               | 160312           | 3       |
| gepepharm / Alliance he... | Lauromacrogol 400               | 160312A          | 1       |
| gepepharm / Alliance he... | Lauromacrogol 400               | 1905423          | 1       |
| gepepharm / Alliance he... | Lauromacrogol 400               | 19064501         | 1       |
| gepepharm / Alliance He... | Lauromacrogol 400               | 19054203         | 1       |
| Gepepharm / Alliance       | Lauromacrogol 400               | 19054203         | 2       |
| gepepharm / Allianz Hea... | Lauromacrogol 400               | 160312A          | 1       |
| gepepharm / G              | Lauromacrogol 400               | 160312           | 1       |
| Gepepharm / Gehe           | Lauromacrogol 400               | 110408           | 1       |
| Gepepharm / Gehe           | Lauromacrogol 400               | 130109           | 5       |
| Gepepharm / GEHE           | Lauromacrogol 400               | 130109           | 1       |
| Gepepharm / Gehe           | Lauromacrogol 400               | 160312A          | 8       |
| Gepepharm / Gehe           | Lauromacrogol 400               | 182744           | 1       |
| Gepepharm / Gehe           | Lauromacrogol 400               | 19054203         | 4       |
| Gepepharm / Gehe           | Lauromacrogol 400               | 19064501A        | 1       |
| Gepepharm / Gehe           | Lauromacrogol 400               | 20001966001      | 6       |
| Gepepharm / Jenne          | Lauromacrogol 400               | 19054203         | 1       |
| Gepepharm / Kehr           | Lauromacrogol 400               | 19054203         | 1       |
| gepepharm / Noweda         | Lauromacrogol 400               | 110408           | 1       |
| gepepharm / Noweda         | Lauromacrogol 400               | 130109           | 7       |

continued on the next page



continued from previous page

| Supplier                   | Substance         | Batch               | Spectra |
|----------------------------|-------------------|---------------------|---------|
| gepepharm / Noweda         | Lauromacrogol 400 | 140911              | 1       |
| Gepepharm / Noweda         | Lauromacrogol 400 | 140911              | 1       |
| gepepharm / Noweda         | Lauromacrogol 400 | 160312              | 2       |
| Gepepharm / Noweda         | Lauromacrogol 400 | 160312              | 1       |
| gepepharm / Noweda         | Lauromacrogol 400 | 160312-A            | 1       |
| Gepepharm / Noweda         | Lauromacrogol 400 | 19051203            | 1       |
| Gepepharm / Noweda         | Lauromacrogol 400 | 19064501            | 2       |
| Gepepharm / Phoenix        | Lauromacrogol 400 | 160312A             | 1       |
| gepepharm / Phönix         | Lauromacrogol 400 | 140911              | 3       |
| Gepepharm / Phönix         | Lauromacrogol 400 | 160312A             | 1       |
| gepepharm / Phönix         | Lauromacrogol 400 | 19054203            | 10      |
| Gepepharm / Phönix         | Lauromacrogol 400 | 19054203            | 1       |
| Gepepharm / Sanacorp       | Lauromacrogol 400 | 110408              | 2       |
| gepepharm / Sanacorp       | Lauromacrogol 400 | 13-0108             | 1       |
| gepepharm / Sanacorp       | Lauromacrogol 400 | 130109              | 3       |
| Gepepharm / Sanacorp       | Lauromacrogol 400 | 130109              | 1       |
| gepepharm / Sanacorp       | Lauromacrogol 400 | 160312              | 2       |
| Gepepharm /Fiebig          | Lauromacrogol 400 | labip-g97-110616-01 | 1       |
| gepepharm /Noweda          | Lauromacrogol 400 | 130109              | 3       |
| Gepepharm /Noweda          | Lauromacrogol 400 | 140911              | 1       |
| Gepepharm /Noweda          | Lauromacrogol 400 | 19064501            | 1       |
| gepepharm AEP              | Lauromacrogol 400 | 19064501            | 2       |
| gepepharm AHD 07.11.17 ... | Lauromacrogol 400 | 160312              | 1       |
| gepepharm AHD              | Lauromacrogol 400 | 160312A             | 2       |
| gepepharm AHD              | Lauromacrogol 400 | 19054203            | 1       |
| gepepharm AHD              | Lauromacrogol 400 | 19064501A           | 1       |
| Gepepharm Anzag            | Lauromacrogol 400 | 110408              | 16      |
| gepepharm Anzag            | Lauromacrogol 400 | 160312A             | 1       |
| gepepharm CmbH             | Lauromacrogol 400 | 140911              | 1       |
| gepepharm CmbH             | Lauromacrogol 400 | 160312              | 1       |
| gepepharm CmbH             | Lauromacrogol 400 | 160312A             | 1       |
| GEPEPHARM GEHE 14:02:17    | Lauromacrogol 400 | 160312              | 7       |
| GEPEPHARM GEHE 25.07.19    | Lauromacrogol 400 | 19054203            | 1       |
| Gepepharm GmbH / Allian... | Lauromacrogol 400 | 160312              | 4       |
| gepepharm GmbH / Allian... | Lauromacrogol 400 | 140911              | 1       |
| Gepepharm GmbH / Anzag     | Lauromacrogol 400 | 110408              | 1       |
| Gepepharm GmbH / Anzag     | Lauromacrogol 400 | 130109              | 1       |
| Gepepharm GmbH / Gehe      | Lauromacrogol 400 | 160312              | 1       |
| gepepharm GmbH / Kehr      | Lauromacrogol 400 | 19054203            | 1       |
| gepepharm GmbH / Noweda    | Lauromacrogol 400 | 19054203            | 2       |
| gepepharm GmbH / Phönix    | Lauromacrogol 400 | 160312A             | 10      |
| gepepharm GmbH / Phönix    | Lauromacrogol 400 | 19064501            | 1       |
| Gepepharm GmbH /Alliance   | Lauromacrogol 400 | 19064501            | 1       |
| gepepharm GmbH Hennef      | Lauromacrogol 400 | 160312A             | 1       |
| gepepharm GmbH Hennef      | Lauromacrogol 400 | 19054203            | 1       |
| gepepharm gmbh noweda      | Lauromacrogol 400 | 160312A             | 3       |
| gepepharm GmbH, Gehe       | Lauromacrogol 400 | 160312              | 1       |
| gepepharm GmbH, Gehe       | Lauromacrogol 400 | 19064501            | 1       |
| Gepepharm GmbH/ Alliance   | Lauromacrogol 400 | 160312              | 1       |
| Gepepharm GmbH/ Anzag      | Lauromacrogol 400 | 19054203A           | 1       |
| gepepharm GmbH/ Gehe       | Lauromacrogol 400 | 160312              | 2       |
| gepepharm GmbH/ NOW        | Lauromacrogol 400 | 140911              | 1       |
| gepepharm GmbH/ NOW        | Lauromacrogol 400 | 160312A             | 1       |
| Gepepharm GmbH/ NOWEDA     | Lauromacrogol 400 | 160312A             | 1       |
| gepepharm gmbh/ Noweda     | Lauromacrogol 400 | 19054203            | 5       |
| gepepharm Gmbh/ Noweda     | Lauromacrogol 400 | 19054203            | 1       |
| Gepepharm GmbH/ Noweda     | Lauromacrogol 400 | 19054203            | 1       |
| Gepepharm GmbH/ NOWEDA     | Lauromacrogol 400 | 19054203            | 1       |
| Gepepharm GmbH/ NOWEDA     | Lauromacrogol 400 | 19064501            | 1       |
| gepepharm GmbH/Aep         | Lauromacrogol 400 | 19064501            | 1       |

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| Supplier                   | Substance         | Batch              | Spectra |
|----------------------------|-------------------|--------------------|---------|
| gepepharm gmbh/AHD         | Lauromacrogol 400 | 160312A            | 1       |
| Gepepharm gmbh/AHD         | Lauromacrogol 400 | 19064501           | 1       |
| gepepharm GmbH/Alliance... | Lauromacrogol 400 | 160312A            | 1       |
| gepepharm GmbH/Anzag       | Lauromacrogol 400 | 19054203           | 1       |
| Gepepharm GmbH/Gehe        | Lauromacrogol 400 |                    | 1       |
| gepepharm GmbH/Gehe        | Lauromacrogol 400 | 130109             | 3       |
| gepepharm GmbH/Gehe        | Lauromacrogol 400 | 140911             | 3       |
| Gepepharm GmbH/Gehe        | Lauromacrogol 400 | 140911/20160309/13 | 1       |
| gepepharm GmbH/Gehe        | Lauromacrogol 400 | 160312             | 5       |
| Gepepharm GmbH/Gehe        | Lauromacrogol 400 | 160312             | 10      |
| gepepharm GmbH/Gehe        | Lauromacrogol 400 | 19064501A          | 1       |
| gepepharm GmbH/Gehe        | Lauromacrogol 400 | 20001966001        | 1       |
| gepepharm GmbH/GEHE        | Lauromacrogol 400 | 2D001966001        | 1       |
| gepepharm GmbH/Kehr        | Lauromacrogol 400 | 160312             | 7       |
| gepepharm GmbH/Noweda      | Lauromacrogol 400 | 130109             | 4       |
| gepepharm gmbH/Noweda      | Lauromacrogol 400 | 160312             | 1       |
| gepepharm gmbH/Noweda      | Lauromacrogol 400 | 160312A            | 1       |
| gepepharm GmbH/Noweda      | Lauromacrogol 400 | 19054203A          | 1       |
| Gepepharm GmbH/Noweda      | Lauromacrogol 400 | 19064501           | 1       |
| gepepharm GmbH/Noweda      | Lauromacrogol 400 | 19064501A          | 1       |
| Gepepharm GmbH/Phoenix     | Lauromacrogol 400 | 140911             | 2       |
| gepepharm gmbH/Phoenix     | Lauromacrogol 400 | 16-0290            | 2       |
| Gepepharm GmbH/Phoenix     | Lauromacrogol 400 | 160312             | 2       |
| gepepharm GmbH/Phoenix     | Lauromacrogol 400 | 160312A            | 1       |
| Gepepharm GmbH/Phoenix     | Lauromacrogol 400 | 160312A            | 3       |
| gepepharm GmbH/Phoenix     | Lauromacrogol 400 | 19054203           | 4       |
| gepepharm GmbH/Phoenix     | Lauromacrogol 400 | 19054203A          | 2       |
| gepepharm GmbH/Phoenix     | Lauromacrogol 400 | 19064501           | 3       |
| gepepharm GmbH/Phönix      | Lauromacrogol 400 | 140911             | 1       |
| gepepharm GmbH/Phönix      | Lauromacrogol 400 | 160312             | 6       |
| gepepharm GmbH/Phönix      | Lauromacrogol 400 | 160312A            | 4       |
| Gepepharm GmbH/Phönix      | Lauromacrogol 400 | 160312A            | 1       |
| gepepharm gmbh/Phönix      | Lauromacrogol 400 | 19054203           | 2       |
| Gepepharm GmbH/Phönix      | Lauromacrogol 400 | 19054203           | 5       |
| gepepharm GmbH/Phönix      | Lauromacrogol 400 | 19064501A          | 4       |
| gepepharm GmbH/Phönix      | Lauromacrogol 400 | 20001966001        | 3       |
| gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 160312             | 1       |
| Gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 160312             | 2       |
| Gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 1905203            | 1       |
| Gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 19054203           | 3       |
| gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 19054203A          | 1       |
| gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 19064501           | 1       |
| Gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 19064501           | 2       |
| gepepharm GmbH/Sanacorp    | Lauromacrogol 400 | 20001966001        | 1       |
| gepepharm GmbH             | Lauromacrogol 400 | 110408             | 12      |
| Gepepharm GmbH             | Lauromacrogol 400 | 110408             | 3       |
| gepepharm GmbH             | Lauromacrogol 400 | 13-0108            | 1       |
| gepepharm gmbh             | Lauromacrogol 400 | 130109             | 4       |
| gepepharm GmbH             | Lauromacrogol 400 | 130109             | 27      |
| gepepharm GmbH             | Lauromacrogol 400 | 13-0109            | 1       |
| gepepharm GmbH             | Lauromacrogol 400 | 130109             | 1       |
| Gepepharm GmbH             | Lauromacrogol 400 | 130109             | 1       |
| gepepharm GmbH             | Lauromacrogol 400 | 14091              | 1       |
| gepepharm GmbH             | Lauromacrogol 400 | 140911             | 24      |
| Gepepharm GmbH             | Lauromacrogol 400 | 140911             | 15      |
| Gepepharm GmbH             | Lauromacrogol 400 | 16-0290            | 1       |
| gepepharm gmbh             | Lauromacrogol 400 | 160312             | 5       |
| gepepharm GmbH             | Lauromacrogol 400 | 160312             | 38      |
| Gepepharm GmbH             | Lauromacrogol 400 | 160312             | 13      |
| GEpepharm GmbH             | Lauromacrogol 400 | 160312             | 3       |

continued on the next page

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| Supplier                 | Substance         | Batch                | Spectra |
|--------------------------|-------------------|----------------------|---------|
| gepepharm GmbH           | Lauromacrogol 400 | 160312A              | 12      |
| gepepharm GmbH           | Lauromacrogol 400 | 160312A              | 1       |
| Gepepharm GmbH           | Lauromacrogol 400 | 160312A              | 9       |
| gepepharm gmbh           | Lauromacrogol 400 | 17250901             | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 182743               | 1       |
| gepepharm gmbh           | Lauromacrogol 400 | 19054203             | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 19054203             | 29      |
| Gepepharm GmbH           | Lauromacrogol 400 | 19054203             | 8       |
| gepepharm GmbH           | Lauromacrogol 400 | 19054203A            | 3       |
| Gepepharm GmbH           | Lauromacrogol 400 | 19054203A            | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 19064501             | 11      |
| Gepepharm GmbH           | Lauromacrogol 400 | 19064501             | 3       |
| gepepharm GmbH           | Lauromacrogol 400 | 19064501A            | 8       |
| Gepepharm GmbH           | Lauromacrogol 400 | 19064501A            | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 1915345              | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 20001966001          | 7       |
| Gepepharm GmbH           | Lauromacrogol 400 | 20001966001          | 1       |
| Gepepharm GmbH           | Lauromacrogol 400 | 20001966001          | 6       |
| Gepepharm GmbH           | Lauromacrogol 400 | 20001988001          | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 27112014A            | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 3072014A             | 1       |
| gepepharm GmbH           | Lauromacrogol 400 | 8062015D             | 1       |
| Gepepharm GmbH           | Lauromacrogol 400 | 140911               | 5       |
| gepepharm Noweda         | Lauromacrogol 400 | 19054203             | 2       |
| gepepharm Noweda         | Lauromacrogol 400 | 19054203A            | 1       |
| gepepharm Noweda         | Lauromacrogol 400 | 19064501             | 1       |
| gepepharm Phoenix        | Lauromacrogol 400 | 182743               | 1       |
| Gepepharm über Phoenix   | Lauromacrogol 400 | 130109               | 7       |
| Gepepharm über Phoenix   | Lauromacrogol 400 | 140911               | 3       |
| gepepharm über Phönix    | Lauromacrogol 400 | 20001966001          | 1       |
| gepepharm, Noweda        | Lauromacrogol 400 | 110408               | 4       |
| gepepharm, Noweda        | Lauromacrogol 400 | 130109               | 1       |
| gepepharm, Phoenix       | Lauromacrogol 400 | 20001966001          | 1       |
| gepepharm,gehe           | Lauromacrogol 400 | 19054203             | 2       |
| Gepepharm/ Sanacorp      | Lauromacrogol 400 | 160312               | 1       |
| Gepepharm/ Alliance      | Lauromacrogol 400 | 160312A              | 1       |
| gepepharm/ Alliance      | Lauromacrogol 400 | 19054203             | 2       |
| Gepepharm/ Anzag         | Lauromacrogol 400 | 19064501             | 2       |
| gepepharm/ Gehe 15.12.17 | Lauromacrogol 400 | 160312-20180112Ma7   | 1       |
| gepepharm/ Gehe 16.10.18 | Lauromacrogol 400 | 160312A-T20181115Ma7 | 1       |
| gepepharm/ Gehe 26.6.17  | Lauromacrogol 400 | 160312-20170704Ma10  | 1       |
| gepepharm/ Gehe 5.5.17   | Lauromacrogol 400 | 160312-20170704Ma9   | 1       |
| Gepepharm/ Gehe          | Lauromacrogol 400 | 140911               | 2       |
| Gepepharm/ Gehe          | Lauromacrogol 400 | 14-1414              | 1       |
| gepepharm/ Gehe          | Lauromacrogol 400 | 160312               | 1       |
| Gepepharm/ Gehe          | Lauromacrogol 400 | 160312               | 3       |
| gepepharm/ Gehe          | Lauromacrogol 400 | 160312A              | 6       |
| Gepepharm/ Gehe          | Lauromacrogol 400 | 160312A              | 1       |
| Gepepharm/ Gehe          | Lauromacrogol 400 | 19064501             | 1       |
| gepepharm/ Gehe          | Lauromacrogol 400 | 20170829/2           | 1       |
| Gepepharm/ Jenne         | Lauromacrogol 400 | 160312A              | 2       |
| gepepharm/ Kehr          | Lauromacrogol 400 | 160312               | 1       |
| gepepharm/ Noweda        | Lauromacrogol 400 | 130109               | 4       |
| Gepepharm/ Noweda        | Lauromacrogol 400 | 130109               | 1       |
| Gepepharm/ Noweda        | Lauromacrogol 400 | 160132               | 1       |
| gepepharm/ Noweda        | Lauromacrogol 400 | 160312               | 1       |
| Gepepharm/ Noweda        | Lauromacrogol 400 | 160312a              | 2       |
| Gepepharm/ Noweda        | Lauromacrogol 400 | 160312A              | 7       |
| Gepepharm/ Noweda        | Lauromacrogol 400 | 19054203             | 1       |
| Gepepharm/ Noweda        | Lauromacrogol 400 | 19064501             | 1       |

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| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
| gepepharm/ Phoenix         | Lauromacrogol 400 | 160312A     | 1       |
| gepepharm/ Phoenix         | Lauromacrogol 400 | 19054203    | 1       |
| gepepharm/ Phoenix         | Lauromacrogol 400 | 19064501    | 2       |
| gepepharm/ Phoenix         | Lauromacrogol 400 | 19064501A   | 1       |
| Gepepharm/ Phönix          | Lauromacrogol 400 | 140911      | 1       |
| gepepharm/ Phönix          | Lauromacrogol 400 | 160312      | 1       |
| Gepepharm/ Phönix          | Lauromacrogol 400 | 160312      | 4       |
| Gepepharm/ Phönix          | Lauromacrogol 400 | 160312A     | 4       |
| gepepharm/ Phönix          | Lauromacrogol 400 | 182744      | 1       |
| gepepharm/ Phönix          | Lauromacrogol 400 | 19054203    | 1       |
| Gepepharm/ Phönix          | Lauromacrogol 400 | 19054203    | 1       |
| gepepharm/ Phönix          | Lauromacrogol 400 | 20001966001 | 1       |
| gepepharm/ Sanacorp 22...  | Lauromacrogol 400 | 130109      | 1       |
| gepepharm/ Sanacorp        | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/ Sanacorp        | Lauromacrogol 400 | 19064501    | 1       |
| gepepharm/ VDL             | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/17.07.20/gehe    | Lauromacrogol 400 | 19064501    | 5       |
| Gepepharm/3                | Lauromacrogol 400 | 160312A     | 1       |
| gepepharm/AHD/03.07.19     | Lauromacrogol 400 | 19054203    | 9       |
| gepepharm/AHD              | Lauromacrogol 400 | 160312      | 2       |
| Gepepharm/AHD              | Lauromacrogol 400 | 160312      | 2       |
| GepePharm/AHD              | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/AHD              | Lauromacrogol 400 | 1603123A    | 1       |
| gepepharm/AHD              | Lauromacrogol 400 | 160312A     | 1       |
| gepepharm/AHD              | Lauromacrogol 400 | 19054203    | 2       |
| gepepharm/AHD              | Lauromacrogol 400 | 19064501    | 1       |
| gepepharm/Alliance         | Lauromacrogol 400 | 16-0290     | 1       |
| Gepepharm/Alliance         | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/Alliance         | Lauromacrogol 400 | 160312A     | 11      |
| Gepepharm/Alliance         | Lauromacrogol 400 | 160312A     | 9       |
| Gepepharm/Alliance         | Lauromacrogol 400 | 182743      | 1       |
| gepepharm/Alliance         | Lauromacrogol 400 | 19054203    | 1       |
| Gepepharm/Alliance         | Lauromacrogol 400 | 19054203    | 7       |
| gepepharm/Alliance         | Lauromacrogol 400 | 20000841    | 1       |
| gepepharm/Anzag 10.05.2... | Lauromacrogol 400 | 110408      | 8       |
| gepepharm/Anzag            | Lauromacrogol 400 | 130109      | 1       |
| Gepepharm/Anzag            | Lauromacrogol 400 | 140911      | 1       |
| gepepharm/Anzag            | Lauromacrogol 400 | 160312      | 2       |
| Gepepharm/Anzag            | Lauromacrogol 400 | 160312      | 4       |
| Gepepharm/Anzag            | Lauromacrogol 400 | 160312A     | 1       |
| gepepharm/Ebert            | Lauromacrogol 400 | 110408      | 2       |
| gepepharm/Ebert            | Lauromacrogol 400 | 130109      | 2       |
| gepepharm/Fiebig 18.03...  | Lauromacrogol 400 | 19064501a   | 1       |
| Gepepharm/Fiebig           | Lauromacrogol 400 | 130109      | 1       |
| Gepepharm/Fiebig           | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/Fiebig           | Lauromacrogol 400 | 182743      | 1       |
| gepepharm/Fiebig           | Lauromacrogol 400 | 19054203    | 2       |
| Gepepharm/Fiebig           | Lauromacrogol 400 | 19064501    | 2       |
| gepepharm/Fiebig           | Lauromacrogol 400 | 20001966001 | 1       |
| gepepharm/G                | Lauromacrogol 400 | 140911      | 1       |
| gepepharm/gehe             | Lauromacrogol 400 | 110408      | 2       |
| Gepepharm/Gehe             | Lauromacrogol 400 | 110408      | 2       |
| gepepharm/gehe             | Lauromacrogol 400 | 130109      | 2       |
| gepepharm/Gehe             | Lauromacrogol 400 | 130109      | 3       |
| gepepharm/Gehe             | Lauromacrogol 400 | 140911      | 1       |
| Gepepharm/Gehe             | Lauromacrogol 400 | 140911      | 12      |
| gepepharm/Gehe             | Lauromacrogol 400 | 14-1414     | 2       |
| gepepharm/gehe             | Lauromacrogol 400 | 160312      | 5       |
| gepepharm/Gehe             | Lauromacrogol 400 | 160312      | 19      |
| Gepepharm/Gehe             | Lauromacrogol 400 | 160312      | 4       |

continued on the next page

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| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
| gepepharm/gehe             | Lauromacrogol 400 | 160312A     | 6       |
| gepepharm/Gehe             | Lauromacrogol 400 | 160312A     | 7       |
| Gepepharm/gehe             | Lauromacrogol 400 | 160312A     | 3       |
| Gepepharm/Gehe             | Lauromacrogol 400 | 160312A     | 8       |
| Gepepharm/Gehe             | Lauromacrogol 400 | 17250913    | 1       |
| Gepepharm/Gehe             | Lauromacrogol 400 | 182743      | 1       |
| gepepharm/Gehe             | Lauromacrogol 400 | 19054203    | 7       |
| Gepepharm/Gehe             | Lauromacrogol 400 | 19054203    | 1       |
| gepepharm/gehe             | Lauromacrogol 400 | 19064501    | 1       |
| gepepharm/Gehe             | Lauromacrogol 400 | 19064501    | 1       |
| Gepepharm/Gehe             | Lauromacrogol 400 | 19064501    | 1       |
| gepepharm/Gehe             | Lauromacrogol 400 | 20001966001 | 3       |
| gepepharm/Kehr , 04.09.... | Lauromacrogol 400 | 19054203    | 1       |
| gepepharm/Kehr , 09.07.... | Lauromacrogol 400 | 19064501    | 2       |
| gepepharm/Kehr             | Lauromacrogol 400 | 160312A     | 1       |
| Gepepharm/Kehr             | Lauromacrogol 400 | 160312A     | 1       |
| gepepharm/Kehr             | Lauromacrogol 400 | 19054203A   | 1       |
| gepepharm/Kehr             | Lauromacrogol 400 | 20001966001 | 2       |
| Gepepharm/Kehr             | Lauromacrogol 400 | 51123/2Sie  | 1       |
| gepepharm/Krieger          | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/Krieger          | Lauromacrogol 400 | 160312A     | 2       |
| Gepepharm/Krieger          | Lauromacrogol 400 | 160312A     | 1       |
| gepepharm/Krieger          | Lauromacrogol 400 | 19054203    | 1       |
| Gepepharm/Krieger          | Lauromacrogol 400 | 19054203    | 1       |
| Gepepharm/Krieger          | Lauromacrogol 400 | 19054203A   | 1       |
| gepepharm/Nowe             | Lauromacrogol 400 | 160312      | 11      |
| gepepharm/Noweda           | Lauromacrogol 400 | 130109      | 2       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 130109      | 2       |
| gepepharm/Noweda           | Lauromacrogol 400 | 140911      | 4       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 140911      | 4       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 1440911     | 1       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 16-0290     | 1       |
| gepepharm/Noweda           | Lauromacrogol 400 | 160312      | 4       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 160312      | 3       |
| gepepharm/Noweda           | Lauromacrogol 400 | 160312A     | 4       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 160312A     | 11      |
| GEPEPHARM/NOWEDA           | Lauromacrogol 400 | 160312A     | 2       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 182744      | 1       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 190503      | 1       |
| gepepharm/Noweda           | Lauromacrogol 400 | 1905403     | 1       |
| gepepharm/Noweda           | Lauromacrogol 400 | 19054203    | 1       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 19054203    | 22      |
| Gepepharm/Noweda           | Lauromacrogol 400 | 19054203A   | 2       |
| gepepharm/Noweda           | Lauromacrogol 400 | 19064501    | 3       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 19064501    | 7       |
| GEPEPHARM/NOWEDA           | Lauromacrogol 400 | 19064501    | 1       |
| gepepharm/Noweda           | Lauromacrogol 400 | 19064501A   | 1       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 19064501A   | 1       |
| gepepharm/Noweda           | Lauromacrogol 400 | 20001966001 | 1       |
| Gepepharm/Noweda           | Lauromacrogol 400 | 20001966001 | 1       |
| gepepharm/Otto             | Lauromacrogol 400 | 130109      | 18      |
| gepepharm/Otto             | Lauromacrogol 400 | 65793       | 1       |
| gepepharm/Phoenix          | Lauromacrogol 400 | 130109      | 4       |
| Gepepharm/Phoenix          | Lauromacrogol 400 | 130109      | 2       |
| gepepharm/Phoenix          | Lauromacrogol 400 | 140911      | 12      |
| gepepharm/Phoenix          | Lauromacrogol 400 | 160312      | 13      |
| Gepepharm/Phoenix          | Lauromacrogol 400 | 160312      | 2       |
| gepepharm/Phoenix          | Lauromacrogol 400 | 160312A     | 8       |
| Gepepharm/Phoenix          | Lauromacrogol 400 | 160312A     | 1       |
| Gepepharm/Phoenix          | Lauromacrogol 400 | 1614U2384   | 1       |

*continued on the next page*

continued from previous page

| Supplier                  | Substance         | Batch       | Spectra |
|---------------------------|-------------------|-------------|---------|
| gepepharm/Phoenix         | Lauromacrogol 400 | 180312A     | 1       |
| gepepharm/Phoenix         | Lauromacrogol 400 | 19054203    | 6       |
| Gepepharm/Phoenix         | Lauromacrogol 400 | 19054203    | 2       |
| Gepepharm/Phoenix         | Lauromacrogol 400 | 19054203A   | 2       |
| gepepharm/Phoenix         | Lauromacrogol 400 | 19064501    | 1       |
| gepepharm/Phoenix         | Lauromacrogol 400 | 20001966001 | 1       |
| Gepepharm/Phoenix         | Lauromacrogol 400 | 3813E02384  | 1       |
| gepepharm/Phön.x          | Lauromacrogol 400 | 19054203A   | 1       |
| gepepharm/Phönix 07.09.18 | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/Phönix          | Lauromacrogol 400 | 1101409     | 1       |
| gepepharm/Phönix          | Lauromacrogol 400 | 110408      | 2       |
| gepepharm/Phönix          | Lauromacrogol 400 | 13-0108     | 1       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 130108      | 1       |
| gepepharm/Phönix          | Lauromacrogol 400 | 130109      | 5       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 130109      | 7       |
| gepepharm/Phönix          | Lauromacrogol 400 | 140911      | 12      |
| Gepepharm/Phönix          | Lauromacrogol 400 | 140911      | 4       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 14-1414     | 2       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 16-0290     | 3       |
| gepepharm/Phönix          | Lauromacrogol 400 | 160312      | 5       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 160312      | 8       |
| gepepharm/Phönix          | Lauromacrogol 400 | 160312a     | 2       |
| gepepharm/Phönix          | Lauromacrogol 400 | 160312A     | 4       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 160312A     | 8       |
| gepepharm/Phönix          | Lauromacrogol 400 | 19054203    | 4       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 19054203    | 9       |
| gepepharm/Phönix          | Lauromacrogol 400 | 19054203A   | 2       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 19054203A   | 1       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 19054204    | 1       |
| gepepharm/Phönix          | Lauromacrogol 400 | 19064501    | 1       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 19064501    | 2       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 19064501A   | 1       |
| Gepepharm/Phönix          | Lauromacrogol 400 | 20001966001 | 3       |
| Gepepharm/Sana            | Lauromacrogol 400 | 140911      | 1       |
| gepepharm/Sana            | Lauromacrogol 400 | 160312A     | 2       |
| gepepharm/Sana            | Lauromacrogol 400 | 19054203    | 11      |
| gepepharm/Sanac           | Lauromacrogol 400 | 130109      | 1       |
| gepepharm/sanacorp        | Lauromacrogol 400 | 130109      | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 130109      | 7       |
| Gepepharm/Sanacorp        | Lauromacrogol 400 | 130109      | 6       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 140911      | 1       |
| Gepepharm/Sanacorp        | Lauromacrogol 400 | 140911      | 9       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 14-1414     | 1       |
| Gepepharm/Sanacorp        | Lauromacrogol 400 | 14-1414     | 1       |
| gepepharm/sanacorp        | Lauromacrogol 400 | 160312      | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 160312      | 3       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 160312A     | 2       |
| Gepepharm/Sanacorp        | Lauromacrogol 400 | 160312A     | 2       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 182743      | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 182744      | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 1905420     | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 19054203    | 3       |
| Gepepharm/Sanacorp        | Lauromacrogol 400 | 19054203    | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 19054203A   | 3       |
| Gepepharm/Sanacorp        | Lauromacrogol 400 | 19054203A   | 2       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 19064501    | 2       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 19064501A   | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 19064601    | 1       |
| gepepharm/Sanacorp        | Lauromacrogol 400 | 20001966001 | 4       |
| Gepepharm/Sanacorp        | Lauromacrogol 400 | 20001966001 | 1       |

continued on the next page



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| <b>Supplier</b>   | <b>Substance</b>  | <b>Batch</b>     | <b>Spectra</b> |
|-------------------|-------------------|------------------|----------------|
| Gepepharm/Spangro | Lauromacrogol 400 | 160312A          | 1              |
| GepePharm/Spangro | Lauromacrogol 400 | 160312A          | 1              |
| gepepharm/Spangro | Lauromacrogol 400 | 16031A           | 1              |
| Gepepharm/V.d.L.  | Lauromacrogol 400 | 130109           | 1              |
| Gepepharm/VDL     | Lauromacrogol 400 | 110408           | 3              |
| Gepepharm/VDL     | Lauromacrogol 400 | 130109           | 6              |
| gepepharm         | Lauromacrogol 400 | 110408           | 7              |
| Gepepharm         | Lauromacrogol 400 | 110408           | 6              |
| gepepharm         | Lauromacrogol 400 | 13-0108          | 2              |
| gepepharm         | Lauromacrogol 400 | 130109           | 58             |
| Gepepharm         | Lauromacrogol 400 | 130109           | 16             |
| gepepharm         | Lauromacrogol 400 | 13044009         | 1              |
| Gepepharm         | Lauromacrogol 400 | 13051502         | 1              |
| gepepharm         | Lauromacrogol 400 | 140911           | 45             |
| Gepepharm         | Lauromacrogol 400 | 140911           | 31             |
| GEPEPHARM         | Lauromacrogol 400 | 140911           | 5              |
| GEPEPHARM         | Lauromacrogol 400 | 14-1414          | 1              |
| gepepharm         | Lauromacrogol 400 | 16-0290          | 4              |
| Gepepharm         | Lauromacrogol 400 | 160290           | 1              |
| Gepepharm         | Lauromacrogol 400 | 16-0290          | 1              |
| gepepharm         | Lauromacrogol 400 | 1603012          | 1              |
| gepepharm         | Lauromacrogol 400 | 1603102          | 1              |
| gepepharm         | Lauromacrogol 400 | 160312           | 63             |
| Gepepharm         | Lauromacrogol 400 | 160312           | 29             |
| gepepharm         | Lauromacrogol 400 | 1603120A         | 1              |
| gepepharm         | Lauromacrogol 400 | 160312A          | 40             |
| Gepepharm         | Lauromacrogol 400 | 160312A          | 24             |
| Gepepharm         | Lauromacrogol 400 | 16031705         | 1              |
| gepepharm         | Lauromacrogol 400 | 160512           | 1              |
| Gepepharm         | Lauromacrogol 400 | 17061708         | 1              |
| Gepepharm         | Lauromacrogol 400 | 17111403         | 1              |
| gepepharm         | Lauromacrogol 400 | 18054203A        | 1              |
| Gepepharm         | Lauromacrogol 400 | 182743           | 1              |
| gepepharm         | Lauromacrogol 400 | 19054203         | 36             |
| Gepepharm         | Lauromacrogol 400 | 19054203         | 19             |
| gepepharm         | Lauromacrogol 400 | 19054203A        | 4              |
| Gepepharm         | Lauromacrogol 400 | 19054203A        | 2              |
| Gepepharm         | Lauromacrogol 400 | 1905420X         | 1              |
| GEPEPHARM         | Lauromacrogol 400 | 190542G3         | 1              |
| gepepharm         | Lauromacrogol 400 | 19064501         | 16             |
| Gepepharm         | Lauromacrogol 400 | 19064501         | 4              |
| gepepharm         | Lauromacrogol 400 | 19064501A        | 5              |
| Gepepharm         | Lauromacrogol 400 | 19064501A        | 3              |
| Gepepharm         | Lauromacrogol 400 | 19101201         | 1              |
| Gepepharm         | Lauromacrogol 400 | 19121203         | 1              |
| Gepepharm         | Lauromacrogol 400 | 19295701         | 1              |
| Gepepharm         | Lauromacrogol 400 | 19G09-B02-072831 | 1              |
| gepepharm         | Lauromacrogol 400 | 200019660001     | 1              |
| gepepharm         | Lauromacrogol 400 | 20001966001      | 7              |
| Gepepharm         | Lauromacrogol 400 | 20001966001      | 5              |
| Gepepharm         | Lauromacrogol 400 | 2002312384       | 1              |
| Gepepharm         | Lauromacrogol 400 | 21071712         | 1              |
| Gepepharm         | Lauromacrogol 400 | 25061502         | 1              |
| Gepepharm         | Lauromacrogol 400 | 27111202         | 1              |
| Gepepharm         | Lauromacrogol 400 | 28101704         | 1              |
| Gepepharm         | Lauromacrogol 400 | 30031303         | 1              |
| Gepepharm         | Lauromacrogol 400 | 4111M-02384      | 1              |
| Gepepharm         | Lauromacrogol 400 | 6111203          | 1              |
| gepepharm         | Lauromacrogol 400 | 802-0728401      | 1              |
| Gepepharm         | Lauromacrogol 400 | 9041702          | 1              |

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| Supplier                    | Substance                       | Batch            | Spectra |
|-----------------------------|---------------------------------|------------------|---------|
| gepepharm <sup>®</sup> GmbH | Lauromacrogol 400               | 110408           | 1       |
| Gepepharma GmbH/Phoenix     | Lauromacrogol 400               | 140911           | 3       |
| Gepepharma GmbH/Phoenix     | Lauromacrogol 400               | 160312           | 2       |
| Gepepharma GmbH             | Lauromacrogol 400               | 130109           | 1       |
| gepepharma/Alliance         | Lauromacrogol 400               | 160312           | 1       |
| Gepepharma/Gehe             | Lauromacrogol 400               | 160312           | 2       |
| Gepepharma/Krieger          | Lauromacrogol 400               | 19064501         | 1       |
| gepepharma/Phönix           | Lauromacrogol 400               | 130109           | 1       |
| Gepepharma/Phönix           | Lauromacrogol 400               | 16-2090          | 1       |
| Gepepharma/Sanacorp         | Lauromacrogol 400               | 130109           | 1       |
| Gepepharma                  | Lauromacrogol 400               | 160312           | 3       |
| gepepharma                  | Lauromacrogol 400               | 19054203A        | 1       |
| gepepharmGmbH/ Max Jenne    | Lauromacrogol 400               | 19054203         | 2       |
| GepepharmGmbH/AEP           | Lauromacrogol 400               | 160312A          | 1       |
| GepepharmGmbH/AEP           | Lauromacrogol 400               | 19054203         | 1       |
| gepepharmGmbH               | Lauromacrogol 400               | 110408           | 1       |
| gepepharmGmbH               | Lauromacrogol 400               | 160312A          | 1       |
| gepeppharm / Phönix         | Lauromacrogol 400               | 19054203A        | 1       |
| gepeppharm GmbH             | Lauromacrogol 400               | 19054203         | 1       |
| gepeppharm                  | Lauromacrogol 400               | 19054203         | 1       |
| geppepharm GmbH AEP         | Lauromacrogol 400               | 19054203         | 1       |
| geppepharm GmbH AEP         | Lauromacrogol 400               | 19054203A        | 1       |
| geprpharm GmbH              | Lauromacrogol 400               | 140911           | 1       |
| geprpharmGmbH               | Lauromacrogol 400               | 160312A          | 1       |
| GP/Noweda                   | Lauromacrogol 400               | 182744           | 1       |
| GP/Noweda                   | Lauromacrogol 400               | 19054203A        | 4       |
| GP/Phoenix                  | Lauromacrogol 400               | 160312           | 1       |
| GUMO                        | Lauromacrogol 400               | 19054203         | 1       |
| GUMO                        | Lauromacrogol 400               | 191310003        | 1       |
| GUMO                        | Lauromacrogol 400               | 21000678005      | 1       |
| Gutenberg-Apotheke          | Macrogolglycerol hydroxystea... | 13072008         | 1       |
| Hageda                      | Lauromacrogol 400               | 19064501         | 1       |
| Hänseler                    | Lauromacrogol 400               |                  | 1       |
| Hedinger Phönix             | Lauromacrogol 400               | 160312A          | 1       |
| Hedinger/ Sanacorp          | Lauromacrogol 400               | 140911           | 1       |
| Hedinger/Gehe               | Lauromacrogol 400               | 13G02-N03        | 1       |
| Hedinger                    | Macrogolglycerol hydroxystea... | 13333702         | 1       |
| Hedinger                    | Macrogol 4 lauryl ether         | 15041704         | 1       |
| hedinger                    | Macrogol 4 lauryl ether         | 734206909-BIP    | 1       |
| Henry Lamotte/Sanacorp      | Lauromacrogol 400               | 14H04-B03-301517 | 1       |
| Heyl/Gehe                   | Lauromacrogol 400               | 18175508         | 1       |
| Ichthyol Gesellschaft       | Lauromacrogol 400               | 15G10-B05-315343 | 1       |
| Ichthyol/Gehe               | Macrogol 4 lauryl ether         | 316400031        | 1       |
| Ichthyol                    | Lauromacrogol 400               | 110408           | 4       |
| Ichthyol-Gesellschaft       | Lauromacrogol 400               | 160312           | 1       |
| Ichthyol-Gesellschaft/No... | Lauromacrogol 400               | 17250908         | 1       |
| InfectoPharm/Gehe           | Lauromacrogol 400               | 18175513         | 1       |
| INTR/Phönix                 | Macrogol 4 lauryl ether         | 16100205         | 1       |
| Jenne / Gepepharm           | Lauromacrogol 400               | 19054203         | 1       |
| Jenne                       | Macrogol 4 lauryl ether         | 13136202         | 1       |
| Jenne                       | Lauromacrogol 400               | 18B26-B06-346398 | 1       |
| Jenne                       | Lauromacrogol 400               | 19054203A        | 2       |
| Jenne                       | Lauromacrogol 400               | 19064501         | 1       |
| Kehr/Chemische Fabrik, ...  | Lauromacrogol 400               | 19054203         | 1       |
| Kehr/Fargon                 | Lauromacrogol 400               | 18B26-B06-347341 | 1       |
| Kehr/gepepharm              | Lauromacrogol 400               | 140911           | 1       |
| Kehr                        | Macrogol 4 lauryl ether         | 16100207         | 2       |
| Kehr                        | Macrogolglycerol hydroxystea... | 16349304         | 1       |
| Kehr                        | Macrogol 4 lauryl ether         | 17028303         | 1       |
| Kehr                        | Lauromacrogol 400               | 17046502         | 2       |

continued on the next page



*continued from previous page*

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Kehr                       | Lauromacrogol 400               | 17250904         | 2       |
| Kehr                       | Lauromacrogol 400               | 17250909         | 1       |
| Kögl                       | Lauromacrogol 400               | 1700029          | 5       |
| Kögl                       | Lauromacrogol 400               | 17700029         | 1       |
| Kögl                       | Lauromacrogol 400               | 177906162916     | 1       |
| Kögl                       | Lauromacrogol 400               | 177906163716     | 2       |
| Kögl                       | Lauromacrogol 400               | 1800519          | 5       |
| Kögl                       | Lauromacrogol 400               | 1802732          | 6       |
| kögl                       | Lauromacrogol 400               | 1908852          | 1       |
| Kögl                       | Lauromacrogol 400               | 381311161917     | 5       |
| Kögl                       | Lauromacrogol 400               | 38131161917      | 1       |
| Krieger/ Gepepharm         | Lauromacrogol 400               | 140911           | 2       |
| Krieger/ Gepepharm         | Lauromacrogol 400               | 160312A          | 2       |
| L12                        | Lauromacrogol 400               | 17A23-B01-330983 | 1       |
| L12                        | Lauromacrogol 400               | 17A23-B01-332868 | 1       |
| L12                        | Lauromacrogol 400               | 17A23-B01-332869 | 1       |
| L12                        | Lauromacrogol 400               | 17H21-B07-341795 | 1       |
| L12                        | Macrogol 4 lauryl ether         | 18B26-B06-347341 | 1       |
| L30                        | Macrogol 4 lauryl ether         | 18B26-B06        | 1       |
| L30                        | Macrogol 4 lauryl ether         | 18B26-B06-346396 | 1       |
| L30                        | Lauromacrogol 400               | 18D30-B09        | 1       |
| Lamotte                    | Lauromacrogol 400               | 15192209         | 1       |
| Löwen City-Apotheke Bar... | Lauromacrogol 400               | 2042015          | 1       |
| Nowed                      | Lauromacrogol 400               | 19054203         | 1       |
| Noweda 10.07.2015          | Macrogol 4 lauryl ether         | 1014400032       | 1       |
| Noweda Fagro 20.04.18 E... | Lauromacrogol 400               | 18A18-B98-344798 | 1       |
| Noweda/ Caesar&Lorenz G... | Lauromacrogol 400               | 19131009         | 1       |
| Noweda/ Caesar&Lorenz G... | Lauromacrogol 400               | 19131004         | 1       |
| Noweda/ Gepepharm          | Lauromacrogol 400               | 19054203         | 1       |
| noweda/anzag               | Lauromacrogol 400               | 19054203         | 1       |
| Noweda/Gegepharm           | Lauromacrogol 400               | 19064501         | 2       |
| Noweda/gegepharm           | Lauromacrogol 400               | 19064501A        | 1       |
| Noweda/Gepepharm GmbH      | Lauromacrogol 400               | 160312           | 1       |
| Noweda/Gepepharm GmbH      | Lauromacrogol 400               | 160312A          | 1       |
| Noweda/gepepharm           | Lauromacrogol 400               | 130109           | 1       |
| Noweda/gepepharm           | Lauromacrogol 400               | 140911           | 1       |
| Noweda/Gepepharm           | Lauromacrogol 400               | 160312           | 1       |
| Noweda/Gepepharm           | Lauromacrogol 400               | 182743           | 1       |
| noweda/Gepepharm           | Lauromacrogol 400               | 19054203         | 1       |
| Noweda/gepepharm           | Lauromacrogol 400               | 19054203         | 1       |
| Noweda/Schärer 30,04,21... | Lauromacrogol 400               | 20001966001      | 1       |
| Noweda/Spinnrad            | Macrogol 4 lauryl ether         | 218400031        | 1       |
| Noweda                     | Macrogol 4 lauryl ether         | 1111400032       | 1       |
| Noweda                     | Macrogolglycerol hydroxystea... | 11C18-N08        | 1       |
| Noweda                     | Macrogol 4 lauryl ether         | 121400031        | 2       |
| Noweda                     | Macrogol 4 lauryl ether         | 123400033        | 1       |
| Noweda                     | Lauromacrogol 400               | 13B13-N01        | 1       |
| Noweda                     | Macrogolglycerol hydroxystea... | 13d23-N03        | 1       |
| Noweda                     | Lauromacrogol 400               | 15A26-B02-303625 | 1       |
| Noweda                     | Lauromacrogol 400               | 160312           | 5       |
| Noweda                     | Lauromacrogol 400               | 160312A          | 1       |
| Noweda                     | Macrogolglycerol hydroxystea... | 16247402         | 1       |
| Noweda                     | Macrogolglycerol hydroxystea... | 16247407         | 1       |
| Noweda                     | Macrogolglycerol hydroxystea... | 16349310         | 1       |
| Noweda                     | Lauromacrogol 400               | 16E18-B04-326089 | 1       |
| Noweda                     | Lauromacrogol 400               | 16E18-B04-328699 | 1       |
| Noweda                     | Lauromacrogol 400               | 17-0845          | 1       |
| Noweda                     | Lauromacrogol 400               | 1710026-01       | 2       |
| Noweda                     | Lauromacrogol 400               | 17250908         | 1       |
| Noweda                     | Macrogolglycerol hydroxystea... | 17257003         | 2       |

*continued on the next page*

continued from previous page

| Supplier            | Substance                       | Batch            | Spectra |
|---------------------|---------------------------------|------------------|---------|
| Noweda              | Macrogolglycerol hydroxystea... | 17257004         | 1       |
| Noweda              | Lauromacrogol 400               | 17A23-B01_332867 | 1       |
| Noweda              | Macrogolglycerol hydroxystea... | 17D03-B04        | 1       |
| noweda              | Macrogol 4 lauryl ether         | 17H21-B07-339505 | 1       |
| Noweda              | Lauromacrogol 400               | 17H21-B07-341795 | 1       |
| Noweda              | Lauromacrogol 400               | 18175513         | 1       |
| Noweda              | Macrogolglycerol hydroxystea... | 18204501         | 3       |
| Noweda              | Macrogolglycerol hydroxystea... | 18204507         | 1       |
| Noweda              | Macrogolglycerol hydroxystea... | 18278403         | 2       |
| Noweda              | Macrogolglycerol hydroxystea... | 18278404         | 1       |
| Noweda              | Macrogol 4 lauryl ether         | 18B26-B06-347341 | 1       |
| Noweda              | Macrogol 4 lauryl ether         | 18D30-B09-350640 | 1       |
| Noweda              | Lauromacrogol 400               | 18J08-B03-355980 | 1       |
| Noweda              | Macrogolglycerol hydroxystea... | 19040303         | 2       |
| Noweda              | Lauromacrogol 400               | 19054203         | 6       |
| Noweda              | Lauromacrogol 400               | 1907010-01       | 1       |
| Noweda              | Lauromacrogol 400               | 19131003         | 1       |
| Noweda              | Lauromacrogol 400               | 1915345          | 1       |
| Noweda              | Lauromacrogol 400               | 192957005        | 1       |
| Noweda              | Macrogolglycerol hydroxystea... | 19D30-B03-362727 | 1       |
| Noweda              | Macrogol 4 lauryl ether         | 19G09-B02-072831 | 2       |
| Noweda              | Lauromacrogol 400               | 20001966001      | 5       |
| Noweda              | Macrogolglycerol hydroxystea... | 20002214003      | 1       |
| Noweda              | Macrogolglycerol hydroxystea... | 20002214004      | 1       |
| Noweda              | Lauromacrogol 400               | 20002697002      | 1       |
| Noweda              | Macrogolglycerol hydroxystea... | 21A29-F02-376809 | 1       |
| Noweda              | Macrogol 4 lauryl ether         | 316400031        | 1       |
| Noweda              | Macrogol 4 lauryl ether         | 413400031        | 2       |
| Noweda              | Macrogol 4 lauryl ether         | 512400031        | 1       |
| Noweda              | Macrogol 4 lauryl ether         | 818400032        | 2       |
| Pharmachem/ Phönix  | Lauromacrogol 400               | 16E18-B04-322722 | 1       |
| Phoenix (gepepharm) | Lauromacrogol 400               | 110408           | 1       |
| Phoenix/ gepepharm  | Lauromacrogol 400               | 20001966001      | 1       |
| Phoenix/gepepharm   | Lauromacrogol 400               | 110408           | 1       |
| Phoenix/gepepharm   | Lauromacrogol 400               | 140911           | 3       |
| Phoenix/Gepepharm   | Lauromacrogol 400               | 160312           | 1       |
| Phoenix/gepepharm   | Lauromacrogol 400               | 19054203         | 2       |
| Phoenix/Gepepharm   | Lauromacrogol 400               | 19064501         | 2       |
| phoenix/noveda      | Lauromacrogol 400               | 140911           | 3       |
| Phoenix             | Lauromacrogol 400               | 110408           | 1       |
| Phoenix             | Lauromacrogol 400               | 13-0108          | 1       |
| Phoenix             | Lauromacrogol 400               | 130109           | 2       |
| Phoenix             | Lauromacrogol 400               | 140911           | 2       |
| Phoenix             | Lauromacrogol 400               | 160312A          | 10      |
| Phoenix             | Lauromacrogol 400               | 16102908         | 1       |
| Phoenix             | Lauromacrogol 400               | 16102914         | 1       |
| Phoenix             | Lauromacrogol 400               | 17046401         | 1       |
| Phoenix             | Lauromacrogol 400               | 17046502         | 1       |
| Phoenix             | Macrogolglycerol hydroxystea... | 17257003         | 1       |
| Phoenix             | Lauromacrogol 400               | 1808025-01       | 1       |
| Phoenix             | Macrogol 4 lauryl ether         | 18215501         | 1       |
| Phoenix             | Macrogolglycerol hydroxystea... | 18278410         | 2       |
| Phoenix             | Lauromacrogol 400               | 1901029-01       | 1       |
| Phoenix             | Lauromacrogol 400               | 19054203         | 2       |
| Phoenix             | Lauromacrogol 400               | 19064501         | 1       |
| Phoenix             | Lauromacrogol 400               | 19064501A        | 1       |
| Phoenix             | Lauromacrogol 400               | 191471912        | 1       |
| Phoenix             | Macrogol 4 lauryl ether         | 19609-B02-07832  | 1       |
| Phoenix             | Lauromacrogol 400               | 20001966001      | 2       |
| Phoenix             | Lauromacrogol 400               | 200081501        | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b>         | <b>Substance</b>                | <b>Batch</b>       | <b>Spectra</b> |
|-------------------------|---------------------------------|--------------------|----------------|
| Phoenix                 | Macrogolglycerol hydroxystea... | 200572306          | 1              |
| Phoenix                 | Macrogolglycerol hydroxystea... | 20b03-f13-368511   | 1              |
| Phoenix                 | Macrogol 4 lauryl ether         | 218400031          | 2              |
| Phoenix                 | Lauromacrogol 400               | 3031               | 1              |
| Phoenix                 | Macrogolglycerol hydroxystea... | 3069               | 1              |
| Phoenix                 | Lauromacrogol 400               | 3205               | 1              |
| Phoenix                 | Macrogolglycerol hydroxystea... | 3400               | 1              |
| Phönix /fargon          | Lauromacrogol 400               | 18D30-B09-350640   | 1              |
| Phönix 31.01.2014       | Macrogolglycerol hydroxystea... | 13D23N03           | 1              |
| Phönix Gotha            | Lauromacrogol 400               | 12092516           | 1              |
| Phönix Gotha            | Lauromacrogol 400               | 130109             | 3              |
| Phönix Gotha            | Lauromacrogol 400               | 13-0599            | 1              |
| Phönix Gotha            | Lauromacrogol 400               | 13B13-N01          | 1              |
| Phönix Gotha            | Lauromacrogol 400               | 13G02-N030461/1210 | 1              |
| Phönix Gotha            | Lauromacrogol 400               | 140911             | 1              |
| Phönix Gotha            | Macrogolglycerol hydroxystea... | 282268E0           | 1              |
| Phönix/ GepePharm       | Lauromacrogol 400               | 19054203           | 1              |
| Phönix/gepepharm GmbH   | Lauromacrogol 400               | 160312A            | 4              |
| Phönix/gepepharm        | Lauromacrogol 400               | 130109             | 1              |
| Phönix/Gepepharm        | Lauromacrogol 400               | 160312A            | 1              |
| Phönix/Gepepharm        | Lauromacrogol 400               | 19064501           | 1              |
| Phönix/Spinnrad         | Macrogol 4 lauryl ether         | 218400031          | 1              |
| Phönix                  | Macrogolglycerol hydroxystea... | 11161504           | 1              |
| Phönix                  | Lauromacrogol 400               | 12E03-N04          | 1              |
| Phönix                  | Lauromacrogol 400               | 13-0108130109      | 1              |
| Phönix                  | Lauromacrogol 400               | 130109             | 1              |
| Phönix                  | Lauromacrogol 400               | 13B13-N01          | 1              |
| Phönix                  | Lauromacrogol 400               | 13K18-B30-28816    | 1              |
| Phönix                  | Lauromacrogol 400               | 140911             | 1              |
| phönix                  | Macrogolglycerol hydroxystea... | 14196805           | 1              |
| Phönix                  | Macrogolglycerol hydroxystea... | 14283813           | 1              |
| phönix                  | Macrogolglycerol hydroxystea... | 15378302           | 1              |
| phönix                  | Lauromacrogol 400               | 15g10b05314366     | 1              |
| Phönix                  | Lauromacrogol 400               | 160312             | 1              |
| Phönix                  | Lauromacrogol 400               | 160312A            | 4              |
| Phönix                  | Lauromacrogol 400               | 170026-01          | 1              |
| PHÖNIX                  | Lauromacrogol 400               | 17046411           | 2              |
| phönix                  | Lauromacrogol 400               | 17a23-b01-330983   | 1              |
| Phönix                  | Macrogol 4 lauryl ether         | 17H21-B07-339506   | 1              |
| Phönix                  | Lauromacrogol 400               | 1801043-01         | 2              |
| Phönix                  | Macrogol 4 lauryl ether         | 18040101           | 1              |
| Phönix                  | Macrogolglycerol hydroxystea... | 18204507           | 1              |
| Phönix                  | Lauromacrogol 400               | 18A18-B98-344797   | 1              |
| Phönix                  | Lauromacrogol 400               | 18A18-B98-344798   | 2              |
| Phönix                  | Macrogolglycerol hydroxystea... | 18G13-B05-355855   | 1              |
| Phönix                  | Lauromacrogol 400               | 18j08-b03-355980   | 1              |
| phönix                  | Lauromacrogol 400               | 19054203           | 1              |
| Phönix                  | Lauromacrogol 400               | 19054203           | 1              |
| Phönix                  | Lauromacrogol 400               | 19054203A          | 1              |
| PHÖNIX                  | Lauromacrogol 400               | 19054203A          | 1              |
| Phönix                  | Lauromacrogol 400               | 20001966001        | 2              |
| Phönix                  | Lauromacrogol 400               | 20D20-T12-076662   | 1              |
| Phönix                  | Macrogolglycerol hydroxystea... | 21000060003        | 1              |
| PHÖNIX                  | Macrogol 4 lauryl ether         | 21000436           | 1              |
| Phönix                  | Macrogolglycerol hydroxystea... | 21002749003        | 1              |
| Phönix                  | Macrogolglycerol hydroxystea... | 54764324U0         | 1              |
| PKH Halle/AHD           | Lauromacrogol 400               | 160312A            | 1              |
| Raben-Apotheke Mildenau | Macrogol 4 lauryl ether         | 314400031          | 1              |
| Reichelt/Phönix         | Lauromacrogol 400               | 17A23-Bo1-330983   | 1              |

*continued on the next page*

continued from previous page

| Supplier                    | Substance                       | Batch            | Spectra |
|-----------------------------|---------------------------------|------------------|---------|
| Sanacoro W.E:01.03.18 ...   | Lauromacrogol 400               | 17A23-b01-330983 | 1       |
| Sanacorp /Fargron           | Lauromacrogol 400               | 17A23-B01-330983 | 1       |
| Sanacorp, 21.03.17, 9,45EUR | Macrogol 4 lauryl ether         | 16100205         | 1       |
| Sanacorp/ gepepahrm GmbH    | Lauromacrogol 400               | 160312A          | 5       |
| SANACORP/ HEDINGER          | Lauromacrogol 400               | 18175504         | 1       |
| Sanacorp/ Spinnrad          | Macrogol 4 lauryl ether         | 218400031        | 2       |
| Sanacorp/ Spinnrad          | Macrogol 4 lauryl ether         | 818400032        | 1       |
| Sanacorp/Fischar            | Macrogolglycerol hydroxystea... | 16045403         | 1       |
| Sanacorp/gepepharm          | Lauromacrogol 400               | 19054203         | 6       |
| Sanacorp/Spinnrad           | Macrogol 4 lauryl ether         | 818400032        | 2       |
| Sanacorp                    | Lauromacrogol 400               |                  | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 1013400032       | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 1014400032       | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 1019400031       | 2       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 12180204         | 1       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 12L06-N02        | 2       |
| Sanacorp                    | Lauromacrogol 400               | 130108           | 1       |
| Sanacorp                    | Lauromacrogol 400               | 130109           | 3       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 13072004         | 1       |
| Sanacorp                    | Lauromacrogol 400               | 13095802         | 1       |
| Sanacorp                    | Lauromacrogol 400               | 13340710         | 1       |
| sanacorp                    | Macrogol 4 lauryl ether         | 14054405         | 1       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 14196805         | 1       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 1423805          | 1       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 14B14B06         | 1       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 15378309         | 1       |
| Sanacorp                    | Lauromacrogol 400               | 160290           | 1       |
| Sanacorp                    | Lauromacrogol 400               | 160312           | 1       |
| Sanacorp                    | Lauromacrogol 400               | 160312A          | 6       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 16247405         | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 17028301         | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 17028303         | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 1710026-01       | 1       |
| Sanacorp                    | Lauromacrogol 400               | 17250913         | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 17H21B07339504   | 1       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 18278406         | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 18J08-B03        | 3       |
| Sanacorp                    | Lauromacrogol 400               | 19054203         | 1       |
| Sanacorp                    | Lauromacrogol 400               | 19131006         | 2       |
| Sanacorp                    | Lauromacrogol 400               | 192957005        | 1       |
| Sanacorp                    | Lauromacrogol 400               | 19G09-B02        | 2       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 2/AKD16          | 1       |
| Sanacorp                    | Macrogolglycerol hydroxystea... | 21000060003      | 1       |
| Sanacorp                    | Macrogol 4 lauryl ether         | 417400001        | 1       |
| Schäfer & Schläpfer AG/...  | Lauromacrogol 400               | 19064501A        | 1       |
| Schärer & Schläpfer         | Lauromacrogol 400               | 19064501         | 1       |
| Schärer & Schläpfer AG/...  | Lauromacrogol 400               | 20001966001      | 2       |
| Schärer & Schläpfer AG/...  | Lauromacrogol 400               | 20001966001      | 2       |
| Schärer & Schläpfer AG/...  | Lauromacrogol 400               | 15A26-02         | 1       |
| Schärer & Schläpfer AG/...  | Lauromacrogol 400               | 15A26-B02        | 1       |
| Schärer & Schläpfer AG/...  | Lauromacrogol 400               | 16E18-B04        | 1       |
| Schärer & Schläpfer AG      | Lauromacrogol 400               | 16E18-B04-324095 | 1       |
| Schärer & Schläpfer AG      | Lauromacrogol 400               | 19054203A        | 1       |
| Schärer & Schläpfer AG      | Lauromacrogol 400               | 19064501         | 1       |
| Schärer & Schläpfer AG      | Lauromacrogol 400               | 19064501A        | 2       |
| Schärer & Schläpfer AG      | Lauromacrogol 400               | 20001966001      | 2       |
| Schärer & Schläpfer/Pho...  | Lauromacrogol 400               | 19-1060          | 1       |
| Schärer & Schläpfer         | Lauromacrogol 400               | 19054203         | 2       |
| Schärer & Schläpfer         | Lauromacrogol 400               | 19064501A        | 2       |
| Scharer &Schlapfer AG-DE    | Lauromacrogol 400               | 20020-T12-076663 | 1       |

continued on the next page

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| Supplier                   | Substance                      | Batch            | Spectra |
|----------------------------|--------------------------------|------------------|---------|
| Schärer& Schläpfer/AHD     | Lauromacrogol 400              | 19054203A        | 1       |
| Schärer& Schläpfer         | Lauromacrogol 400              | 19064501A        | 1       |
| Schärer&Schläpfer AG/ G... | Lauromacrogol 400              | 19054203         | 1       |
| Schärer&Schläpfer AG/ P... | Lauromacrogol 400              | 19054203A        | 2       |
| Schärer&Schläpfer AG/ P... | Lauromacrogol 400              | 19064501         | 1       |
| Schärer&Schläpfer AG/Ge... | Lauromacrogol 400              | 19064501         | 1       |
| Schärer&Schläpfer AG/Ph... | Lauromacrogol 400              | 13B13-N01        | 1       |
| Schärer&Schläpfer AG       | Lauromacrogol 400              | 19054203         | 1       |
| Schärer&Schläpfer AG       | Lauromacrogol 400              | 20001966001      | 3       |
| Schärer&Schläpfer/Anzag    | Lauromacrogol 400              | 19054203         | 1       |
| Schärer&Schläpfer/Phönix   | Lauromacrogol 400              |                  | 1       |
| Schärer&Schläpfer/Sanac... | Lauromacrogol 400              | 19064501         | 1       |
| Schärer&Schläpfer/Sanac... | Lauromacrogol 400              | 20001966001      | 1       |
| Schärer&Schlapfer          | Macrogol 4 lauryl ether        | 14E06-B05-295979 | 1       |
| Schärer&Schläpfer          | Lauromacrogol 400              | 19054203         | 1       |
| Schärer&Schläpfer          | Lauromacrogol 400              | 19064501         | 1       |
| Schärer&Schläpfer          | Lauromacrogol 400              | 19064501A        | 1       |
| Schärer&SchläpferAG/ AHD   | Lauromacrogol 400              | 19054203         | 1       |
| Schärer&Schläpfer Ag/Gehe  | Lauromacrogol 400              | 20001966001      | 1       |
| Schärer/Fiebig 25.06.2021  | Lauromacrogol 400              | 20001966001      | 1       |
| Schärer/Phönix             | Lauromacrogol 400              | 19054203         | 1       |
| Schärer/Schläpfer /Phö...  | Lauromacrogol 400              | 19054203         | 1       |
| siehe Protokoll            | Macrogolglycerol hydroxyste... | 15378302         | 1       |
| Sinnrad GmbH,Bad Seegeb... | Macrogol 4 lauryl ether        | 316400031        | 1       |
| Soinnrad                   | Macrogol 4 lauryl ether        | 11012014B        | 1       |
| Spangro/gepepharm GmbH     | Lauromacrogol 400              | 160312           | 1       |
| Spangropharm               | Lauromacrogol 400              | 110408           | 1       |
| Spangropharm               | Lauromacrogol 400              | 160312           | 1       |
| Spangropharm               | Lauromacrogol 400              | 19054203         | 1       |
| Spinnnrad                  | Macrogol 4 lauryl ether        | 316400031        | 1       |
| Spinnra/ Noweda            | Macrogol 4 lauryl ether        | 417400031        | 1       |
| Spinnrad / Alliance HC     | Macrogol 4 lauryl ether        | 314400031        | 1       |
| Spinnrad / Anzag           | Macrogol 4 lauryl ether        | 218400031        | 1       |
| Spinnrad / Jenne           | Macrogol 4 lauryl ether        | 12140031         | 1       |
| Spinnrad / Noweda          | Macrogol 4 lauryl ether        | 1014400032       | 1       |
| Spinnrad / Noweda          | Macrogol 4 lauryl ether        | 417400031        | 1       |
| Spinnrad / Noweda          | Macrogol 4 lauryl ether        | 512400031        | 1       |
| Spinnrad / Phönix 17.01... | Macrogol 4 lauryl ether        | 818400032        | 1       |
| Spinnrad / Phönix          | Macrogol 4 lauryl ether        | 2240003          | 1       |
| Spinnrad / Sanacorp 13...  | Macrogol 4 lauryl ether        | 218400031        | 1       |
| Spinnrad- Gehe             | Macrogol 4 lauryl ether        | 218400031        | 1       |
| Spinnrad GmbH / Allianc... | Macrogol 4 lauryl ether        | 218400031        | 1       |
| Spinnrad GmbH / Noweda     | Macrogol 4 lauryl ether        | 218400031        | 1       |
| Spinnrad GmbH / Noweda     | Macrogol 4 lauryl ether        | 818400032        | 1       |
| Spinnrad GmbH / Phönix     | Macrogol 4 lauryl ether        | 413400031        | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 1013400032       | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 1014400032       | 2       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 1111400032       | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 12124000321      | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 218400031        | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 2240003          | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 314400031        | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 316400031        | 1       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 417400031        | 2       |
| Spinnrad GmbH              | Macrogol 4 lauryl ether        | 715400031        | 2       |
| Spinnrad/ Gehe             | Macrogol 4 lauryl ether        | 821400032        | 1       |
| Spinnrad/ Noweda           | Macrogol 4 lauryl ether        | 1019400031       | 1       |
| Spinnrad/ Noweda           | Macrogol 4 lauryl ether        | 715400031        | 1       |
| Spinnrad/ Phönix           | Macrogol 4 lauryl ether        | 417400031        | 1       |
| Spinnrad/ Phönix           | Macrogol 4 lauryl ether        | 41740031         | 1       |

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continued from previous page

| Supplier                 | Substance               | Batch               | Spectra |
|--------------------------|-------------------------|---------------------|---------|
| Spinnrad/ Sanacorp       | Macrogol 4 lauryl ether | 101900031           | 1       |
| Spinnrad/AHD             | Macrogol 4 lauryl ether | 818400032           | 1       |
| Spinnrad/AHD             | Macrogol 4 lauryl ether | 821400032           | 1       |
| Spinnrad/Anzag           | Macrogol 4 lauryl ether | 12124000321         | 2       |
| Spinnrad/G               | Macrogol 4 lauryl ether | 417400031           | 1       |
| Spinnrad/Gehe/08.12.20   | Macrogol 4 lauryl ether | 1019400031          | 1       |
| Spinnrad/Gehe/10.08.2020 | Macrogol 4 lauryl ether | 1019400031          | 1       |
| Spinnrad/Gehe            | Macrogol 4 lauryl ether | 1014400032          | 1       |
| Spinnrad/Gehe            | Macrogol 4 lauryl ether | 218400031           | 2       |
| Spinnrad/Gehe            | Macrogol 4 lauryl ether | 417400031           | 1       |
| Spinnrad/Gehe            | Macrogol 4 lauryl ether | 715400031           | 1       |
| Spinnrad/GEHE            | Macrogol 4 lauryl ether | 8188400032          | 1       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether |                     | 1       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 1014400032          | 1       |
| spinnrad/Noweda          | Macrogol 4 lauryl ether | 1019400031          | 1       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 1019400031          | 2       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 314400031           | 1       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 316400031           | 2       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 413400031           | 1       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 512400031           | 1       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 715400031           | 1       |
| Spinnrad/Noweda          | Macrogol 4 lauryl ether | 818400032           | 1       |
| Spinnrad/Phoenix         | Macrogol 4 lauryl ether | 1014400032          | 1       |
| Spinnrad/Phoenix         | Macrogol 4 lauryl ether | 1019400031          | 2       |
| Spinnrad/Phoenix         | Macrogol 4 lauryl ether | 218400031           | 1       |
| Spinnrad/Phoenix         | Macrogol 4 lauryl ether | 316400031           | 2       |
| Spinnrad/Phoenix         | Macrogol 4 lauryl ether | 818400032           | 1       |
| Spinnrad/Phönix          | Macrogol 4 lauryl ether | 1019400031          | 2       |
| Spinnrad/Phönix          | Macrogol 4 lauryl ether | 218400031           | 2       |
| Spinnrad/Phönix          | Macrogol 4 lauryl ether | 413400031           | 1       |
| Spinnrad/Phönix          | Macrogol 4 lauryl ether | 417400031           | 2       |
| Spinnrad/Phönix          | Macrogol 4 lauryl ether | 818100032           | 1       |
| Spinnrad/Phönix          | Macrogol 4 lauryl ether | 818400032           | 2       |
| Spinnrad/Sanacorp        | Macrogol 4 lauryl ether | 1014400032          | 1       |
| Spinnrad/Sanacorp        | Macrogol 4 lauryl ether | 1019400031          | 1       |
| Spinnrad/Sanacorp        | Macrogol 4 lauryl ether | 218400031           | 2       |
| Spinnrad/Sanacorp        | Macrogol 4 lauryl ether | 314400031           | 2       |
| Spinnrad/Sanacorp        | Macrogol 4 lauryl ether | 715400031           | 2       |
| Spinnrad/Spangro         | Macrogol 4 lauryl ether | 818400032           | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 1014400032          | 3       |
| Spinnrad                 | Macrogol 4 lauryl ether | 101440032           | 1       |
| spinnrad                 | Macrogol 4 lauryl ether | 1019400031          | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 1019400031          | 5       |
| Spinnrad                 | Macrogol 4 lauryl ether | 1111400032          | 2       |
| Spinnrad                 | Macrogol 4 lauryl ether | 111140032           | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 11B11-N151110400032 | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 12124000321         | 5       |
| spinnrad                 | Macrogol 4 lauryl ether | 1213400033          | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 1213400033          | 2       |
| Spinnrad                 | Macrogol 4 lauryl ether | 121400031           | 2       |
| spinnrad                 | Macrogol 4 lauryl ether | 1214000321          | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 13400032            | 1       |
| spinnrad                 | Macrogol 4 lauryl ether | 16400031            | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 21800031            | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 218400031           | 9       |
| spinnrad                 | Macrogol 4 lauryl ether | 314400031           | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 314400031           | 1       |
| Spinnrad                 | Macrogol 4 lauryl ether | 316400031           | 6       |
| Spinnrad                 | Macrogol 4 lauryl ether | 413400031           | 4       |
| Spinnrad                 | Macrogol 4 lauryl ether | 417400031           | 11      |

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| Supplier                   | Substance                           | Batch            | Spectra |
|----------------------------|-------------------------------------|------------------|---------|
| Spinnrad                   | Macrogol 4 lauryl ether             | 41740031         | 1       |
| spinnrad                   | Macrogol 4 lauryl ether             | 512400031        | 1       |
| Spinnrad                   | Macrogol 4 lauryl ether             | 512400031        | 2       |
| Spinnrad                   | Macrogol 4 lauryl ether             | 71540000311      | 1       |
| spinnrad                   | Macrogol 4 lauryl ether             | 715400031        | 2       |
| Spinnrad                   | Macrogol 4 lauryl ether             | 715400031        | 6       |
| Spinnrad                   | Macrogol 4 lauryl ether             | 725400031        | 1       |
| Spinnrad                   | Macrogol 4 lauryl ether             | 818400032        | 5       |
| Spinnrad                   | Macrogol 4 lauryl ether             | 81840032         | 1       |
| spinnrad-Noweda            | Macrogol 4 lauryl ether             | 218400031        | 1       |
| Stadtapotheke Glauchau     | Macrogolglycerol hydroxystearate 40 | 19040305         | 1       |
| Standgefäß Apotheke, Ve... | Lauromacrogol 400                   | 16E18-B04-328582 | 1       |
| Stumpf/gepapharm           | Lauromacrogol 400                   | 110408           | 1       |
| Taoasis                    | Lauromacrogol 400                   | 17250901         | 1       |
| VDL;7.75EUR; 30.09.2015    | Macrogol 4 lauryl ether             | 15041801         | 1       |
| Wissel                     | Lauromacrogol 400                   | 14-1414          | 1       |

- 280 789 spectra from 1294 *Apo-Ident* customers from a total of 50 781 batches from a further 341 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Macrogol 4 lauryl ether* / *Lauromacrogol 400* / *Macrogolglycerol hydroxystearate 40* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Macrogol 4 lauryl ether* / *Lauromacrogol 400* / *Macrogolglycerol hydroxystearate 40* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 838           | 0              | 66 321        |
| <b>Type B</b> | 0              | 730           | 0              | 106 518       |
| <b>Type C</b> | 0              | 7273          | 647            | 280 789       |

The substance/substance group *Macrogol 4 lauryl ether* / *Lauromacrogol 400* / *Macrogolglycerol hydroxystearate 40* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.2840 %) |
| <b>Type B</b> | 100.0000 % (> 99.9674 %) | 100.0000 % (> 99.1781 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 91.8308 % (> 91.7929 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.



## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Polysorbate 60                            | 7.46                      | 14.29                             |
| Macrogol 20 glycerol monostearate type... | 8.73                      | 22.23                             |
| Polysorbate 20                            | 13.95                     | 32.92                             |
| Macrogol-2-laurylether                    | 15.27                     | —                                 |
| Macrogol 8 stearate type I                | 16.80                     | 22.65                             |
| Polysorbate 80                            | 18.98                     | 28.24                             |
| Macrogol ointment                         | 21.36                     | —                                 |
| Cetiol® HE                                | 21.51                     | —                                 |
| Macrogolglycerol ricinoleate              | 26.67                     | 28.27                             |
| Macrogols 400                             | 44.16                     | —                                 |
| Hydrophilic ointment DAB                  | 56.88                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30594     | 32283                  | 2.84                            | 18.79                              |
| 30765     | 30765                  | 0.00                            | 22.15                              |
| 31025     | 32283                  | 2.01                            | 18.97                              |
| 31372     | 31372                  | 0.00                            | 24.57                              |
| 31381     | 31381                  | 0.00                            | 21.17                              |
| 31583     | 31381                  | 6.80                            | 21.36                              |
| 31625     | 31625                  | 0.00                            | 27.36                              |
| 31768     | 31768                  | 0.00                            | 20.83                              |
| 32283     | 32283                  | 0.00                            | 22.28                              |
| 32816     | 32816                  | 0.00                            | 12.80                              |
| 32824     | 32816                  | 8.10                            | 12.51                              |
| 33216     | 31381                  | 7.72                            | 19.67                              |
| 35020     | 35020                  | 0.00                            | 24.72                              |
| 35140     | 31625                  | 3.08                            | 24.37                              |
| 35141     | 31381                  | 10.68                           | 20.16                              |
| 35150     | 31768                  | 1.99                            | 17.99                              |
| 35464     | 35582                  | 3.28                            | 22.80                              |
| 35582     | 35582                  | 0.00                            | 18.60                              |
| 35737     | 31381                  | 11.80                           | 18.84                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Macrogol 8 stearate type I**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30554-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Macrogol 8 stearate type I; Polyäthylenglycol-8-stearat

### Special notes

When selecting the *Macrogol 8 stearate type I* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group  | Type A | Type B | Type C |
|----------------------------|--------|--------|--------|
| Macrogol 8 stearate type I | 7      | 3      | 51     |

## Second-stage model

For differentiation of the substance/substance group *Macrogol 8 stereate type I* the following second-stage model is used:

- [Submodel 10](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Macrogol 8 stereate type I*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate        |
|----------|---------------------|----------|-----------|---------|--------------------|
| Caelo    | Macrogol 8 stere... | 13077501 | 31165     | 40      | 1407187            |
| Caelo    | Macrogol 8 stere... | 13324506 | 31453     | 40      | AR-15-FG-001640-01 |
| Caelo    | Macrogol 8 stere... | 172186   | 33717     | 40      | 20170906*          |
| Caelo    | Macrogol 8 stere... | 173095   | 33900     | 40      | 20180111*          |
| Caelo    | Macrogol 8 stere... | 192346   | 34708     | 40      | 20191010*          |
| Caelo    | Macrogol 8 stere... | 20004032 | 35278     | 40      | 20210205*          |
| Caelo    | Macrogol 8 stere... | 22001154 | 36309     | 40      | 20220504*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 280 spectra of 7 reference samples from the substance/substance group *Macrogol 8 stereate type I*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 7 different batches.
- 66 879 spectra from a total of 1372 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 170 spectra of 4 reference samples from the substance/substance group *Macrogol 8 stereate type I*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                  | Batch    | Sample ID | Spectra |
|----------|----------------------------|----------|-----------|---------|
| Caelo    | Macrogol 8 stearate type I | 162302   | 32339     | 40      |
| Caelo    | Macrogol 8 stearate type I | 182402   | 34339     | 40      |
| Caelo    | Macrogol 8 stearate type I | 21002410 | 35838     | 50      |
| Caelo    | Macrogol 8 stearate type I | 162302   | 32701     | 40      |

- 107 193 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 192 spectra from 109 *Apo-Ident* customers from 52 batches from the substance/substance group *Macrogol 8 stearate type I*.
- Among them are spectra of independent samples from 51 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance                  | Batch              | Spectra |
|-----------|----------------------------|--------------------|---------|
| Anzag     | Macrogol 8 stearate type I | 16230202           | 1       |
| Bombastus | Macrogol 8 stearate type I | 16230202           | 1       |
| Caelo     | Macrogol 8 stearate type I | 12125404           | 1       |
| Caelo     | Macrogol 8 stearate type I | 12E24-N07          | 1       |
| Caelo     | Macrogol 8 stearate type I | 12H23-N02          | 1       |
| Caelo     | Macrogol 8 stearate type I | 13304501           | 1       |
| Caelo     | Macrogol 8 stearate type I | 13324501           | 2       |
| Caelo     | Macrogol 8 stearate type I | 13324504           | 4       |
| Caelo     | Macrogol 8 stearate type I | 13324506           | 2       |
| Caelo     | Macrogol 8 stearate type I | 14074603           | 2       |
| Caelo     | Macrogol 8 stearate type I | 15249601           | 5       |
| Caelo     | Macrogol 8 stearate type I | 153773             | 1       |
| Caelo     | Macrogol 8 stearate type I | 15377301           | 12      |
| Caelo     | Macrogol 8 stearate type I | 15377305           | 4       |
| Caelo     | Macrogol 8 stearate type I | 16063202           | 7       |
| Caelo     | Macrogol 8 stearate type I | 16063205           | 3       |
| Caelo     | Macrogol 8 stearate type I | 16230202           | 7       |
| Caelo     | Macrogol 8 stearate type I | 1721602            | 1       |
| Caelo     | Macrogol 8 stearate type I | 17218602           | 18      |
| Caelo     | Macrogol 8 stearate type I | 17309502           | 4       |
| Caelo     | Macrogol 8 stearate type I | 17309504           | 22      |
| Caelo     | Macrogol 8 stearate type I | 17309504P-180827-6 | 1       |
| Caelo     | Macrogol 8 stearate type I | 17309504P-181228-2 | 1       |
| Caelo     | Macrogol 8 stearate type I | 17309504P-190308-3 | 1       |
| Caelo     | Macrogol 8 stearate type I | 17309504P-190502-2 | 1       |
| Caelo     | Macrogol 8 stearate type I | 17309505           | 1       |
| Caelo     | Macrogol 8 stearate type I | 18240202           | 10      |
| Caelo     | Macrogol 8 stearate type I | 18240202P-190624-7 | 1       |
| Caelo     | Macrogol 8 stearate type I | 18240202P-190718-3 | 1       |

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| Supplier                   | Substance                  | Batch              | Spectra |
|----------------------------|----------------------------|--------------------|---------|
| Caelo                      | Macrogol 8 stearate type I | 18240206           | 3       |
| Caelo                      | Macrogol 8 stearate type I | 18240206P-190926-5 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 19234602           | 7       |
| Caelo                      | Macrogol 8 stearate type I | 19234602P-191115-4 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 19234602P-191227-3 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 19234602P-191230-2 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 19234603           | 13      |
| Caelo                      | Macrogol 8 stearate type I | 19234603P-200217-7 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 19234603P-200326-7 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 19234603P-200709-6 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 19234603P-200727-4 | 1       |
| Caelo                      | Macrogol 8 stearate type I | 192908002          | 6       |
| Caelo                      | Macrogol 8 stearate type I | 20004032002        | 4       |
| Caelo                      | Macrogol 8 stearate type I | 20004032005        | 2       |
| Caelo                      | Macrogol 8 stearate type I | 2004032002         | 1       |
| Caelo                      | Macrogol 8 stearate type I | T30911             | 1       |
| Caerol                     | Macrogol 8 stearate type I | 15249601           | 1       |
| Caesar & Loretz GmbH/An... | Macrogol 8 stearate type I | 19234602           | 1       |
| Caesar & Loretz GmbH/Sa... | Macrogol 8 stearate type I | 19234602           | 1       |
| Caesar & Loretz GmbH       | Macrogol 8 stearate type I | 17309504           | 2       |
| Caesar & Loretz GmbH       | Macrogol 8 stearate type I | 19234603           | 2       |
| Caesar & Loretz GmbH       | Macrogol 8 stearate type I | 192908002          | 2       |
| Caesar & Loretz Hilden/... | Macrogol 8 stearate type I | 19234602           | 1       |
| Fagron                     | Macrogol 8 stearate type I | 1115M-03130        | 1       |
| Fagron                     | Macrogol 8 stearate type I | 11K04-N06          | 1       |
| Fagron                     | Macrogol 8 stearate type I | 12E24-N07          | 1       |
| Fagron                     | Macrogol 8 stearate type I | 13H08-N04          | 1       |
| Fagron                     | Macrogol 8 stearate type I | 14A17-B08-290544   | 1       |
| Fagron                     | Macrogol 8 stearate type I | 14H04-B01-298920   | 1       |
| Fagron                     | Macrogol 8 stearate type I | 1515Q-03130        | 1       |
| Fagron                     | Macrogol 8 stearate type I | 15D24-B99-307080   | 1       |
| Fagron                     | Macrogol 8 stearate type I | T30911             | 1       |
| Fagron                     | Macrogol 8 stearate type I | T32431             | 1       |
| Gehe                       | Macrogol 8 stearate type I | 15377301           | 1       |
| Gehe                       | Macrogol 8 stearate type I | 16063202           | 1       |
| Kehr                       | Macrogol 8 stearate type I | 17309504           | 1       |
| Noweda                     | Macrogol 8 stearate type I | 17309504           | 1       |
| Noweda                     | Macrogol 8 stearate type I | 18240202           | 1       |
| Phoenix                    | Macrogol 8 stearate type I | 17309504           | 1       |
| Phönix                     | Macrogol 8 stearate type I | 13324501           | 1       |
| sana                       | Macrogol 8 stearate type I | 13077505           | 1       |
| Sanacorp                   | Macrogol 8 stearate type I | 15D24-B99-307080   | 1       |
| Sanacorp                   | Macrogol 8 stearate type I | 17309504           | 1       |

- 288 517 spectra from 1294 *Apo-Ident* customers from a total of 51 836 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Macrogol 8 stearate type I* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Macrogol 8 stearate type I* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect.

The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 280           | 0              | 66 879        |
| <b>Type B</b> | 0              | 167           | 3              | 107 193       |
| <b>Type C</b> | 0              | 187           | 5              | 288 517       |

The substance/substance group *Macrogol 8 stearate type I* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.8571 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 98.2353 % (> 96.4706 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 97.3958 % (> 95.8333 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Macrogol 8 stearate type I* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Polysorbate 60                            | 9.39                   | 14.14                          |
| Macrogol 20 glycerol monostearate type... | 20.49                  | 22.29                          |
| Macrogolglycerol hydroxystearate 40       | 21.64                  | 37.01                          |
| Lauromacrogol 400                         | 22.62                  | 24.14                          |
| Macrogol ointment                         | 26.01                  | —                              |
| Macrogol 4 lauryl ether                   | 28.11                  | 34.57                          |
| Polysorbate 80                            | 28.15                  | 29.61                          |
| Polysorbate 20                            | 28.35                  | 56.80                          |
| Cetiol® HE                                | 28.47                  | —                              |
| Macrogolglycerol ricinoleate              | 28.76                  | 41.30                          |
| Pasta Cordes®                             | 38.40                  | —                              |
| Soft ointment                             | 41.80                  | —                              |
| Hydrophilic ointment DAB                  | 42.76                  | —                              |
| Macrogol-2-laurylether                    | 43.96                  | —                              |
| Macrogols 300                             | 46.30                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Macrogol 8 stearate type I* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.



### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31165     | 31165               | 0.00                         | 26.41                           |
| 31453     | 31453               | 0.00                         | 29.50                           |
| 33717     | 33717               | 0.00                         | 33.16                           |
| 33900     | 33900               | 0.00                         | 25.68                           |
| 34708     | 34708               | 0.00                         | 31.83                           |
| 35278     | 35278               | 0.00                         | 29.11                           |
| 36309     | 36309               | 0.00                         | 25.55                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Macrogol ointment**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30465-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Macrogol ointment; Macrogoli unguentum DAC

### Special notes

When selecting the *Macrogol ointment* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Macrogol ointment         | 9      | 11     | 94     |

## Second-stage model

For differentiation of the substance/substance group *Macrogol ointment* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Macrogol ointment*:

| Supplier | Substance         | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------------|----------|-----------|---------|-------------|
| Caelo    | Macrogol ointment | 13002502 | 31004     | 40      | 20130108    |
| Caelo    | Macrogol ointment | 13177801 | 31247     | 40      | 1405327     |
| Caelo    | Macrogol ointment | 14078601 | 31442     | 40      | 20140321    |
| Caelo    | Macrogol ointment | 13177801 | 31486     | 40      | 20130709    |
| Caelo    | Macrogol ointment | 153838   | 31989     | 60      | 20151117*   |
| Caelo    | Macrogol ointment | 162577   | 32493     | 40      | 20160928*   |
| Caelo    | Macrogol ointment | 162578   | 32494     | 40      | 20160928*   |
| Caelo    | Macrogol ointment | 172237   | 33751     | 40      | 20170828*   |
| Caelo    | Macrogol ointment | 190510   | 34531     | 40      | 20190325*   |
| Caelo    | Macrogol ointment | 190511   | 34532     | 40      | 20190325*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 420 spectra of 10 reference samples from the substance/substance group *Macrogol ointment*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 9 different batches.
- 66 739 spectra from a total of 1370 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- 450 spectra of 11 reference samples from the substance/substance group *Macrogol ointment*.
- Among them are spectra of independent samples from 11 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance         | Batch    | Sample ID | Spectra |
|----------|-------------------|----------|-----------|---------|
| Caelo    | Macrogol ointment | 182006   | 34257     | 40      |
| Caelo    | Macrogol ointment | 182587   | 34357     | 40      |
| Caelo    | Macrogol ointment | 20001522 | 34965     | 40      |
| Caelo    | Macrogol ointment | 20002367 | 35109     | 40      |
| Caelo    | Macrogol ointment | 21000675 | 35337     | 40      |
| Caelo    | Macrogol ointment | 21000676 | 35338     | 40      |
| Caelo    | Macrogol ointment | 21001140 | 35339     | 40      |
| Caelo    | Macrogol ointment | 21001538 | 35524     | 50      |
| Caelo    | Macrogol ointment | 21003002 | 35924     | 40      |
| Caelo    | Macrogol ointment | 21004043 | 35925     | 40      |
| Caelo    | Macrogol ointment | 22000371 | 36150     | 40      |

- 106 913 spectra from a total of 2490 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 571 spectra from 247 *Apo-Ident* customers from 98 batches from the substance/substance group *Macrogol ointment*.
- Among them are spectra of independent samples from 94 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
|                            | Macrogol ointment | 18200702    | 1       |
| Alliance Healthcare        | Macrogol ointment | 19278701    | 1       |
| Anzag/                     | Macrogol ointment | 12261402    | 2       |
| Anzag                      | Macrogol ointment | 12117202    | 1       |
| apomix                     | Macrogol ointment | 16314502    | 1       |
| Bahnhof-Apothek/Bahnhof... | Macrogol ointment | 3418A-07196 | 1       |
| Bombastus                  | Macrogol ointment | 13177801    | 1       |
| Bombastus                  | Macrogol ointment | 17319301    | 1       |
| Caelo                      | Macrogol ointment | 1012A-02834 | 1       |
| Caelo                      | Macrogol ointment | 10166302    | 1       |
| Caelo                      | Macrogol ointment | 11277702    | 1       |
| Caelo                      | Macrogol ointment | 11727601    | 1       |
| Caelo                      | Macrogol ointment | 12117202    | 2       |
| Caelo                      | Macrogol ointment | 12179102    | 2       |
| Caelo                      | Macrogol ointment | 12261403    | 2       |
| Caelo                      | Macrogol ointment | 12353501    | 7       |
| Caelo                      | Macrogol ointment | 12353502    | 4       |
| Caelo                      | Macrogol ointment | 13002502    | 8       |
| Caelo                      | Macrogol ointment | 13002505    | 1       |
| Caelo                      | Macrogol ointment | 13002601    | 1       |

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| <b>Supplier</b> | <b>Substance</b>  | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|-------------------|---------------|----------------|
| Caelo           | Macrogol ointment | 13002602      | 4              |
| Caelo           | Macrogol ointment | 13177701      | 1              |
| Caelo           | Macrogol ointment | 13177702      | 3              |
| Caelo           | Macrogol ointment | 13177801      | 6              |
| Caelo           | Macrogol ointment | 13275302      | 1              |
| Caelo           | Macrogol ointment | 13324901      | 1              |
| Caelo           | Macrogol ointment | 13324902      | 2              |
| Caelo           | Macrogol ointment | 14012201      | 6              |
| Caelo           | Macrogol ointment | 14078601      | 9              |
| Caelo           | Macrogol ointment | 14078701      | 1              |
| Caelo           | Macrogol ointment | 1418E-02834   | 1              |
| Caelo           | Macrogol ointment | 14219801      | 3              |
| Caelo           | Macrogol ointment | 14219802      | 4              |
| Caelo           | Macrogol ointment | 14336301      | 8              |
| Caelo           | Macrogol ointment | 14336302      | 5              |
| Caelo           | Macrogol ointment | 15170602      | 5              |
| Caelo           | Macrogol ointment | 15170701      | 6              |
| Caelo           | Macrogol ointment | 151707107     | 1              |
| Caelo           | Macrogol ointment | 15383802      | 4              |
| Caelo           | Macrogol ointment | 15383902      | 2              |
| Caelo           | Macrogol ointment | 16062001      | 2              |
| Caelo           | Macrogol ointment | 16062002      | 2              |
| Caelo           | Macrogol ointment | 16062003      | 8              |
| Caelo           | Macrogol ointment | 16092003      | 1              |
| Caelo           | Macrogol ointment | 16186301      | 18             |
| Caelo           | Macrogol ointment | 16186302      | 2              |
| Caelo           | Macrogol ointment | 16186401      | 2              |
| Caelo           | Macrogol ointment | 16257801      | 6              |
| Caelo           | Macrogol ointment | 16257802      | 4              |
| Caelo           | Macrogol ointment | 16314502      | 10             |
| Caelo           | Macrogol ointment | 170619181     | 1              |
| Caelo           | Macrogol ointment | 17063901      | 7              |
| Caelo           | Macrogol ointment | 171276        | 1              |
| Caelo           | Macrogol ointment | 17127601      | 36             |
| Caelo           | Macrogol ointment | 17127601/5579 | 1              |
| Caelo           | Macrogol ointment | 17319301      | 10             |
| Caelo           | Macrogol ointment | 17319302      | 11             |
| Caelo           | Macrogol ointment | 1731931       | 1              |
| Caelo           | Macrogol ointment | 18051801      | 1              |
| Caelo           | Macrogol ointment | 18057501      | 1              |
| Caelo           | Macrogol ointment | 18057701      | 40             |
| Caelo           | Macrogol ointment | 18057801      | 9              |
| Caelo           | Macrogol ointment | 18111706      | 1              |
| Caelo           | Macrogol ointment | 18200701      | 11             |
| Caelo           | Macrogol ointment | 18200702      | 12             |
| Caelo           | Macrogol ointment | 19004701      | 7              |
| Caelo           | Macrogol ointment | 19051001      | 26             |
| Caelo           | Macrogol ointment | 19051002      | 4              |
| Caelo           | Macrogol ointment | 19071305      | 1              |
| Caelo           | Macrogol ointment | 1917301       | 1              |
| Caelo           | Macrogol ointment | 1917302       | 2              |
| Caelo           | Macrogol ointment | 19177301      | 5              |
| Caelo           | Macrogol ointment | 19177302      | 11             |
| Caelo           | Macrogol ointment | 19278701      | 22             |
| Caelo           | Macrogol ointment | 19278802      | 15             |
| Caelo           | Macrogol ointment | 20001522001   | 16             |
| Caelo           | Macrogol ointment | 20001523001   | 31             |
| Caelo           | Macrogol ointment | 2000152301    | 1              |
| Caelo           | Macrogol ointment | 20003775001   | 5              |
| Caelo           | Macrogol ointment | 20003775003   | 1              |

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| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
| Caelo                      | Macrogol ointment | 21000675001 | 8       |
| Caelo                      | Macrogol ointment | 21000676001 | 9       |
| Caelo                      | Macrogol ointment | 21001937002 | 2       |
| Caelo                      | Macrogol ointment | 21003002001 | 1       |
| Caelo                      | Macrogol ointment | 22051304    | 1       |
| Caelo                      | Macrogol ointment | 2817E-02834 | 1       |
| Caelo                      | Macrogol ointment | 29111202    | 1       |
| Caelo                      | Macrogol ointment | 312E-02834  | 1       |
| Caelo                      | Macrogol ointment | 3315A-02834 | 1       |
| Caelo                      | Macrogol ointment | 3516I-02834 | 1       |
| Caelo                      | Macrogol ointment | 3518M-02834 | 1       |
| Caelo                      | Macrogol ointment | 4511M-02834 | 1       |
| Caelo                      | Macrogol ointment | 4617M02834  | 1       |
| Caelo                      | Macrogol ointment | 4717Q-02834 | 1       |
| Caelo                      | Macrogol ointment | 6031507     | 1       |
| Caelo                      | Macrogol ointment | 6091202     | 1       |
| Caelo                      | Macrogol ointment | 9051001     | 1       |
| Caecolo/Gehe               | Macrogol ointment | 1731902     | 1       |
| Caecolo/Gehe               | Macrogol ointment | 18200701    | 1       |
| Caesar & Lorenz GmbH       | Macrogol ointment | 19051001    | 1       |
| Caesar & Loretz GmbH / ... | Macrogol ointment | 19051001    | 2       |
| Caesar & Loretz GmbH / ... | Macrogol ointment | 18057701    | 1       |
| Caesar & Loretz GmbH/ A... | Macrogol ointment | 20001523001 | 2       |
| Caesar & Loretz GmbH/Gehe  | Macrogol ointment | 19051002    | 1       |
| Caesar & Loretz GmbH/Je... | Macrogol ointment | 19051001    | 2       |
| Caesar & Loretz GmbH/No... | Macrogol ointment | 18200701    | 1       |
| Caesar & Loretz GmbH/No... | Macrogol ointment | 19051001    | 1       |
| Caesar & Loretz GmbH/No... | Macrogol ointment | 19278701    | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 14078601    | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 14336301    | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 18200701    | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 19051001    | 4       |
| Caesar & Loretz GmbH       | Macrogol ointment | 19177301    | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 19177302    | 2       |
| Caesar & Loretz GmbH       | Macrogol ointment | 19278701    | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 1927880     | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 19278802    | 1       |
| Caesar & Loretz GmbH       | Macrogol ointment | 20001522001 | 3       |
| Caesar & Loretz GmbH       | Macrogol ointment | 20001523001 | 4       |
| Caesar & Loretz GmbH       | Macrogol ointment | 20003775001 | 2       |
| Caesar & Loretz GmbH       | Macrogol ointment | 20003775003 | 3       |
| Caesar & Loretz GmbH       | Macrogol ointment | 21001937003 | 3       |
| Caesar & Loretz GmbH       | Macrogol ointment | 21003002001 | 2       |
| Caesar & Loretz Hilden     | Macrogol ointment | 18200702    | 1       |
| Caesar & Loretz Hilden     | Macrogol ointment | 19278701    | 1       |
| Caesar & Loretz            | Macrogol ointment | 18057701    | 1       |
| Caesar & Loretz            | Macrogol ointment | 18057801    | 1       |
| Caesar&Lorenz              | Macrogol ointment | 20003775003 | 1       |
| Cealo/Gehe                 | Macrogol ointment | 17127601    | 1       |
| Cealo/Gehe                 | Macrogol ointment | 19051001    | 2       |
| cesar&lorenz/Phönix        | Macrogol ointment | 11327702    | 1       |
| Ebert+Jacobi               | Macrogol ointment | 11277701    | 1       |
| Euro OTC                   | Macrogol ointment |             | 1       |
| Euro OTC                   | Macrogol ointment | 16314502    | 3       |
| Fagron                     | Macrogol ointment | 14012201    | 1       |
| Fagron                     | Macrogol ointment | 17127601    | 1       |
| GEHE                       | Macrogol ointment | 16186301    | 1       |
| GEHE                       | Macrogol ointment | 16314502    | 1       |
| GEHE                       | Macrogol ointment | 17127601    | 2       |
| Gehe                       | Macrogol ointment | 18057701    | 1       |

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| Supplier             | Substance         | Batch       | Spectra |
|----------------------|-------------------|-------------|---------|
| Gehe                 | Macrogol ointment | 19278701    | 1       |
| Gehe                 | Macrogol ointment | 20003775001 | 1       |
| Jenne / Infectopharm | Macrogol ointment | 19051001    | 3       |
| L12                  | Macrogol ointment | 17127601    | 1       |
| Noweda               | Macrogol ointment | 12179102    | 1       |
| Noweda               | Macrogol ointment | 19051001    | 1       |
| Noweda               | Macrogol ointment | 19278701    | 1       |
| Noweda               | Macrogol ointment | 20001523001 | 1       |
| Phoenix              | Macrogol ointment | 19051001    | 1       |
| Phoenix              | Macrogol ointment | 201001210   | 1       |
| Sanacorp             | Macrogol ointment | 13177801    | 1       |
| Sanacorp             | Macrogol ointment | 19278802    | 1       |

- 288 138 spectra from 1294 *Apo-Ident* customers from a total of 51 793 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Macrogol ointment* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Macrogol ointment* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 420           | 0              | 66 739        |
| <b>Type B</b> | 0              | 450           | 0              | 106 833       |
| <b>Type C</b> | 0              | 571           | 0              | 288 138       |

The substance/substance group *Macrogol ointment* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.5714 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.6667 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 98.9492 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Macrogol ointment* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.



| Substance      | Distance in<br>main model | Distance in<br>second-stage model |
|----------------|---------------------------|-----------------------------------|
| Macrogols 400  | 34.40                     | —                                 |
| Macrogols 300  | 46.68                     | —                                 |
| Polysorbate 20 | 76.11                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Macrogol ointment* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31004     | 31989                  | 4.92                            | 37.62                              |
| 31247     | 31247                  | 0.00                            | 38.23                              |
| 31442     | 33751                  | 7.49                            | 27.75                              |
| 31486     | 33751                  | 5.47                            | 33.14                              |
| 31989     | 31989                  | 0.00                            | 37.41                              |
| 32493     | 32493                  | 0.00                            | 33.81                              |
| 32494     | 32494                  | 0.00                            | 39.79                              |
| 33751     | 33751                  | 0.00                            | 34.05                              |
| 34531     | 34531                  | 0.00                            | 40.99                              |
| 34532     | 34532                  | 0.00                            | 33.65                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Macrogol-2-laurylether**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31731-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Macrogol-2-laurylether; Dehydol® LS 2

### Special notes

When selecting the *Macrogol-2-laurylether* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Macrogol-2-laurylether    | 2      | 1      | 10     |

## Second-stage model

For differentiation of the substance/substance group *Macrogol-2-laurylether* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Macrogol-2-laurylether*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Macrogol-2-laury... | 14054304 | 31731     | 60      | 1603434     |
| Caelo    | Macrogol-2-laury... | 14054309 | 31867     | 60      | 20140225    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 2 reference samples from the substance/substance group *Macrogol-2-laurylether*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 039 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Macrogol-2-laurylether*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance              | Batch    | Sample ID | Spectra |
|----------|------------------------|----------|-----------|---------|
| Caelo    | Macrogol-2-laurylether | 15411908 | 33273     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 53 spectra from 23 *Apo-Ident* customers from 10 batches from the substance/substance group *Macrogol-2-laurylether*.
- Among them are spectra of independent samples from 10 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance              | Batch       | Spectra |
|----------------------|------------------------|-------------|---------|
| Caelo                | Macrogol-2-laurylether | 15411902    | 4       |
| Caelo                | Macrogol-2-laurylether | 15411903    | 1       |
| Caelo                | Macrogol-2-laurylether | 15411904    | 29      |
| Caelo                | Macrogol-2-laurylether | 15411910    | 3       |
| Caelo                | Macrogol-2-laurylether | 18093301    | 2       |
| Caelo                | Macrogol-2-laurylether | 18093302    | 5       |
| Caelo                | Macrogol-2-laurylether | 18093303    | 3       |
| Caelo                | Macrogol-2-laurylether | 18093304    | 2       |
| Caelo                | Macrogol-2-laurylether | 20001352001 | 1       |
| Caesar & Loretz GmbH | Macrogol-2-laurylether | 18093302    | 1       |
| Phoenix              | Macrogol-2-laurylether | 18093303    | 1       |
| Sanacorp             | Macrogol-2-laurylether | 15411908    | 1       |

- 288 656 spectra from 1294 *Apo-Ident* customers from a total of 51 878 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Macrogol-2-laurylether* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Macrogol-2-laurylether* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 53            | 0              | 288 656       |

The substance/substance group *Macrogol-2-laurylether* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6872 %) | 100.0000 % (> 88.6792 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Macrogol-2-laurylether* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Macrogol 4 lauryl ether                   | 17.18                     | —                                 |
| Polysorbate 60                            | 21.33                     | —                                 |
| Macrogol 8 stearate type I                | 22.42                     | —                                 |
| Macrogol 20 glycerol monostearate type... | 24.40                     | —                                 |
| Cetiol <sup>®</sup> HE                    | 27.03                     | —                                 |
| Polysorbate 80                            | 30.70                     | —                                 |
| Polysorbate 20                            | 31.13                     | —                                 |
| Lauromacrogol 400                         | 31.94                     | —                                 |
| Macrogolglycerol hydroxystearate 40       | 36.92                     | —                                 |
| Macrogolglycerol ricinoleate              | 37.38                     | —                                 |
| Macrogol ointment                         | 38.29                     | —                                 |
| Macrogols 400                             | 42.68                     | —                                 |
| Triglycerol diisostearate                 | 57.00                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Macrogol-2-laurylether* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31731     | 31731                  | 0.00                            | 21.47                              |
| 31867     | 31731                  | 5.06                            | 17.18                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical

variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Macrogolglycerol ricinoleate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 10004582-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Macrogolglycerol ricinoleate; Macrogolglyceroli ricinoleas

### Special notes

When selecting the *Macrogolglycerol ricinoleate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group    | Type A | Type B | Type C |
|------------------------------|--------|--------|--------|
| Macrogolglycerol ricinoleate | 4      | 4      | 64     |

## Second-stage model

For differentiation of the substance/substance group *Macrogolglycerol ricinoleate* the following second-stage model is used:

- [Submodel 10](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Macrogolglycerol ricinoleate*:

| Supplier | Substance           | Batch     | Sample ID | Spectra | Certificate |
|----------|---------------------|-----------|-----------|---------|-------------|
| Caelo    | Macrogolglycerol... | 13272708  | 31368     | 39      | 1505503     |
| Caelo    | Macrogolglycerol... | 161303    | 32297     | 40      | 20160523*   |
| Fagron   | Macrogolglycerol... | 12E29-N02 | 30766     | 60      | 20120612    |
| Fagron   | Macrogolglycerol... | 12H08-N01 | 31015     | 40      | 20120827    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 179 spectra of 4 reference samples from the substance/substance group *Macrogolglycerol ricinoleate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 980 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Macrogolglycerol ricinoleate*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance                    | Batch            | Sample ID | Spectra |
|----------|------------------------------|------------------|-----------|---------|
| Caelo    | Macrogolglycerol ricinoleate | 161545           | 32338     | 40      |
| Caelo    | Macrogolglycerol ricinoleate | 172238           | 33707     | 40      |
| Caelo    | Macrogolglycerol ricinoleate | 21003121003      | 36046     | 40      |
| Fagron   | Macrogolglycerol ricinoleate | 20I29-T01-083604 | 35463     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 131 spectra from 83 *Apo-Ident* customers from 64 batches from the substance/substance group *Macrogolglycerol ricinoleate*.
- Among them are spectra of independent samples from 64 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                    | Batch       | Spectra |
|----------------------------|------------------------------|-------------|---------|
| BASF Chem trade GmbH/Ph... | Macrogolglycerol ricinoleate | 13B08-N03   | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 14195501    | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 15312307    | 2       |
| Caelo                      | Macrogolglycerol ricinoleate | 16130304    | 2       |
| Caelo                      | Macrogolglycerol ricinoleate | 16154501    | 3       |
| Caelo                      | Macrogolglycerol ricinoleate | 16154504    | 2       |
| Caelo                      | Macrogolglycerol ricinoleate | 17137302    | 3       |
| Caelo                      | Macrogolglycerol ricinoleate | 17223802    | 2       |
| Caelo                      | Macrogolglycerol ricinoleate | 17348302    | 5       |
| Caelo                      | Macrogolglycerol ricinoleate | 17348304    | 3       |
| Caelo                      | Macrogolglycerol ricinoleate | 18216902    | 7       |
| Caelo                      | Macrogolglycerol ricinoleate | 18216906    | 3       |
| Caelo                      | Macrogolglycerol ricinoleate | 18216908    | 2       |
| Caelo                      | Macrogolglycerol ricinoleate | 19143603    | 5       |
| Caelo                      | Macrogolglycerol ricinoleate | 19143605    | 4       |
| Caelo                      | Macrogolglycerol ricinoleate | 19153603    | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 192835003   | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 192835005   | 2       |
| Caelo                      | Macrogolglycerol ricinoleate | 192835055   | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 20002306001 | 5       |
| Caelo                      | Macrogolglycerol ricinoleate | 20002306004 | 3       |
| Caelo                      | Macrogolglycerol ricinoleate | 20004096001 | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 21000300001 | 2       |
| Caelo                      | Macrogolglycerol ricinoleate | 21000300006 | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 3017I-01307 | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 318A-01307  | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 44242575L0  | 1       |
| Caelo                      | Macrogolglycerol ricinoleate | 6101806     | 1       |
| Caesar & Loretz GmbH/GEHE  | Macrogolglycerol ricinoleate | 20004096001 | 1       |
| Caesar & Loretz GmbH/Sa... | Macrogolglycerol ricinoleate | 18216906    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol ricinoleate | 19143603    | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol ricinoleate | 192835003   | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol ricinoleate | 20002306001 | 1       |
| Caesar & Loretz GmbH       | Macrogolglycerol ricinoleate | 20002306004 | 2       |

*continued on the next page*

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| Supplier                  | Substance                 | Batch            | Spectra |
|---------------------------|---------------------------|------------------|---------|
| Caesar & Loretz GmbH      | Macroglycerol ricinoleate | 20004096001      | 1       |
| Caesar & Loretz GmbH      | Macroglycerol ricinoleate | 21000300001      | 1       |
| E-plus                    | Macroglycerol ricinoleate | 18C16-B03-347906 | 1       |
| Fagro/Sanacorp            | Macroglycerol ricinoleate | 18C16-B03        | 1       |
| Fagron                    | Macroglycerol ricinoleate | 12G02-N11        | 1       |
| Fagron                    | Macroglycerol ricinoleate | 13B08-N03        | 2       |
| Fagron                    | Macroglycerol ricinoleate | 13B08-No3        | 1       |
| Fagron                    | Macroglycerol ricinoleate | 13B28-N01        | 1       |
| Fagron                    | Macroglycerol ricinoleate | 13E13-N11        | 1       |
| Fagron                    | Macroglycerol ricinoleate | 13F12-N17        | 2       |
| Fagron                    | Macroglycerol ricinoleate | 13J24-B03-287433 | 2       |
| Fagron                    | Macroglycerol ricinoleate | 13J24-B03-296052 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 14L08B04         | 1       |
| Fagron                    | Macroglycerol ricinoleate | 14L08-B04        | 1       |
| Fagron                    | Macroglycerol ricinoleate | 14L08-B04-302328 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 16B08B01         | 1       |
| Fagron                    | Macroglycerol ricinoleate | 16B08-B01-322893 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 17J10B02         | 1       |
| Fagron                    | Macroglycerol ricinoleate | 17J10-B02-340819 | 4       |
| Fagron                    | Macroglycerol ricinoleate | 17J10-B02-342613 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 17J10-B02-343252 | 4       |
| Fagron                    | Macroglycerol ricinoleate | 18C16-B03-347906 | 4       |
| Fagron                    | Macroglycerol ricinoleate | 18C16-B03-347906 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 18K01-B04        | 3       |
| Fagron                    | Macroglycerol ricinoleate | 18K01-B04-360487 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 18K01-B04-360489 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 19A28-B03        | 1       |
| Fagron                    | Macroglycerol ricinoleate | 19A28-B03-360510 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 19A28-B03-362627 | 3       |
| Fagron                    | Macroglycerol ricinoleate | 20129-T01-083604 | 2       |
| Fagron                    | Macroglycerol ricinoleate | 21C25-T11-083605 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 20I29-T01-083604 | 1       |
| Fagron                    | Macroglycerol ricinoleate | 3242             | 1       |
| Fagron                    | Macroglycerol ricinoleate | 67100156P0       | 1       |
| Fagron                    | Macroglycerol ricinoleate | 91218124U0       | 1       |
| Fargon/Phönix             | Macroglycerol ricinoleate | 18K01-B04-355946 | 1       |
| Nachprüfung von Juni 2018 | Macroglycerol ricinoleate | 13J24-B03-269052 | 1       |
| Phoenix                   | Macroglycerol ricinoleate | 18C16-B03-353773 | 1       |
| Phoenix                   | Macroglycerol ricinoleate | 73353136W0       | 1       |
| Phönix                    | Macroglycerol ricinoleate | 16B08-B01-328228 | 1       |
| Sanacorp                  | Macroglycerol ricinoleate | 18216906         | 1       |

- 288 578 spectra from 1294 *Apo-Ident* customers from a total of 51 825 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Macroglycerol ricinoleate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Macroglycerol ricinoleate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 179           | 0              | 66 980        |
| Type B | 0              | 160           | 0              | 107 203       |
| Type C | 0              | 131           | 0              | 288 578       |

The substance/substance group *Macrogolglycerol ricinoleate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.6480 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| Type C | 100.0000 % (> 99.6871 %) | 100.0000 % (> 95.4198 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Macrogolglycerol ricinoleate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Polysorbate 80                            | 12.18                  | 14.66                          |
| Cetiol® HE                                | 18.37                  | —                              |
| Macrogol 8 stearate type I                | 26.19                  | 35.48                          |
| Polysorbate 60                            | 28.74                  | 29.93                          |
| Polysorbate 20                            | 29.81                  | 35.18                          |
| Macrogol 20 glycerol monostearate type... | 30.91                  | 23.47                          |
| Macrogolglycerol hydroxystearate 40       | 34.60                  | 18.88                          |
| Lauromacrogol 400                         | 40.51                  | 33.08                          |
| Macrogol ointment                         | 41.53                  | —                              |
| Macrogol 4 lauryl ether                   | 54.27                  | 56.74                          |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Macrogolglycerol ricinoleate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30766     | 32297               | 2.43                         | 12.56                           |
| 31015     | 32297               | 4.98                         | 14.39                           |
| 31368     | 31368               | 0.00                         | 11.48                           |
| 32297     | 32297               | 0.00                         | 12.62                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Macrogols 300**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31151-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Macrogols 300; Polyethylenglycol 300

### Special notes

When selecting the *Macrogols 300* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Macrogols 300             | 8      | 3      | 52     |

## Second-stage model

For differentiation of the substance/substance group *Macrogols 300* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Macrogols 300*:

| Supplier | Substance     | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------|----------|-----------|---------|-------------|
| Caelo    | Macrogols 300 | 13070109 | 31151     | 40      | 1403339     |
| Caelo    | Macrogols 300 | 14043802 | 31370     | 40      | 20140221    |
| Caelo    | Macrogols 300 | 16022102 | 32073     | 60      | 20160222    |
| Caelo    | Macrogols 300 | 160221   | 32209     | 40      | 20160222*   |
| Caelo    | Macrogols 300 | 161609   | 32212     | 40      | 20160607*   |
| Caelo    | Macrogols 300 | 162196   | 32337     | 40      | 20160729*   |
| Caelo    | Macrogols 300 | 182525   | 34312     | 40      | 20181011*   |
| Caelo    | Macrogols 300 | 183201   | 34325     | 40      | 20181214*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 340 spectra of 8 reference samples from the substance/substance group *Macrogols 300*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 8 different batches.
- 66 819 spectra from a total of 1371 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Macrogols 300*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance     | Batch       | Sample ID | Spectra |
|----------|---------------|-------------|-----------|---------|
| Caelo    | Macrogols 300 | 172105      | 33710     | 40      |
| Caelo    | Macrogols 300 | 181748      | 34232     | 40      |
| Caelo    | Macrogols 300 | 20002036004 | 35133     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 164 spectra from 85 *Apo-Ident* customers from 55 batches from the substance/substance group *Macrogols 300*.
- Among them are spectra of independent samples from 52 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier        | Substance     | Batch      | Spectra |
|-----------------|---------------|------------|---------|
| Caeleo/ Krieger | Macrogols 300 | 18040001   | 1       |
| Caelo           | Macrogols 300 | 11336201   | 1       |
| Caelo           | Macrogols 300 | 12108103   | 1       |
| Caelo           | Macrogols 300 | 12272906   | 1       |
| Caelo           | Macrogols 300 | 1307109    | 1       |
| Caelo           | Macrogols 300 | 1323304    | 1       |
| Caelo           | Macrogols 300 | 13233304   | 5       |
| Caelo           | Macrogols 300 | 14043802   | 1       |
| Caelo           | Macrogols 300 | 1406212102 | 1       |
| Caelo           | Macrogols 300 | 14145106   | 4       |
| Caelo           | Macrogols 300 | 14183102   | 2       |
| Caelo           | Macrogols 300 | 15286402   | 5       |
| Caelo           | Macrogols 300 | 15286403   | 1       |
| Caelo           | Macrogols 300 | 15286409   | 5       |
| Caelo           | Macrogols 300 | 160221     | 1       |
| Caelo           | Macrogols 300 | 16022101   | 5       |
| Caelo           | Macrogols 300 | 16160903   | 2       |
| Caelo           | Macrogols 300 | 162196     | 1       |
| Caelo           | Macrogols 300 | 16219601   | 10      |
| Caelo           | Macrogols 300 | 1629601    | 1       |
| Caelo           | Macrogols 300 | 17034401   | 7       |
| Caelo           | Macrogols 300 | 17034402   | 1       |
| Caelo           | Macrogols 300 | 17034403   | 1       |
| Caelo           | Macrogols 300 | 17034404   | 1       |
| Caelo           | Macrogols 300 | 17034406   | 5       |
| Caelo           | Macrogols 300 | 17210502   | 5       |
| Caelo           | Macrogols 300 | 18040001   | 9       |
| Caelo           | Macrogols 300 | 18040002   | 2       |
| Caelo           | Macrogols 300 | 18174803   | 1       |
| Caelo           | Macrogols 300 | 18252501   | 8       |

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| Supplier                   | Substance     | Batch        | Spectra |
|----------------------------|---------------|--------------|---------|
| Caelo                      | Macrogols 300 | 18252502     | 1       |
| Caelo                      | Macrogols 300 | 18252503     | 1       |
| Caelo                      | Macrogols 300 | 18320102     | 5       |
| Caelo                      | Macrogols 300 | 18320104     | 5       |
| Caelo                      | Macrogols 300 | 1832102      | 1       |
| Caelo                      | Macrogols 300 | 19179901     | 5       |
| Caelo                      | Macrogols 300 | 19179903     | 1       |
| Caelo                      | Macrogols 300 | 19179906     | 2       |
| Caelo                      | Macrogols 300 | 19243901     | 7       |
| Caelo                      | Macrogols 300 | 19243902     | 1       |
| Caelo                      | Macrogols 300 | 200002036004 | 1       |
| Caelo                      | Macrogols 300 | 20000468004  | 1       |
| Caelo                      | Macrogols 300 | 20002036004  | 1       |
| Caelo                      | Macrogols 300 | 20003587001  | 3       |
| Caelo                      | Macrogols 300 | 20004471004  | 2       |
| Caelo                      | Macrogols 300 | 8051813      | 1       |
| Caesar & Loretz GmbH / ... | Macrogols 300 | 19243901     | 1       |
| Caesar & Loretz GmbH/An... | Macrogols 300 | 19243901     | 1       |
| Caesar & Loretz GmbH       | Macrogols 300 | 18252501     | 1       |
| Caesar & Loretz GmbH       | Macrogols 300 | 18320106     | 1       |
| Caesar & Loretz GmbH       | Macrogols 300 | 19179901     | 2       |
| Caesar & Loretz GmbH       | Macrogols 300 | 19243901     | 5       |
| Caesar & Loretz GmbH       | Macrogols 300 | 20002036004  | 4       |
| Caesar & Loretz GmbH       | Macrogols 300 | 20003587001  | 1       |
| Caesar & Loretz GmbH       | Macrogols 300 | 21003109004  | 1       |
| Caesar&Lorenz              | Macrogols 300 | 20002036004  | 1       |
| Euro OTC                   | Macrogols 300 | 2512051      | 1       |
| Euro OTC                   | Macrogols 300 | 4216Q-02102  | 1       |
| Euro OTC                   | Macrogols 300 | 4312I-02102  | 1       |
| Euro OTC                   | Macrogols 300 | 4315A-02102  | 1       |
| Euro OTC                   | Macrogols 300 | 5214I-02102  | 1       |
| Fiebig                     | Macrogols 300 | 19243901     | 1       |
| Gehe                       | Macrogols 300 | 1323304      | 1       |
| Gehe                       | Macrogols 300 | 14183102     | 1       |
| Gehe                       | Macrogols 300 | 16219601     | 1       |
| Gehe                       | Macrogols 300 | 17034406     | 1       |
| Krieger                    | Macrogols 300 | 18329104     | 1       |
| Nachtestung-Verlängerung   | Macrogols 300 | 164/17       | 1       |
| Phoenix am 13.03.14        | Macrogols 300 | 13233304     | 1       |
| Phoenix                    | Macrogols 300 | 17210502     | 1       |
| Phönix                     | Macrogols 300 | 18320106     | 1       |
| Sanacorp                   | Macrogols 300 | 16022101     | 2       |
| Sanacorp                   | Macrogols 300 | 1703441      | 1       |

- 288 545 spectra from 1294 *Apo-Ident* customers from a total of 51 833 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Macrogols 300* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Macrogols 300* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following

table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 340           | 0              | 66 819        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 163           | 1              | 288 545       |

The substance/substance group *Macrogols 300* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.2353 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.3902 % (> 97.5610 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Macrogols 300* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in main model | Distance in second-stage model |
|-------------------|------------------------|--------------------------------|
| Macrogols 400     | 27.00                  | —                              |
| Macrogol ointment | 35.08                  | —                              |
| Lanolin DAB       | 84.44                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Macrogols 300* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31151     | 31151               | 0.00                         | 49.41                           |
| 31370     | 31151               | 4.10                         | 46.06                           |
| 32073     | 32209               | 0.48                         | 40.67                           |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 32209            | 32209                      | 0.00                                | 40.37                                  |
| 32212            | 32212                      | 0.00                                | 40.10                                  |
| 32337            | 32337                      | 0.00                                | 41.45                                  |
| 34312            | 34312                      | 0.00                                | 38.30                                  |
| 34325            | 34325                      | 0.00                                | 38.54                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Macrogols 400**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30523-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Macrogols 400; Macrogolum 400

### Special notes

When selecting the *Macrogols 400* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Macrogols 400             | 6      | 18     | 267    |



## Second-stage model

For differentiation of the substance/substance group *Macrogols 400* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Macrogols 400*:

| Supplier | Substance     | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------|----------|-----------|---------|-------------|
| Caelo    | Macrogols 400 | 13171112 | 31149     | 40      | 1403644     |
| Caelo    | Macrogols 400 | 14009101 | 31367     | 40      | 20140123    |
| Caelo    | Macrogols 400 | 170137   | 33057     | 40      | 20170125*   |
| Euro OTC | Macrogols 400 | 1510042  | 31814     | 60      | 20151216*   |
| Euro OTC | Macrogols 400 | 1609017  | 32714     | 40      | 20160929*   |
| Euro OTC | Macrogols 400 | 1911028  | 34812     | 40      | 20200128*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 260 spectra of 6 reference samples from the substance/substance group *Macrogols 400*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 899 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 740 spectra of 18 reference samples from the substance/substance group *Macrogols 400*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 18 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance     | Batch    | Sample ID | Spectra |
|----------|---------------|----------|-----------|---------|
| Caelo    | Macrogols 400 | 160022   | 32211     | 40      |
| Caelo    | Macrogols 400 | 162941   | 33096     | 40      |
| Caelo    | Macrogols 400 | 171100   | 33321     | 40      |
| Caelo    | Macrogols 400 | 172833   | 33890     | 40      |
| Caelo    | Macrogols 400 | 190105   | 34463     | 40      |
| Caelo    | Macrogols 400 | 192940   | 34802     | 40      |
| Caelo    | Macrogols 400 | 21001935 | 35603     | 50      |
| Euro OTC | Macrogols 400 | 1603008  | 32185     | 40      |
| Euro OTC | Macrogols 400 | 1412015  | 32187     | 40      |
| Euro OTC | Macrogols 400 | 1607022  | 32461     | 40      |
| Euro OTC | Macrogols 400 | 1610001  | 32712     | 40      |
| Euro OTC | Macrogols 400 | 1702024  | 33226     | 40      |
| Euro OTC | Macrogols 400 | 1711029  | 33932     | 40      |
| Euro OTC | Macrogols 400 | 1807027  | 34214     | 40      |
| Euro OTC | Macrogols 400 | 1906024  | 34655     | 40      |
| Euro OTC | Macrogols 400 | 2009008  | 35126     | 40      |
| Euro OTC | Macrogols 400 | 2105008  | 35581     | 50      |
| Euro OTC | Macrogols 400 | 2204010  | 36280     | 40      |

- 106 623 spectra from a total of 2483 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1921 spectra from 559 *Apo-Ident* customers from 271 batches from the substance/substance group *Macrogols 400*.
- Among them are spectra of independent samples from 267 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance     | Batch       | Spectra |
|----------------------------|---------------|-------------|---------|
|                            | Macrogols 400 | 19010508    | 1       |
|                            | Macrogols 400 | 19107501    | 1       |
| AHD                        | Macrogols 400 | 13171106    | 1       |
| AHD;19.06.15;3,34EUR       | Macrogols 400 | 14352801    | 1       |
| ALH                        | Macrogols 400 | 16128203    | 1       |
| Alliance Health 14.04.2... | Macrogols 400 | 13272908    | 2       |
| Allianz                    | Macrogols 400 | 180396802   | 1       |
| Anzag                      | Macrogols 400 | 16128203    | 1       |
| Anzag                      | Macrogols 400 | 17013701    | 1       |
| Anzag                      | Macrogols 400 | 17110001    | 1       |
| ApoIdent/ Phoenix          | Macrogols 400 | 1711029-01  | 2       |
| Audor Pharma               | Macrogols 400 | 1911028-01  | 1       |
| Bombastus                  | Macrogols 400 | 13F06-N11   | 3       |
| Bombastus                  | Macrogols 400 | 14352814    | 2       |
| Bombastus                  | Macrogols 400 | 160300801   | 1       |
| Bombastus                  | Macrogols 400 | 20001803    | 1       |
| Bombastus                  | Macrogols 400 | 3215E-03059 | 1       |
| Caesar & Loretz GmbH       | Macrogols 400 | 20004258001 | 1       |
| Caelo                      | Macrogols 400 | 19010508    | 1       |
| Caelo                      | Macrogols 400 |             | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Macrogols 400    | 11172705     | 1              |
| Caelo           | Macrogols 400    | 11293302     | 1              |
| Caelo           | Macrogols 400    | 11293304     | 1              |
| Caelo           | Macrogols 400    | 11293311     | 1              |
| Caelo           | Macrogols 400    | 12043301     | 3              |
| Caelo           | Macrogols 400    | 12043311     | 1              |
| Caelo           | Macrogols 400    | 12043312     | 2              |
| Caelo           | Macrogols 400    | 1206030-02   | 2              |
| Caelo           | Macrogols 400    | 1213M-03059  | 1              |
| Caelo           | Macrogols 400    | 12152601     | 1              |
| Caelo           | Macrogols 400    | 12152602     | 4              |
| Caelo           | Macrogols 400    | 12152607     | 1              |
| Caelo           | Macrogols 400    | 12152608     | 6              |
| Caelo           | Macrogols 400    | 12152611     | 3              |
| Caelo           | Macrogols 400    | 12152612     | 8              |
| Caelo           | Macrogols 400    | 12152613     | 3              |
| Caelo           | Macrogols 400    | 12152614     | 2              |
| Caelo           | Macrogols 400    | 12277603     | 1              |
| Caelo           | Macrogols 400    | 12277607     | 10             |
| Caelo           | Macrogols 400    | 12277608     | 1              |
| Caelo           | Macrogols 400    | 1314I-03059  | 1              |
| Caelo           | Macrogols 400    | 13171102     | 9              |
| Caelo           | Macrogols 400    | 13171103     | 4              |
| Caelo           | Macrogols 400    | 13171104     | 5              |
| Caelo           | Macrogols 400    | 13171106     | 4              |
| Caelo           | Macrogols 400    | 13171107     | 3              |
| Caelo           | Macrogols 400    | 13171109     | 2              |
| Caelo           | Macrogols 400    | 131711102    | 1              |
| Caelo           | Macrogols 400    | 13171112     | 5              |
| Caelo           | Macrogols 400    | 13171113     | 2              |
| Caelo           | Macrogols 400    | 13272901     | 4              |
| Caelo           | Macrogols 400    | 13272904     | 7              |
| Caelo           | Macrogols 400    | 13272906     | 2              |
| Caelo           | Macrogols 400    | 13272908     | 1              |
| Caelo           | Macrogols 400    | 13272909     | 3              |
| Caelo           | Macrogols 400    | 14009101     | 3              |
| Caelo           | Macrogols 400    | 14009102     | 4              |
| Caelo           | Macrogols 400    | 14009103     | 2              |
| Caelo           | Macrogols 400    | 14009107     | 8              |
| Caelo           | Macrogols 400    | 14009109     | 6              |
| Caelo           | Macrogols 400    | 14009110     | 1              |
| Caelo           | Macrogols 400    | 14009113     | 2              |
| Caelo           | Macrogols 400    | 140211-01    | 1              |
| Caelo           | Macrogols 400    | 1409103      | 1              |
| Caelo           | Macrogols 400    | 1412015-01   | 2              |
| Caelo           | Macrogols 400    | 14195601     | 12             |
| Caelo           | Macrogols 400    | 14195602     | 8              |
| Caelo           | Macrogols 400    | 14195603     | 15             |
| Caelo           | Macrogols 400    | 14195605     | 4              |
| Caelo           | Macrogols 400    | 14195613     | 1              |
| Caelo           | Macrogols 400    | 14352801     | 4              |
| Caelo           | Macrogols 400    | 14352803     | 15             |
| Caelo           | Macrogols 400    | 14352804     | 4              |
| Caelo           | Macrogols 400    | 14352805     | 2              |
| Caelo           | Macrogols 400    | 14352813     | 5              |
| Caelo           | Macrogols 400    | 14352814     | 18             |
| Caelo           | Macrogols 400    | 14352815     | 1              |
| Caelo           | Macrogols 400    | 15131401     | 2              |
| Caelo           | Macrogols 400    | 15131406     | 4              |
| Caelo           | Macrogols 400    | 15131407     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Macrogols 400    | 15324001         | 6              |
| Caelo           | Macrogols 400    | 15324002         | 16             |
| Caelo           | Macrogols 400    | 15324003         | 2              |
| Caelo           | Macrogols 400    | 15324007         | 3              |
| Caelo           | Macrogols 400    | 15324008         | 4              |
| Caelo           | Macrogols 400    | 15H28-B11-313603 | 1              |
| Caelo           | Macrogols 400    | 16002201         | 24             |
| Caelo           | Macrogols 400    | 16002202         | 6              |
| Caelo           | Macrogols 400    | 16002203         | 7              |
| Caelo           | Macrogols 400    | 1607022-01       | 1              |
| Caelo           | Macrogols 400    | 16081807         | 1              |
| Caelo           | Macrogols 400    | 161258205        | 1              |
| Caelo           | Macrogols 400    | 161282           | 1              |
| Caelo           | Macrogols 400    | 16128201         | 2              |
| Caelo           | Macrogols 400    | 16128202         | 3              |
| Caelo           | Macrogols 400    | 16128203         | 34             |
| Caelo           | Macrogols 400    | 16128204         | 10             |
| Caelo           | Macrogols 400    | 16128204/170227M | 1              |
| Caelo           | Macrogols 400    | 16128205         | 8              |
| Caelo           | Macrogols 400    | 162694102        | 1              |
| Caelo           | Macrogols 400    | 162941           | 1              |
| Caelo           | Macrogols 400    | 16294102         | 9              |
| Caelo           | Macrogols 400    | 16294106         | 10             |
| Caelo           | Macrogols 400    | 16294107         | 3              |
| Caelo           | Macrogols 400    | 17013701         | 23             |
| Caelo           | Macrogols 400    | 17013702         | 7              |
| Caelo           | Macrogols 400    | 17013705         | 12             |
| Caelo           | Macrogols 400    | 17013706         | 15             |
| Caelo           | Macrogols 400    | 17110001         | 40             |
| Caelo           | Macrogols 400    | 17110003         | 20             |
| Caelo           | Macrogols 400    | 17110006         | 4              |
| Caelo           | Macrogols 400    | 17110007         | 6              |
| Caelo           | Macrogols 400    | 17283301         | 33             |
| Caelo           | Macrogols 400    | 17283302         | 15             |
| Caelo           | Macrogols 400    | 17283303         | 12             |
| Caelo           | Macrogols 400    | 17J27-B02-344405 | 1              |
| Caelo           | Macrogols 400    | 18/229707        | 1              |
| Caelo           | Macrogols 400    | 18022801         | 1              |
| Caelo           | Macrogols 400    | 18038304         | 1              |
| Caelo           | Macrogols 400    | 18039602         | 1              |
| Caelo           | Macrogols 400    | 180398           | 3              |
| Caelo           | Macrogols 400    | 18039802         | 61             |
| Caelo           | Macrogols 400    | 18039803         | 35             |
| Caelo           | Macrogols 400    | 18039804         | 1              |
| Caelo           | Macrogols 400    | 18081505         | 1              |
| Caelo           | Macrogols 400    | 181294           | 16             |
| Caelo           | Macrogols 400    | 18129401         | 20             |
| Caelo           | Macrogols 400    | 18129402         | 1              |
| Caelo           | Macrogols 400    | 18129405         | 16             |
| Caelo           | Macrogols 400    | 182297           | 8              |
| Caelo           | Macrogols 400    | 18229702         | 6              |
| Caelo           | Macrogols 400    | 18229703         | 40             |
| Caelo           | Macrogols 400    | 18229704         | 2              |
| Caelo           | Macrogols 400    | 18229705         | 4              |
| Caelo           | Macrogols 400    | 18229706         | 42             |
| Caelo           | Macrogols 400    | 18229707         | 16             |
| Caelo           | Macrogols 400    | 18229708         | 2              |
| Caelo           | Macrogols 400    | 1822978          | 1              |
| Caelo           | Macrogols 400    | 18244802         | 1              |
| Caelo           | Macrogols 400    | 190102508        | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Caelo           | Macrogols 400    | 190105             | 24             |
| Caelo           | Macrogols 400    | 19010501           | 40             |
| Caelo           | Macrogols 400    | 19010502           | 11             |
| Caelo           | Macrogols 400    | 19010503           | 1              |
| Caelo           | Macrogols 400    | 19010505           | 20             |
| Caelo           | Macrogols 400    | 19010507           | 2              |
| Caelo           | Macrogols 400    | 19010508           | 34             |
| Caelo           | Macrogols 400    | 19010509           | 8              |
| Caelo           | Macrogols 400    | 1901051            | 1              |
| Caelo           | Macrogols 400    | 19010511           | 3              |
| Caelo           | Macrogols 400    | 1901051501         | 1              |
| Caelo           | Macrogols 400    | 190107507          | 1              |
| Caelo           | Macrogols 400    | 1910175            | 8              |
| Caelo           | Macrogols 400    | 191075001          | 10             |
| Caelo           | Macrogols 400    | 19107501           | 26             |
| Caelo           | Macrogols 400    | 19107502           | 18             |
| Caelo           | Macrogols 400    | 19107504           | 10             |
| Caelo           | Macrogols 400    | 19107506           | 19             |
| Caelo           | Macrogols 400    | 19107507           | 15             |
| Caelo           | Macrogols 400    | 19240004           | 2              |
| Caelo           | Macrogols 400    | 192940001          | 3              |
| Caelo           | Macrogols 400    | 192940004          | 33             |
| Caelo           | Macrogols 400    | 192940005          | 34             |
| Caelo           | Macrogols 400    | 192940006          | 11             |
| Caelo           | Macrogols 400    | 192940006-1        | 1              |
| Caelo           | Macrogols 400    | 192940006-2        | 4              |
| Caelo           | Macrogols 400    | 192940006-3        | 2              |
| Caelo           | Macrogols 400    | 19294004           | 2              |
| Caelo           | Macrogols 400    | 200001841001       | 1              |
| Caelo           | Macrogols 400    | 20001841001        | 15             |
| Caelo           | Macrogols 400    | 20001841002        | 33             |
| Caelo           | Macrogols 400    | 20001841004        | 5              |
| Caelo           | Macrogols 400    | 20001841007        | 1              |
| Caelo           | Macrogols 400    | 20001841008        | 12             |
| Caelo           | Macrogols 400    | 20001841009        | 5              |
| Caelo           | Macrogols 400    | 20001841010        | 9              |
| Caelo           | Macrogols 400    | 2000184109         | 1              |
| Caelo           | Macrogols 400    | 200018411001       | 1              |
| Caelo           | Macrogols 400    | 20003916001        | 1              |
| Caelo           | Macrogols 400    | 20003916004        | 9              |
| Caelo           | Macrogols 400    | 20003916005        | 1              |
| Caelo           | Macrogols 400    | 20003916007        | 7              |
| Caelo           | Macrogols 400    | 20004258001        | 10             |
| Caelo           | Macrogols 400    | 20004258002        | 5              |
| Caelo           | Macrogols 400    | 20004258003        | 23             |
| Caelo           | Macrogols 400    | 20004258003/210706 | 1              |
| Caelo           | Macrogols 400    | 2001841002         | 1              |
| Caelo           | Macrogols 400    | 20021306           | 1              |
| Caelo           | Macrogols 400    | 20190612-1         | 1              |
| Caelo           | Macrogols 400    | 21001935002        | 2              |
| Caelo           | Macrogols 400    | 21092015B          | 1              |
| Caelo           | Macrogols 400    | 2412U-03059        | 1              |
| Caelo           | Macrogols 400    | 27111309           | 1              |
| Caelo           | Macrogols 400    | 2917E-03059        | 1              |
| Caelo           | Macrogols 400    | 3790304            | 3              |
| Caelo           | Macrogols 400    | 3790310            | 1              |
| Caelo           | Macrogols 400    | 3790505            | 1              |
| Caelo           | Macrogols 400    | 38121-03059        | 1              |
| Caelo           | Macrogols 400    | 91075              | 1              |
| Caelo           | Macrogols 400    | 929400041          | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caelo                      | Macrogols 400    | B-19107506   | 1              |
| Caelo                      | Macrogols 400    | CH18229706   | 1              |
| Caeolo/Sanacorp            | Macrogols 400    | 18039802     | 1              |
| Caeolo/Sanacorp            | Macrogols 400    | 19010509     | 1              |
| Caesar & Loretz GmbH /...  | Macrogols 400    | 192940004    | 1              |
| Caesar & Loretz GmbH / ... | Macrogols 400    | 192940006    | 2              |
| Caesar & Loretz GmbH / ... | Macrogols 400    | 19010509     | 1              |
| Caesar & Loretz GmbH / ... | Macrogols 400    | 18229707     | 1              |
| Caesar & Loretz GmbH / ... | Macrogols 400    | 19107506     | 1              |
| Caesar & Loretz GmbH /     | Macrogols 400    | 19107507     | 1              |
| Caesar & Loretz GmbH/ A... | Macrogols 400    | 20003916004  | 1              |
| Caesar & Loretz GmbH/ G... | Macrogols 400    | 19010511     | 1              |
| Caesar & Loretz GmbH/ J... | Macrogols 400    | 20001841008  | 1              |
| Caesar & Loretz GmbH/ K... | Macrogols 400    | 19107501     | 1              |
| Caesar & Loretz GmbH/ p... | Macrogols 400    | 18229708     | 1              |
| Caesar & Loretz GmbH/ P... | Macrogols 400    | 192940004    | 1              |
| Caesar & Loretz GmbH/Fi... | Macrogols 400    | 20001841001  | 1              |
| Caesar & Loretz GmbH/Fi... | Macrogols 400    | 20004258003  | 1              |
| Caesar & Loretz GmbH/Gehe  | Macrogols 400    | 18229706     | 1              |
| Caesar & Loretz GmbH/Gehe  | Macrogols 400    | 18229707     | 1              |
| Caesar & Loretz GmbH/GEHE  | Macrogols 400    | 20001841002  | 1              |
| Caesar & Loretz GmbH/Gehe  | Macrogols 400    | 20004258002  | 1              |
| Caesar & Loretz GmbH/Ge... | Macrogols 400    | 19010507     | 1              |
| Caesar & Loretz GmbH/Ge... | Macrogols 400    | 19107503     | 1              |
| Caesar & Loretz GmbH/Ge... | Macrogols 400    | 19107509     | 3              |
| Caesar & Loretz GmbH/Ge... | Macrogols 400    | 192940008    | 2              |
| Caesar & Loretz GmbH/Je... | Macrogols 400    | 19010508     | 1              |
| Caesar & Loretz GmbH/Je... | Macrogols 400    | 191075001    | 1              |
| Caesar & Loretz GmbH/Kr... | Macrogols 400    | 19010505     | 2              |
| Caesar & Loretz GmbH/Kr... | Macrogols 400    | 192940004    | 1              |
| Caesar & Loretz GmbH/Kr... | Macrogols 400    | 20001841002  | 1              |
| Caesar & Loretz GmbH/Kr... | Macrogols 400    | 20003916004  | 1              |
| Caesar & Loretz GmbH/Kr... | Macrogols 400    | 20004258001  | 2              |
| Caesar & Loretz GmbH/No... | Macrogols 400    | 191075001    | 1              |
| Caesar & Loretz GmbH/No... | Macrogols 400    | 192940006    | 2              |
| Caesar & Loretz GmbH/No... | Macrogols 400    | 200018410002 | 1              |
| Caesar & Loretz GmbH/No... | Macrogols 400    | 20001841002  | 2              |
| Caesar & Loretz GmbH/No... | Macrogols 400    | 3790310      | 1              |
| Caesar & Loretz GmbH/Ph... | Macrogols 400    | 18229707     | 1              |
| Caesar & Loretz GmbH/Ph... | Macrogols 400    | 20001481002  | 1              |
| Caesar & Loretz GmbH/Ph... | Macrogols 400    | 20001841008  | 1              |
| Caesar & Loretz GmbH/Ph... | Macrogols 400    | 20001841010  | 1              |
| Caesar & Loretz GmbH/Sa... | Macrogols 400    | 19010501     | 1              |
| Caesar & Loretz GmbH/Sa... | Macrogols 400    | 19107501     | 2              |
| Caesar & Loretz GmbH/Sa... | Macrogols 400    | 192940004    | 1              |
| Caesar & Loretz GmbH/Sa... | Macrogols 400    | 192940005    | 1              |
| Caesar & Loretz GmbH/Sa... | Macrogols 400    | 20001841002  | 1              |
| Caesar & Loretz GmbH/Sa... | Macrogols 400    | 20004258003  | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 14195603     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 18039802     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 18129405     | 2              |
| Caesar & Loretz GmbH       | Macrogols 400    | 18229702     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 18229703     | 3              |
| Caesar & Loretz GmbH       | Macrogols 400    | 18229704     | 2              |
| Caesar & Loretz GmbH       | Macrogols 400    | 18229706     | 12             |
| Caesar & Loretz GmbH       | Macrogols 400    | 18229707     | 6              |
| Caesar & Loretz GmbH       | Macrogols 400    | 18229708     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19010501     | 15             |
| Caesar & Loretz GmbH       | Macrogols 400    | 19010502     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19010505     | 3              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH       | Macrogols 400    | 19010508     | 8              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19010509     | 2              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19010511     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 191075001    | 2              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19107501     | 10             |
| Caesar & Loretz GmbH       | Macrogols 400    | 19107502     | 2              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19107506     | 9              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19107507     | 4              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19107509     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 192940       | 3              |
| Caesar & Loretz GmbH       | Macrogols 400    | 192940001    | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 192940004    | 11             |
| Caesar & Loretz GmbH       | Macrogols 400    | 192940005    | 6              |
| Caesar & Loretz GmbH       | Macrogols 400    | 192940006    | 3              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19294001     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19294004     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 19294005     | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841001  | 4              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841002  | 7              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841004  | 3              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841005  | 2              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841007  | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841008  | 2              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841009  | 5              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20001841010  | 11             |
| Caesar & Loretz GmbH       | Macrogols 400    | 20003916001  | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20003916004  | 3              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20003916005  | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20003916006  | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20003916007  | 5              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20004258001  | 10             |
| Caesar & Loretz GmbH       | Macrogols 400    | 20004258002  | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 20004258003  | 7              |
| Caesar & Loretz GmbH       | Macrogols 400    | 2004258001   | 1              |
| Caesar & Loretz GmbH       | Macrogols 400    | 21001935002  | 3              |
| Caesar & Loretz GmbH-ph... | Macrogols 400    | 21001935002  | 1              |
| Caesar & Loretz Hilden/... | Macrogols 400    | 192940004    | 1              |
| Caesar & Loretz Hilden/... | Macrogols 400    | 19107506     | 1              |
| Caesar&Loretz GmbH/ San... | Macrogols 400    | 18039802     | 2              |
| Caesar&Loretz GmbH/Anzag   | Macrogols 400    | 14352803     | 2              |
| Caesar/Noweda              | Macrogols 400    | 13171106     | 1              |
| calo                       | Macrogols 400    | 18039804     | 1              |
| Canea/Phönix               | Macrogols 400    | 14352805     | 1              |
| Cealo/Gehe                 | Macrogols 400    | 12043311     | 1              |
| Euro OTC                   | Macrogols 400    | 1206030-01   | 4              |
| Euro OTC                   | Macrogols 400    | 1206030-02   | 4              |
| Euro OTC                   | Macrogols 400    | 1304030      | 1              |
| Euro OTC                   | Macrogols 400    | 130403001    | 1              |
| Euro OTC                   | Macrogols 400    | 1304030-01   | 10             |
| Euro OTC                   | Macrogols 400    | 1402011-01   | 14             |
| Euro OTC                   | Macrogols 400    | 1402011-11   | 1              |
| Euro OTC                   | Macrogols 400    | 1412015-01   | 7              |
| Euro OTC                   | Macrogols 400    | 1412015-02   | 1              |
| Euro OTC                   | Macrogols 400    | 1510042-01   | 4              |
| Euro OTC                   | Macrogols 400    | 1603008-01   | 4              |
| Euro OTC                   | Macrogols 400    | 1607022-01   | 7              |
| Euro OTC                   | Macrogols 400    | 1610001-01   | 1              |
| Euro OTC                   | Macrogols 400    | 16128201     | 1              |
| Euro OTC                   | Macrogols 400    | 16128205     | 1              |
| Euro OTC                   | Macrogols 400    | 1702024-01   | 1              |

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| Supplier     | Substance     | Batch               | Spectra |
|--------------|---------------|---------------------|---------|
| Euro OTC     | Macrogols 400 | 1702024-02          | 4       |
| Euro OTC     | Macrogols 400 | 171102901           | 1       |
| Euro OTC     | Macrogols 400 | 1711029-01          | 6       |
| Euro OTC     | Macrogols 400 | 17112019-01         | 1       |
| Euro OTC     | Macrogols 400 | 180308M/1711029-01  | 1       |
| Euro OTC     | Macrogols 400 | 18039802            | 1       |
| Euro OTC     | Macrogols 400 | 1807027_01          | 1       |
| Euro OTC     | Macrogols 400 | 1807027-01          | 11      |
| Euro OTC     | Macrogols 400 | 18229706            | 1       |
| Euro OTC     | Macrogols 400 | 190602-01           | 1       |
| Euro OTC     | Macrogols 400 | 190602401           | 2       |
| Euro OTC     | Macrogols 400 | 1906024-01          | 7       |
| Euro OTC     | Macrogols 400 | 1911028-01          | 7       |
| Euro OTC     | Macrogols 400 | 1911028-28          | 1       |
| Euro OTC     | Macrogols 400 | 20001841001         | 3       |
| Euro OTC     | Macrogols 400 | 2009008             | 1       |
| Euro OTC     | Macrogols 400 | 2009008-01          | 6       |
| Euro OTC     | Macrogols 400 | 2105008-02          | 2       |
| Euro OTC     | Macrogols 400 | 9309522             | 1       |
| Fafron/Anzag | Macrogols 400 | 1014E-03059         | 1       |
| Fagron       | Macrogols 400 | 11/45               | 1       |
| Fagron       | Macrogols 400 | 11F07-N01           | 1       |
| Fagron       | Macrogols 400 | 11I13-N04           | 1       |
| Fagron       | Macrogols 400 | 12c21-n10           | 1       |
| Fagron       | Macrogols 400 | 12C21-N10           | 7       |
| Fagron       | Macrogols 400 | 12H02-N05           | 4       |
| Fagron       | Macrogols 400 | 12H02-N05           | 1       |
| Fagron       | Macrogols 400 | 13126-N21           | 1       |
| Fagron       | Macrogols 400 | 13A25-N02           | 6       |
| Fagron       | Macrogols 400 | 13F06-B40-289978    | 1       |
| Fagron       | Macrogols 400 | 13F06-N11           | 4       |
| Fagron       | Macrogols 400 | 13I26-N21           | 1       |
| Fagron       | Macrogols 400 | 14B05-B04           | 1       |
| Fagron       | Macrogols 400 | 14B05-B04-294688    | 5       |
| Fagron       | Macrogols 400 | 14G10-B05           | 1       |
| Fagron       | Macrogols 400 | 14G10-B05_300393    | 1       |
| Fagron       | Macrogols 400 | 14G10-B05-300393    | 2       |
| Fagron       | Macrogols 400 | 14G10-B05-300394    | 2       |
| Fagron       | Macrogols 400 | 14K26-B01           | 2       |
| Fagron       | Macrogols 400 | 14K26-B01-301176    | 1       |
| Fagron       | Macrogols 400 | 15B16-02-B02-308528 | 1       |
| Fagron       | Macrogols 400 | 15B16-B02-308528    | 2       |
| Fagron       | Macrogols 400 | 16D07-B09-322539    | 1       |
| Fagron       | Macrogols 400 | 16K14-B01-331740    | 4       |
| Fagron       | Macrogols 400 | 17110001            | 1       |
| Fagron       | Macrogols 400 | 17J27-B02           | 1       |
| Fagron       | Macrogols 400 | 17J27-B02-344405    | 2       |
| Fagron       | Macrogols 400 | 18039802            | 1       |
| Fagron       | Macrogols 400 | 19B11-B02-191384    | 1       |
| Fagron       | Macrogols 400 | 19H08-B02-195104    | 1       |
| Fagron       | Macrogols 400 | 20001841009         | 1       |
| Fagron       | Macrogols 400 | 20B24-B03-200340    | 1       |
| Fagron       | Macrogols 400 | 2314A-03059         | 1       |
| Fagron       | Macrogols 400 | B03-2003400         | 1       |
| FEJ          | Macrogols 400 | 15324004            | 1       |
| Fiebig       | Macrogols 400 | 15131407            | 1       |
| Fiebig       | Macrogols 400 | 15324003            | 1       |
| Fiebig       | Macrogols 400 | 16002203            | 1       |
| Fiebig       | Macrogols 400 | 161628204           | 1       |
| Fiebig       | Macrogols 400 | 166128204           | 1       |

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| <b>Supplier</b>   | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-------------------|------------------|------------------|----------------|
| Fiebig            | Macrogols 400    | 18039803         | 1              |
| Finteler Apotheke | Macrogols 400    | 17013701         | 1              |
| Finteler Apotheke | Macrogols 400    | 17110001         | 1              |
| Galderma          | Macrogols 400    | 17283301         | 1              |
| Gatt-Koller       | Macrogols 400    | 1701872          | 1              |
| Gatt-Koller       | Macrogols 400    | 1802331          | 1              |
| Gehe              | Macrogols 400    | 13272908         | 1              |
| Gehe              | Macrogols 400    | 14195603         | 1              |
| Gehe              | Macrogols 400    | 14352801         | 1              |
| Gehe              | Macrogols 400    | 14352814         | 2              |
| Gehe              | Macrogols 400    | 16002201         | 2              |
| Gehe              | Macrogols 400    | 16K14-B01-331740 | 1              |
| GEHE              | Macrogols 400    | 19010502         | 1              |
| Gehe              | Macrogols 400    | 19107501         | 1              |
| Gehe              | Macrogols 400    | 192940005        | 1              |
| Gehe              | Macrogols 400    | 2009008-01       | 1              |
| Hedinger/Phönix   | Macrogols 400    | 20161B           | 1              |
| Hedinger          | Macrogols 400    | 13F06-N11        | 1              |
| Hedinger          | Macrogols 400    | 18229707         | 4              |
| Henry Lamotte/AHD | Macrogols 400    | 18039802         | 1              |
| Henry Lamotte     | Macrogols 400    | 18229703         | 3              |
| Ichthyol/Alliance | Macrogols 400    | 17110001         | 1              |
| JENNE             | Macrogols 400    | 170013706        | 1              |
| Jenne             | Macrogols 400    | 19010509         | 1              |
| Kehr              | Macrogols 400    | 17013701         | 2              |
| Kehr              | Macrogols 400    | 17283302         | 1              |
| Kögl              | Macrogols 400    | 1700723          | 1              |
| KÖGL              | Macrogols 400    | 1803626          | 1              |
| Kögl              | Macrogols 400    | 267208163416     | 1              |
| Krieger           | Macrogols 400    | 17013706         | 1              |
| L12               | Macrogols 400    | 16294106         | 2              |
| L12               | Macrogols 400    | 17110001         | 2              |
| L30               | Macrogols 400    | 17283301         | 2              |
| L30               | Macrogols 400    | 18229703         | 1              |
| Maros Arznei      | Macrogols 400    | 18039802         | 1              |
| Nachprüfung       | Macrogols 400    | 123456           | 1              |
| Nachprüfung       | Macrogols 400    | AP210507-08      | 1              |
| Noveda            | Macrogols 400    | 18229706         | 1              |
| Noweda            | Macrogols 400    | 12043312         | 1              |
| Noweda            | Macrogols 400    | 12152614         | 3              |
| Noweda            | Macrogols 400    | 1215614          | 1              |
| Noweda            | Macrogols 400    | 15131406         | 1              |
| Noweda            | Macrogols 400    | 15324008         | 1              |
| Noweda            | Macrogols 400    | 18229706         | 1              |
| Noweda            | Macrogols 400    | 2009008-01       | 1              |
| OTG/Phönix        | Macrogols 400    | 1412015-01       | 1              |
| Phoenix           | Macrogols 400    | 12152611         | 1              |
| Phoenix           | Macrogols 400    | 16002203         | 1              |
| Phoenix           | Macrogols 400    | 18229706         | 1              |
| Phoenix           | Macrogols 400    | 19010501         | 2              |
| Phoenix           | Macrogols 400    | 20003916004      | 1              |
| Phönix Gotha      | Macrogols 400    | 12277607         | 1              |
| Phönix            | Macrogols 400    | 1206030-01       | 1              |
| Phönix            | Macrogols 400    | 12152601         | 1              |
| Phönix            | Macrogols 400    | 14009109         | 1              |
| Phönix            | Macrogols 400    | 14352814         | 1              |
| phönix            | Macrogols 400    | 16128205         | 1              |
| PHÖNIX            | Macrogols 400    | 17283303         | 1              |
| Phönix            | Macrogols 400    | 18039802         | 1              |

*continued on the next page*

continued from previous page

| Supplier                     | Substance     | Batch           | Spectra |
|------------------------------|---------------|-----------------|---------|
| PHÖNIX                       | Macrogols 400 | 18129401        | 1       |
| Phönix                       | Macrogols 400 | 19010501        | 1       |
| Phönix                       | Macrogols 400 | 19107501        | 1       |
| Phönix                       | Macrogols 400 | 192940004       | 1       |
| PHÖNIX                       | Macrogols 400 | 192940004       | 1       |
| sanacorp, 3,43EUR, 20.09.... | Macrogols 400 | 16128201        | 1       |
| Sanacorp                     | Macrogols 400 | 1412015-01      | 1       |
| Sanacorp                     | Macrogols 400 | 16128203        | 3       |
| Sanacorp                     | Macrogols 400 | 17110006        | 1       |
| Sanacorp                     | Macrogols 400 | 17283301        | 3       |
| Sanacorp                     | Macrogols 400 | 17283302        | 1       |
| Sanacorp                     | Macrogols 400 | 18229706        | 3       |
| Sanacorp                     | Macrogols 400 | 191075001       | 4       |
| Sanacorp                     | Macrogols 400 | 20001841001     | 1       |
| VDL 16.04.14                 | Macrogols 400 | 13272906//05R06 | 1       |
| WE:Sanacorp 19.10.2016 ...   | Macrogols 400 | 16128203        | 1       |

- 286 788 spectra from 1294 *Apo-Ident* customers from a total of 51 621 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Macrogols 400* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Macrogols 400* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 260           | 0              | 66 899        |
| <b>Type B</b> | 0              | 740           | 0              | 106 623       |
| <b>Type C</b> | 0              | 1909          | 12             | 286 788       |

The substance/substance group *Macrogols 400* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.6923 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.1892 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.3753 % (> 99.2192 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Macrogols 400* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------|---------------------------|-----------------------------------|
| Macrogols 300     | 18.05                     | —                                 |
| Macrogol ointment | 19.88                     | —                                 |
| Polysorbate 20    | 70.30                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Macrogols 400* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31149     | 31149                  | 0.00                            | 24.72                              |
| 31367     | 33057                  | 8.37                            | 21.09                              |
| 31814     | 31814                  | 0.00                            | 25.67                              |
| 32714     | 32714                  | 0.00                            | 23.29                              |
| 33057     | 33057                  | 0.00                            | 23.82                              |
| 34812     | 34812                  | 0.00                            | 27.81                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Mandarin oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31747-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Mandarin oil; Citri reticulatae aetheroleum

### Special notes

When selecting the *Mandarin oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Mandarin oil              | 2      | 3      | 11     |



## Second-stage model

For differentiation of the substance/substance group *Mandarin oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Mandarin oil*:

| Supplier | Substance    | Batch    | Sample ID | Spectra | Certificate |
|----------|--------------|----------|-----------|---------|-------------|
| Caelo    | Mandarin oil | 14064103 | 31747     | 60      | 1602210     |
| Caelo    | Mandarin oil | 15398001 | 31863     | 60      | 20151127    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 2 reference samples from the substance/substance group *Mandarin oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 2 different batches.
- 67 039 spectra from a total of 1377 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Mandarin oil*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance    | Batch       | Sample ID | Spectra |
|----------|--------------|-------------|-----------|---------|
| Caelo    | Mandarin oil | 170368      | 33074     | 40      |
| Caelo    | Mandarin oil | 180923      | 34055     | 40      |
| Caelo    | Mandarin oil | 20004127001 | 35736     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 40 spectra from 9 *Apo-Ident* customers from 12 batches from the substance/substance group *Mandarin oil*.
- Among them are spectra of independent samples from 11 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance    | Batch         | Spectra |
|----------|--------------|---------------|---------|
| Caelo    | Mandarin oil | 15011601      | 12      |
| Caelo    | Mandarin oil | 15398001      | 1       |
| Caelo    | Mandarin oil | 15398003      | 2       |
| Caelo    | Mandarin oil | 17036801      | 4       |
| Caelo    | Mandarin oil | 17361201      | 6       |
| Caelo    | Mandarin oil | 18092301      | 3       |
| Caelo    | Mandarin oil | 18092305      | 3       |
| Caelo    | Mandarin oil | 19000597003   | 1       |
| Caelo    | Mandarin oil | 19000597004   | 3       |
| Caelo    | Mandarin oil | 20004127001   | 2       |
| Taoasis  | Mandarin oil | 412011-124957 | 1       |
| Taoasis  | Mandarin oil | 776-4175      | 2       |

- 288 669 spectra from 1294 *Apo-Ident* customers from a total of 51 876 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Mandarin oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Mandarin oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 40            | 0              | 288 669       |

The substance/substance group *Mandarin oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| Type C | 100.0000 % (> 99.6873 %) | 100.0000 % (> 85.0000 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Mandarin oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in main model | Distance in second-stage model |
|-------------------|------------------------|--------------------------------|
| Bitter orange oil | 12.23                  | —                              |
| Grapefruit oil    | 21.86                  | —                              |
| Sweet orange oil  | 22.89                  | —                              |
| Citric oil        | 24.58                  | —                              |
| Caraway oil       | 49.27                  | —                              |
| Bergamot oil      | 93.58                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Mandarin oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31747     | 31747               | 0.00                         | 20.86                           |
| 31863     | 31747               | 4.30                         | 19.74                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Matricaria oil, rich in (-)-alpha-bisabolol</b>               |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30738-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Matricaria oil, rich in (-)-alpha-bisabolol; Oleum chamomillae

### Special notes

When selecting the *Matricaria oil, rich in (-)-alpha-bisabolol* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                   | Type A | Type B | Type C |
|---------------------------------------------|--------|--------|--------|
| Matricaria oil, rich in (-)-alpha-bisabolol | 5      | 3      | 25     |

## Second-stage model

For differentiation of the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Matricaria oil, ... | 11221206 | 30738     | 40      | 20110810    |
| Caelo    | Matricaria oil, ... | 13195103 | 31239     | 30      | 1504133     |
| Caelo    | Matricaria oil, ... | 13334702 | 31427     | 60      | 20131009    |
| Caelo    | Matricaria oil, ... | 13334702 | 31428     | 60      | 20131009    |
| Caelo    | Matricaria oil, ... | 190925   | 34442     | 40      | 20190405*   |
| Caelo    | Matricaria oil, ... | 19000642 | 35726     | 50      | 20191216*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 280 spectra of 6 reference samples from the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 879 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 100 spectra of 3 reference samples from the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Matricaria oil, rich in (-)-... | 13195101 | 31160     | 20      |
| Caelo    | Matricaria oil, rich in (-)-... | 163310   | 33081     | 40      |
| Caelo    | Matricaria oil, rich in (-)-... | 181173   | 34072     | 40      |

- 107 263 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 40 spectra from 16 *Apo-Ident* customers from 25 batches from the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol*.
- Among them are spectra of independent samples from 25 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance                       | Batch             | Spectra |
|----------------------|---------------------------------|-------------------|---------|
| ASAV                 | Matricaria oil, rich in (-)-... | 10816315857       | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 15080505          | 2       |
| Caelo                | Matricaria oil, rich in (-)-... | 15137801          | 2       |
| Caelo                | Matricaria oil, rich in (-)-... | 16048901          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 16048910          | 5       |
| Caelo                | Matricaria oil, rich in (-)-... | 16331005          | 3       |
| Caelo                | Matricaria oil, rich in (-)-... | 17353504          | 5       |
| Caelo                | Matricaria oil, rich in (-)-... | 17353505          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 17353506          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 18091401          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 18117302          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 18117304          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 18117306          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 19000642002       | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 19000642008       | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 19092502          | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 20003048001       | 1       |
| Caelo                | Matricaria oil, rich in (-)-... | 4916E-03052       | 1       |
| Caesar & Loretz GmbH | Matricaria oil, rich in (-)-... | 18117302          | 1       |
| Caesar & Loretz GmbH | Matricaria oil, rich in (-)-... | 18117306          | 1       |
| Max Jenne /G436      | Matricaria oil, rich in (-)-... | 20003048001       | 1       |
| Taoasis              | Matricaria oil, rich in (-)-... | 16266-119132      | 1       |
| Taoasis              | Matricaria oil, rich in (-)-... | 2017100477-128584 | 1       |
| Taoasis              | Matricaria oil, rich in (-)-... | 6181024-121466    | 1       |
| Taoasis              | Matricaria oil, rich in (-)-... | 6181024-122141    | 1       |
| Taoasis              | Matricaria oil, rich in (-)-... | 6181024-123496    | 1       |
| Taoasis              | Matricaria oil, rich in (-)-... | 6181024-123770    | 1       |
| Taoasis              | Matricaria oil, rich in (-)-... | 929-115334        | 1       |

- 288 669 spectra from 1294 *Apo-Ident* customers from a total of 51 863 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Matricaria oil, rich in (-)-alpha-bisabolol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 280           | 0              | 66 879        |
| <b>Type B</b> | 0              | 100           | 0              | 107 263       |
| <b>Type C</b> | 0              | 40            | 0              | 288 669       |

The substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.8571 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 94.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6873 %) | 100.0000 % (> 85.0000 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in main model | Distance in second-stage model |
|-------------------------------|------------------------|--------------------------------|
| Verbena oil, nature-identical | 30.90                  | —                              |
| Geranium oil, genuine         | 35.12                  | —                              |
| Tea tree oil                  | 46.68                  | —                              |
| RRR- $\alpha$ -Tocopherol     | 51.47                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Matricaria oil, rich in (-)-alpha-bisabolol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.



### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30738     | 34442               | 3.90                         | 24.31                           |
| 31239     | 31239               | 0.00                         | 28.07                           |
| 31427     | 31239               | 6.27                         | 22.33                           |
| 31428     | 31239               | 6.48                         | 22.22                           |
| 34442     | 34442               | 0.00                         | 21.64                           |
| 35726     | 35726               | 0.00                         | 26.63                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Melissa oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30207-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Melissa oil

### Special notes

When selecting the *Melissa oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Melissa oil               | 4      | 3      | 77     |

## Second-stage model

For differentiation of the substance/substance group *Melissa oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Melissa oil*:

| Supplier | Substance   | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------|----------|-----------|---------|-------------|
| Caelo    | Melissa oil | 13086306 | 31163     | 40      | 1403319     |
| Caelo    | Melissa oil | 13354110 | 31403     | 40      | 20131028    |
| Caelo    | Melissa oil | 163349   | 33080     | 40      | 20161215*   |
| Caelo    | Melissa oil | 183300   | 34641     | 40      | 20181221*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 160 spectra of 4 reference samples from the substance/substance group *Melissa oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 999 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Melissa oil*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance   | Batch       | Sample ID | Spectra |
|----------|-------------|-------------|-----------|---------|
| Caelo    | Melissa oil | 16053609    | 33784     | 40      |
| Caelo    | Melissa oil | 180973      | 34084     | 40      |
| Caelo    | Melissa oil | 20000819011 | 35857     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 279 spectra from 115 *Apo-Ident* customers from 80 batches from the substance/substance group *Melissa oil*.
- Among them are spectra of independent samples from 77 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance   | Batch     | Spectra |
|----------------------------|-------------|-----------|---------|
| Alte Apotheke              | Melissa oil | 16053601  | 1       |
| Anzag 27.02.13 ek: 8.17EUR | Melissa oil | 122833801 | 1       |
| Caelo                      | Melissa oil |           | 1       |
| Caelo                      | Melissa oil | 10019704  | 1       |
| Caelo                      | Melissa oil | 11287407  | 1       |
| Caelo                      | Melissa oil | 11323902  | 3       |
| Caelo                      | Melissa oil | 11323903  | 1       |
| Caelo                      | Melissa oil | 11323909  | 1       |
| Caelo                      | Melissa oil | 11323911  | 1       |
| Caelo                      | Melissa oil | 122283804 | 1       |
| Caelo                      | Melissa oil | 1228380   | 1       |
| Caelo                      | Melissa oil | 12283801  | 1       |
| Caelo                      | Melissa oil | 12283804  | 5       |
| Caelo                      | Melissa oil | 12283805  | 2       |
| Caelo                      | Melissa oil | 12283809  | 9       |
| Caelo                      | Melissa oil | 13086303  | 1       |
| Caelo                      | Melissa oil | 13086304  | 1       |
| Caelo                      | Melissa oil | 13086306  | 4       |
| Caelo                      | Melissa oil | 13086308  | 6       |
| Caelo                      | Melissa oil | 13086310  | 3       |
| Caelo                      | Melissa oil | 13086311  | 7       |
| Caelo                      | Melissa oil | 13354105  | 2       |
| Caelo                      | Melissa oil | 13354108  | 1       |
| Caelo                      | Melissa oil | 13354110  | 3       |
| Caelo                      | Melissa oil | 13354113  | 6       |
| Caelo                      | Melissa oil | 13354114  | 1       |
| Caelo                      | Melissa oil | 14332501  | 8       |
| Caelo                      | Melissa oil | 14332502  | 2       |
| Caelo                      | Melissa oil | 14332504  | 2       |
| Caelo                      | Melissa oil | 14332508  | 2       |
| Caelo                      | Melissa oil | 14332511  | 14      |
| Caelo                      | Melissa oil | 14332512  | 1       |
| Caelo                      | Melissa oil | 1512303   | 1       |
| Caelo                      | Melissa oil | 15172303  | 20      |
| Caelo                      | Melissa oil | 15172304  | 3       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|----------------------------|------------------|-------------------|----------------|
| Caelo                      | Melissa oil      | 15172308          | 10             |
| Caelo                      | Melissa oil      | 15172310          | 1              |
| Caelo                      | Melissa oil      | 15172313          | 5              |
| Caelo                      | Melissa oil      | 16053601          | 14             |
| Caelo                      | Melissa oil      | 16053602          | 1              |
| Caelo                      | Melissa oil      | 16053609          | 13             |
| Caelo                      | Melissa oil      | 16053610          | 1              |
| Caelo                      | Melissa oil      | 16334905          | 20             |
| Caelo                      | Melissa oil      | 16334906          | 3              |
| Caelo                      | Melissa oil      | 16334912          | 6              |
| Caelo                      | Melissa oil      | 17012014          | 1              |
| Caelo                      | Melissa oil      | 17091201          | 1              |
| Caelo                      | Melissa oil      | 1712070M/16053609 | 1              |
| Caelo                      | Melissa oil      | 18081501          | 1              |
| Caelo                      | Melissa oil      | 18087301          | 1              |
| Caelo                      | Melissa oil      | 18097301          | 16             |
| Caelo                      | Melissa oil      | 18097306          | 2              |
| Caelo                      | Melissa oil      | 18097308          | 7              |
| Caelo                      | Melissa oil      | 183300003         | 1              |
| Caelo                      | Melissa oil      | 18330002          | 1              |
| Caelo                      | Melissa oil      | 18330004          | 6              |
| Caelo                      | Melissa oil      | 18330007          | 5              |
| Caelo                      | Melissa oil      | 18330008          | 1              |
| Caelo                      | Melissa oil      | 190412            | 1              |
| Caelo                      | Melissa oil      | 200000819009      | 1              |
| Caelo                      | Melissa oil      | 20000819002       | 1              |
| Caelo                      | Melissa oil      | 20000819003       | 2              |
| Caelo                      | Melissa oil      | 20000819008       | 2              |
| Caelo                      | Melissa oil      | 20000819009       | 1              |
| Caelo                      | Melissa oil      | 20000819011       | 1              |
| Caelo                      | Melissa oil      | 20000819013       | 2              |
| Caelo                      | Melissa oil      | 2000819011        | 1              |
| Caelo                      | Melissa oil      | 20230712-7        | 1              |
| Caelo                      | Melissa oil      | 21002240002       | 1              |
| Caelo                      | Melissa oil      | 21041715          | 1              |
| Caelo                      | Melissa oil      | 21111303          | 1              |
| Caelo                      | Melissa oil      | 25(18097301)      | 1              |
| Caelo                      | Melissa oil      | 28051311          | 1              |
| Caelo                      | Melissa oil      | 4110I-01993       | 1              |
| Caelo                      | Melissa oil      | 5211R-01993       | 1              |
| Caecolo                    | Melissa oil      | 14332501          | 1              |
| Caesar & Loretz GmbH, 4... | Melissa oil      | 11323910          | 1              |
| Caesar & Loretz GmbH/ G... | Melissa oil      | 21002240002       | 1              |
| Caesar & Loretz GmbH/Je... | Melissa oil      | 20000819002       | 1              |
| Caesar & Loretz GmbH/No... | Melissa oil      | 18330007          | 1              |
| Caesar & Loretz GmbH       | Melissa oil      | 18097308          | 2              |
| Caesar & Loretz GmbH       | Melissa oil      | 18330003          | 1              |
| Caesar & Loretz GmbH       | Melissa oil      | 20000819003       | 1              |
| Caesar&lorenz,Anzag        | Melissa oil      | 11323902          | 1              |
| Caleo/Phönix               | Melissa oil      | 16053609          | 1              |
| celo/phönix                | Melissa oil      | 12283805          | 1              |
| Fiebig                     | Melissa oil      | 16334906          | 1              |
| GEHE Kassel 07.01.2019     | Melissa oil      | 18097301          | 1              |
| Gehe                       | Melissa oil      | 1517203           | 1              |
| GEHE                       | Melissa oil      | 18097301          | 1              |
| Nachprüfung                | Melissa oil      | 130863060         | 1              |
| P&M Cosmetics GmbH&Co.KG   | Melissa oil      | 200419            | 1              |
| Phoenix                    | Melissa oil      | 18097306          | 1              |
| Phönix                     | Melissa oil      | 12283809          | 1              |
| Sanacorp                   | Melissa oil      | 13086306          | 1              |

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| Supplier        | Substance   | Batch    | Spectra |
|-----------------|-------------|----------|---------|
| Sanacorp        | Melissa oil | 1334110  | 1       |
| Spangro 7.11.18 | Melissa oil | 18097301 | 1       |

- 288 430 spectra from 1294 *Apo-Ident* customers from a total of 51 813 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Melissa oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Melissa oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 160           | 0              | 66 999        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 277           | 2              | 288 430       |

The substance/substance group *Melissa oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.2500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.2832 % (> 98.2079 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Melissa oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in main model | Distance in second-stage model |
|-------------------|------------------------|--------------------------------|
| Citronella oil    | 38.65                  | —                              |
| Tea tree oil      | 45.57                  | —                              |
| Bitter orange oil | 50.23                  | —                              |



The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Melissa oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31163     | 31163               | 0.00                         | 50.70                           |
| 31403     | 31163               | 4.80                         | 48.37                           |
| 33080     | 33080               | 0.00                         | 51.56                           |
| 34641     | 34641               | 0.00                         | 51.83                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Methyl salicylate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31038-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Methyl salicylate; Methylis salicylas

### Special notes

When selecting the *Methyl salicylate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Methyl salicylate         | 4      | 3      | 71     |

## Second-stage model

For differentiation of the substance/substance group *Methyl salicylate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Methyl salicylate*:

| Supplier | Substance         | Batch            | Sample ID | Spectra | Certificate |
|----------|-------------------|------------------|-----------|---------|-------------|
| Caelo    | Methyl salicylate | 12215217         | 31038     | 40      | 1403162     |
| Caelo    | Methyl salicylate | 15409810         | 33280     | 40      | 20160118    |
| Fagron   | Methyl salicylate | 14D03-B04-294169 | 31607     | 60      | 20140414    |
| Fagron   | Methyl salicylate | 16E23-B05-332971 | 33275     | 40      | 20160608    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 180 spectra of 4 reference samples from the substance/substance group *Methyl salicylate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 979 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Methyl salicylate*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance         | Batch            | Sample ID | Spectra |
|----------|-------------------|------------------|-----------|---------|
| Caelo    | Methyl salicylate | 192086           | 34728     | 40      |
| Fagron   | Methyl salicylate | 18B19-B06-346255 | 34047     | 40      |
| Fagron   | Methyl salicylate | 20C03-F04-374159 | 35460     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 119 spectra from 73 *Apo-Ident* customers from 75 batches from the substance/substance group *Methyl salicylate*.
- Among them are spectra of independent samples from 71 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance         | Batch             | Spectra |
|----------------------------|-------------------|-------------------|---------|
| ACM                        | Methyl salicylate | KNC1794J14        | 1       |
| Alliance Health 10.06.2... | Methyl salicylate | RMS1332311        | 1       |
| Alliance Health 18.11.2... | Methyl salicylate | 13185102          | 1       |
| Bomb/ Noweda               | Methyl salicylate | RMS1332311        | 1       |
| Caelo                      | Methyl salicylate | 10313708          | 3       |
| Caelo                      | Methyl salicylate | 1219Q-01867       | 1       |
| Caelo                      | Methyl salicylate | 12215215          | 1       |
| Caelo                      | Methyl salicylate | 12308307          | 1       |
| Caelo                      | Methyl salicylate | 12308313          | 1       |
| Caelo                      | Methyl salicylate | 13-11-n06         | 1       |
| Caelo                      | Methyl salicylate | 13185101          | 3       |
| Caelo                      | Methyl salicylate | 13189308          | 1       |
| Caelo                      | Methyl salicylate | 13189309          | 2       |
| Caelo                      | Methyl salicylate | 13I11-N06         | 1       |
| Caelo                      | Methyl salicylate | 14D03-B04-294169  | 1       |
| Caelo                      | Methyl salicylate | 15117904          | 3       |
| Caelo                      | Methyl salicylate | 15117910          | 3       |
| Caelo                      | Methyl salicylate | 15409807          | 1       |
| Caelo                      | Methyl salicylate | 15B09-B04         | 1       |
| Caelo                      | Methyl salicylate | 15B09-B04303941   | 1       |
| Caelo                      | Methyl salicylate | 17071301          | 1       |
| Caelo                      | Methyl salicylate | 17360503          | 2       |
| Caelo                      | Methyl salicylate | 17H21B04338848    | 1       |
| Caelo                      | Methyl salicylate | 18039003          | 3       |
| Caelo                      | Methyl salicylate | 3917E-01867       | 1       |
| Caelo                      | Methyl salicylate | 7111203           | 1       |
| Caelo                      | Methyl salicylate | 90328419          | 1       |
| Caesar & Loretz GmbH, 4... | Methyl salicylate | 12215215          | 1       |
| Caesar & Loretz GmbH       | Methyl salicylate | 17360510          | 1       |
| Euro OTC                   | Methyl salicylate | 18B19-B06-346255  | 1       |
| Fagron                     | Methyl salicylate | 1139              | 1       |
| Fagron                     | Methyl salicylate | 11D08-N07         | 3       |
| Fagron                     | Methyl salicylate | 11H30-N14         | 1       |
| Fagron                     | Methyl salicylate | 12C02-No2         | 1       |
| Fagron                     | Methyl salicylate | 12D24-N09         | 1       |
| Fagron                     | Methyl salicylate | 12D27-n05         | 1       |
| Fagron                     | Methyl salicylate | 12D27-N05         | 5       |
| Fagron                     | Methyl salicylate | 13/11-N06         | 4       |
| Fagron                     | Methyl salicylate | 13/11-N060013/364 | 1       |
| Fagron                     | Methyl salicylate | 13/11-N060025/364 | 1       |
| Fagron                     | Methyl salicylate | 13D24-N09         | 6       |

*continued on the next page*

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| Supplier           | Substance         | Batch            | Spectra |
|--------------------|-------------------|------------------|---------|
| Fagron             | Methyl salicylate | 13d24-no9        | 1       |
| Fagron             | Methyl salicylate | 13I11-N06        | 1       |
| Fagron             | Methyl salicylate | 14D03-B04        | 1       |
| Fagron             | Methyl salicylate | 14D03-B04-292643 | 1       |
| Fagron             | Methyl salicylate | 14D03-B04-294169 | 4       |
| Fagron             | Methyl salicylate | 14D03-B04-294170 | 1       |
| Fagron             | Methyl salicylate | 14D03B04301825   | 2       |
| Fagron             | Methyl salicylate | 14D03-B04-301825 | 1       |
| Fagron             | Methyl salicylate | 15809-B04        | 1       |
| Fagron             | Methyl salicylate | 15B09-04-309068  | 1       |
| Fagron             | Methyl salicylate | 15B09-B04        | 1       |
| Fagron             | Methyl salicylate | 15B09-B04_303941 | 1       |
| Fagron             | Methyl salicylate | 15B09-B04-303941 | 1       |
| Fagron             | Methyl salicylate | 15H04-B01        | 2       |
| Fagron             | Methyl salicylate | 15H04-B01-326798 | 1       |
| Fagron             | Methyl salicylate | 16E23-B05        | 1       |
| Fagron             | Methyl salicylate | 16e23-b05-332971 | 1       |
| Fagron             | Methyl salicylate | 172650-0002      | 2       |
| Fagron             | Methyl salicylate | 17H21-B04-338848 | 1       |
| Fagron             | Methyl salicylate | 18/01-B01-358359 | 1       |
| Fagron             | Methyl salicylate | 18/01-B01-359363 | 1       |
| Fagron             | Methyl salicylate | 18B19-B06        | 1       |
| Fagron             | Methyl salicylate | 18b19-b06-346255 | 1       |
| Fagron             | Methyl salicylate | 18B19-B06-346255 | 2       |
| Fagron             | Methyl salicylate | 18I01-B01-354337 | 1       |
| Fagron             | Methyl salicylate | 18J01-B01        | 1       |
| Fagron             | Methyl salicylate | 18J01-B01-359363 | 1       |
| Fagron             | Methyl salicylate | 19061309         | 1       |
| Fagron             | Methyl salicylate | 24061714         | 1       |
| Fagron             | Methyl salicylate | 30121414         | 1       |
| Fagron             | Methyl salicylate | 303941           | 1       |
| Fagron             | Methyl salicylate | 711Q-01867       | 1       |
| Fagron             | Methyl salicylate | B03-3646400      | 1       |
| Fagron             | Methyl salicylate | B03-3671005      | 1       |
| Fagron             | Methyl salicylate | RMS1332311       | 1       |
| Fagron             | Methyl salicylate | RMS13332311      | 1       |
| Fagron             | Methyl salicylate | RMS1409712       | 2       |
| Fargon/Sanacorp    | Methyl salicylate | 18J01-B01-354337 | 1       |
| Kögl               | Methyl salicylate | 157905164116     | 1       |
| Kögl               | Methyl salicylate | 1800961          | 1       |
| Kögl               | Methyl salicylate | 36202170817      | 1       |
| L12                | Methyl salicylate | 18J01-B01-354337 | 1       |
| PHOENIX 08.05.2014 | Methyl salicylate | 13I11-N06        | 1       |
| Phönix             | Methyl salicylate | 13D24-N09        | 1       |

- 288 590 spectra from 1294 *Apo-Ident* customers from a total of 51 815 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Methyl salicylate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Methyl salicylate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following

table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 180           | 0              | 66 979        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 119           | 0              | 288 590       |

The substance/substance group *Methyl salicylate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.6667 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 94.9580 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Methyl salicylate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance               | Distance in main model | Distance in second-stage model |
|-------------------------|------------------------|--------------------------------|
| Hydroxyethyl salicylate | 104.61                 | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Methyl salicylate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31038     | 31038               | 0.00                         | 153.69                          |
| 31607     | 31038               | 5.87                         | 155.16                          |
| 33275     | 31038               | 2.31                         | 154.83                          |
| 33280     | 31038               | 2.74                         | 153.83                          |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Metronidazole 25% in white petrolatum**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30663-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Metronidazole 25% in white petrolatum

### Special notes

When selecting the *Metronidazole 25% in white petrolatum* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group             | Type A | Type B | Type C |
|---------------------------------------|--------|--------|--------|
| Metronidazole 25% in white petrolatum | 4      | 1      | 13     |

## Second-stage model

For differentiation of the substance/substance group *Metronidazole 25% in white petrolatum* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Metronidazole 25% in white petrolatum*:

| Supplier | Substance           | Batch       | Sample ID | Spectra | Certificate |
|----------|---------------------|-------------|-----------|---------|-------------|
| Caelo    | Metronidazole 25... | 12266401    | 30663     | 40      | 1405100     |
| Caelo    | Metronidazole 25... | 14116801    | 31316     | 40      | 20140411    |
| Caelo    | Metronidazole 25... | 16063101    | 32456     | 40      | 20160229    |
| Caelo    | Metronidazole 25... | 16063101    | 32768     | 40      | 20160229    |
| Caelo    | Metronidazole 25... | 21003218001 | 35909     | 50      | 20211119    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 210 spectra of 5 reference samples from the substance/substance group *Metronidazole 25% in white petrolatum*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 949 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Metronidazole 25% in white petrolatum*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Metronidazole 25% in white p... | 16249701 | 33272     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 60 spectra from 21 *Apo-Ident* customers from 15 batches from the substance/substance group *Metronidazole 25% in white petrolatum*.
- Among them are spectra of independent samples from 13 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                 | Substance                       | Batch    | Spectra |
|--------------------------|---------------------------------|----------|---------|
| Cael Sanacorp 05.02.2016 | Metronidazole 25% in white p... | 15207101 | 1       |
| Caelo                    | Metronidazole 25% in white p... | 1285301  | 1       |
| Caelo                    | Metronidazole 25% in white p... | 13002801 | 2       |
| Caelo                    | Metronidazole 25% in white p... | 13077601 | 3       |
| Caelo                    | Metronidazole 25% in white p... | 13109801 | 4       |
| Caelo                    | Metronidazole 25% in white p... | 13188901 | 2       |
| Caelo                    | Metronidazole 25% in white p... | 13296501 | 3       |
| Caelo                    | Metronidazole 25% in white p... | 14024301 | 4       |
| Caelo                    | Metronidazole 25% in white p... | 14116801 | 3       |
| Caelo                    | Metronidazole 25% in white p... | 14209301 | 1       |
| Caelo                    | Metronidazole 25% in white p... | 14247201 | 3       |
| Caelo                    | Metronidazole 25% in white p... | 15207101 | 6       |
| Caelo                    | Metronidazole 25% in white p... | 16063101 | 10      |
| Caelo                    | Metronidazole 25% in white p... | 16249701 | 11      |
| celo/Jenne               | Metronidazole 25% in white p... | 13077601 | 1       |
| GEHE/26.02.2013          | Metronidazole 25% in white p... | 12306601 | 1       |
| Gehe                     | Metronidazole 25% in white p... | 14209301 | 1       |
| Noweda 20.02.2015        | Metronidazole 25% in white p... | 14247301 | 1       |
| Phoenix                  | Metronidazole 25% in white p... | 16249701 | 1       |
| Sanacorp                 | Metronidazole 25% in white p... | 12306601 | 1       |

- 288 649 spectra from 1294 *Apo-Ident* customers from a total of 51 873 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Metronidazole 25% in white petrolatum* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Metronidazole 25% in white petrolatum* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and

incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 210           | 0              | 66 949        |
| Type B | 0              | 40            | 0              | 107 323       |
| Type C | 0              | 60            | 0              | 288 649       |

The substance/substance group *Metronidazole 25% in white petrolatum* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.1429 %) |
| Type B | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| Type C | 100.0000 % (> 99.6872 %) | 100.0000 % (> 90.0000 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Metronidazole 25% in white petrolatum* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                 | Distance in main model | Distance in second-stage model |
|---------------------------|------------------------|--------------------------------|
| Pasta Cordes <sup>®</sup> | 40.99                  | –                              |
| Permethrin 25% solution   | 41.12                  | –                              |
| Shea butter, refined      | 48.21                  | –                              |
| Isopropyl palmitate       | 57.01                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Metronidazole 25% in white petrolatum* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30663     | 30663               | 0.00                         | 47.51                           |
| 31316     | 30663               | 10.41                        | 47.48                           |

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| <b>Sample ID</b> | <b>Reference<br/>sample ID</b> | <b>Distance to<br/>reference sample</b> | <b>Distance to<br/>next foreign sample</b> |
|------------------|--------------------------------|-----------------------------------------|--------------------------------------------|
| 32456            | 30663                          | 15.81                                   | 49.42                                      |
| 32768            | 30663                          | 18.81                                   | 49.23                                      |
| 35909            | 30663                          | 25.20                                   | 50.29                                      |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Mint oil / Peppermint oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30856-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Mint oil / Peppermint oil; Menthae arvensis aetheroleum partim mentholum depletum; Menthae piperitae aetheroleum; Mint oil; Peppermint oil

### Special notes

When selecting the *Mint oil / Peppermint oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Mint oil / Peppermint oil | 11     | 11     | 390    |



## Second-stage model

For differentiation of the substance/substance group *Mint oil* / *Peppermint oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Mint oil* / *Peppermint oil*:

| Supplier  | Substance      | Batch      | Sample ID | Spectra | Certificate |
|-----------|----------------|------------|-----------|---------|-------------|
| Caelo     | Mint oil       | 16053503   | 32474     | 40      | 1701393     |
| Caelo     | Mint oil       | 15380507   | 32476     | 40      | 1701394     |
| Caelo     | Mint oil       | 15380507   | 32484     | 40      | 20151116    |
| Caelo     | Mint oil       | 16053503   | 32780     | 40      | 20160309    |
| Caelo     | Mint oil       | 190224     | 34647     | 40      | 20190226*   |
| Bombastus | Peppermint oil | 22000609   | 36193     | 40      | 20220203    |
| Caelo     | Peppermint oil | 12114206   | 30856     | 40      | 20120424    |
| Caelo     | Peppermint oil | 13303915   | 31410     | 40      | 1502136     |
| Caelo     | Peppermint oil | 191136     | 34443     | 40      | 20190515*   |
| Euro OTC  | Peppermint oil | 1312009-01 | 31294     | 40      | 20140130    |
| Euro OTC  | Peppermint oil | 1512011    | 31811     | 60      | 20151214*   |
| Euro OTC  | Peppermint oil | 2005001    | 35063     | 40      | 20200615*   |
| Euro OTC  | Peppermint oil | 2011012    | 35135     | 40      | 20201126*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 540 spectra of 13 reference samples from the substance/substance group *Mint oil* / *Peppermint oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 11 different batches.
- 66 619 spectra from a total of 1368 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

in the validation, are marked with a †. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 450 spectra of 11 reference samples from the substance/substance group *Mint oil / Peppermint oil*.
- Among them are spectra of independent samples from 11 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance      | Batch       | Sample ID | Spectra |
|-----------|----------------|-------------|-----------|---------|
| Bombastus | Mint oil       | 21001562    | 36217     | 40      |
| Caelo     | Mint oil       | 15380509    | 32781     | 40      |
| Caelo     | Mint oil       | 16053508    | 32845     | 40      |
| Caelo     | Mint oil       | 20003595001 | 35843     | 50      |
| Caelo     | Peppermint oil | 161904      | 32333     | 40      |
| Caelo     | Peppermint oil | 172919      | 33699     | 40      |
| Caelo     | Peppermint oil | 191359      | 34620     | 40      |
| Caelo     | Peppermint oil | 20000648    | 35023     | 40      |
| Euro OTC  | Peppermint oil | 1607018     | 32468     | 40      |
| Euro OTC  | Peppermint oil | 1703032     | 33229     | 40      |
| Euro OTC  | Peppermint oil | 1804008     | 34089     | 40      |

- 106 913 spectra from a total of 2490 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1484 spectra from 633 *Apo-Ident* customers from 395 batches from the substance/substance group *Mint oil / Peppermint oil*.
- Among them are spectra of independent samples from 386 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance      | Batch            | Spectra |
|----------------------------|----------------|------------------|---------|
|                            | Peppermint oil | 9183299          | 1       |
| ACM                        | Peppermint oil | 407000718901021  | 1       |
| AHD, 29.11.13              | Peppermint oil | 282542           | 1       |
| Alliance Healthcare        | Peppermint oil | 16F01-B03-322190 | 1       |
| Alliance Healthcare        | Peppermint oil | 6423-19307       | 1       |
| Alliance Healthcare        | Peppermint oil | 19004746         | 1       |
| Alliance                   | Peppermint oil | 18000796         | 1       |
| Alliance                   | Peppermint oil | 56335            | 1       |
| Allianz Healthcare         | Peppermint oil | 18221716         | 1       |
| Anzag ek:13.70EUR 15.08.12 | Peppermint oil | 270566           | 1       |
| Anzag                      | Peppermint oil | 11G19N07         | 1       |
| Anzag                      | Peppermint oil | 16114611         | 1       |
| Anzag                      | Peppermint oil | 283491           | 1       |
| Bio-Diät / Phönix          | Peppermint oil | 20553            | 1       |
| bombaštus                  | Peppermint oil | 20004136         | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|------------------|---------------|----------------|
| Bombastus       | Peppermint oil   | 1001311995    | 1              |
| Bombastus       | Peppermint oil   | 110(18003400) | 1              |
| Bombastus       | Peppermint oil   | 14150216      | 1              |
| Bombastus       | Peppermint oil   | 16114611      | 1              |
| Bombastus       | Peppermint oil   | 17000387      | 1              |
| Bombastus       | Peppermint oil   | 17002163      | 6              |
| Bombastus       | Peppermint oil   | 18000796      | 6              |
| Bombastus       | Peppermint oil   | 18004277      | 2              |
| Bombastus       | Peppermint oil   | 18005114      | 4              |
| Bombastus       | Peppermint oil   | 18006214      | 2              |
| Bombastus       | Peppermint oil   | 18006246      | 1              |
| Bombastus       | Peppermint oil   | 18006685      | 8              |
| Bombastus       | Peppermint oil   | 19000237      | 1              |
| Bombastus       | Peppermint oil   | 19001155      | 3              |
| Bombastus       | Peppermint oil   | 19003147      | 1              |
| Bombastus       | Peppermint oil   | 19003525      | 1              |
| Bombastus       | Mint oil         | 19003993      | 1              |
| Bombastus       | Mint oil         | 19004624      | 1              |
| Bombastus       | Peppermint oil   | 19004746      | 7              |
| Bombastus       | Peppermint oil   | 19005885      | 2              |
| Bombastus       | Peppermint oil   | 20001394      | 1              |
| Bombastus       | Peppermint oil   | 20001965      | 1              |
| Bombastus       | Peppermint oil   | 20001977      | 2              |
| Bombastus       | Peppermint oil   | 20004136      | 5              |
| Bombastus       | Peppermint oil   | 21004165      | 1              |
| Bombastus       | Peppermint oil   | 271257        | 1              |
| Bombastus       | Peppermint oil   | 274804        | 1              |
| Bombastus       | Peppermint oil   | 274976        | 1              |
| Bombastus       | Peppermint oil   | 275481        | 2              |
| Bombastus       | Peppermint oil   | 277504        | 4              |
| Bombastus       | Peppermint oil   | 277817        | 2              |
| Bombastus       | Peppermint oil   | 278812        | 2              |
| Bombastus       | Peppermint oil   | 279930        | 4              |
| Bombastus       | Peppermint oil   | 280894        | 1              |
| Bombastus       | Peppermint oil   | 282542        | 1              |
| Bombastus       | Peppermint oil   | 283491        | 4              |
| Bombastus       | Peppermint oil   | 283734        | 1              |
| Bombastus       | Peppermint oil   | 284588        | 1              |
| Bombastus       | Peppermint oil   | 285571        | 2              |
| Bombastus       | Peppermint oil   | 285715        | 2              |
| Bombastus       | Peppermint oil   | 286204        | 1              |
| Bombastus       | Peppermint oil   | 286376        | 1              |
| Bombastus       | Peppermint oil   | 287325        | 1              |
| Bombastus       | Peppermint oil   | 287528        | 3              |
| Bombastus       | Peppermint oil   | 288086        | 1              |
| Bombastus       | Peppermint oil   | 288864        | 2              |
| Bombastus       | Peppermint oil   | 289595        | 1              |
| Bombastus       | Peppermint oil   | 289675        | 1              |
| Bombastus       | Peppermint oil   | 290301        | 6              |
| Bombastus       | Peppermint oil   | 290394        | 2              |
| Bombastus       | Peppermint oil   | 292138        | 6              |
| Bombastus       | Peppermint oil   | 292472        | 7              |
| Bombastus       | Peppermint oil   | 294293        | 4              |
| Bombastus       | Peppermint oil   | 294802        | 1              |
| Bombastus       | Peppermint oil   | 295599        | 3              |
| Bombastus       | Peppermint oil   | 295737        | 5              |
| Bombastus       | Peppermint oil   | 295985        | 4              |
| Bombastus       | Peppermint oil   | 296017        | 1              |
| Bombastus       | Peppermint oil   | 297256        | 6              |
| Bombastus       | Peppermint oil   | 297946        | 1              |

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| <b>Supplier</b>    | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|--------------------|------------------|--------------|----------------|
| Bombastus          | Peppermint oil   | 298969       | 1              |
| Bombastus          | Peppermint oil   | 299058       | 4              |
| Bombastus          | Peppermint oil   | 300468       | 3              |
| Bombastus          | Peppermint oil   | 300843       | 5              |
| Bombastus          | Peppermint oil   | 302909       | 1              |
| Bombastus          | Peppermint oil   | 303064       | 2              |
| Bombastus          | Peppermint oil   | 304515       | 10             |
| Bombastus          | Peppermint oil   | 305627       | 2              |
| Bombastus          | Peppermint oil   | 307810       | 2              |
| Bombastus          | Peppermint oil   | 307854       | 3              |
| Bombastus          | Peppermint oil   | 309390       | 3              |
| Bombastus          | Peppermint oil   | 311274       | 1              |
| Bombastus          | Peppermint oil   | 311547       | 6              |
| Bombastus          | Peppermint oil   | 60012008     | 1              |
| Bombastus          | Peppermint oil   | 80312004     | 1              |
| Bombastus/Sanacorp | Peppermint oil   | 18006685     | 1              |
| Caelo              | Peppermint oil   |              | 2              |
| Caelo              | Peppermint oil   | 10235308     | 1              |
| Caelo              | Peppermint oil   | 10235317     | 1              |
| Caelo              | Mint oil         | 1061802      | 1              |
| Caelo              | Peppermint oil   | 11071312     | 1              |
| Caelo              | Peppermint oil   | 11124706     | 1              |
| Caelo              | Peppermint oil   | 11124709     | 3              |
| Caelo              | Peppermint oil   | 11124710     | 2              |
| Caelo              | Peppermint oil   | 1118Q-01995  | 1              |
| Caelo              | Peppermint oil   | 1124709      | 1              |
| Caelo              | Peppermint oil   | 11287407     | 6              |
| Caelo              | Peppermint oil   | 11287416     | 9              |
| Caelo              | Peppermint oil   | 11287419     | 1              |
| Caelo              | Peppermint oil   | 11287421     | 5              |
| Caelo              | Peppermint oil   | 12020812     | 1              |
| Caelo              | Peppermint oil   | 12020815     | 1              |
| Caelo              | Peppermint oil   | 12114206     | 17             |
| Caelo              | Peppermint oil   | 12114211     | 2              |
| Caelo              | Peppermint oil   | 12114219     | 4              |
| Caelo              | Peppermint oil   | 12114224     | 2              |
| Caelo              | Peppermint oil   | 12114225     | 15             |
| Caelo              | Peppermint oil   | 1214206      | 1              |
| Caelo              | Peppermint oil   | 12180024     | 1              |
| Caelo              | Peppermint oil   | 12D10-N04    | 1              |
| Caelo              | Peppermint oil   | 13/04-N01    | 1              |
| Caelo              | Peppermint oil   | 13105306     | 1              |
| Caelo              | Peppermint oil   | 13105801     | 11             |
| Caelo              | Peppermint oil   | 13105905     | 2              |
| Caelo              | Peppermint oil   | 13241303     | 8              |
| Caelo              | Peppermint oil   | 1324302      | 1              |
| Caelo              | Peppermint oil   | 13303903     | 5              |
| Caelo              | Peppermint oil   | 13303904     | 6              |
| Caelo              | Peppermint oil   | 13303912     | 2              |
| Caelo              | Peppermint oil   | 13303914     | 2              |
| Caelo              | Peppermint oil   | 13303915     | 14             |
| Caelo              | Peppermint oil   | 1330394904   | 1              |
| Caelo              | Peppermint oil   | 13318004     | 4              |
| Caelo              | Peppermint oil   | 13A10-N08    | 2              |
| Caelo              | Peppermint oil   | 13I04-N01    | 1              |
| Caelo              | Peppermint oil   | 14150209     | 7              |
| Caelo              | Peppermint oil   | 14150211     | 1              |
| Caelo              | Peppermint oil   | 14150214     | 20             |
| Caelo              | Peppermint oil   | 14150215     | 2              |
| Caelo              | Peppermint oil   | 14150218     | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Peppermint oil   | 14150220         | 6              |
| Caelo           | Peppermint oil   | 14150221         | 4              |
| Caelo           | Peppermint oil   | 14150225         | 12             |
| Caelo           | Peppermint oil   | 14369909         | 13             |
| Caelo           | Peppermint oil   | 14369910         | 3              |
| Caelo           | Peppermint oil   | 14369911         | 3              |
| Caelo           | Peppermint oil   | 1469910          | 1              |
| Caelo           | Peppermint oil   | 14B03-B40        | 1              |
| Caelo           | Peppermint oil   | 150415A          | 1              |
| Caelo           | Peppermint oil   | 15112908         | 1              |
| Caelo           | Peppermint oil   | 15112909         | 2              |
| Caelo           | Peppermint oil   | 15126904         | 1              |
| Caelo           | Peppermint oil   | 15127004         | 2              |
| Caelo           | Peppermint oil   | 15235504         | 2              |
| Caelo           | Peppermint oil   | 152555801        | 1              |
| Caelo           | Peppermint oil   | 15255801         | 39             |
| Caelo           | Peppermint oil   | 15255805         | 4              |
| Caelo           | Peppermint oil   | 15255806         | 1              |
| Caelo           | Peppermint oil   | 15255807         | 1              |
| Caelo           | Peppermint oil   | 15255811         | 15             |
| Caelo           | Peppermint oil   | 15255816         | 30             |
| Caelo           | Peppermint oil   | 15255817         | 8              |
| Caelo           | Peppermint oil   | 15255829         | 1              |
| Caelo           | Peppermint oil   | 15363201         | 3              |
| Caelo           | Peppermint oil   | 15363207         | 1              |
| Caelo           | Peppermint oil   | 15363214         | 9              |
| Caelo           | Peppermint oil   | 153663207        | 1              |
| Caelo           | Mint oil         | 15380512         | 1              |
| Caelo           | Peppermint oil   | 15383704         | 2              |
| Caelo           | Peppermint oil   | 15383707         | 1              |
| Caelo           | Peppermint oil   | 15383713         | 1              |
| Caelo           | Peppermint oil   | 1538707          | 1              |
| Caelo           | Peppermint oil   | 15B11-B08-308854 | 1              |
| Caelo           | Mint oil         | 16053508         | 1              |
| Caelo           | Mint oil         | 16053514         | 2              |
| Caelo           | Peppermint oil   | 16114601         | 1              |
| Caelo           | Peppermint oil   | 16114602         | 20             |
| Caelo           | Peppermint oil   | 16114603         | 8              |
| Caelo           | Peppermint oil   | 16114604         | 2              |
| Caelo           | Peppermint oil   | 16114605         | 1              |
| Caelo           | Peppermint oil   | 16114607         | 2              |
| Caelo           | Peppermint oil   | 16114611         | 29             |
| Caelo           | Peppermint oil   | 16114613         | 1              |
| Caelo           | Peppermint oil   | 16114619         | 5              |
| Caelo           | Peppermint oil   | 16114620         | 1              |
| Caelo           | Peppermint oil   | 16114625         | 10             |
| Caelo           | Peppermint oil   | 16114627         | 14             |
| Caelo           | Peppermint oil   | 16114628         | 5              |
| Caelo           | Peppermint oil   | 16114629         | 1              |
| Caelo           | Peppermint oil   | 1611602          | 1              |
| Caelo           | Peppermint oil   | 16190405         | 6              |
| Caelo           | Peppermint oil   | 17023004         | 1              |
| Caelo           | Peppermint oil   | 1703032-01       | 1              |
| Caelo           | Peppermint oil   | 1703032-02       | 2              |
| Caelo           | Mint oil         | 17134803         | 1              |
| Caelo           | Peppermint oil   | 1718610          | 1              |
| Caelo           | Peppermint oil   | 17188609         | 58             |
| Caelo           | Peppermint oil   | 171886095683     | 1              |
| Caelo           | Peppermint oil   | 17188610         | 8              |
| Caelo           | Peppermint oil   | 17188611         | 2              |

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| Supplier | Substance      | Batch            | Spectra |
|----------|----------------|------------------|---------|
| Caelo    | Peppermint oil | 17188612         | 2       |
| Caelo    | Peppermint oil | 17291901         | 3       |
| Caelo    | Peppermint oil | 17364301         | 2       |
| Caelo    | Peppermint oil | 17F08-B07-342991 | 1       |
| Caelo    | Peppermint oil | 18000796         | 1       |
| Caelo    | Peppermint oil | 180009905        | 1       |
| Caelo    | Peppermint oil | 1800990          | 1       |
| Caelo    | Peppermint oil | 18009905         | 7       |
| Caelo    | Peppermint oil | 18009906         | 1       |
| Caelo    | Peppermint oil | 18009908         | 1       |
| Caelo    | Peppermint oil | 18009909         | 2       |
| Caelo    | Peppermint oil | 18009910         | 23      |
| Caelo    | Peppermint oil | 18009912         | 1       |
| Caelo    | Peppermint oil | 18009914         | 1       |
| Caelo    | Peppermint oil | 18047501         | 5       |
| Caelo    | Peppermint oil | 1820401          | 1       |
| Caelo    | Peppermint oil | 18208401         | 7       |
| Caelo    | Peppermint oil | 18208405         | 4       |
| Caelo    | Peppermint oil | 18208412         | 3       |
| Caelo    | Peppermint oil | 18221702         | 33      |
| Caelo    | Peppermint oil | 18221703         | 12      |
| Caelo    | Peppermint oil | 18221707         | 1       |
| Caelo    | Peppermint oil | 18221712         | 8       |
| Caelo    | Peppermint oil | 18221716         | 16      |
| Caelo    | Peppermint oil | 18221718         | 1       |
| Caelo    | Peppermint oil | 18221719         | 4       |
| Caelo    | Peppermint oil | 18221723         | 10      |
| Caelo    | Peppermint oil | 18221725         | 1       |
| Caelo    | Peppermint oil | 1822179          | 1       |
| Caelo    | Peppermint oil | 1891359008       | 1       |
| Caelo    | Peppermint oil | 19000776001      | 4       |
| Caelo    | Peppermint oil | 19000776002      | 2       |
| Caelo    | Peppermint oil | 19000776006      | 2       |
| Caelo    | Peppermint oil | 19000776010      | 2       |
| Caelo    | Peppermint oil | 19004746         | 1       |
| Caelo    | Mint oil       | 19022401         | 2       |
| Caelo    | Peppermint oil | 191136001        | 2       |
| Caelo    | Peppermint oil | 19113601         | 1       |
| Caelo    | Peppermint oil | 19113603         | 3       |
| Caelo    | Peppermint oil | 191359005        | 6       |
| Caelo    | Peppermint oil | 191359006        | 3       |
| Caelo    | Peppermint oil | 191359007        | 31      |
| Caelo    | Peppermint oil | 19135902         | 4       |
| Caelo    | Peppermint oil | 19135903         | 1       |
| Caelo    | Peppermint oil | 19135904         | 1       |
| Caelo    | Peppermint oil | 19135905         | 25      |
| Caelo    | Peppermint oil | 19135907         | 1       |
| Caelo    | Peppermint oil | 19135908         | 2       |
| Caelo    | Peppermint oil | 20000648         | 1       |
| Caelo    | Peppermint oil | 20000648005      | 1       |
| Caelo    | Peppermint oil | 20000648006      | 2       |
| Caelo    | Peppermint oil | 20000648007      | 5       |
| Caelo    | Peppermint oil | 20000648008      | 15      |
| Caelo    | Peppermint oil | 20003483001      | 1       |
| Caelo    | Peppermint oil | 20003483006      | 2       |
| Caelo    | Peppermint oil | 20003483009      | 1       |
| Caelo    | Peppermint oil | 20003483014      | 1       |
| Caelo    | Peppermint oil | 20003589001      | 3       |
| Caelo    | Peppermint oil | 20003589005      | 1       |
| Caelo    | Peppermint oil | 20003589006      | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Caelo                      | Peppermint oil   | 20003991001      | 3              |
| Caelo                      | Peppermint oil   | 20111417         | 1              |
| Caelo                      | Peppermint oil   | 20151112-6       | 1              |
| Caelo                      | Peppermint oil   | 20C16-B07-201867 | 1              |
| Caelo                      | Peppermint oil   | 2112E-01995      | 1              |
| Caelo                      | Peppermint oil   | 2115E-01995      | 1              |
| Caelo                      | Peppermint oil   | 22091805         | 1              |
| Caelo                      | Peppermint oil   | 26051806         | 1              |
| Caelo                      | Peppermint oil   | 269560           | 1              |
| Caelo                      | Peppermint oil   | 286204           | 2              |
| Caelo                      | Peppermint oil   | 294293           | 1              |
| Caelo                      | Peppermint oil   | 295985           | 1              |
| Caelo                      | Peppermint oil   | 297256           | 1              |
| Caelo                      | Peppermint oil   | 298969           | 1              |
| Caelo                      | Peppermint oil   | 307839           | 1              |
| Caelo                      | Peppermint oil   | 311547           | 5              |
| Caelo                      | Peppermint oil   | 36/20            | 1              |
| Caelo                      | Peppermint oil   | 3913I-01995      | 1              |
| Caelo                      | Peppermint oil   | 4214U-01995      | 1              |
| Caelo                      | Peppermint oil   | 4517A-01995      | 1              |
| Caelo                      | Peppermint oil   | 46/AD1           | 1              |
| Caelo                      | Peppermint oil   | 5170717          | 1              |
| Caelo                      | Peppermint oil   | 52/AKD15         | 1              |
| Caelo                      | Peppermint oil   | 688901           | 2              |
| Caelo                      | Peppermint oil   | 8061701          | 1              |
| Caelo                      | Peppermint oil   | 8092001          | 1              |
| Caelo                      | Peppermint oil   | 9322703          | 1              |
| Caelo                      | Peppermint oil   | C101761          | 1              |
| Caelo                      | Peppermint oil   | 14150209         | 1              |
| Caesar & Loretz GmbH / ... | Peppermint oil   | 18221702         | 1              |
| Caesar & Loretz GmbH, 4... | Peppermint oil   | 12184601         | 2              |
| Caesar & Loretz GmbH/ K... | Peppermint oil   | 20000648008      | 1              |
| Caesar & Loretz GmbH/ P... | Peppermint oil   | 18208401         | 1              |
| Caesar & Loretz GmbH/ P... | Peppermint oil   | 18208405         | 1              |
| Caesar & Loretz GmbH/ P... | Peppermint oil   | 19000776001      | 1              |
| Caesar & Loretz GmbH/Fi... | Peppermint oil   | 18221716         | 1              |
| Caesar & Loretz GmbH/Gehe  | Peppermint oil   | 19135905         | 1              |
| Caesar & Loretz GmbH/Gehe  | Peppermint oil   | 20003589001      | 1              |
| Caesar & Loretz GmbH/Gö... | Peppermint oil   | 19113603         | 1              |
| Caesar & Loretz GmbH/Je... | Peppermint oil   | 18221702         | 2              |
| Caesar & Loretz GmbH/No... | Peppermint oil   | 18221723         | 1              |
| Caesar & Loretz GmbH/No... | Peppermint oil   | 19113601         | 1              |
| Caesar & Loretz GmbH/No... | Peppermint oil   | 20000648008      | 1              |
| Caesar & Loretz GmbH/No... | Peppermint oil   | 20003795008      | 1              |
| Caesar & Loretz GmbH/phö   | Peppermint oil   | 19000776002      | 1              |
| Caesar & Loretz GmbH/Ph... | Peppermint oil   | 18221712         | 2              |
| Caesar & Loretz GmbH/Ph... | Peppermint oil   | 18221716         | 1              |
| Caesar & Loretz GmbH/Ph... | Peppermint oil   | 19135905         | 1              |
| Caesar & Loretz GmbH/Sa... | Peppermint oil   | 191359005        | 1              |
| Caesar & Loretz GmbH/Sa... | Peppermint oil   | 20000648008      | 2              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18208405         | 2              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18208412         | 1              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18221702         | 14             |
| Caesar & Loretz GmbH       | Peppermint oil   | 18221703         | 3              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18221716         | 6              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18221718         | 1              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18221722         | 1              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18221723         | 3              |
| Caesar & Loretz GmbH       | Peppermint oil   | 18221724         | 1              |
| Caesar & Loretz GmbH       | Peppermint oil   | 19000776006      | 1              |

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| <b>Supplier</b>           | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|---------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH      | Peppermint oil   | 19000776010  | 2              |
| Caesar & Loretz GmbH      | Mint oil         | 190494002    | 1              |
| Caesar & Loretz GmbH      | Peppermint oil   | 19113601     | 1              |
| Caesar & Loretz GmbH      | Peppermint oil   | 19113603     | 1              |
| Caesar & Loretz GmbH      | Peppermint oil   | 191359007    | 3              |
| Caesar & Loretz GmbH      | Peppermint oil   | 19135902     | 2              |
| Caesar & Loretz GmbH      | Peppermint oil   | 19135905     | 5              |
| Caesar & Loretz GmbH      | Peppermint oil   | 19135909     | 1              |
| Caesar & Loretz GmbH      | Peppermint oil   | 20000648007  | 2              |
| Caesar & Loretz GmbH      | Peppermint oil   | 20000648008  | 11             |
| Caesar & Loretz GmbH      | Peppermint oil   | 20003483006  | 4              |
| Caesar & Loretz GmbH      | Peppermint oil   | 20003483009  | 1              |
| Caesar & Loretz GmbH      | Peppermint oil   | 20003589001  | 3              |
| Caesar & Loretz           | Peppermint oil   | 16114602     | 1              |
| Caesar/Noweda             | Peppermint oil   | 13303915     | 1              |
| Caesar/Noweda             | Peppermint oil   | 15255811     | 1              |
| Canea Pharma/ Anzag       | Mint oil         | 140519       | 1              |
| Cealo/Noweda              | Peppermint oil   | 1804008-01   | 1              |
| Eigenherstellung Defektur | Peppermint oil   | 6082101      | 1              |
| EuRho/Noweda              | Peppermint oil   | 17291901     | 1              |
| EuRho                     | Peppermint oil   | 1404038-01   | 1              |
| Euro OTC                  | Peppermint oil   | 1069396      | 2              |
| Euro OTC                  | Peppermint oil   | 1303015-01   | 2              |
| Euro OTC                  | Peppermint oil   | 1404038-01   | 2              |
| Euro OTC                  | Peppermint oil   | 1410005-01   | 1              |
| Euro OTC                  | Peppermint oil   | 1504017-01   | 3              |
| Euro OTC                  | Peppermint oil   | 1512011-01   | 5              |
| Euro OTC                  | Peppermint oil   | 15255816     | 1              |
| Euro OTC                  | Peppermint oil   | 1607018-01   | 3              |
| Euro OTC                  | Peppermint oil   | 1607018-02   | 2              |
| Euro OTC                  | Peppermint oil   | 16114627     | 1              |
| Euro OTC                  | Peppermint oil   | 170303       | 1              |
| Euro OTC                  | Peppermint oil   | 1703030-02   | 1              |
| Euro OTC                  | Peppermint oil   | 1703032-01   | 3              |
| Euro OTC                  | Peppermint oil   | 1703032-02   | 1              |
| Euro OTC                  | Peppermint oil   | 1804008      | 1              |
| Euro OTC                  | Peppermint oil   | 1804008-01   | 3              |
| Euro OTC                  | Peppermint oil   | 1804008-02   | 2              |
| Euro OTC                  | Peppermint oil   | 1904746      | 1              |
| Euro OTC                  | Peppermint oil   | 190920309    | 1              |
| Euro OTC                  | Peppermint oil   | 2005001-01   | 2              |
| Euro OTC                  | Peppermint oil   | 2005001-02   | 1              |
| Euro OTC                  | Peppermint oil   | 2011012-01   | 1              |
| Euro OTC                  | Peppermint oil   | 909185       | 1              |
| Euro/Phönix               | Peppermint oil   | 1703032-02   | 1              |
| Fagron                    | Peppermint oil   |              | 1              |
| Fagron                    | Peppermint oil   | 100030-N05   | 1              |
| Fagron                    | Peppermint oil   | 1008442      | 3              |
| Fagron                    | Peppermint oil   | 1057683      | 2              |
| Fagron                    | Peppermint oil   | 1142326      | 2              |
| Fagron                    | Peppermint oil   | 1192556      | 1              |
| Fagron                    | Peppermint oil   | 11A05-N02    | 1              |
| Fagron                    | Peppermint oil   | 11C14-N06    | 2              |
| Fagron                    | Peppermint oil   | 11F09-N12    | 1              |
| Fagron                    | Peppermint oil   | 11G19-N07    | 4              |
| Fagron                    | Peppermint oil   | 12114206     | 1              |
| Fagron                    | Peppermint oil   | 1275880      | 1              |
| Fagron                    | Peppermint oil   | 12D10-N04    | 7              |
| Fagron                    | Peppermint oil   | 12I19-N09    | 1              |
| Fagron                    | Peppermint oil   | 13/04-N10    | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Peppermint oil   | 1304-N01          | 2              |
| Fagron          | Peppermint oil   | 13A10N08          | 2              |
| Fagron          | Peppermint oil   | 13A10-N08         | 5              |
| Fagron          | Peppermint oil   | 13A10-N8          | 1              |
| Fagron          | Peppermint oil   | 13I04-N01         | 7              |
| Fagron          | Peppermint oil   | 13i04-N10         | 1              |
| Fagron          | Peppermint oil   | 13I04-N10         | 4              |
| Fagron          | Peppermint oil   | 13I04-N10         | 1              |
| Fagron          | Peppermint oil   | 14B03B40          | 1              |
| Fagron          | Peppermint oil   | 14B03-B40         | 3              |
| Fagron          | Peppermint oil   | 14B03-B40-295665  | 3              |
| Fagron          | Peppermint oil   | 1512011-01        | 1              |
| Fagron          | Peppermint oil   | 15255801          | 1              |
| Fagron          | Peppermint oil   | 15363207          | 1              |
| Fagron          | Peppermint oil   | 15B11-B08         | 1              |
| Fagron          | Peppermint oil   | 15B11-B08-304115  | 1              |
| Fagron          | Peppermint oil   | 15B11B08304117    | 1              |
| Fagron          | Peppermint oil   | 15B11-B08-304117  | 1              |
| Fagron          | Peppermint oil   | 15B11-B08-308854  | 1              |
| Fagron          | Peppermint oil   | 15G08-B99-312672  | 1              |
| Fagron          | Peppermint oil   | 15K27-B01         | 1              |
| Fagron          | Peppermint oil   | 15K27-B01-317773  | 4              |
| Fagron          | Peppermint oil   | 16F01-B03         | 1              |
| Fagron          | Peppermint oil   | 16F01-B03-322189  | 1              |
| Fagron          | Peppermint oil   | 16F01-B03-322190  | 3              |
| Fagron          | Peppermint oil   | 16F01-B03-322818  | 4              |
| Fagron          | Peppermint oil   | 16F01-B03-326341  | 1              |
| Fagron          | Peppermint oil   | 16F01-B03-326342  | 6              |
| Fagron          | Peppermint oil   | 17F08-B07         | 4              |
| Fagron          | Peppermint oil   | 17F08-B07-139332  | 1              |
| Fagron          | Peppermint oil   | 17F08-B07-336043  | 3              |
| Fagron          | Peppermint oil   | 17F08-B07-336086  | 1              |
| Fagron          | Peppermint oil   | 17F08-B07-337476  | 1              |
| Fagron          | Peppermint oil   | 17F08-B07-339333  | 1              |
| Fagron          | Peppermint oil   | 17F08-B07-342991  | 2              |
| Fagron          | Peppermint oil   | 17F0-B07-336043   | 1              |
| Fagron          | Peppermint oil   | 17Fo8-B07-336043  | 1              |
| Fagron          | Peppermint oil   | 18221702          | 1              |
| Fagron          | Peppermint oil   | 18B08-B06         | 2              |
| Fagron          | Peppermint oil   | 18B08-B06-352613  | 1              |
| Fagron          | Peppermint oil   | 18B08-B06-352613  | 1              |
| Fagron          | Peppermint oil   | 18B08-B06-353685  | 2              |
| Fagron          | Peppermint oil   | 18B08-B06-354448  | 1              |
| Fagron          | Peppermint oil   | 18B08-B06-354449  | 2              |
| Fagron          | Peppermint oil   | 18B0B8-B06-352613 | 1              |
| Fagron          | Peppermint oil   | 19C14-B12         | 1              |
| Fagron          | Peppermint oil   | 19C14B12191227    | 1              |
| Fagron          | Peppermint oil   | 19C14-B12-191227  | 6              |
| Fagron          | Peppermint oil   | 19C24B12191227    | 1              |
| Fagron          | Peppermint oil   | 19J21-B14-193446  | 5              |
| Fagron          | Peppermint oil   | 20A14-B01-197082  | 7              |
| Fagron          | Peppermint oil   | 20C16-B07-201867  | 1              |
| Fagron          | Peppermint oil   | 250214PJK02       | 1              |
| Fagron          | Peppermint oil   | 267849            | 1              |
| Fagron          | Peppermint oil   | 285571            | 1              |
| Fagron          | Peppermint oil   | 304515            | 1              |
| Fagron          | Peppermint oil   | 688901            | 1              |
| Fagron          | Peppermint oil   | 700599            | 1              |
| Fagron          | Peppermint oil   | 809007000         | 1              |
| Fagron          | Peppermint oil   | 8574769           | 1              |

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| Supplier              | Substance      | Batch            | Spectra |
|-----------------------|----------------|------------------|---------|
| Fargon                | Peppermint oil | 934920           | 1       |
| Fargon                | Peppermint oil | B01-1970802      | 2       |
| Fargon                | Peppermint oil |                  | 1       |
| Fiebig                | Peppermint oil | 16114629         | 1       |
| Fiebig                | Peppermint oil | 17188611         | 2       |
| Fiebig                | Peppermint oil | 20004136         | 1       |
| Fiebig                | Peppermint oil | 21022172/1       | 1       |
| Gatt-Koller           | Peppermint oil | 1802889          | 1       |
| GEHE 06.06.2014       | Peppermint oil | 283491           | 1       |
| Gehe                  | Peppermint oil | 13105801         | 1       |
| Gehe                  | Peppermint oil | 13303903         | 1       |
| Gehe                  | Peppermint oil | 16114602         | 1       |
| GEHE                  | Peppermint oil | 17188609         | 2       |
| GEHE                  | Peppermint oil | 17F08-B07-324991 | 2       |
| Gehe                  | Peppermint oil | 18009910         | 1       |
| Gehe                  | Peppermint oil | 287528           | 1       |
| Gehe                  | Peppermint oil | 292138           | 1       |
| Gehe                  | Peppermint oil | 299058           | 1       |
| Gehe                  | Peppermint oil | 305627           | 3       |
| Gehe                  | Peppermint oil | 60012008         | 1       |
| Hänseler              | Peppermint oil |                  | 4       |
| Hedinger/Gehe         | Peppermint oil | 13105801         | 1       |
| Hedinger              | Peppermint oil | 12114206         | 1       |
| hochhaus-Apotheke     | Peppermint oil | 16114603         | 1       |
| Ichthyol GmbH/Noweda  | Peppermint oil | 16114611         | 1       |
| Kehr                  | Peppermint oil | 17188609         | 1       |
| Kögl                  | Peppermint oil | 1801774          | 1       |
| L12                   | Peppermint oil | 16114602         | 2       |
| L12                   | Peppermint oil | 16114625         | 3       |
| L30                   | Peppermint oil | 17188609         | 2       |
| Noweda 07.11.2019     | Peppermint oil | 18006685         | 1       |
| Noweda 07.11.2019     | Peppermint oil | 18221723         | 1       |
| Noweda                | Peppermint oil | 12114206         | 1       |
| Noweda                | Peppermint oil | 15255801         | 1       |
| Noweda                | Peppermint oil | 17188609         | 1       |
| Noweda                | Peppermint oil | 18047501         | 1       |
| Noweda                | Peppermint oil | 18221702         | 3       |
| Noweda                | Peppermint oil | 18221716         | 1       |
| Noweda                | Peppermint oil | 191359005        | 1       |
| Pharmadrog / Anzag    | Mint oil       | L005420          | 1       |
| phoenix 27.2.12       | Peppermint oil | 267518           | 1       |
| Phoenix               | Peppermint oil | 12114211         | 1       |
| Phoenix               | Peppermint oil | 13303915         | 2       |
| Phoenix               | Peppermint oil | 16F01-B03-326341 | 1       |
| Phoenix               | Peppermint oil | 18221702         | 1       |
| Phoenix               | Peppermint oil | 191359007        | 1       |
| Phönix Gotha          | Peppermint oil | 14150225         | 1       |
| phönix                | Peppermint oil |                  | 1       |
| Phönix                | Peppermint oil | 11124710         | 1       |
| Phönix                | Peppermint oil | 13303915         | 1       |
| Phönix                | Peppermint oil | 18000796         | 1       |
| Phönix                | Peppermint oil | 191359005        | 1       |
| Phönix                | Peppermint oil | 20003483014      | 1       |
| Primavera/Sanacorp    | Peppermint oil | 202C25           | 1       |
| Primavera             | Peppermint oil | 367G26           | 1       |
| Primavera             | Peppermint oil | 374826           | 1       |
| Primavera             | Peppermint oil | 5409142          | 1       |
| Primavera             | Peppermint oil | 649B25           | 1       |
| Primavera             | Peppermint oil | 7703L22          | 1       |
| Recordati Pharma GmbH | Mint oil       | BS04             | 1       |

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| Supplier                   | Substance      | Batch         | Spectra |
|----------------------------|----------------|---------------|---------|
| Rödler                     | Mint oil       | G838          | 1       |
| Sanacorp, 16.08.2016, 7... | Peppermint oil | 15255816      | 2       |
| Sanacorp                   | Peppermint oil | 11287416      | 1       |
| Sanacorp                   | Peppermint oil | 12114206      | 1       |
| Sanacorp                   | Peppermint oil | 12114219      | 1       |
| Sanacorp                   | Peppermint oil | 13303915      | 1       |
| sanacorp                   | Peppermint oil | 13I04-N01     | 1       |
| sanacorp                   | Peppermint oil | 14150214      | 1       |
| Sanacorp                   | Peppermint oil | 16114625      | 2       |
| Sanacorp                   | Peppermint oil | 17002163      | 1       |
| Sanacorp                   | Peppermint oil | 17188609      | 3       |
| Sanacorp                   | Peppermint oil | 18003400      | 1       |
| Sanacorp                   | Peppermint oil | 18004277      | 1       |
| Sanacorp                   | Peppermint oil | 18005114      | 1       |
| Sanacorp                   | Peppermint oil | 18009908      | 2       |
| Sanacorp                   | Peppermint oil | 1804008-02    | 2       |
| Sanacorp                   | Peppermint oil | 18221702      | 2       |
| Sanacorp                   | Peppermint oil | 20000648008   | 1       |
| Sanacorp                   | Peppermint oil | 280894        | 1       |
| Sanacorp                   | Peppermint oil | 309390        | 2       |
| Sanacorp                   | Peppermint oil | 311547        | 1       |
| Sanacorp                   | Peppermint oil | 47/AKD19      | 1       |
| Sanacorp                   | Peppermint oil | 19135905      | 1       |
| Sensient                   | Peppermint oil | C9982         | 1       |
| Spangro 08.11.2018         | Mint oil       | 17358002      | 2       |
| Spangro 18.01.2019         | Peppermint oil | 18221702      | 1       |
| Taoasis GmbH               | Peppermint oil | 534640-110874 | 1       |
| Taoasis GmbH               | Peppermint oil | 6140-9015     | 1       |
| Taoasis/Phönix             | Peppermint oil | 32724-118746  | 1       |
| Taoasis                    | Peppermint oil | 104959-411    | 1       |
| Taoasis                    | Peppermint oil | 13486-116309  | 1       |
| Taoasis                    | Peppermint oil | 31145-118741  | 1       |
| Taoasis                    | Peppermint oil | 37979-120290  | 1       |
| Taoasis                    | Peppermint oil | 501319-105273 | 1       |
| Taoasis                    | Peppermint oil | 512777-107965 | 1       |
| Taoasis                    | Peppermint oil | 515574-107811 | 1       |
| Taoasis                    | Peppermint oil | 525728-109630 | 1       |
| Taoasis                    | Peppermint oil | 539490-111157 | 2       |
| Taoasis                    | Peppermint oil | 548992-112346 | 3       |
| Taoasis                    | Peppermint oil | 6140-9015     | 1       |
| Taoasis                    | Peppermint oil | 6316-115825   | 1       |
| Taoasis                    | Peppermint oil | 75404-127882  | 1       |
| Taoasis                    | Peppermint oil | 79725-128653  | 3       |
| Taoasis                    | Peppermint oil | 88914-2568    | 1       |
| Taomed                     | Peppermint oil |               | 1       |

- 287 225 spectra from 1294 *Apo-Ident* customers from a total of 51 499 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Mint oil* / *Peppermint oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Mint oil* / *Peppermint*

oil and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 540           | 0              | 66 619        |
| Type B | 0              | 450           | 0              | 106 913       |
| Type C | 0              | 1470          | 14             | 287 225       |

The substance/substance group *Mint oil / Peppermint oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.8889 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.6667 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.0566 % (> 98.8544 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Mint oil / Peppermint oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Juniper oil                               | 27.61                  | —                              |
| Petroleum ether DAB                       | 30.47                  | —                              |
| Dwarf pine oil                            | 31.90                  | —                              |
| Verbena oil, nature-identical             | 34.53                  | —                              |
| Cypress oil                               | 36.57                  | —                              |
| Turpentine oil                            | 36.63                  | —                              |
| Cedar wood oil                            | 37.43                  | —                              |
| Tea tree oil                              | 37.60                  | —                              |
| Myrtle oil                                | 37.98                  | —                              |
| Matricaria oil, rich in (-)-alpha-bisa... | 39.74                  | —                              |
| Citronella oil                            | 41.64                  | —                              |
| Petroleum oil, not for internal use       | 41.72                  | —                              |
| Juniper wood oil                          | 44.77                  | —                              |
| Citric oil                                | 46.51                  | —                              |
| Geranium oil, genuine                     | 47.05                  | —                              |
| Pine silvestris oil                       | 47.91                  | —                              |
| Caraway oil                               | 48.80                  | —                              |
| all-rac- $\alpha$ -Tocopherol             | 49.57                  | —                              |
| Acorus oil                                | 49.67                  | —                              |
| RRR- $\alpha$ -Tocopherol                 | 60.73                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the sub-

stance/substance group *Mint oil / Peppermint oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30856     | 31410               | 11.44                        | 64.85                           |
| 31294     | 31811               | 1.96                         | 56.25                           |
| 31410     | 31410               | 0.00                         | 66.04                           |
| 31811     | 31811               | 0.00                         | 57.03                           |
| 32474     | 32474               | 0.00                         | 54.60                           |
| 32476     | 32476               | 0.00                         | 54.11                           |
| 32484     | 32476               | 3.85                         | 55.07                           |
| 32780     | 32474               | 3.88                         | 52.27                           |
| 34443     | 34443               | 0.00                         | 32.35                           |
| 34647     | 34647               | 0.00                         | 57.18                           |
| 35063     | 35063               | 0.00                         | 62.20                           |
| 35135     | 35135               | 0.00                         | 54.41                           |
| 36193     | 32474               | 8.57                         | 53.77                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Myrtle oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31836-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Myrtle oil

### Special notes

When selecting the *Myrtle oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Myrtle oil                | 4      | 3      | 6      |



## Second-stage model

For differentiation of the substance/substance group *Myrtle oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Myrtle oil*:

| Supplier | Substance  | Batch    | Sample ID | Spectra | Certificate |
|----------|------------|----------|-----------|---------|-------------|
| Caelo    | Myrtle oil | 15225102 | 31836     | 60      | 1606483     |
| Caelo    | Myrtle oil | 15225103 | 32182     | 40      | 20150721    |
| Caelo    | Myrtle oil | 15225102 | 32349     | 40      | 20150721    |
| Caelo    | Myrtle oil | 182822   | 34449     | 40      | 20181030*   |
| Caelo    | Myrtle oil | 183298   | 34458     | 40      | 20190122*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Myrtle oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 939 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Myrtle oil*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance  | Batch       | Sample ID | Spectra |
|----------|------------|-------------|-----------|---------|
| Caelo    | Myrtle oil | 17227302    | 33879     | 40      |
| Caelo    | Myrtle oil | 173184      | 34082     | 40      |
| Caelo    | Myrtle oil | 21001956003 | 35910     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 6 spectra from 4 *Apo-Ident* customers from 6 batches from the substance/substance group *Myrtle oil*.
- Among them are spectra of independent samples from 6 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance  | Batch            | Spectra |
|----------|------------|------------------|---------|
| Caelo    | Myrtle oil | 15225104         | 1       |
| Caelo    | Myrtle oil | 16296202         | 1       |
| Caelo    | Myrtle oil | 183298001        | 1       |
| Caelo    | Myrtle oil | 20000370001      | 1       |
| Taoasis  | Myrtle oil | 2018101113-9208  | 1       |
| Taoasis  | Myrtle oil | 2019109716-13378 | 1       |

- 288 703 spectra from 1294 *Apo-Ident* customers from a total of 51 882 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Myrtle oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Myrtle oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 220           | 0              | 66 939        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 6             | 0              | 288 703       |

The substance/substance group *Myrtle oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6885 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Myrtle oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in main model | Distance in second-stage model |
|-------------------------------|------------------------|--------------------------------|
| Turpentine oil                | 17.27                  | —                              |
| Rosemary oil                  | 20.49                  | —                              |
| Juniper wood oil              | 21.32                  | —                              |
| Eucalyptus oil                | 23.15                  | —                              |
| Cypress oil                   | 24.41                  | —                              |
| Cajeput (essentiel oil)       | 25.24                  | —                              |
| Sage oil                      | 28.86                  | —                              |
| Verbena oil, nature-identical | 35.32                  | —                              |
| Spruce needle oil             | 42.71                  | —                              |
| Dwarf pine oil                | 43.86                  | —                              |
| Juniper oil                   | 44.48                  | —                              |
| Acorus oil                    | 46.01                  | —                              |
| Cineole                       | 46.49                  | —                              |
| Peppermint oil                | 49.00                  | —                              |
| Cedar wood oil                | 53.12                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Myrtle oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31836     | 31836               | 0.00                         | 24.94                           |
| 32182     | 31836               | 2.38                         | 26.64                           |
| 32349     | 31836               | 2.82                         | 26.76                           |

*continued on the next page*

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| <b>Sample ID</b> | <b>Reference<br/>sample ID</b> | <b>Distance to<br/>reference sample</b> | <b>Distance to<br/>next foreign sample</b> |
|------------------|--------------------------------|-----------------------------------------|--------------------------------------------|
| 34449            | 34449                          | 0.00                                    | 24.41                                      |
| 34458            | 34458                          | 0.00                                    | 25.14                                      |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Non-ionic hydrophil ointment</b>                              |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30463-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Non-ionic hydrophil ointment; Non-ionic hydrophil ointment, conserved; Unguentum emulsificans nonionicum aquosum DAB

### Special notes

When selecting the *Non-ionic hydrophil ointment* substance/substance group, the following information is displayed to the user:

- Advice for the identification of Non-ionic hydrophil ointment DAB: Improper storage of samples can result in identification problems. Please homogenises the sample and let it adapt to room temperature before the measurement.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group    | Type A | Type B | Type C |
|------------------------------|--------|--------|--------|
| Non-ionic hydrophil ointment | 17     | 28     | 320    |

## Second-stage model

For differentiation of the substance/substance group *Non-ionic hydrophil ointment* the following second-stage model is used:

- [Submodel 06](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Non-ionic hydrophil ointment*:

| Supplier  | Substance           | Batch    | Sample ID | Spectra | Certificate |
|-----------|---------------------|----------|-----------|---------|-------------|
| Bombastus | Non-ionic hydrop... | 295368   | 31749     | 60      | 20150625    |
| Bombastus | Non-ionic hydrop... | 300481   | 32105     | 40      | 20160225    |
| Bombastus | Non-ionic hydrop... | 300481   | 32726     | 40      | 20160225    |
| Caelo     | Non-ionic hydrop... | 13138001 | 31001     | 40      | 20130531    |
| Caelo     | Non-ionic hydrop... | 13332901 | 31227     | 40      | 20131104    |
| Caelo     | Non-ionic hydrop... | 13333101 | 31451     | 40      | 1509156     |
| Caelo     | Non-ionic hydrop... | 15151601 | 31748     | 60      | 9129        |
| Caelo     | Non-ionic hydrop... | 161042   | 32088     | 40      | 20160411*   |
| Caelo     | Non-ionic hydrop... | 170744   | 33360     | 40      | 20170413*   |
| Caelo     | Non-ionic hydrop... | 172006   | 34010     | 40      | 20170810*   |
| Caelo     | Non-ionic hydrop... | 20001244 | 34856     | 40      | 20200504*   |
| Caelo     | Non-ionic hydrop... | 19000474 | 34857     | 40      | 20191211*   |
| Caelo     | Non-ionic hydrop... | 20001755 | 35100     | 40      | 20200710*   |
| Caelo     | Non-ionic hydrop... | 20003450 | 35159     | 40      | 20210106*   |
| Caelo     | Non-ionic hydrop... | 21001432 | 35526     | 50      | 20210518*   |
| Caelo     | Non-ionic hydrop... | 21002019 | 35663     | 50      | 20210803*   |
| Caelo     | Non-ionic hydrop... | 21003146 | 35912     | 40      | 20211203*   |
| Caelo     | Non-ionic hydrop... | 21003814 | 35913     | 40      | 20211203*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 780 spectra of 18 reference samples from the substance/substance group *Non-ionic hydrophil ointment*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 17 different batches.
- 66 379 spectra from a total of 1362 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 1470 spectra of 37 reference samples from the substance/substance group *Non-ionic hydrophil ointment*.
- Among them are spectra of independent samples from 28 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance                    | Batch    | Sample ID | Spectra |
|-----------|------------------------------|----------|-----------|---------|
| Bombastus | Non-ionic hydrophil ointment | 22001261 | 36205     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 153446   | 32077     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 153447   | 32078     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 153463   | 32084     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161045   | 32085     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161041   | 32087     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 153465   | 32106     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 160438   | 32107     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161043   | 32110     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161044   | 32112     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161735   | 32417     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161736   | 32418     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161793   | 32419     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161794   | 32421     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 162348   | 32488     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 162349   | 32489     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 162350   | 32490     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170866   | 33361     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170745   | 33362     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170865   | 33363     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170742   | 33366     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170746   | 33367     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170743   | 33369     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 171510   | 34009     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 172946   | 34011     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 181079   | 34154     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 182536   | 34358     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 22000338 | 36255     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161041   | 32108     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161042   | 32109     | 30      |
| Caelo     | Non-ionic hydrophil ointment | 161043   | 32111     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161044   | 32113     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161045   | 32114     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 161793   | 32420     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170744   | 33364     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170865   | 33365     | 40      |
| Caelo     | Non-ionic hydrophil ointment | 170866   | 33368     | 40      |

- 105 893 spectra from a total of 2471 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the

substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1897 spectra from 561 *Apo-Ident* customers from 329 batches from the substance/substance group *Non-ionic hydrophil ointment*.
- Among them are spectra of independent samples from 320 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance                    | Batch            | Spectra |
|---------------------|------------------------------|------------------|---------|
| aeloc               | Non-ionic hydrophil ointment | 19177503         | 1       |
| AHD                 | Non-ionic hydrophil ointment | 14069001         | 3       |
| AHD                 | Non-ionic hydrophil ointment | 16104201         | 1       |
| AHD                 | Non-ionic hydrophil ointment | 20001244002      | 1       |
| AHD                 | Non-ionic hydrophil ointment | 308111           | 1       |
| Alliance Healthcare | Non-ionic hydrophil ointment | 18107901         | 1       |
| Berkel AHK          | Non-ionic hydrophil ointment | 13332901         | 3       |
| Berkel AHK          | Non-ionic hydrophil ointment | 13333101         | 2       |
| Berkel AHK          | Non-ionic hydrophil ointment | 15002901         | 6       |
| bom                 | Non-ionic hydrophil ointment | 286003           | 1       |
| Bomb/Gehe           | Non-ionic hydrophil ointment | 301280           | 1       |
| BOMBAST/Noweda      | Non-ionic hydrophil ointment | 21001478         | 1       |
| Bombastu/Sanacorp   | Non-ionic hydrophil ointment | 303640           | 1       |
| Bombastus           | Non-ionic hydrophil ointment |                  | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 160905UEN        | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 161220NHC/301280 | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 17001324         | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 17001326         | 15      |
| Bombastus           | Non-ionic hydrophil ointment | 17086701         | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 170905NHC/308112 | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 171114NHC/308111 | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 171128NHC/308111 | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 17200601         | 2       |
| Bombastus           | Non-ionic hydrophil ointment | 172946002        | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 18001523         | 3       |
| Bombastus           | Non-ionic hydrophil ointment | 18001524         | 16      |
| Bombastus           | Non-ionic hydrophil ointment | 18002338         | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 18002339         | 14      |
| Bombastus           | Non-ionic hydrophil ointment | 18003691         | 3       |
| Bombastus           | Non-ionic hydrophil ointment | 18004046         | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 18004817         | 3       |
| Bombastus           | Non-ionic hydrophil ointment | 18004818         | 9       |
| Bombastus           | Non-ionic hydrophil ointment | 18006046         | 4       |
| Bombastus           | Non-ionic hydrophil ointment | 180308NHC/308108 | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 18200801         | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 19000785         | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 19000786         | 4       |
| Bombastus           | Non-ionic hydrophil ointment | 19000787         | 8       |
| Bombastus           | Non-ionic hydrophil ointment | 190022323        | 1       |
| Bombastus           | Non-ionic hydrophil ointment | 19002322         | 4       |
| Bombastus           | Non-ionic hydrophil ointment | 19002323         | 8       |
| Bombastus           | Non-ionic hydrophil ointment | 19004155         | 3       |
| Bombastus           | Non-ionic hydrophil ointment | 19004156         | 12      |
| Bombastus           | Non-ionic hydrophil ointment | 19005022         | 6       |
| Bombastus           | Non-ionic hydrophil ointment | 19005914         | 7       |
| Bombastus           | Non-ionic hydrophil ointment | 20001176         | 2       |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------------|--------------|----------------|
| Bombastus       | Non-ionic hydrophil ointment | 20001177     | 11             |
| Bombastus       | Non-ionic hydrophil ointment | 20002609     | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 20002610     | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 20002611     | 5              |
| Bombastus       | Non-ionic hydrophil ointment | 20002612     | 5              |
| Bombastus       | Non-ionic hydrophil ointment | 20002612r    | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 20003239     | 7              |
| Bombastus       | Non-ionic hydrophil ointment | 20003240     | 6              |
| Bombastus       | Non-ionic hydrophil ointment | 20004288     | 7              |
| Bombastus       | Non-ionic hydrophil ointment | 20004876     | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 20004877     | 4              |
| Bombastus       | Non-ionic hydrophil ointment | 21001476     | 5              |
| Bombastus       | Non-ionic hydrophil ointment | 21001477     | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 21001478     | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 21002584     | 4              |
| Bombastus       | Non-ionic hydrophil ointment | 21002585     | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 21002586     | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 21004565     | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 22001262     | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 266631       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 267625       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 268754       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 271973       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 271976       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 271977       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 271981       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 272063       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 275256       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 275259       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 275260       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 278694       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 280909       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 282902       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 282903       | 4              |
| Bombastus       | Non-ionic hydrophil ointment | 282904       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 286001       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 286002       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 286003       | 6              |
| Bombastus       | Non-ionic hydrophil ointment | 288042       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 288043       | 6              |
| Bombastus       | Non-ionic hydrophil ointment | 288044       | 6              |
| Bombastus       | Non-ionic hydrophil ointment | 290281       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 290283       | 7              |
| Bombastus       | Non-ionic hydrophil ointment | 293401       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 293402       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 293403       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 295367       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 295368       | 6              |
| Bombastus       | Non-ionic hydrophil ointment | 296801       | 4              |
| Bombastus       | Non-ionic hydrophil ointment | 296802       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 296803       | 7              |
| Bombastus       | Non-ionic hydrophil ointment | 297178       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 297633       | 2              |
| Bombastus       | Non-ionic hydrophil ointment | 297634       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 300479       | 6              |
| Bombastus       | Non-ionic hydrophil ointment | 300480       | 1              |
| Bombastus       | Non-ionic hydrophil ointment | 300481       | 8              |
| Bombastus       | Non-ionic hydrophil ointment | 301279       | 3              |
| Bombastus       | Non-ionic hydrophil ointment | 301280       | 8              |
| Bombastus       | Non-ionic hydrophil ointment | 303640       | 14             |

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continued from previous page

| Supplier         | Substance                    | Batch      | Spectra |
|------------------|------------------------------|------------|---------|
| Bombastus        | Non-ionic hydrophil ointment | 303641     | 4       |
| Bombastus        | Non-ionic hydrophil ointment | 303642     | 8       |
| Bombastus        | Non-ionic hydrophil ointment | 303643     | 5       |
| Bombastus        | Non-ionic hydrophil ointment | 303644     | 4       |
| Bombastus        | Non-ionic hydrophil ointment | 306522     | 12      |
| Bombastus        | Non-ionic hydrophil ointment | 308108     | 7       |
| Bombastus        | Non-ionic hydrophil ointment | 308109     | 2       |
| Bombastus        | Non-ionic hydrophil ointment | 308110     | 1       |
| Bombastus        | Non-ionic hydrophil ointment | 308111     | 11      |
| Bombastus        | Non-ionic hydrophil ointment | 308112     | 9       |
| Bombastus        | Non-ionic hydrophil ointment | 311097     | 6       |
| Bombastus        | Non-ionic hydrophil ointment | 311098     | 18      |
| Bombastus        | Non-ionic hydrophil ointment | 314098     | 1       |
| Bombastus        | Non-ionic hydrophil ointment | 600807     | 1       |
| Bombastus        | Non-ionic hydrophil ointment | 60080702   | 1       |
| Bombastus        | Non-ionic hydrophil ointment | 6861335    | 1       |
| Bombastus        | Non-ionic hydrophil ointment | U-070920-2 | 1       |
| Bombasus, Noweda | Non-ionic hydrophil ointment | 272063     | 1       |
| Caelo            | Non-ionic hydrophil ointment |            | 3       |
| Caelo            | Non-ionic hydrophil ointment | 11273001   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 11273303   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 11357801   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 12086802   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 12086901   | 2       |
| Caelo            | Non-ionic hydrophil ointment | 12086902   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 12087001   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 12155801   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 12155901   | 5       |
| Caelo            | Non-ionic hydrophil ointment | 12156101   | 2       |
| Caelo            | Non-ionic hydrophil ointment | 12223301   | 4       |
| Caelo            | Non-ionic hydrophil ointment | 12223501   | 4       |
| Caelo            | Non-ionic hydrophil ointment | 12223601   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 12223602   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 12352801   | 6       |
| Caelo            | Non-ionic hydrophil ointment | 12352901   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 12353001   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 130450401  | 1       |
| Caelo            | Non-ionic hydrophil ointment | 13045102   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 13045201   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 13045401   | 4       |
| Caelo            | Non-ionic hydrophil ointment | 13045501   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 13045601   | 2       |
| Caelo            | Non-ionic hydrophil ointment | 13137801   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 13137901   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 13138001   | 14      |
| Caelo            | Non-ionic hydrophil ointment | 13138101   | 8       |
| Caelo            | Non-ionic hydrophil ointment | 13138201   | 4       |
| Caelo            | Non-ionic hydrophil ointment | 1318001    | 1       |
| Caelo            | Non-ionic hydrophil ointment | 13263301   | 2       |
| Caelo            | Non-ionic hydrophil ointment | 13263401   | 1       |
| Caelo            | Non-ionic hydrophil ointment | 13263501   | 7       |
| Caelo            | Non-ionic hydrophil ointment | 13263601   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 13263701   | 4       |
| Caelo            | Non-ionic hydrophil ointment | 13263801   | 2       |
| Caelo            | Non-ionic hydrophil ointment | 13263902   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 1326501    | 1       |
| Caelo            | Non-ionic hydrophil ointment | 1333101    | 1       |
| Caelo            | Non-ionic hydrophil ointment | 13332901   | 8       |
| Caelo            | Non-ionic hydrophil ointment | 13333001   | 3       |
| Caelo            | Non-ionic hydrophil ointment | 13333101   | 10      |

continued on the next page

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------------|--------------|----------------|
| Caelo           | Non-ionic hydrophil ointment | 13333201     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 13333301     | 3              |
| Caelo           | Non-ionic hydrophil ointment | 13333401     | 4              |
| Caelo           | Non-ionic hydrophil ointment | 13333501     | 5              |
| Caelo           | Non-ionic hydrophil ointment | 14051806     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 14068401     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 14068601     | 10             |
| Caelo           | Non-ionic hydrophil ointment | 14068701     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 14068801     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 14068901     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 14069001     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 14176502     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 14221301     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 14221401     | 6              |
| Caelo           | Non-ionic hydrophil ointment | 14221501     | 3              |
| Caelo           | Non-ionic hydrophil ointment | 14258901     | 6              |
| Caelo           | Non-ionic hydrophil ointment | 14259001     | 5              |
| Caelo           | Non-ionic hydrophil ointment | 14259101     | 4              |
| Caelo           | Non-ionic hydrophil ointment | 14259201     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 14259301     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 15002601     | 4              |
| Caelo           | Non-ionic hydrophil ointment | 15002801     | 3              |
| Caelo           | Non-ionic hydrophil ointment | 15002901     | 7              |
| Caelo           | Non-ionic hydrophil ointment | 15007402     | 4              |
| Caelo           | Non-ionic hydrophil ointment | 15027801     | 20             |
| Caelo           | Non-ionic hydrophil ointment | 15105001     | 3              |
| Caelo           | Non-ionic hydrophil ointment | 15105101     | 10             |
| Caelo           | Non-ionic hydrophil ointment | 15105201     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 15105301     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 15151601     | 10             |
| Caelo           | Non-ionic hydrophil ointment | 15151801     | 5              |
| Caelo           | Non-ionic hydrophil ointment | 15286601     | 3              |
| Caelo           | Non-ionic hydrophil ointment | 15286701     | 8              |
| Caelo           | Non-ionic hydrophil ointment | 15286801     | 7              |
| Caelo           | Non-ionic hydrophil ointment | 15286901     | 4              |
| Caelo           | Non-ionic hydrophil ointment | 15287001     | 14             |
| Caelo           | Non-ionic hydrophil ointment | 15344701     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 15346301     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 15346401     | 11             |
| Caelo           | Non-ionic hydrophil ointment | 15346501     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 16043801     | 5              |
| Caelo           | Non-ionic hydrophil ointment | 16104101     | 20             |
| Caelo           | Non-ionic hydrophil ointment | 16104201     | 5              |
| Caelo           | Non-ionic hydrophil ointment | 16104401     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 16104501     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 16173401     | 5              |
| Caelo           | Non-ionic hydrophil ointment | 16173501     | 11             |
| Caelo           | Non-ionic hydrophil ointment | 16173601     | 2              |
| Caelo           | Non-ionic hydrophil ointment | 16179301     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 16179302     | 18             |
| Caelo           | Non-ionic hydrophil ointment | 16179303     | 7              |
| Caelo           | Non-ionic hydrophil ointment | 16179401     | 34             |
| Caelo           | Non-ionic hydrophil ointment | 16179402     | 4              |
| Caelo           | Non-ionic hydrophil ointment | 16179603     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 162334801    | 1              |
| Caelo           | Non-ionic hydrophil ointment | 16234801     | 20             |
| Caelo           | Non-ionic hydrophil ointment | 16234901     | 15             |
| Caelo           | Non-ionic hydrophil ointment | 16235001     | 4              |
| Caelo           | Non-ionic hydrophil ointment | 16258501     | 1              |
| Caelo           | Non-ionic hydrophil ointment | 1700601      | 1              |

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continued from previous page

| Supplier | Substance                    | Batch            | Spectra |
|----------|------------------------------|------------------|---------|
| Caelo    | Non-ionic hydrophil ointment | 170328UENA303640 | 1       |
| Caelo    | Non-ionic hydrophil ointment | 170729183        | 1       |
| Caelo    | Non-ionic hydrophil ointment | 17074201         | 11      |
| Caelo    | Non-ionic hydrophil ointment | 17074301         | 4       |
| Caelo    | Non-ionic hydrophil ointment | 17074401         | 14      |
| Caelo    | Non-ionic hydrophil ointment | 170744015335     | 1       |
| Caelo    | Non-ionic hydrophil ointment | 17074501         | 9       |
| Caelo    | Non-ionic hydrophil ointment | 17074601         | 22      |
| Caelo    | Non-ionic hydrophil ointment | 17086501         | 8       |
| Caelo    | Non-ionic hydrophil ointment | 170865015315     | 1       |
| Caelo    | Non-ionic hydrophil ointment | 17086601         | 10      |
| Caelo    | Non-ionic hydrophil ointment | 17086701         | 3       |
| Caelo    | Non-ionic hydrophil ointment | 17112014A        | 1       |
| Caelo    | Non-ionic hydrophil ointment | 17151001         | 10      |
| Caelo    | Non-ionic hydrophil ointment | 17151101         | 6       |
| Caelo    | Non-ionic hydrophil ointment | 17151201         | 2       |
| Caelo    | Non-ionic hydrophil ointment | 17151301         | 3       |
| Caelo    | Non-ionic hydrophil ointment | 17151302         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 17194601         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 17200601         | 17      |
| Caelo    | Non-ionic hydrophil ointment | 17200603         | 7       |
| Caelo    | Non-ionic hydrophil ointment | 1720603          | 1       |
| Caelo    | Non-ionic hydrophil ointment | 17294601         | 39      |
| Caelo    | Non-ionic hydrophil ointment | 17294602         | 16      |
| Caelo    | Non-ionic hydrophil ointment | 17294603         | 11      |
| Caelo    | Non-ionic hydrophil ointment | 17342202         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 179294601        | 1       |
| Caelo    | Non-ionic hydrophil ointment | 18002339         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 18006046         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 181007902        | 1       |
| Caelo    | Non-ionic hydrophil ointment | 18107901         | 18      |
| Caelo    | Non-ionic hydrophil ointment | 18107902         | 32      |
| Caelo    | Non-ionic hydrophil ointment | 18107903         | 8       |
| Caelo    | Non-ionic hydrophil ointment | 18121708         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 18200801         | 44      |
| Caelo    | Non-ionic hydrophil ointment | 18200802         | 15      |
| Caelo    | Non-ionic hydrophil ointment | 18200803         | 6       |
| Caelo    | Non-ionic hydrophil ointment | 182200801        | 1       |
| Caelo    | Non-ionic hydrophil ointment | 18253602         | 12      |
| Caelo    | Non-ionic hydrophil ointment | 18253603         | 9       |
| Caelo    | Non-ionic hydrophil ointment | 18253604         | 9       |
| Caelo    | Non-ionic hydrophil ointment | 1900047001       | 1       |
| Caelo    | Non-ionic hydrophil ointment | 19000473001      | 9       |
| Caelo    | Non-ionic hydrophil ointment | 19000474001      | 23      |
| Caelo    | Non-ionic hydrophil ointment | 19000474003      | 3       |
| Caelo    | Non-ionic hydrophil ointment | 19000474004      | 21      |
| Caelo    | Non-ionic hydrophil ointment | 19000802         | 12      |
| Caelo    | Non-ionic hydrophil ointment | 19000803         | 12      |
| Caelo    | Non-ionic hydrophil ointment | 19000804         | 3       |
| Caelo    | Non-ionic hydrophil ointment | 19021813         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 19081505         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 19083602         | 17      |
| Caelo    | Non-ionic hydrophil ointment | 19083603         | 18      |
| Caelo    | Non-ionic hydrophil ointment | 19083604         | 4       |
| Caelo    | Non-ionic hydrophil ointment | 19176501         | 1       |
| Caelo    | Non-ionic hydrophil ointment | 19177502         | 20      |
| Caelo    | Non-ionic hydrophil ointment | 19177503         | 19      |
| Caelo    | Non-ionic hydrophil ointment | 19177504         | 6       |
| Caelo    | Non-ionic hydrophil ointment | 200001244003     | 1       |
| Caelo    | Non-ionic hydrophil ointment | 200003450001     | 1       |

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*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------------------|--------------|----------------|
| Caelo                      | Non-ionic hydrophil ointment | 20001244001  | 15             |
| Caelo                      | Non-ionic hydrophil ointment | 20001244002  | 14             |
| Caelo                      | Non-ionic hydrophil ointment | 20001244003  | 6              |
| Caelo                      | Non-ionic hydrophil ointment | 20001755001  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 20001755002  | 17             |
| Caelo                      | Non-ionic hydrophil ointment | 20001755003  | 14             |
| Caelo                      | Non-ionic hydrophil ointment | 20003450001  | 11             |
| Caelo                      | Non-ionic hydrophil ointment | 20003450003  | 5              |
| Caelo                      | Non-ionic hydrophil ointment | 2000345003   | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 20004877     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 20061406     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21000658001  | 10             |
| Caelo                      | Non-ionic hydrophil ointment | 21000658002  | 11             |
| Caelo                      | Non-ionic hydrophil ointment | 21000658004  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 2100143001   | 2              |
| Caelo                      | Non-ionic hydrophil ointment | 21001432001  | 9              |
| Caelo                      | Non-ionic hydrophil ointment | 21001432002  | 17             |
| Caelo                      | Non-ionic hydrophil ointment | 21001476     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21002019002  | 6              |
| Caelo                      | Non-ionic hydrophil ointment | 21002019003  | 2              |
| Caelo                      | Non-ionic hydrophil ointment | 21002019004  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21002585     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21003146001  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21003146002  | 2              |
| Caelo                      | Non-ionic hydrophil ointment | 21003814002  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21041721     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21081202     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 21111203     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 27071704     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 2766         | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 278694       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 288043       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 288044       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 290283       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 297633       | 2              |
| Caelo                      | Non-ionic hydrophil ointment | 297634       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 300481       | 2              |
| Caelo                      | Non-ionic hydrophil ointment | 303640       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 308111       | 2              |
| Caelo                      | Non-ionic hydrophil ointment | 308112       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 3290         | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 3339         | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 3718Q-02543  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 4(17151101)  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 4812I-02543  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 5016I-02543  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 5017A-02543  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 5052015B     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 5112I-02543  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 513Q-02543   | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 6(18253604)  | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 60115A       | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 6061305      | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 80983602     | 1              |
| Caelo                      | Non-ionic hydrophil ointment | 9639838      | 1              |
| Caelo                      | Non-ionic hydrophil ointment | CHB13263501  | 1              |
| Caeolo ,                   | Non-ionic hydrophil ointment | 17086601     | 1              |
| Caesar & Loretz GmbH / ... | Non-ionic hydrophil ointment | 20001244001  | 2              |
| Caesar & Loretz GmbH Sa... | Non-ionic hydrophil ointment | 20001244001  | 2              |
| Caesar & Loretz GmbH/ G... | Non-ionic hydrophil ointment | 19000474004  | 1              |

*continued on the next page*



*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------------------|--------------|----------------|
| Caesar & Loretz GmbH/ G... | Non-ionic hydrophil ointment | 20003450003  | 1              |
| Caesar & Loretz GmbH/ P... | Non-ionic hydrophil ointment | 20001755002  | 1              |
| Caesar & Loretz GmbH/AHD   | Non-ionic hydrophil ointment | 19000803     | 1              |
| Caesar & Loretz GmbH/Al... | Non-ionic hydrophil ointment | 19000474003  | 1              |
| Caesar & Loretz GmbH/An... | Non-ionic hydrophil ointment | 19177503     | 2              |
| Caesar & Loretz GmbH/GEHE  | Non-ionic hydrophil ointment | 19000802     | 1              |
| Caesar & Loretz GmbH/Gehe  | Non-ionic hydrophil ointment | 19083602     | 1              |
| Caesar & Loretz GmbH/Gehe  | Non-ionic hydrophil ointment | 20001244001  | 2              |
| Caesar & Loretz GmbH/Gehe  | Non-ionic hydrophil ointment | 21003814003  | 1              |
| Caesar & Loretz GmbH/Ge... | Non-ionic hydrophil ointment | 19000804     | 1              |
| Caesar & Loretz GmbH/Je... | Non-ionic hydrophil ointment | 19005914     | 2              |
| Caesar & Loretz GmbH/je... | Non-ionic hydrophil ointment | 21000658001  | 1              |
| Caesar & Loretz GmbH/Kr... | Non-ionic hydrophil ointment | 19000474001  | 1              |
| Caesar & Loretz GmbH/Kr... | Non-ionic hydrophil ointment | 19177502     | 1              |
| Caesar & Loretz GmbH/No... | Non-ionic hydrophil ointment | 20001244001  | 1              |
| Caesar & Loretz GmbH/No... | Non-ionic hydrophil ointment | 19000474001  | 1              |
| Caesar & Loretz GmbH/No... | Non-ionic hydrophil ointment | 19177502     | 1              |
| Caesar & Loretz GmbH/No... | Non-ionic hydrophil ointment | 20001755003  | 2              |
| Caesar & Loretz GmbH/Ph... | Non-ionic hydrophil ointment | 21002019002  | 1              |
| Caesar & Loretz GmbH/Ph... | Non-ionic hydrophil ointment | 21000658001  | 1              |
| Caesar & Loretz GmbH/Ph... | Non-ionic hydrophil ointment | 21001432001  | 1              |
| Caesar & Loretz GmbH/Ph... | Non-ionic hydrophil ointment | 21001432002  | 1              |
| Caesar & Loretz GmbH/Ph... | Non-ionic hydrophil ointment | 21003146002  | 1              |
| Caesar & Loretz GmbH/Sa... | Non-ionic hydrophil ointment | 19177502     | 1              |
| Caesar & Loretz GmbH/Sa... | Non-ionic hydrophil ointment | 20001244001  | 3              |
| Caesar & Loretz GmbH/Sa... | Non-ionic hydrophil ointment | 20001755002  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 18107902     | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 18200801     | 2              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 18253603     | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 18253604     | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19000473001  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19000474001  | 8              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19000474003  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19000474004  | 13             |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19000802     | 2              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19000803     | 2              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19083602     | 4              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19083603     | 2              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19083604     | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19177502     | 6              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19177503     | 7              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 19177504     | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 20001244001  | 2              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 20001244002  | 4              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 20001244003  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 20001755002  | 6              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 20001755003  | 3              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 20003450003  | 3              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 20003450004  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21000658001  | 4              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21000658002  | 6              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21001432001  | 3              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21001432002  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21002019002  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21002019003  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21003146002  | 2              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21003814002  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 21003814003  | 1              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 22000338001  | 1              |
| Caesar & Loretz Hilden     | Non-ionic hydrophil ointment | 18200801     | 1              |

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| <b>Supplier</b>            | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------------------|--------------|----------------|
| Caesar & Loretz            | Non-ionic hydrophil ointment | 19083604     | 1              |
| Caesar & Loretz GmbH /Gehe | Non-ionic hydrophil ointment | 21001432001  | 2              |
| Caesar & Loretz GmbH       | Non-ionic hydrophil ointment | 12352901     | 1              |
| Caesar&Lorenz              | Non-ionic hydrophil ointment | 21000658004  | 1              |
| Caesar/Noweda              | Non-ionic hydrophil ointment | 15346401     | 1              |
| Caesar-Loretz/Fiebig       | Non-ionic hydrophil ointment | 17294601     | 1              |
| Cealo/ Phoenix             | Non-ionic hydrophil ointment | 18200801     | 2              |
| Cealo                      | Non-ionic hydrophil ointment | 13138101     | 1              |
| Cealo                      | Non-ionic hydrophil ointment | 16179302     | 1              |
| Ebert & Jacobi             | Non-ionic hydrophil ointment | 17294601     | 1              |
| Ebert und Jacobi           | Non-ionic hydrophil ointment | 18200801     | 1              |
| Euro OTC                   | Non-ionic hydrophil ointment | 14068601     | 3              |
| Euro OTC                   | Non-ionic hydrophil ointment | 17151301     | 1              |
| Euro OTC                   | Non-ionic hydrophil ointment | 17200603     | 1              |
| Euro OTC                   | Non-ionic hydrophil ointment | 18253602     | 1              |
| Euro OTC                   | Non-ionic hydrophil ointment | 19000802     | 1              |
| Euro OTC                   | Non-ionic hydrophil ointment | 266631       | 1              |
| Euro OTC                   | Non-ionic hydrophil ointment | 311098       | 1              |
| Fagron                     | Non-ionic hydrophil ointment | 13045301     | 1              |
| Fagron                     | Non-ionic hydrophil ointment | 182053603    | 1              |
| Fagron                     | Non-ionic hydrophil ointment | 290282       | 1              |
| Fiebig                     | Non-ionic hydrophil ointment | 17200601     | 1              |
| Fiebig                     | Non-ionic hydrophil ointment | 17294602     | 1              |
| Fiebig                     | Non-ionic hydrophil ointment | 18107901     | 1              |
| Fiebig                     | Non-ionic hydrophil ointment | 18200801     | 1              |
| GEHE 10.03.2014            | Non-ionic hydrophil ointment | 13137901     | 1              |
| GEHE 23.09.2014            | Non-ionic hydrophil ointment | 14221301     | 1              |
| Gehe                       | Non-ionic hydrophil ointment | 15027801     | 1              |
| Gehe                       | Non-ionic hydrophil ointment | 16104401     | 1              |
| Gehe                       | Non-ionic hydrophil ointment | 16179302     | 1              |
| Gehe                       | Non-ionic hydrophil ointment | 17200603     | 1              |
| GEHE                       | Non-ionic hydrophil ointment | 17200603     | 1              |
| Gehe                       | Non-ionic hydrophil ointment | 18200802     | 1              |
| GEHE                       | Non-ionic hydrophil ointment | 18253602     | 1              |
| GEHE                       | Non-ionic hydrophil ointment | 18253604     | 1              |
| Gehe                       | Non-ionic hydrophil ointment | 19083602     | 1              |
| GEHE                       | Non-ionic hydrophil ointment | 19083602     | 1              |
| GUMO                       | Non-ionic hydrophil ointment | 19005914     | 1              |
| Henry Lamotte/AHD          | Non-ionic hydrophil ointment | 17086501     | 1              |
| Ichthyol/Phoenix           | Non-ionic hydrophil ointment | 16179402     | 1              |
| Infetopharm                | Non-ionic hydrophil ointment | 18253604     | 1              |
| Jenne 12.10.21 EK:3,91     | Non-ionic hydrophil ointment | 211019NHC    | 1              |
| Kehr                       | Non-ionic hydrophil ointment | 17294601     | 1              |
| Kehr                       | Non-ionic hydrophil ointment | 18107902     | 1              |
| Kehr                       | Non-ionic hydrophil ointment | 18253602     | 1              |
| Martinus-Apotheke          | Non-ionic hydrophil ointment | 13138001     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 13138101     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 16179302     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 16234801     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 17001326     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 17074601     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 17994601     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 18001523     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 18002338     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 18003691     | 5              |
| Noweda                     | Non-ionic hydrophil ointment | 1812U-02543  | 1              |
| noweda                     | Non-ionic hydrophil ointment | 20002611     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 20003238     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 2122013c     | 1              |
| Noweda                     | Non-ionic hydrophil ointment | 271980       | 1              |

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| Supplier         | Substance                    | Batch       | Spectra |
|------------------|------------------------------|-------------|---------|
| Noweda08.06.2015 | Non-ionic hydrophil ointment | 15027801    | 1       |
| Phoenix          | Non-ionic hydrophil ointment | 16104501    | 2       |
| Phoenix          | Non-ionic hydrophil ointment | 17294601    | 1       |
| Phoenix          | Non-ionic hydrophil ointment | 20001755003 | 1       |
| Phoenix          | Non-ionic hydrophil ointment | 2001755002  | 1       |
| Phönix/Bionorica | Non-ionic hydrophil ointment | 17200601    | 1       |
| Phönix           | Non-ionic hydrophil ointment | 13045501    | 1       |
| PHÖNIX           | Non-ionic hydrophil ointment | 17151302    | 1       |
| Phönix           | Non-ionic hydrophil ointment | 21000658001 | 1       |
| Phönix           | Non-ionic hydrophil ointment | 21002019002 | 1       |
| Phönix           | Non-ionic hydrophil ointment | 3033640     | 1       |
| Post-Apotheke    | Non-ionic hydrophil ointment | 13263701    | 2       |
| Röntgen          | Non-ionic hydrophil ointment | 18002339    | 3       |
| Röntgen          | Non-ionic hydrophil ointment | 19000787    | 1       |
| Röntgen          | Non-ionic hydrophil ointment | 19004156    | 1       |
| Röntgen          | Non-ionic hydrophil ointment | 2000612     | 1       |
| Röntgen          | Non-ionic hydrophil ointment | 60080701    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 15105101    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 13045401    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 13138001    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 14068601    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 15002901    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 17086501    | 2       |
| Sanacorp         | Non-ionic hydrophil ointment | 17151301    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 18200802    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 18253603    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 19000474001 | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 21001477    | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 271980      | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 271981      | 1       |
| Sanacorp         | Non-ionic hydrophil ointment | 288043      | 1       |
| vdl              | Non-ionic hydrophil ointment | 11357601    | 2       |
| VDL              | Non-ionic hydrophil ointment | 13332901    | 1       |
| VDL              | Non-ionic hydrophil ointment | 19000802    | 1       |
| VDL              | Non-ionic hydrophil ointment | 1977503     | 1       |

- 286 812 spectra from 1294 *Apo-Ident* customers from a total of 51 571 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Non-ionic hydrophil ointment* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Non-ionic hydrophil ointment* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 780           | 0              | 66 379        |
| Type B | 0              | 1456          | 14             | 105 893       |
| Type C | 0              | 1862          | 35             | 286 812       |

The substance/substance group *Non-ionic hydrophil ointment* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.2308 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 99.0476 % (> 98.8435 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.1550 % (> 97.9968 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Non-ionic hydrophil ointment* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>                           | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|--------------------------------------------|-------------------------------|---------------------------------------|
| Base cream DAC                             | 5.04                          | 12.36                                 |
| Psorisol base cream Audor <sup>®</sup>     | 15.34                         | —                                     |
| Anionic hydrophilic cream DAB              | 17.56                         | —                                     |
| Lanette <sup>®</sup> ointment (conserved)  | 19.93                         | 19.46                                 |
| Base cream, hydrophobic DAC                | 20.09                         | —                                     |
| Anionic hydrophilic cream with propyle...  | 21.07                         | —                                     |
| Eucerin <sup>®</sup> cum Aqua              | 25.14                         | 16.87                                 |
| Wool alcohol cream SR                      | 25.67                         | 10.06                                 |
| Skin care ointment W/L SR                  | 28.75                         | —                                     |
| Skin care ointment W/L SR (without pre...  | 30.24                         | —                                     |
| Anionic hydrophilic cream SR (NRF p.27)    | 30.49                         | —                                     |
| Lipo Lotio Cordes <sup>®</sup>             | 34.22                         | —                                     |
| Hydrophilic cream, non-ionic without p...  | 39.86                         | —                                     |
| Anionic hydrophilic cream without prese... | 41.82                         | —                                     |
| Hydrophilic cream, non-ionic SR (NRF p...  | 44.55                         | —                                     |
| Wool alcohol cream DAB                     | 44.62                         | 18.95                                 |
| Glycolic acid 70%                          | 49.25                         | —                                     |
| ⋮                                          | ⋮                             | ⋮                                     |
| 2-ethylhexyl laurate                       | >50                           | 139.17                                |
| Squalane                                   | >50                           | 175.28                                |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Non-ionic hydrophil ointment* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested

reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31001     | 31748               | 6.44                         | 15.35                           |
| 31227     | 35663               | 2.80                         | 15.08                           |
| 31451     | 31451               | 0.00                         | 15.62                           |
| 31748     | 31748               | 0.00                         | 12.97                           |
| 31749     | 31748               | 3.59                         | 15.61                           |
| 32088     | 32088               | 0.00                         | 14.56                           |
| 32105     | 31748               | 4.82                         | 15.18                           |
| 32726     | 35159               | 4.52                         | 19.79                           |
| 33360     | 33360               | 0.00                         | 23.23                           |
| 34010     | 34010               | 0.00                         | 11.96                           |
| 34856     | 34856               | 0.00                         | 19.76                           |
| 34857     | 34857               | 0.00                         | 15.99                           |
| 35100     | 35100               | 0.00                         | 25.42                           |
| 35159     | 35159               | 0.00                         | 24.61                           |
| 35526     | 35526               | 0.00                         | 20.44                           |
| 35663     | 35663               | 0.00                         | 19.46                           |
| 35912     | 35912               | 0.00                         | 23.85                           |
| 35913     | 35913               | 0.00                         | 22.24                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Octyldodecanol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30867-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Octyldodecanol; Octyldodecanolum

### Special notes

When selecting the *Octyldodecanol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Octyldodecanol            | 7      | 4      | 308    |

## Second-stage model

For differentiation of the substance/substance group *Octyldodecanol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Octyldodecanol*:

| Supplier | Substance      | Batch    | Sample ID | Spectra | Certificate        |
|----------|----------------|----------|-----------|---------|--------------------|
| Caelo    | Octyldodecanol | 12165509 | 30867     | 40      | 20120711           |
| Caelo    | Octyldodecanol | 13360010 | 31330     | 40      | AR-15-FG-000314-01 |
| Caelo    | Octyldodecanol | 15135212 | 31753     | 60      | 20150506           |
| Caelo    | Octyldodecanol | 16095507 | 32958     | 40      | 20160421           |
| Caelo    | Octyldodecanol | 163127   | 33093     | 40      | 20161219*          |
| Caelo    | Octyldodecanol | 190136   | 34468     | 40      | 20190211*          |
| Caelo    | Octyldodecanol | 190961   | 34471     | 40      | 20190521*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 300 spectra of 7 reference samples from the substance/substance group *Octyldodecanol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 7 different batches.
- 66 859 spectra from a total of 1372 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Octyldodecanol*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch    | Sample ID | Spectra |
|----------|----------------|----------|-----------|---------|
| Caelo    | Octyldodecanol | 171381   | 34052     | 40      |
| Caelo    | Octyldodecanol | 181120   | 34220     | 40      |
| Caelo    | Octyldodecanol | 192693   | 34804     | 40      |
| Caelo    | Octyldodecanol | 21004149 | 36301     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 4274 spectra from 923 *Apo-Ident* customers from 321 batches from the substance/substance group *Octyldodecanol*.
- Among them are spectra of independent samples from 307 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance      | Batch           | Spectra |
|---------------------|----------------|-----------------|---------|
| A.H.D.              | Octyldodecanol |                 | 1       |
|                     | Octyldodecanol | 1410207         | 1       |
|                     | Octyldodecanol | 13044007        | 1       |
|                     | Octyldodecanol | 12165521        | 1       |
|                     | Octyldodecanol | 13360011//05R06 | 1       |
|                     | Octyldodecanol | 13044016        | 1       |
|                     | Octyldodecanol | 192693005       | 1       |
|                     | Octyldodecanol | 16312701        | 1       |
|                     | Octyldodecanol | 18112008        | 1       |
|                     | Octyldodecanol | 192693001       | 1       |
| ALH                 | Octyldodecanol | 16095503        | 1       |
| ALH                 | Octyldodecanol | 16095507        | 2       |
| ALH                 | Octyldodecanol | 16099503        | 1       |
| ALH                 | Octyldodecanol | 16312701        | 2       |
| Alliance healthcare | Octyldodecanol | 13044013        | 1       |
| Alliance Healthcare | Octyldodecanol | 18112006        | 1       |
| Alliance Healthcare | Octyldodecanol | 18112008        | 1       |
| Alliance            | Octyldodecanol | 20001252001     | 1       |
| Allianz             | Octyldodecanol | 17273001        | 1       |
| Allianz             | Octyldodecanol | 18112001        | 3       |
| Anzag/Henry Lamotte | Octyldodecanol | 14371711        | 1       |
| Anzag               | Octyldodecanol | 12165519        | 1       |
| Anzag               | Octyldodecanol | 15383005        | 1       |
| Anzag               | Octyldodecanol | 16095503        | 2       |
| Anzag               | Octyldodecanol | 16095507        | 1       |
| Anzag               | Octyldodecanol | 16312701        | 1       |
| Anzag               | Octyldodecanol | 18112001        | 1       |
| Anzag               | Octyldodecanol | 19096105        | 1       |
| Beiersdorf/Anzag    | Octyldodecanol | 13044007        | 1       |

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| <b>Supplier</b>          | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|--------------------------|------------------|---------------|----------------|
| Bombastus                | Octyldodecanol   | 11060318      | 1              |
| Bombastus                | Octyldodecanol   | 14371703      | 1              |
| Bombastus                | Octyldodecanol   | 15383008      | 1              |
| Bombastus                | Octyldodecanol   | 16095506      | 1              |
| Bombastus                | Octyldodecanol   | 18112001      | 1              |
| BTC (BASF)               | Octyldodecanol   | 22035655      | 5              |
| BTC Ch.Lief.: 0020304728 | Octyldodecanol   | 41905Probe1/4 | 1              |
| BTC Ch.Lief.: 0020304728 | Octyldodecanol   | 41905Probe2/4 | 1              |
| BTC Ch.Lief.: 0020304728 | Octyldodecanol   | 41905Probe3/4 | 1              |
| BTC Ch.Lief.: 0020304728 | Octyldodecanol   | 41905Probe4/4 | 1              |
| Caelo                    | Octyldodecanol   |               | 4              |
| Caelo                    | Octyldodecanol   | 1/2/3002      | 1              |
| Caelo                    | Octyldodecanol   | 1002182006    | 1              |
| Caelo                    | Octyldodecanol   | 10281907      | 1              |
| Caelo                    | Octyldodecanol   | 1098722       | 2              |
| Caelo                    | Octyldodecanol   | 11012014A     | 1              |
| Caelo                    | Octyldodecanol   | 11052015A     | 1              |
| Caelo                    | Octyldodecanol   | 11060305      | 1              |
| Caelo                    | Octyldodecanol   | 11060317      | 1              |
| Caelo                    | Octyldodecanol   | 11060319      | 2              |
| Caelo                    | Octyldodecanol   | 1136017       | 1              |
| Caelo                    | Octyldodecanol   | 11369003      | 7              |
| Caelo                    | Octyldodecanol   | 11369004      | 3              |
| Caelo                    | Octyldodecanol   | 11369012      | 2              |
| Caelo                    | Octyldodecanol   | 11369014      | 2              |
| Caelo                    | Octyldodecanol   | 11369016      | 8              |
| Caelo                    | Octyldodecanol   | 11369017      | 5              |
| Caelo                    | Octyldodecanol   | 11369021      | 3              |
| Caelo                    | Octyldodecanol   | 12011401      | 1              |
| Caelo                    | Octyldodecanol   | 12091304      | 1              |
| Caelo                    | Octyldodecanol   | 12091806      | 1              |
| Caelo                    | Octyldodecanol   | 12111303      | 1              |
| Caelo                    | Octyldodecanol   | 12165506      | 3              |
| Caelo                    | Octyldodecanol   | 12165509      | 7              |
| Caelo                    | Octyldodecanol   | 12165511      | 9              |
| Caelo                    | Octyldodecanol   | 12165514      | 4              |
| Caelo                    | Octyldodecanol   | 12165515      | 13             |
| Caelo                    | Octyldodecanol   | 12165517      | 2              |
| Caelo                    | Octyldodecanol   | 12165519      | 8              |
| Caelo                    | Octyldodecanol   | 12165520      | 9              |
| Caelo                    | Octyldodecanol   | 12165521      | 10             |
| Caelo                    | Octyldodecanol   | 1265515       | 1              |
| Caelo                    | Octyldodecanol   | 1273001       | 1              |
| Caelo                    | Octyldodecanol   | 13044002      | 10             |
| Caelo                    | Octyldodecanol   | 13044005      | 13             |
| Caelo                    | Octyldodecanol   | 13044007      | 8              |
| Caelo                    | Octyldodecanol   | 13044009      | 14             |
| Caelo                    | Octyldodecanol   | 13044010      | 12             |
| Caelo                    | Octyldodecanol   | 13044013      | 18             |
| Caelo                    | Octyldodecanol   | 13044015      | 9              |
| Caelo                    | Octyldodecanol   | 13044016      | 17             |
| Caelo                    | Octyldodecanol   | 13044040      | 1              |
| Caelo                    | Octyldodecanol   | 13092013A     | 1              |
| Caelo                    | Octyldodecanol   | 1314I-02875   | 1              |
| Caelo                    | Octyldodecanol   | 1322005       | 1              |
| Caelo                    | Octyldodecanol   | 13222001      | 1              |
| Caelo                    | Octyldodecanol   | 13222002      | 13             |
| Caelo                    | Octyldodecanol   | 13222003      | 17             |
| Caelo                    | Octyldodecanol   | 13222005      | 4              |
| Caelo                    | Octyldodecanol   | 13222008      | 19             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Octyldodecanol   | 13222010         | 1              |
| Caelo           | Octyldodecanol   | 13222011         | 9              |
| Caelo           | Octyldodecanol   | 13222013         | 1              |
| Caelo           | Octyldodecanol   | 133360010        | 1              |
| Caelo           | Octyldodecanol   | 13360001         | 3              |
| Caelo           | Octyldodecanol   | 13360002         | 13             |
| Caelo           | Octyldodecanol   | 13360003         | 8              |
| Caelo           | Octyldodecanol   | 13360005         | 7              |
| Caelo           | Octyldodecanol   | 13360006         | 15             |
| Caelo           | Octyldodecanol   | 13360008         | 14             |
| Caelo           | Octyldodecanol   | 13360009         | 2              |
| Caelo           | Octyldodecanol   | 13360010         | 16             |
| Caelo           | Octyldodecanol   | 13360011         | 15             |
| Caelo           | Octyldodecanol   | 13360012         | 14             |
| Caelo           | Octyldodecanol   | 13E07-N03        | 1              |
| Caelo           | Octyldodecanol   | 13L02-B05-288974 | 1              |
| Caelo           | Octyldodecanol   | 14130202         | 1              |
| Caelo           | Octyldodecanol   | 14130204         | 5              |
| Caelo           | Octyldodecanol   | 14130205         | 17             |
| Caelo           | Octyldodecanol   | 14130206         | 18             |
| Caelo           | Octyldodecanol   | 14130207         | 30             |
| Caelo           | Octyldodecanol   | 14135206         | 1              |
| Caelo           | Octyldodecanol   | 14158401         | 2              |
| Caelo           | Octyldodecanol   | 14158402         | 19             |
| Caelo           | Octyldodecanol   | 14158407         | 2              |
| Caelo           | Octyldodecanol   | 14158410         | 11             |
| Caelo           | Octyldodecanol   | 14158411         | 6              |
| Caelo           | Octyldodecanol   | 1431707          | 1              |
| Caelo           | Octyldodecanol   | 143710706        | 1              |
| Caelo           | Octyldodecanol   | 14371703         | 1              |
| Caelo           | Octyldodecanol   | 14371705         | 4              |
| Caelo           | Octyldodecanol   | 14371706         | 16             |
| Caelo           | Octyldodecanol   | 14371707         | 6              |
| Caelo           | Octyldodecanol   | 14371710         | 5              |
| Caelo           | Octyldodecanol   | 14371711         | 26             |
| Caelo           | Octyldodecanol   | 14371712         | 1              |
| Caelo           | Octyldodecanol   | 14371714         | 7              |
| Caelo           | Octyldodecanol   | 14371715         | 3              |
| Caelo           | Octyldodecanol   | 14371716         | 12             |
| Caelo           | Octyldodecanol   | 1471714          | 1              |
| Caelo           | Octyldodecanol   | 15092014B        | 1              |
| Caelo           | Octyldodecanol   | 1513202          | 1              |
| Caelo           | Octyldodecanol   | 15135026         | 1              |
| Caelo           | Octyldodecanol   | 1513513          | 1              |
| Caelo           | Octyldodecanol   | 151352           | 1              |
| Caelo           | Octyldodecanol   | 15135203         | 17             |
| Caelo           | Octyldodecanol   | 15135205         | 1              |
| Caelo           | Octyldodecanol   | 15135206         | 38             |
| Caelo           | Octyldodecanol   | 15135207         | 9              |
| Caelo           | Octyldodecanol   | 15135211         | 11             |
| Caelo           | Octyldodecanol   | 15135212         | 19             |
| Caelo           | Octyldodecanol   | 15135213         | 78             |
| Caelo           | Octyldodecanol   | 1535203          | 1              |
| Caelo           | Octyldodecanol   | 1538003          | 1              |
| Caelo           | Octyldodecanol   | 1538004          | 3              |
| Caelo           | Octyldodecanol   | 1538005          | 2              |
| Caelo           | Octyldodecanol   | 1538009          | 1              |
| Caelo           | Octyldodecanol   | 153830           | 3              |
| Caelo           | Octyldodecanol   | 153830004        | 1              |
| Caelo           | Octyldodecanol   | 15383002         | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|-----------------|------------------|--------------------|----------------|
| Caelo           | Octyldodecanol   | 15383003           | 10             |
| Caelo           | Octyldodecanol   | 15383004           | 28             |
| Caelo           | Octyldodecanol   | 15383005           | 54             |
| Caelo           | Octyldodecanol   | 15383008           | 37             |
| Caelo           | Octyldodecanol   | 15383009           | 32             |
| Caelo           | Octyldodecanol   | 1583004            | 1              |
| Caelo           | Octyldodecanol   | 1583009            | 1              |
| Caelo           | Octyldodecanol   | 160112-01          | 1              |
| Caelo           | Octyldodecanol   | 160955             | 2              |
| Caelo           | Octyldodecanol   | 1609550            | 1              |
| Caelo           | Octyldodecanol   | 16095501           | 3              |
| Caelo           | Octyldodecanol   | 16095502           | 26             |
| Caelo           | Octyldodecanol   | 16095503           | 51             |
| Caelo           | Octyldodecanol   | 16095506           | 54             |
| Caelo           | Octyldodecanol   | 16095507           | 69             |
| Caelo           | Octyldodecanol   | 16095508           | 5              |
| Caelo           | Octyldodecanol   | 1609551            | 1              |
| Caelo           | Octyldodecanol   | 16095511           | 79             |
| Caelo           | Octyldodecanol   | 163112701          | 1              |
| Caelo           | Octyldodecanol   | 163122701          | 1              |
| Caelo           | Octyldodecanol   | 163127             | 1              |
| Caelo           | Octyldodecanol   | 16312701           | 85             |
| Caelo           | Octyldodecanol   | 16312704           | 5              |
| Caelo           | Octyldodecanol   | 16312706           | 35             |
| Caelo           | Octyldodecanol   | 16312707           | 29             |
| Caelo           | Octyldodecanol   | 16312710           | 12             |
| Caelo           | Octyldodecanol   | 1695511            | 1              |
| Caelo           | Octyldodecanol   | 1707701            | 3              |
| Caelo           | Octyldodecanol   | 17077701           | 25             |
| Caelo           | Octyldodecanol   | 1707771            | 1              |
| Caelo           | Octyldodecanol   | 17082015C          | 1              |
| Caelo           | Octyldodecanol   | 17138102           | 102            |
| Caelo           | Octyldodecanol   | 17138103           | 12             |
| Caelo           | Octyldodecanol   | 17138105           | 52             |
| Caelo           | Octyldodecanol   | 17138109           | 32             |
| Caelo           | Octyldodecanol   | 17138110           | 4              |
| Caelo           | Octyldodecanol   | 1716I-02875        | 1              |
| Caelo           | Octyldodecanol   | 1718102            | 1              |
| Caelo           | Octyldodecanol   | 1727001            | 1              |
| Caelo           | Octyldodecanol   | 17273001           | 103            |
| Caelo           | Octyldodecanol   | 17273002           | 140            |
| Caelo           | Octyldodecanol   | 17273003           | 16             |
| Caelo           | Octyldodecanol   | 17273006           | 1              |
| Caelo           | Octyldodecanol   | 17273008           | 74             |
| Caelo           | Octyldodecanol   | 17273038           | 1              |
| Caelo           | Octyldodecanol   | 1738102            | 2              |
| Caelo           | Octyldodecanol   | 1801190D/17138109  | 1              |
| Caelo           | Octyldodecanol   | 1802080D/17138109  | 1              |
| Caelo           | Octyldodecanol   | 18112001           | 99             |
| Caelo           | Octyldodecanol   | 18112001P-180820-1 | 1              |
| Caelo           | Octyldodecanol   | 18112001P-190312-4 | 1              |
| Caelo           | Octyldodecanol   | 18112002           | 69             |
| Caelo           | Octyldodecanol   | 18112004           | 10             |
| Caelo           | Octyldodecanol   | 18112006           | 104            |
| Caelo           | Octyldodecanol   | 18112008           | 62             |
| Caelo           | Octyldodecanol   | 18112010           | 58             |
| Caelo           | Octyldodecanol   | 18112011           | 88             |
| Caelo           | Octyldodecanol   | 18112012           | 2              |
| Caelo           | Octyldodecanol   | 18112020           | 1              |
| Caelo           | Octyldodecanol   | 1812001            | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Octyldodecanol   | 1812010      | 1              |
| Caelo           | Octyldodecanol   | 187273002    | 1              |
| Caelo           | Octyldodecanol   | 188112001    | 1              |
| Caelo           | Octyldodecanol   | 190113602    | 2              |
| Caelo           | Octyldodecanol   | 1901360      | 1              |
| Caelo           | Octyldodecanol   | 19013601     | 2              |
| Caelo           | Octyldodecanol   | 19013602     | 67             |
| Caelo           | Octyldodecanol   | 19013603     | 119            |
| Caelo           | Octyldodecanol   | 19013604     | 9              |
| Caelo           | Octyldodecanol   | 19013609     | 49             |
| Caelo           | Octyldodecanol   | 19013610     | 51             |
| Caelo           | Octyldodecanol   | 190136202    | 1              |
| Caelo           | Octyldodecanol   | 190136404    | 1              |
| Caelo           | Octyldodecanol   | 1901610      | 1              |
| Caelo           | Octyldodecanol   | 19061001     | 1              |
| Caelo           | Octyldodecanol   | 19066105     | 1              |
| Caelo           | Octyldodecanol   | 190696102    | 1              |
| Caelo           | Octyldodecanol   | 190960105    | 1              |
| Caelo           | Octyldodecanol   | 190961001    | 42             |
| Caelo           | Octyldodecanol   | 190961007    | 1              |
| Caelo           | Octyldodecanol   | 19096102     | 58             |
| Caelo           | Octyldodecanol   | 19096103     | 7              |
| Caelo           | Octyldodecanol   | 19096105     | 89             |
| Caelo           | Octyldodecanol   | 1926930002   | 1              |
| Caelo           | Octyldodecanol   | 1926930005   | 1              |
| Caelo           | Octyldodecanol   | 192693001    | 65             |
| Caelo           | Octyldodecanol   | 192693002    | 103            |
| Caelo           | Octyldodecanol   | 192693004    | 9              |
| Caelo           | Octyldodecanol   | 192693005    | 22             |
| Caelo           | Octyldodecanol   | 192693009    | 5              |
| Caelo           | Octyldodecanol   | 19693001     | 1              |
| Caelo           | Octyldodecanol   | 198013609    | 1              |
| Caelo           | Octyldodecanol   | 198693001    | 1              |
| Caelo           | Octyldodecanol   | 200003742004 | 1              |
| Caelo           | Octyldodecanol   | 2000125001   | 3              |
| Caelo           | Octyldodecanol   | 20001252001  | 46             |
| Caelo           | Octyldodecanol   | 20001252002  | 23             |
| Caelo           | Octyldodecanol   | 200012522001 | 1              |
| Caelo           | Octyldodecanol   | 20002152002  | 1              |
| Caelo           | Octyldodecanol   | 20003742002  | 1              |
| Caelo           | Octyldodecanol   | 20003742003  | 14             |
| Caelo           | Octyldodecanol   | 20003742004  | 22             |
| Caelo           | Octyldodecanol   | 20003742006  | 31             |
| Caelo           | Octyldodecanol   | 20003742007  | 1              |
| Caelo           | Octyldodecanol   | 2000374206   | 1              |
| Caelo           | Octyldodecanol   | 2001252001   | 2              |
| Caelo           | Octyldodecanol   | 2001252002   | 1              |
| Caelo           | Octyldodecanol   | 2003742006   | 1              |
| Caelo           | Octyldodecanol   | 21000064004  | 28             |
| Caelo           | Octyldodecanol   | 21000064006  | 13             |
| Caelo           | Octyldodecanol   | 21000064007  | 1              |
| Caelo           | Octyldodecanol   | 21000064009  | 2              |
| Caelo           | Octyldodecanol   | 2100006404   | 1              |
| Caelo           | Octyldodecanol   | 2100064004   | 2              |
| Caelo           | Octyldodecanol   | 2100064009   | 1              |
| Caelo           | Octyldodecanol   | 21002182002  | 13             |
| Caelo           | Octyldodecanol   | 21002182003  | 4              |
| Caelo           | Octyldodecanol   | 21002182004  | 1              |
| Caelo           | Octyldodecanol   | 21002182006  | 3              |
| Caelo           | Octyldodecanol   | 21002182007  | 7              |

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| Supplier                   | Substance      | Batch         | Spectra |
|----------------------------|----------------|---------------|---------|
| Caelo                      | Octyldodecanol | 21004149004   | 1       |
| Caelo                      | Octyldodecanol | 24062014B     | 1       |
| Caelo                      | Octyldodecanol | 250918A       | 1       |
| Caelo                      | Octyldodecanol | 2513A-02875   | 1       |
| Caelo                      | Octyldodecanol | 26071208      | 1       |
| Caelo                      | Octyldodecanol | 2613M-02875   | 2       |
| Caelo                      | Octyldodecanol | 27101712      | 1       |
| Caelo                      | Octyldodecanol | 29(17077701)  | 1       |
| Caelo                      | Octyldodecanol | 2xa13360002   | 1       |
| Caelo                      | Octyldodecanol | 30(17273001)  | 1       |
| Caelo                      | Octyldodecanol | 31(17273001)  | 1       |
| Caelo                      | Octyldodecanol | 31101416      | 1       |
| Caelo                      | Octyldodecanol | 32(18112001)  | 1       |
| Caelo                      | Octyldodecanol | 33(18112001)  | 1       |
| Caelo                      | Octyldodecanol | 3313          | 1       |
| Caelo                      | Octyldodecanol | 3314E-02875   | 1       |
| Caelo                      | Octyldodecanol | 34(19013602)  | 1       |
| Caelo                      | Octyldodecanol | 3406200037426 | 1       |
| Caelo                      | Octyldodecanol | 35(19013602)  | 1       |
| Caelo                      | Octyldodecanol | 4111712       | 1       |
| Caelo                      | Octyldodecanol | 4113A2875     | 1       |
| Caelo                      | Octyldodecanol | 4214U-02875   | 1       |
| Caelo                      | Octyldodecanol | 4817E-02875   | 1       |
| Caelo                      | Octyldodecanol | 4913M-02875   | 1       |
| Caelo                      | Octyldodecanol | 4916Q-02875   | 1       |
| Caelo                      | Octyldodecanol | 516A-02875    | 1       |
| Caelo                      | Octyldodecanol | 7138109       | 1       |
| Caelo                      | Octyldodecanol | 717Q-02875    | 1       |
| Caelo                      | Octyldodecanol | 8012015B      | 1       |
| Caelo                      | Octyldodecanol | 82695089      | 1       |
| Caelo                      | Octyldodecanol | 9013603       | 1       |
| Caelo                      | Octyldodecanol | 9013609       | 1       |
| Caelo                      | Octyldodecanol | 9096105       | 1       |
| Caelo                      | Octyldodecanol | 90961051      | 1       |
| Caelo                      | Octyldodecanol | B11060317     | 1       |
| Caelo                      | Octyldodecanol | CE11350022    | 2       |
| Caelo                      | Octyldodecanol | CHB19096105   | 1       |
| Caelo                      | Octyldodecanol | 14130205      | 1       |
| Caelo/Noweda               | Octyldodecanol | 17273008      | 1       |
| Caelo/Phoenix              | Octyldodecanol | 15383005      | 1       |
| Caelo/Phönix               | Octyldodecanol | 16312706      | 1       |
| Caelo                      | Octyldodecanol | 6022014B      | 1       |
| Caeolo / Phönix            | Octyldodecanol | 16312707      | 1       |
| Caeolo/Noweda              | Octyldodecanol | 15383008      | 1       |
| Caeolo/Phoenix             | Octyldodecanol | 18112008      | 1       |
| Caeolo/Sanacorp            | Octyldodecanol | 18112006      | 1       |
| Caesar & Lorenz GmbH       | Octyldodecanol | 17273002      | 2       |
| Caesar & Lorenz GmbH       | Octyldodecanol | 17273008      | 2       |
| Caesar & Lorenz GmbH       | Octyldodecanol | 19013603      | 1       |
| Caesar & Lorenz GmbH       | Octyldodecanol | 190961001     | 1       |
| Caesar & Lorenz GmbH       | Octyldodecanol | 19096102      | 1       |
| Caesar & Lorenz GmbH       | Octyldodecanol | 192693002     | 2       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 192693002     | 2       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 17138105      | 1       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 17273008      | 1       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 18112002      | 2       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 18112010      | 1       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 20003742006   | 1       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 16095507      | 1       |
| Caesar & Loretz GmbH / ... | Octyldodecanol | 17273002      | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH / ... | Octyldodecanol   | 19013603     | 1              |
| Caesar & Loretz GmbH / ... | Octyldodecanol   | 19096102     | 3              |
| Caesar & Loretz GmbH / ... | Octyldodecanol   | 19096102     | 2              |
| Caesar & Loretz GmbH / ... | Octyldodecanol   | 20001252001  | 1              |
| Caesar & Loretz GmbH / ... | Octyldodecanol   | 19096105     | 1              |
| Caesar & Loretz GmbH Ph... | Octyldodecanol   | 21000064006  | 1              |
| Caesar & Loretz GmbH, P... | Octyldodecanol   | 18112002     | 1              |
| Caesar & Loretz GmbH/ G... | Octyldodecanol   | 20003742004  | 1              |
| Caesar & Loretz GmbH/ P... | Octyldodecanol   | 21002182003  | 1              |
| Caesar & Loretz GmbH/AHD   | Octyldodecanol   | 20003772003  | 1              |
| Caesar & Loretz GmbH/Al... | Octyldodecanol   | 19013610     | 1              |
| Caesar & Loretz GmbH/Al... | Octyldodecanol   | 20001252001  | 1              |
| Caesar & Loretz GmbH/An... | Octyldodecanol   | 19096105     | 1              |
| Caesar & Loretz GmbH/Fi... | Octyldodecanol   | 19013601     | 1              |
| Caesar & Loretz GmbH/Fi... | Octyldodecanol   | 19013603     | 1              |
| Caesar & Loretz GmbH/Fi... | Octyldodecanol   | 19096102     | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 19013609     | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 19013610     | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 19096102     | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 19096105     | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 192693001    | 2              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 192693002    | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 192693005    | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 20001252001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 21000064004  | 1              |
| Caesar & Loretz GmbH/GEHE  | Octyldodecanol   | 21000064004  | 1              |
| Caesar & Loretz GmbH/Gehe  | Octyldodecanol   | 21002182006  | 1              |
| Caesar & Loretz GmbH/Ge... | Octyldodecanol   | 20001252001  | 1              |
| Caesar & Loretz GmbH/Je... | Octyldodecanol   | 190961001    | 3              |
| Caesar & Loretz GmbH/Je... | Octyldodecanol   | 192693002    | 2              |
| Caesar & Loretz GmbH/Kehr  | Octyldodecanol   | 190961001    | 2              |
| Caesar & Loretz GmbH/Kehr  | Octyldodecanol   | 192693002    | 3              |
| Caesar & Loretz GmbH/Kehr  | Octyldodecanol   | 20001252001  | 1              |
| Caesar & Loretz GmbH/kehr  | Octyldodecanol   | 20003742004  | 1              |
| Caesar & Loretz GmbH/Kr... | Octyldodecanol   | 19013603     | 1              |
| Caesar & Loretz GmbH/Kr... | Octyldodecanol   | 19013604     | 2              |
| Caesar & Loretz GmbH/NO... | Octyldodecanol   | 18112008     | 1              |
| Caesar & Loretz GmbH/No... | Octyldodecanol   | 19013602     | 2              |
| Caesar & Loretz GmbH/No... | Octyldodecanol   | 19013603     | 3              |
| Caesar & Loretz GmbH/No... | Octyldodecanol   | 19013609     | 1              |
| Caesar & Loretz GmbH/No... | Octyldodecanol   | 19096105     | 2              |
| Caesar & Loretz GmbH/No... | Octyldodecanol   | 192693001    | 1              |
| Caesar & Loretz GmbH/No... | Octyldodecanol   | 20001252001  | 2              |
| Caesar & Loretz GmbH/No... | Octyldodecanol   | 20003742004  | 1              |
| Caesar & Loretz GmbH/P     | Octyldodecanol   | 190961001    | 1              |
| Caesar & Loretz GmbH/P     | Octyldodecanol   | 192693002    | 2              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 192693002    | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 21000064004  | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 21002182002  | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 19096102     | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 19013602     | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 19096105     | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 20001252002  | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 20003742003  | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 20003742004  | 1              |
| Caesar & Loretz GmbH/Ph... | Octyldodecanol   | 21000064006  | 1              |
| Caesar & Loretz GmbH/Sa... | Octyldodecanol   | 192693005    | 1              |
| Caesar & Loretz GmbH/Sa... | Octyldodecanol   | 20003742006  | 1              |
| Caesar & Loretz GmbH/Sa... | Octyldodecanol   | 21002182003  | 1              |
| Caesar & Loretz GmbH       | Octyldodecanol   | 13222008     | 1              |

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| Supplier                   | Substance      | Batch       | Spectra |
|----------------------------|----------------|-------------|---------|
| Caesar & Loretz GmbH       | Octyldodecanol | 13360010    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 15135206    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 16095511    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 16312701    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 17138105    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 17273002    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 18112001    | 2       |
| Caesar & Loretz GmbH       | Octyldodecanol | 18112002    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 18112006    | 5       |
| Caesar & Loretz GmbH       | Octyldodecanol | 18112008    | 2       |
| Caesar & Loretz GmbH       | Octyldodecanol | 18112010    | 3       |
| Caesar & Loretz GmbH       | Octyldodecanol | 18112011    | 13      |
| Caesar & Loretz GmbH       | Octyldodecanol | 18112012    | 2       |
| Caesar & Loretz GmbH       | Octyldodecanol | 19013601    | 2       |
| Caesar & Loretz GmbH       | Octyldodecanol | 19013602    | 15      |
| Caesar & Loretz GmbH       | Octyldodecanol | 19013603    | 22      |
| Caesar & Loretz GmbH       | Octyldodecanol | 19013604    | 3       |
| Caesar & Loretz GmbH       | Octyldodecanol | 19013609    | 7       |
| Caesar & Loretz GmbH       | Octyldodecanol | 19013610    | 13      |
| Caesar & Loretz GmbH       | Octyldodecanol | 190961001   | 7       |
| Caesar & Loretz GmbH       | Octyldodecanol | 19096102    | 14      |
| Caesar & Loretz GmbH       | Octyldodecanol | 19096103    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 19096105    | 27      |
| Caesar & Loretz GmbH       | Octyldodecanol | 19132603    | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 192693001   | 20      |
| Caesar & Loretz GmbH       | Octyldodecanol | 192693002   | 32      |
| Caesar & Loretz GmbH       | Octyldodecanol | 192693004   | 10      |
| Caesar & Loretz GmbH       | Octyldodecanol | 192693005   | 8       |
| Caesar & Loretz GmbH       | Octyldodecanol | 192693009   | 2       |
| Caesar & Loretz GmbH       | Octyldodecanol | 2000125002  | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 20001252001 | 12      |
| Caesar & Loretz GmbH       | Octyldodecanol | 20001252002 | 7       |
| Caesar & Loretz GmbH       | Octyldodecanol | 20003742003 | 8       |
| Caesar & Loretz GmbH       | Octyldodecanol | 20003742004 | 11      |
| Caesar & Loretz GmbH       | Octyldodecanol | 20003742006 | 6       |
| Caesar & Loretz GmbH       | Octyldodecanol | 20003742007 | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 21000064004 | 7       |
| Caesar & Loretz GmbH       | Octyldodecanol | 21000064006 | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 21000064009 | 1       |
| Caesar & Loretz GmbH       | Octyldodecanol | 21002182002 | 4       |
| Caesar & Loretz GmbH       | Octyldodecanol | 21002182003 | 2       |
| Caesar & Loretz GmbH       | Octyldodecanol | 21002182006 | 5       |
| Caesar & Loretz GmbH       | Octyldodecanol | 21002182007 | 3       |
| Caesar & Loretz GmbH Anzag | Octyldodecanol | 20003742006 | 1       |
| Caesar & Loretz GmbH-Ph... | Octyldodecanol | 19096102    | 1       |
| Caesar & Loretz Hilden/... | Octyldodecanol | 192693001   | 1       |
| Caesar & Loretz/ Noweda    | Octyldodecanol | 13044009    | 1       |
| Caesar & Loretz/AHC        | Octyldodecanol | 16095503    | 1       |
| Caesar & Loretz/Noweda     | Octyldodecanol | 16095503    | 2       |
| Caesar & Loretz            | Octyldodecanol | 16095508    | 1       |
| Caesar & Loretz            | Octyldodecanol | 16312707    | 1       |
| Caesar & Loretz            | Octyldodecanol | 17273008    | 1       |
| Caesar und Loretz GmbH     | Octyldodecanol | 19013602    | 2       |
| Caesar&Lorenz / Gehe       | Octyldodecanol | 1900961001  | 1       |
| Caesar&Loretz GmbH,09.0... | Octyldodecanol | 16095507    | 1       |
| Caesar&Loretz GmbH         | Octyldodecanol | 15383004    | 1       |
| Caesar&Loretz GmbH         | Octyldodecanol | 18112006    | 1       |
| Caesar&Loretz GmbH         | Octyldodecanol | 20001252002 | 1       |
| Caesar&loretz,Phoenix      | Octyldodecanol | 13044016    | 1       |
| Caesar&loretz,Phoenix      | Octyldodecanol | 13360006    | 1       |

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| <b>Supplier</b>       | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------------|------------------|------------------|----------------|
| Caesar&loretz,Phoenix | Octyldodecanol   | 14371711         | 1              |
| caesar&loretz,Phönix  | Octyldodecanol   | 15135206         | 1              |
| Caesar&Loretz/Phönix  | Octyldodecanol   |                  | 1              |
| Caesar&Loretz         | Octyldodecanol   | 16095502         | 1              |
| Caesar/Lorenz         | Octyldodecanol   | 13044009         | 1              |
| Caesar/Noweda         | Octyldodecanol   | 13044009         | 1              |
| Caesar/Noweda         | Octyldodecanol   | 13222010         | 1              |
| Caesar/Noweda         | Octyldodecanol   | 15135207         | 1              |
| Caolo                 | Octyldodecanol   | 15383005         | 1              |
| Cealo / Noweda        | Octyldodecanol   | 13222008         | 1              |
| Cealo/Anzag           | Octyldodecanol   | 16312701         | 2              |
| Cealo/Gehe            | Octyldodecanol   | 15135212         | 2              |
| Cealo/Noweda          | Octyldodecanol   | 17138102         | 1              |
| Cealo/Noweda          | Octyldodecanol   | 17273008         | 1              |
| Cealo/Phoenix         | Octyldodecanol   | 19013609         | 1              |
| Cealo                 | Octyldodecanol   | 16095503         | 1              |
| Cealo                 | Octyldodecanol   | 18112002         | 1              |
| E-Plus                | Octyldodecanol   | 18112001         | 1              |
| Euro OTC              | Octyldodecanol   |                  | 1              |
| Euro OTC              | Octyldodecanol   | 13044015         | 1              |
| Euro OTC              | Octyldodecanol   | 15383004         | 1              |
| Euro OTC              | Octyldodecanol   | 16095506         | 1              |
| Euro OTC              | Octyldodecanol   | 16095511         | 1              |
| Euro OTC              | Octyldodecanol   | 16312701         | 1              |
| Euro OTC              | Octyldodecanol   | 17273003         | 3              |
| Euro OTC              | Octyldodecanol   | 19013602         | 2              |
| Euro/Phönix           | Octyldodecanol   | 15383009         | 1              |
| Fagron                | Octyldodecanol   | 10598578         | 1              |
| Fagron                | Octyldodecanol   | 11J13-N05        | 5              |
| Fagron                | Octyldodecanol   | 12C21-N03        | 3              |
| Fagron                | Octyldodecanol   | 12C31-N03        | 1              |
| Fagron                | Octyldodecanol   | 12J04-N01        | 3              |
| Fagron                | Octyldodecanol   | 13E07-N03        | 3              |
| Fagron                | Octyldodecanol   | 13L02-B05        | 2              |
| Fagron                | Octyldodecanol   | 13L02-B05-288975 | 1              |
| Fagron                | Octyldodecanol   | 14E06-B02        | 5              |
| Fagron                | Octyldodecanol   | 14e06-b02-293745 | 1              |
| Fagron                | Octyldodecanol   | 14E06-B02-293745 | 1              |
| Fagron                | Octyldodecanol   | 14E06-B02-293746 | 1              |
| Fagron                | Octyldodecanol   | 14E06-B02-30170  | 1              |
| Fagron                | Octyldodecanol   | 14E06-B02-301705 | 2              |
| Fagron                | Octyldodecanol   | 14E06-B02-301706 | 1              |
| Fagron                | Octyldodecanol   | 15135213         | 1              |
| Fagron                | Octyldodecanol   | 15383004         | 1              |
| Fagron                | Octyldodecanol   | 15383008         | 1              |
| Fagron                | Octyldodecanol   | 15E06-B02-30170  | 1              |
| Fagron                | Octyldodecanol   | 16095502         | 1              |
| Fagron                | Octyldodecanol   | 16312701         | 1              |
| Fagron                | Octyldodecanol   | 16G20-B99-324356 | 12             |
| Fagron                | Octyldodecanol   | 17138102         | 1              |
| Fagron                | Octyldodecanol   | 17273002         | 3              |
| Fagron                | Octyldodecanol   | 17273008         | 1              |
| Fagron                | Octyldodecanol   | 18112004         | 1              |
| Fagron                | Octyldodecanol   | 18112008         | 1              |
| Fagron                | Octyldodecanol   | 18112011         | 2              |
| Fagron                | Octyldodecanol   | 200714112-2      | 1              |
| Fagron                | Octyldodecanol   | CE11350022       | 1              |
| Fargon                | Octyldodecanol   | 11C14-N14        | 1              |
| Fiebig                | Octyldodecanol   | 17273008         | 1              |
| Fiebig                | Octyldodecanol   | 18112002         | 1              |

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| Supplier             | Substance      | Batch       | Spectra |
|----------------------|----------------|-------------|---------|
| Fiebig               | Octyldodecanol | 18112011    | 2       |
| Fresenius            | Octyldodecanol | 300615100   | 1       |
| Gehe amax            | Octyldodecanol | 15135211    | 1       |
| GEHE                 | Octyldodecanol | 1098685     | 1       |
| Gehe                 | Octyldodecanol | 11369012    | 1       |
| Gehe                 | Octyldodecanol | 11369021    | 1       |
| Gehe                 | Octyldodecanol | 12165506    | 1       |
| Gehe                 | Octyldodecanol | 12165515    | 1       |
| Gehe                 | Octyldodecanol | 12165519    | 1       |
| Gehe                 | Octyldodecanol | 13044013    | 1       |
| Gehe                 | Octyldodecanol | 13360003    | 1       |
| Gehe                 | Octyldodecanol | 13360006    | 1       |
| Gehe                 | Octyldodecanol | 13360012    | 1       |
| Gehe                 | Octyldodecanol | 14371711    | 1       |
| Gehe                 | Octyldodecanol | 15135213    | 3       |
| Gehe                 | Octyldodecanol | 15383009    | 1       |
| Gehe                 | Octyldodecanol | 16095502    | 1       |
| Gehe                 | Octyldodecanol | 16095503    | 1       |
| GEHE                 | Octyldodecanol | 16095507    | 1       |
| Gehe                 | Octyldodecanol | 16312701    | 3       |
| GEHE                 | Octyldodecanol | 16312701    | 1       |
| Gehe                 | Octyldodecanol | 17077701    | 1       |
| Gehe                 | Octyldodecanol | 17138102    | 2       |
| Gehe                 | Octyldodecanol | 17138105    | 2       |
| gehe                 | Octyldodecanol | 17138109    | 1       |
| Gehe                 | Octyldodecanol | 17138109    | 2       |
| Gehe                 | Octyldodecanol | 17273001    | 6       |
| Gehe                 | Octyldodecanol | 17273002    | 1       |
| GEHE                 | Octyldodecanol | 17273002    | 1       |
| Gehe                 | Octyldodecanol | 17273008    | 2       |
| GEHE                 | Octyldodecanol | 17273008    | 3       |
| Gehe                 | Octyldodecanol | 18112001    | 3       |
| Gehe                 | Octyldodecanol | 18112002    | 3       |
| Gehe                 | Octyldodecanol | 18112008    | 1       |
| Gehe                 | Octyldodecanol | 18112010    | 2       |
| Gehe                 | Octyldodecanol | 18112011    | 1       |
| Gehe                 | Octyldodecanol | 19013602    | 7       |
| GEHE                 | Octyldodecanol | 19013603    | 1       |
| Gehe                 | Octyldodecanol | 19013609    | 2       |
| GEHE                 | Octyldodecanol | 19013609    | 1       |
| Gehe                 | Octyldodecanol | 190961001   | 1       |
| Gehe                 | Octyldodecanol | 19096101    | 1       |
| gehe                 | Octyldodecanol | 19096105    | 2       |
| Gehe                 | Octyldodecanol | 19096105    | 1       |
| Gehe                 | Octyldodecanol | 192693001   | 1       |
| Gehe                 | Octyldodecanol | 20001252001 | 1       |
| Gehe                 | Octyldodecanol | 20003742004 | 1       |
| Gehe                 | Octyldodecanol | 21000064006 | 1       |
| Gehe                 | Octyldodecanol | 31002182007 | 1       |
| Hedinger / Noweda    | Octyldodecanol | 17273001    | 1       |
| Hedinger/Noweda      | Octyldodecanol | 17138102    | 3       |
| Henry Lamotte/Noweda | Octyldodecanol | 17273003    | 4       |
| Ichthyol/Phönix      | Octyldodecanol | 16095503    | 1       |
| Ichtyol-Gesellschaft | Octyldodecanol | 16095501    | 1       |
| Kehr                 | Octyldodecanol | 1098722     | 1       |
| Kehr                 | Octyldodecanol | 16312707    | 1       |
| Kehr                 | Octyldodecanol | 17138102    | 1       |
| Kehr                 | Octyldodecanol | 17273008    | 3       |
| Klenk                | Octyldodecanol | 13360003    | 1       |
| Krieger              | Octyldodecanol | 13360006    | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Krieger                    | Octyldodecanol   | 16312701     | 1              |
| L12                        | Octyldodecanol   | 16095507     | 1              |
| Nachprüfung von Juni 2018  | Octyldodecanol   | 14371716     | 1              |
| Nachprüfung                | Octyldodecanol   | 1018J-02875  | 1              |
| Nachprüfung                | Octyldodecanol   | AP200611-01  | 1              |
| Nachprüfung                | Octyldodecanol   | AP201218-15  | 1              |
| Nachprüfung                | Octyldodecanol   | AP211105-07  | 1              |
| Noweda 10.07.2015          | Octyldodecanol   | 14371714     | 1              |
| Noweda/ Caesar&Lorenz G... | Octyldodecanol   | 19013609     | 1              |
| Noweda                     | Octyldodecanol   | 1216551      | 1              |
| Noweda                     | Octyldodecanol   | 12165515     | 1              |
| Noweda                     | Octyldodecanol   | 13044005     | 1              |
| Noweda                     | Octyldodecanol   | 13044013     | 1              |
| Noweda                     | Octyldodecanol   | 13044016     | 1              |
| Noweda                     | Octyldodecanol   | 13222003     | 1              |
| Noweda                     | Octyldodecanol   | 13222008     | 1              |
| Noweda                     | Octyldodecanol   | 13360002     | 1              |
| Noweda                     | Octyldodecanol   | 13360003     | 1              |
| Noweda                     | Octyldodecanol   | 13360012     | 1              |
| Noweda                     | Octyldodecanol   | 14371705     | 1              |
| Noweda                     | Octyldodecanol   | 15135213     | 1              |
| Noweda                     | Octyldodecanol   | 15383009     | 1              |
| Noweda                     | Octyldodecanol   | 16095511     | 3              |
| Noweda                     | Octyldodecanol   | 16312701     | 1              |
| Noweda                     | Octyldodecanol   | 17138102     | 1              |
| Noweda                     | Octyldodecanol   | 17138103     | 1              |
| Noweda                     | Octyldodecanol   | 17138105     | 1              |
| Noweda                     | Octyldodecanol   | 17273001     | 2              |
| Noweda                     | Octyldodecanol   | 18112001     | 1              |
| Noweda                     | Octyldodecanol   | 18112004     | 2              |
| Noweda                     | Octyldodecanol   | 18112011     | 2              |
| Noweda                     | Octyldodecanol   | 19263002     | 1              |
| Noweda                     | Octyldodecanol   | 20003742003  | 1              |
| Noweda                     | Octyldodecanol   | 21000064004  | 1              |
| Noweda                     | Octyldodecanol   | 21022171/7   | 1              |
| P.W.Beyvers                | Octyldodecanol   | 18112001     | 1              |
| Pharmamacher/Noweda        | Octyldodecanol   | 18112001     | 1              |
| PHOENIX 30.06.2014         | Octyldodecanol   | 13360011     | 1              |
| Phoenix WE 22.03.17 EK...  | Octyldodecanol   | 16095511     | 1              |
| Phoenix/Fargon             | Octyldodecanol   | 12J04-N01    | 1              |
| Phoenix                    | Octyldodecanol   | 13360006     | 1              |
| Phoenix                    | Octyldodecanol   | 14130207     | 1              |
| Phoenix                    | Octyldodecanol   | 14158411     | 1              |
| Phoenix                    | Octyldodecanol   | 15383009     | 1              |
| Phoenix                    | Octyldodecanol   | 16095503     | 1              |
| Phoenix                    | Octyldodecanol   | 16312701     | 3              |
| Phoenix                    | Octyldodecanol   | 17138102     | 1              |
| Phoenix                    | Octyldodecanol   | 17138109     | 1              |
| Phoenix                    | Octyldodecanol   | 17273002     | 1              |
| Phoenix                    | Octyldodecanol   | 17273008     | 1              |
| Phoenix                    | Octyldodecanol   | 18112001     | 3              |
| Phoenix                    | Octyldodecanol   | 18112006     | 1              |
| Phoenix                    | Octyldodecanol   | 18112008     | 2              |
| Phoenix                    | Octyldodecanol   | 19013602     | 2              |
| Phoenix                    | Octyldodecanol   | 19013603     | 3              |
| phoenix                    | Octyldodecanol   | 19096102     | 1              |
| Phoenix                    | Octyldodecanol   | 19096102     | 1              |
| Phoenix                    | Octyldodecanol   | 19096105     | 3              |
| Phoenix                    | Octyldodecanol   | 192693002    | 1              |
| Phoenix                    | Octyldodecanol   | 20001252001  | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Phönix 08.11.12            | Octyldodecanol   | 11369021         | 1              |
| Phönix Gotha               | Octyldodecanol   | 13044002         | 1              |
| Phönix Gotha               | Octyldodecanol   | 18112008         | 1              |
| Phönix Gotha               | Octyldodecanol   | 19013603         | 1              |
| Phönix W.E:27.02.18 E...   | Octyldodecanol   | 17273001         | 1              |
| Phönix                     | Octyldodecanol   | 1098722          | 1              |
| Phönix                     | Octyldodecanol   | 12165521         | 3              |
| Phönix                     | Octyldodecanol   | 12J04-N01        | 1              |
| Phönix                     | Octyldodecanol   | 13044005         | 1              |
| Phönix                     | Octyldodecanol   | 13222008         | 1              |
| Phönix                     | Octyldodecanol   | 14130206         | 1              |
| Phönix                     | Octyldodecanol   | 1538009          | 1              |
| Phönix                     | Octyldodecanol   | 16095506         | 1              |
| Phönix                     | Octyldodecanol   | 17077701         | 1              |
| Phönix                     | Octyldodecanol   | 17138105         | 1              |
| Phönix                     | Octyldodecanol   | 17138109         | 1              |
| Phönix                     | Octyldodecanol   | 17273001         | 2              |
| Phönix                     | Octyldodecanol   | 17273002         | 2              |
| Phönix                     | Octyldodecanol   | 18112002         | 2              |
| Phönix                     | Octyldodecanol   | 18112008         | 4              |
| Phönix                     | Octyldodecanol   | 20001252001      | 1              |
| Phönix                     | Octyldodecanol   | 20001252002      | 1              |
| Phönix                     | Octyldodecanol   | 20003742004      | 1              |
| PHÖNIX                     | Octyldodecanol   | 21000064004      | 1              |
| Phönix                     | Octyldodecanol   | 3175             | 1              |
| sanacorb                   | Octyldodecanol   | 18112001         | 2              |
| Sanacorp WE:09.11.17 10... | Octyldodecanol   | 17138105         | 1              |
| Sanacorp WE:21.12.17 E...  | Octyldodecanol   | 17138109         | 1              |
| Sanacorp/ Caesar & Lore... | Octyldodecanol   | 19013603         | 3              |
| Sanacorp                   | Octyldodecanol   | 12142726         | 1              |
| Sanacorp                   | Octyldodecanol   | 12165514         | 2              |
| Sanacorp                   | Octyldodecanol   | 13044002         | 1              |
| Sanacorp                   | Octyldodecanol   | 13044005         | 2              |
| Sanacorp                   | Octyldodecanol   | 13222002         | 1              |
| Sanacorp                   | Octyldodecanol   | 13222003         | 4              |
| Sanacorp                   | Octyldodecanol   | 13222008         | 1              |
| Sanacorp                   | Octyldodecanol   | 13360006         | 1              |
| Sanacorp                   | Octyldodecanol   | 13E07-N07        | 1              |
| Sanacorp                   | Octyldodecanol   | 13102-b05-288974 | 1              |
| sanacorp                   | Octyldodecanol   | 14130207         | 2              |
| sanacorp                   | Octyldodecanol   | 14371706         | 1              |
| Sanacorp                   | Octyldodecanol   | 14371706         | 1              |
| Sanacorp                   | Octyldodecanol   | 14371711         | 1              |
| Sanacorp                   | Octyldodecanol   | 14371716         | 1              |
| Sanacorp                   | Octyldodecanol   | 15383005         | 1              |
| Sanacorp                   | Octyldodecanol   | 16312701         | 1              |
| Sanacorp                   | Octyldodecanol   | 17138102         | 4              |
| Sanacorp                   | Octyldodecanol   | 17138105         | 1              |
| Sanacorp                   | Octyldodecanol   | 17273001         | 1              |
| Sanacorp                   | Octyldodecanol   | 18112002         | 1              |
| Sanacorp                   | Octyldodecanol   | 18112006         | 1              |
| Sanacorp                   | Octyldodecanol   | 18112008         | 1              |
| Sanacorp                   | Octyldodecanol   | 19013602         | 1              |
| Sanacorp                   | Octyldodecanol   | 19013603         | 1              |
| Sanacorp                   | Octyldodecanol   | 19013609         | 2              |
| Sanacorp                   | Octyldodecanol   | 19013610         | 1              |
| Sanacorp                   | Octyldodecanol   | 192693009        | 1              |
| Sanacorp                   | Octyldodecanol   | 21000064004      | 1              |
| Sanacorp                   | Octyldodecanol   | AKD31            | 1              |
| Spangropharm               | Octyldodecanol   | 11060317         | 1              |

*continued on the next page*

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| Supplier                | Substance      | Batch       | Spectra |
|-------------------------|----------------|-------------|---------|
| Spangropharm            | Octyldodecanol | 20001252001 | 2       |
| VDL 30.04.14_5.77 euro  | Octyldodecanol | 13360006    | 1       |
| VDL,5,77EUR; 27.04.15   | Octyldodecanol | 14371711    | 2       |
| VDL; 5,77EUR;21.01.2015 | Octyldodecanol | 14158402    | 1       |
| VDL;15.3.16;5,75EUR     | Octyldodecanol | 15383005    | 1       |

- 284 435 spectra from 1294 *Apo-Ident* customers from a total of 51 579 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Octyldodecanol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Octyldodecanol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 300           | 0              | 66 859        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 4263          | 11             | 284 435       |

The substance/substance group *Octyldodecanol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.7426 % (> 99.6724 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Octyldodecanol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Macrogol-2-laurylether                    | 30.43                     | —                                 |
| Hydrophilic ointment DAB                  | 30.80                     | —                                 |
| Macrogol 8 stearate type I                | 32.40                     | —                                 |
| Paraffin, white                           | 37.30                     | —                                 |
| Wool alcohol ointment SR with white pa... | 39.46                     | —                                 |
| Triglycerol diisostearate                 | 43.60                     | —                                 |
| Eye paraffin                              | 43.91                     | —                                 |
| Paraffin, yellow                          | 44.54                     | —                                 |
| Cetiol <sup>®</sup> HE                    | 45.77                     | —                                 |
| Polysorbate 60                            | 47.08                     | —                                 |
| Softisan <sup>®</sup> 649                 | 47.91                     | —                                 |
| Wool alcohol ointment DAB                 | 49.48                     | —                                 |
| Unguentum Cordes <sup>®</sup>             | 50.36                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Octyldodecanol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30867     | 31330                  | 4.02                            | 52.43                              |
| 31330     | 31330                  | 0.00                            | 53.18                              |
| 31753     | 33093                  | 3.22                            | 56.13                              |
| 32958     | 33093                  | 4.64                            | 54.99                              |
| 33093     | 33093                  | 0.00                            | 54.64                              |
| 34468     | 34468                  | 0.00                            | 55.45                              |
| 34471     | 34471                  | 0.00                            | 52.71                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Oleic acid**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 32471-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Oleic acid; Acidum oleicum

### Special notes

When selecting the *Oleic acid* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Oleic acid                | 3      | 2      | 1      |

## Second-stage model

For differentiation of the substance/substance group *Oleic acid* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Oleic acid*:

| Supplier | Substance  | Batch    | Sample ID | Spectra | Certificate |
|----------|------------|----------|-----------|---------|-------------|
| Caelo    | Oleic acid | 15298701 | 32471     | 40      | 1702061     |
| Caelo    | Oleic acid | 163091   | 33076     | 40      | 20161212*   |
| Caelo    | Oleic acid | 20001055 | 35037     | 40      | 20200506*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 3 reference samples from the substance/substance group *Oleic acid*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 039 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Oleic acid*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance  | Batch    | Sample ID | Spectra |
|----------|------------|----------|-----------|---------|
| Caelo    | Oleic acid | 172741   | 33898     | 40      |
| Caelo    | Oleic acid | 21000914 | 35283     | 40      |
| Caelo    | Oleic acid | 15298701 | 32475     | 40      |
| Caelo    | Oleic acid | 15298701 | 32747     | 40      |

- 107 203 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1 spectra from 1 *Apo-Ident* customers from 1 batches from the substance/substance group *Oleic acid*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance  | Batch    | Spectra |
|----------|------------|----------|---------|
| Caelo    | Oleic acid | 16309108 | 1       |

- 288 708 spectra from 1294 *Apo-Ident* customers from a total of 51 887 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Oleic acid* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Oleic acid* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 1             | 0              | 288 708       |

The substance/substance group *Oleic acid* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6959 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Oleic acid* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                             | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------------------------|---------------------------|-----------------------------------|
| Pasta Cordes <sup>®</sup>             | 35.34                     | —                                 |
| Metronidazole 25% in white petrolatum | 40.03                     | —                                 |
| Shea butter, refined                  | 41.80                     | —                                 |
| Permethrin 25% solution               | 45.77                     | —                                 |
| Avocado oil, refined                  | 62.21                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Oleic acid* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 32471     | 32471                  | 0.00                            | 59.21                              |
| 33076     | 33076                  | 0.00                            | 64.08                              |
| 35037     | 35037                  | 0.00                            | 65.69                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Oregano oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30669-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Oregano oil

### Special notes

When selecting the *Oregano oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Oregano oil               | 5      | 2      | 13     |

## Second-stage model

For differentiation of the substance/substance group *Oregano oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Oregano oil*:

| Supplier | Substance   | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------|----------|-----------|---------|-------------|
| Caelo    | Oregano oil | 11247605 | 30669     | 40      | 20110829    |
| Caelo    | Oregano oil | 13354002 | 31196     | 40      | 1502253     |
| Caelo    | Oregano oil | 13354007 | 31302     | 40      | 20131028    |
| Caelo    | Oregano oil | 13354006 | 31406     | 40      | 20131028    |
| Caelo    | Oregano oil | 14242905 | 31788     | 60      | 20140904    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Oregano oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 150 spectra of 3 reference samples from the substance/substance group *Oregano oil*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance   | Batch       | Sample ID | Spectra |
|----------|-------------|-------------|-----------|---------|
| Caelo    | Oregano oil | 16011001    | 32070     | 60      |
| Caelo    | Oregano oil | 20003985002 | 35858     | 50      |
| Caelo    | Oregano oil | 16011001    | 33469     | 40      |

- 107 213 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 17 spectra from 12 *Apo-Ident* customers from 14 batches from the substance/substance group *Oregano oil*.
- Among them are spectra of independent samples from 13 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier               | Substance   | Batch         | Spectra |
|------------------------|-------------|---------------|---------|
| /Anzag                 | Oregano oil | 46027A-5558   | 1       |
| Apotheker S Bauer&Comp | Oregano oil | 90131-59-2    | 1       |
| Caelo                  | Oregano oil | 12347604      | 2       |
| Caelo                  | Oregano oil | 15248805      | 1       |
| Caelo                  | Oregano oil | 16011001      | 1       |
| Caelo                  | Oregano oil | 1601101       | 1       |
| Caelo                  | Oregano oil | 16269801      | 1       |
| Caelo                  | Oregano oil | 18068701      | 2       |
| Euro OTC               | Oregano oil | 4431a-3102    | 1       |
| Noweda/Taoasis         | Oregano oil | 43878A-123313 | 1       |
| Taoasis / Phönix       | Oregano oil | 4431A-1967    | 1       |
| Taoasis / Phönix       | Oregano oil | 4431A-3102    | 1       |
| Taoasis                | Oregano oil | 124744        | 1       |
| Taoasis                | Oregano oil | 43878A-123313 | 1       |
| Taoasis                | Oregano oil | 43878A-127300 | 1       |

- 288 692 spectra from 1294 *Apo-Ident* customers from a total of 51 874 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Oregano oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Oregano oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).



|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 220           | 0              | 66 939        |
| Type B | 0              | 150           | 0              | 107 213       |
| Type C | 0              | 16            | 1              | 288 692       |

The substance/substance group *Oregano oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.0000 %) |
| Type C | 100.0000 % (> 99.6876 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Oregano oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance              | Distance in main model | Distance in second-stage model |
|------------------------|------------------------|--------------------------------|
| Thyme oil, thymol type | 33.30                  | —                              |
| Coriander oil          | 114.25                 | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Oregano oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30669     | 31196               | 6.53                         | 52.10                           |
| 31196     | 31196               | 0.00                         | 50.18                           |
| 31302     | 31196               | 2.97                         | 48.69                           |
| 31406     | 31196               | 6.59                         | 49.12                           |
| 31788     | 31196               | 8.24                         | 48.45                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Paraffin classification</b>                                   |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30932-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Paraffin classification; Abwaschbare Salbengrundlage (NRF S.31); Emulsifying hydrophobic base gel DAC; Eye ointment, emulsifying DAC; Eye paraffin; Gelatum basalis hydrophobicum; Gelatum basalis hydrophobicum emulsificans; Hydrophilic ointment DAB; Hydrophobic base gel DAC; Lanae alcoholum unguentum; Oculentum emulsificans DAC; Paraffin, light liquid; Paraffin, liquid; Paraffin, white; Paraffin, yellow; Paraffinum liquidum; Paraffinum perliquidum; Unguentum alcoholum lanae SR; Unguentum Alcoholum Lanae SR/DAC; Unguentum Cordes®; Unguentum Cordes®; Unguentum emulsificans DAB; Vaseline, white; Vaseline, yellow; Vaselinum album; Vaselinum album pro opthalmicum; Vaselinum flavum; Wool alcohol ointment DAB; Wool alcohol ointment SR with white paraffin; Wool alcohol ointment SR/DAC

### Special notes

When selecting the *Paraffin classification* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Paraffin classification   | 93     | 169    | 4359   |

## Second-stage model

For differentiation of the substance/substance group *Paraffin classification* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Paraffin classification*:

| Supplier | Substance             | Batch            | Sample ID | Spectra | Certificate        |
|----------|-----------------------|------------------|-----------|---------|--------------------|
| Caelo    | Abwaschbare Salb. ... | 180622           | 34160     | 40      | 20180215*          |
| Caelo    | Abwaschbare Salb. ... | 19000678         | 34980     | 40      | 20191217*          |
| Caelo    | Abwaschbare Salb. ... | 21000937         | 35378     | 40      | 20210323*          |
| Caelo    | Abwaschbare Salb. ... | 21001433         | 35518     | 50      | 20210505*          |
| Caelo    | Abwaschbare Salb. ... | 21002194         | 35607     | 50      | 20210730*          |
| Caelo    | Emulsifying hydr. ... | 12343501         | 30933     | 40      | 1405098            |
| Caelo    | Emulsifying hydr. ... | 14276401         | 31570     | 60      | AR-15-FG-014916-01 |
| Caelo    | Emulsifying hydr. ... | 153311           | 31920     | 60      | 20151006*          |
| Caelo    | Emulsifying hydr. ... | 162259           | 32518     | 40      | 20160812*          |
| Caelo    | Emulsifying hydr. ... | 162260           | 32519     | 40      | 20160812*          |
| Caelo    | Emulsifying hydr. ... | 170321           | 33124     | 40      | 20170206*          |
| Caelo    | Emulsifying hydr. ... | 170322           | 33132     | 40      | 20170206*          |
| Caelo    | Emulsifying hydr. ... | 170323           | 33133     | 40      | 20170206*          |
| Caelo    | Emulsifying hydr. ... | 171137           | 33396     | 40      | 20170426*          |
| Caelo    | Emulsifying hydr. ... | 171253           | 33398     | 40      | 20170509*          |
| Caelo    | Emulsifying hydr. ... | 171137           | 33399     | 40      | 20170426*          |
| Caelo    | Emulsifying hydr. ... | 171979           | 33545     | 40      | 20170713*          |
| Caelo    | Emulsifying hydr. ... | 183158           | 34545     | 40      | 20181212*          |
| apomix   | Eye ointment, em. ... | 15B241013        | 31174     | 40      | 1405331            |
| apomix   | Eye ointment, em. ... | 06A090516        | 32946     | 40      | 20160517           |
| apomix   | Eye ointment, em. ... | 10A041016        | 32947     | 40      | 20161017           |
| apomix   | Eye ointment, em. ... | 10A050919        | 34678     | 40      | 20190916           |
| apomix   | Eye ointment, em. ... | 06B070621        | 35848     | 50      | 20210614           |
| Caelo    | Eye paraffin          | 13338710         | 31445     | 40      | 20131108           |
| Caelo    | Eye paraffin          | 13338711         | 31610     | 60      | AR-15-FG-008217-01 |
| Caelo    | Eye paraffin          | 162718           | 32900     | 40      | 20161020*          |
| Caelo    | Eye paraffin          | 21003851         | 36155     | 40      | 20220207*          |
| Caelo    | Hydrophilic oint. ... | 14024802         | 31456     | 40      | AR-14-FG-012697-01 |
| Caelo    | Hydrophilic oint. ... | 14024802         | 31567     | 60      | 20140129           |
| Caelo    | Hydrophilic oint. ... | 13245302         | 31611     | 60      | 20131008           |
| Caelo    | Hydrophilic oint. ... | 154164           | 31909     | 60      | 20151215*          |
| Caelo    | Hydrophilic oint. ... | 154165           | 31910     | 60      | 20151215*          |
| Caelo    | Hydrophilic oint. ... | 21003015         | 35986     | 40      | 20211201*          |
| Fagron   | Hydrophilic oint. ... | 14G08-T08-013954 | 31612     | 60      | 20140829           |
| Fagron   | Hydrophilic oint. ... | 19D25-T11-066650 | 34675     | 40      | 20190805           |
| Caelo    | Hydrophobic base. ... | 12229003         | 30932     | 40      | 1405121            |
| Caelo    | Hydrophobic base. ... | 13299604         | 31168     | 40      | 20130909           |
| Caelo    | Hydrophobic base. ... | 14044601         | 31446     | 40      | AR-15-FG-007940-01 |
| Caelo    | Hydrophobic base. ... | 22000134         | 36140     | 40      | 20220302*          |
| Caelo    | Paraffin, light ...   | 13248007         | 34550     | 60      | AR-15-FG-002534-01 |
| Caelo    | Paraffin, light ...   | 161710           | 34555     | 40      | 20160704*          |
| Euro OTC | Paraffin, light ...   | 1409007-01       | 34551     | 60      | 20140929           |

*continued on the next page*

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| Supplier  | Substance             | Batch            | Sample ID | Spectra | Certificate        |
|-----------|-----------------------|------------------|-----------|---------|--------------------|
| Euro OTC  | Paraffin, light ...   | 1506021          | 34552     | 60      | 20150622*          |
| Euro OTC  | Paraffin, light ...   | 1511029          | 34553     | 60      | 20151208*          |
| Fagron    | Paraffin, light ...   | 15B18-B01-333364 | 34559     | 40      | 20150302           |
| Caelo     | Paraffin, liquid      | 12324307         | 34858     | 40      | 20121031           |
| Caelo     | Paraffin, liquid      | 13390602         | 34859     | 60      | AR-15-FG-002530-01 |
| Euro OTC  | Paraffin, liquid      | 1509011          | 34860     | 60      | 20150918*          |
| Euro OTC  | Paraffin, liquid      | 1511030          | 34861     | 60      | 20151208*          |
| Euro OTC  | Paraffin, liquid      | 1607039          | 34865     | 40      | 20160826*          |
| Fagron    | Paraffin, liquid      | 16E30-B05-327577 | 34867     | 40      | 20160614           |
| Bombastus | Paraffin, white       | 290271           | 31601     | 60      | 20140929           |
| Bombastus | Paraffin, white       | 19001675         | 34509     | 40      | 20190322           |
| Caelo     | Paraffin, white       | 12374502         | 31009     | 40      | 20130102           |
| Caelo     | Paraffin, white       | 12032413         | 31010     | 40      | 20120203           |
| Caelo     | Paraffin, white       | 13341601         | 31437     | 40      | 20131108           |
| Caelo     | Paraffin, white       | 13268421         | 31468     | 40      | 20130823           |
| Caelo     | Paraffin, white       | 153276           | 31916     | 60      | 20151001*          |
| Caelo     | Paraffin, white       | 153368           | 31917     | 60      | 20151012*          |
| Caelo     | Paraffin, white       | 153368           | 31918     | 60      | 20151012*          |
| Caelo     | Paraffin, white       | 162274           | 32495     | 40      | 20160804*          |
| Euro OTC  | Paraffin, white       | 1405014-01       | 31590     | 60      | 20140702           |
| Euro OTC  | Paraffin, white       | 1509019          | 31736     | 70      | 20150929*          |
| Fagron    | Paraffin, white       | 18K01-T06-063753 | 34510     | 40      | 20190227           |
| Fagron    | Paraffin, white       | 17E02-T01-049359 | 34511     | 40      | 20171123           |
| Caelo     | Paraffin, yellow      | 12321908         | 31473     | 40      | AR-15-FG-002511-01 |
| Caelo     | Paraffin, yellow      | 153304           | 31940     | 60      | 20151001*          |
| Caelo     | Paraffin, yellow      | 153305           | 31941     | 60      | 20151001*          |
| Euro OTC  | Paraffin, yellow      | 1401017-01       | 31541     | 60      | 20140210           |
| Euro OTC  | Paraffin, yellow      | 1401017-01       | 31586     | 60      | 20140210           |
| Euro OTC  | Paraffin, yellow      | 1811024-01       | 34433     | 40      | 20190122           |
| Euro OTC  | Paraffin, yellow      | 1904027          | 34498     | 40      | 20190527*          |
| Ichthyol  | Unguentum Cordes®     | 13A067           | 31602     | 60      | 1507406            |
| Ichthyol  | Unguentum Cordes®     | 15A137           | 31807     | 60      | 20150804           |
| Ichthyol  | Unguentum Cordes®     | 15A150           | 31954     | 60      | 20150930           |
| Ichthyol  | Unguentum Cordes®     | 20A0125          | 34838     | 40      | 20200525           |
| Ichthyol  | Unguentum Cordes®     | 20A0126          | 34844     | 40      | 20200526           |
| Ichthyol  | Unguentum Cordes®     | 20A0049          | 35103     | 40      | 20200324           |
| Caelo     | Wool alcohol oin. ... | 12244302         | 31228     | 70      | AR-15-FG-001376-01 |
| Caelo     | Wool alcohol oin. ... | 14067001         | 31441     | 40      | 20140307           |
| Caelo     | Wool alcohol oin. ... | 153421           | 31999     | 40      | 20151012*          |
| Caelo     | Wool alcohol oin. ... | 153562           | 32017     | 60      | 20151028*          |
| Caelo     | Wool alcohol oin. ... | 20001899         | 35324     | 40      | 20200622*          |
| Euro OTC  | Wool alcohol oin. ... | 1211017-01       | 31522     | 60      | AR-14-FG-012695-01 |
| Euro OTC  | Wool alcohol oin. ... | 1608040          | 32777     | 40      | 20160915*          |
| Euro OTC  | Wool alcohol oin. ... | 1911030          | 34813     | 40      | 20200127*          |
| Caelo     | Wool alcohol oin. ... | 14032501         | 31272     | 40      | 1507263            |
| Caelo     | Wool alcohol oin. ... | 153347           | 31921     | 60      | 20150930*          |
| Caelo     | Wool alcohol oin. ... | 162513           | 32517     | 40      | 20160907*          |
| Caelo     | Wool alcohol oin. ... | 16251301         | 33614     | 40      | 20160907           |
| Caelo     | Wool alcohol oin. ... | 190042           | 34542     | 40      | 20190110*          |
| Caelo     | Wool alcohol oin. ... | 191899           | 34799     | 40      | 20190723*          |
| Caelo     | Wool alcohol oin. ... | 21000778         | 35362     | 40      | 20210312*          |
| apomix    | Wool alcohol oin. ... | 02A070515        | 31744     | 60      | AR-16-FG-004495-01 |
| apomix    | Wool alcohol oin. ... | 01A180215        | 31949     | 60      | 20150223           |
| apomix    | Wool alcohol oin. ... | 01A210519        | 34679     | 40      | 20190520           |
| Bombastus | Wool alcohol oin. ... | 21003052         | 36199     | 40      | 20210727           |

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 4610 spectra of 97 reference samples from the substance/substance group *Paraffin classification*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 93 different batches.
- 62 549 spectra from a total of 1286 batches from further 215 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 7261 spectra of 175 reference samples from the substance/substance group *Paraffin classification*.
- Among them are spectra of independent samples from 169 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance                       | Batch       | Sample ID | Spectra |
|-----------|---------------------------------|-------------|-----------|---------|
| Caelo     | Abwaschbare Salbengrundlage ... | 182529      | 34308     | 40      |
| Caelo     | Abwaschbare Salbengrundlage ... | 22000866    | 36248     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 181406      | 34155     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 182502      | 34307     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 192443      | 34801     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 20000220    | 34854     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 20001587    | 34855     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 20003042    | 35151     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 21000556    | 35376     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 21000557    | 35377     | 40      |
| Caelo     | Emulsifying hydrophobic base... | 21002112    | 35605     | 50      |
| Caelo     | Emulsifying hydrophobic base... | 21002113    | 35606     | 50      |
| Caelo     | Emulsifying hydrophobic base... | 21003145    | 35940     | 40      |
| apomix    | Eye ointment, emulsifying DAC   | 08A150517   | 33503     | 40      |
| apomix    | Eye ointment, emulsifying DAC   | 13C071216   | 33504     | 40      |
| apomix    | Eye ointment, emulsifying DAC   | 13A121120   | 35144     | 40      |
| apomix    | Eye ointment, emulsifying DAC   | 03B140322   | 36231     | 40      |
| Caelo     | Eye paraffin                    | 15441514    | 33491     | 40      |
| Caelo     | Eye paraffin                    | 20000627002 | 35749     | 50      |
| Bombastus | Hydrophilic ointment DAB        | 21003588    | 36209     | 40      |
| Caelo     | Hydrophilic ointment DAB        | 161668      | 32389     | 40      |

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descend.



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| Supplier  | Substance                | Batch    | Sample ID | Spectra |
|-----------|--------------------------|----------|-----------|---------|
| Caelo     | Hydrophilic ointment DAB | 161670   | 32391     | 40      |
| Caelo     | Hydrophilic ointment DAB | 162824   | 32866     | 40      |
| Caelo     | Hydrophilic ointment DAB | 162825   | 32867     | 40      |
| Caelo     | Hydrophilic ointment DAB | 162826   | 32868     | 40      |
| Caelo     | Hydrophilic ointment DAB | 162827   | 32869     | 40      |
| Caelo     | Hydrophilic ointment DAB | 162828   | 32870     | 40      |
| Caelo     | Hydrophilic ointment DAB | 170403   | 33134     | 40      |
| Caelo     | Hydrophilic ointment DAB | 170406   | 33135     | 40      |
| Caelo     | Hydrophilic ointment DAB | 170402   | 33159     | 40      |
| Caelo     | Hydrophilic ointment DAB | 170405   | 33160     | 40      |
| Caelo     | Hydrophilic ointment DAB | 171855   | 33554     | 40      |
| Caelo     | Hydrophilic ointment DAB | 171563   | 33555     | 40      |
| Caelo     | Hydrophilic ointment DAB | 171564   | 33556     | 40      |
| Caelo     | Hydrophilic ointment DAB | 170830   | 34025     | 40      |
| Caelo     | Hydrophilic ointment DAB | 172906   | 34026     | 40      |
| Caelo     | Hydrophilic ointment DAB | 173302   | 34027     | 40      |
| Caelo     | Hydrophilic ointment DAB | 182075   | 34261     | 40      |
| Caelo     | Hydrophilic ointment DAB | 191909   | 34781     | 40      |
| Caelo     | Hydrophilic ointment DAB | 20002047 | 35098     | 40      |
| Caelo     | Hydrophilic ointment DAB | 21000361 | 35331     | 40      |
| Caelo     | Hydrophilic ointment DAB | 21000362 | 35332     | 40      |
| Caelo     | Hydrophilic ointment DAB | 21000363 | 35333     | 40      |
| Caelo     | Hydrophilic ointment DAB | 21000364 | 35334     | 40      |
| Caelo     | Hydrophilic ointment DAB | 21000365 | 35335     | 40      |
| Caelo     | Hydrophilic ointment DAB | 21001473 | 35521     | 50      |
| Caelo     | Hydrophilic ointment DAB | 21001471 | 35522     | 50      |
| Caelo     | Hydrophilic ointment DAB | 21001474 | 35523     | 50      |
| Caelo     | Hydrophilic ointment DAB | 21003016 | 36014     | 10      |
| Caelo     | Hydrophilic ointment DAB | 21004065 | 36094     | 40      |
| Caelo     | Hydrophilic ointment DAB | 21004066 | 36095     | 10      |
| Caelo     | Hydrophilic ointment DAB | 21004067 | 36096     | 40      |
| Bombastus | Hydrophobic base gel DAC | 21005139 | 36207     | 40      |
| Caelo     | Hydrophobic base gel DAC | 16151105 | 33223     | 40      |
| Caelo     | Hydrophobic base gel DAC | 173204   | 34018     | 40      |
| Caelo     | Hydrophobic base gel DAC | 21001592 | 35515     | 50      |
| Bombastus | Paraffin, light liquid   | 21004923 | 36178     | 40      |
| Caelo     | Paraffin, light liquid   | 12102101 | 34549     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1604009  | 34554     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1608007  | 34556     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1701052  | 34557     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1706017  | 34558     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1802016  | 34560     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1810001  | 34561     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1902012  | 34562     | 40      |
| Euro OTC  | Paraffin, light liquid   | 1909016  | 34697     | 40      |
| Euro OTC  | Paraffin, light liquid   | 2006036  | 35080     | 40      |
| Euro OTC  | Paraffin, light liquid   | 2109015  | 35764     | 50      |
| Caelo     | Paraffin, liquid         | 21002861 | 35896     | 50      |
| Caelo     | Paraffin, liquid         | 21002304 | 36180     | 40      |
| Euro OTC  | Paraffin, liquid         | 1904026  | 34659     | 40      |
| Euro OTC  | Paraffin, liquid         | 1909010  | 34694     | 40      |
| Euro OTC  | Paraffin, liquid         | 1602026  | 34862     | 40      |
| Euro OTC  | Paraffin, liquid         | 1604045  | 34863     | 40      |
| Euro OTC  | Paraffin, liquid         | 1606032  | 34864     | 40      |
| Euro OTC  | Paraffin, liquid         | 1610017  | 34866     | 40      |
| Euro OTC  | Paraffin, liquid         | 1701033  | 34868     | 40      |
| Euro OTC  | Paraffin, liquid         | 1707002  | 34869     | 40      |
| Euro OTC  | Paraffin, liquid         | 1709002  | 34870     | 40      |
| Euro OTC  | Paraffin, liquid         | 1710025  | 34871     | 40      |
| Euro OTC  | Paraffin, liquid         | 1801041  | 34872     | 40      |

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| Supplier  | Substance                     | Batch            | Sample ID | Spectra |
|-----------|-------------------------------|------------------|-----------|---------|
| Euro OTC  | Paraffin, liquid              | 1806004          | 34873     | 40      |
| Euro OTC  | Paraffin, liquid              | 1810002          | 34874     | 40      |
| Euro OTC  | Paraffin, liquid              | 1901011          | 34875     | 40      |
| Euro OTC  | Paraffin, liquid              | 2002013          | 35062     | 40      |
| Euro OTC  | Paraffin, liquid              | 2007019          | 35124     | 40      |
| Euro OTC  | Paraffin, liquid              | 2107029          | 35626     | 50      |
| Fagron    | Paraffin, liquid              | 19H09-T01-070898 | 34760     | 40      |
| Bombastus | Paraffin, white               | 22000914         | 36211     | 40      |
| Caelo     | Paraffin, white               | 90292119         | 30006     | 39      |
| Caelo     | Paraffin, white               | 11374906         | 30466     | 30      |
| Caelo     | Paraffin, white               | 153497           | 31919     | 60      |
| Caelo     | Paraffin, white               | 161380           | 32223     | 40      |
| Caelo     | Paraffin, white               | 162411           | 32901     | 40      |
| Caelo     | Paraffin, white               | 21004079         | 36154     | 40      |
| Caelo     | Paraffin, white               | 22000502         | 36256     | 40      |
| Euro OTC  | Paraffin, white               | 1602009          | 32191     | 40      |
| Euro OTC  | Paraffin, white               | 1605019          | 32282     | 40      |
| Euro OTC  | Paraffin, white               | 1608041          | 32711     | 40      |
| Euro OTC  | Paraffin, white               | 1612007          | 32982     | 40      |
| Euro OTC  | Paraffin, white               | 1705015          | 33445     | 40      |
| Euro OTC  | Paraffin, white               | 1709016          | 33659     | 40      |
| Euro OTC  | Paraffin, white               | 1712008          | 33934     | 40      |
| Euro OTC  | Paraffin, white               | 1804011          | 34098     | 40      |
| Euro OTC  | Paraffin, white               | 1811025-01       | 34434     | 40      |
| Euro OTC  | Paraffin, white               | 1904028          | 34661     | 40      |
| Euro OTC  | Paraffin, white               | 2003054          | 34836     | 40      |
| Euro OTC  | Paraffin, white               | 2101013          | 35245     | 40      |
| Euro OTC  | Paraffin, white               | 2109017          | 35905     | 50      |
| Bombastus | Paraffin, yellow              | 22000236         | 36210     | 40      |
| Caelo     | Paraffin, yellow              | 153306           | 31942     | 60      |
| Caelo     | Paraffin, yellow              | 180920           | 34161     | 40      |
| Caelo     | Paraffin, yellow              | 181915           | 34255     | 40      |
| Caelo     | Paraffin, yellow              | 20000002         | 34981     | 40      |
| Caelo     | Paraffin, yellow              | 20001760         | 35110     | 40      |
| Euro OTC  | Paraffin, yellow              | 1701027          | 32987     | 40      |
| Euro OTC  | Paraffin, yellow              | 1705016          | 33444     | 42      |
| Euro OTC  | Paraffin, yellow              | 1709015          | 33663     | 40      |
| Euro OTC  | Paraffin, yellow              | 1804012          | 34099     | 40      |
| Euro OTC  | Paraffin, yellow              | 1911029          | 34810     | 40      |
| Ichthyol  | Unguentum Cordes <sup>®</sup> | 16A061           | 32912     | 40      |
| Ichthyol  | Unguentum Cordes <sup>®</sup> | 18A101           | 34364     | 40      |
| Ichthyol  | Unguentum Cordes <sup>®</sup> | 21A0114          | 35752     | 50      |
| Ichthyol  | Unguentum Cordes <sup>®</sup> | 20A0192          | 35757     | 50      |
| Bombastus | Wool alcohol ointment DAB     | 22000956         | 36184     | 40      |
| Caelo     | Wool alcohol ointment DAB     | 153423           | 32011     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153424           | 32012     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153427           | 32013     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153428           | 32014     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153429           | 32015     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153558           | 32016     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153563           | 32018     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153619           | 32019     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153618           | 32020     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 153620           | 32021     | 60      |
| Caelo     | Wool alcohol ointment DAB     | 161102           | 32098     | 40      |
| Caelo     | Wool alcohol ointment DAB     | 161101           | 32099     | 40      |
| Caelo     | Wool alcohol ointment DAB     | 161103           | 32100     | 40      |
| Caelo     | Wool alcohol ointment DAB     | 161104           | 32101     | 40      |
| Caelo     | Wool alcohol ointment DAB     | 161105           | 32102     | 40      |
| Caelo     | Wool alcohol ointment DAB     | 161106           | 32103     | 40      |

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| Supplier | Substance                       | Batch      | Sample ID | Spectra |
|----------|---------------------------------|------------|-----------|---------|
| Caelo    | Wool alcohol ointment DAB       | 161107     | 32104     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 162488     | 32511     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 162951     | 32864     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 162952     | 32865     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 163318     | 33184     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 163317     | 33185     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 172062     | 33547     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 171416     | 33548     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 182509     | 34353     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 192090     | 34798     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 21001945   | 35609     | 50      |
| Caelo    | Wool alcohol ointment DAB       | 21001946   | 35610     | 50      |
| Caelo    | Wool alcohol ointment DAB       | 21003589   | 35943     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 21003590   | 35944     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 21003591   | 35945     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 22000242   | 36141     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 22000243   | 36142     | 10      |
| Caelo    | Wool alcohol ointment DAB       | 22000244   | 36143     | 10      |
| Euro OTC | Wool alcohol ointment DAB       | 1811023-01 | 34435     | 40      |
| Euro OTC | Wool alcohol ointment DAB       | 2101042    | 35247     | 40      |
| Caelo    | Wool alcohol ointment SR wit... | 180745     | 34143     | 40      |
| Caelo    | Wool alcohol ointment SR wit... | 181899     | 34271     | 40      |
| Caelo    | Wool alcohol ointment SR wit... | 19000657   | 34979     | 40      |
| Caelo    | Wool alcohol ointment SR wit... | 20002124   | 35093     | 40      |
| Caelo    | Wool alcohol ointment SR wit... | 20003440   | 35157     | 40      |
| Caelo    | Wool alcohol ointment SR wit... | 22000043   | 35942     | 40      |
| apomix   | Wool alcohol ointment SR/DAC    | 01B310517  | 33615     | 40      |
| apomix   | Wool alcohol ointment SR/DAC    | 01C270721  | 36242     | 40      |
| Caelo    | Hydrophilic ointment DAB        | 161668     | 32390     | 40      |
| Caelo    | Paraffin, white                 | 161380     | 32224     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 162488     | 32512     | 40      |
| Caelo    | Wool alcohol ointment DAB       | 20001899   | 34962     | 40      |
| Caelo    | Wool alcohol ointment SR wit... | 14032501   | 31448     | 40      |
| apomix   | Wool alcohol ointment SR/DAC    | 01B310517  | 33616     | 40      |

- 100 102 spectra from a total of 2330 batches from further 337 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 27 229 spectra from 1232 *Apo-Ident* customers from 4251 batches from the substance/substance group *Paraffin classification*.
- Among them are spectra of independent samples from 4109 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance         | Batch        | Spectra |
|----------|-------------------|--------------|---------|
|          | Paraffin, white   |              | 1       |
|          | Paraffin, white   | 13341606     | 1       |
|          | Unguentum Cordes® | 13A034       | 1       |
|          | Paraffin, white   | 162720105299 | 1       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
|                            | Unguentum Cordes <sup>®</sup>   | 16A099       | 2       |
|                            | Paraffin, white                 | 18174305     | 1       |
|                            | Hydrophobic base gel DAC        | 18240307     | 1       |
|                            | Paraffin, white                 | 279969       | 2       |
|                            | Wool alcohol ointment SR wit... | 291175       | 2       |
|                            | Eye ointment, emulsifying DAC   | 4A010419     | 1       |
|                            | Eye ointment, emulsifying DAC   | 68150317     | 1       |
| 04.03.20/Gehe/Ichtyol      | Unguentum Cordes <sup>®</sup>   | 18A113       | 2       |
| 10Caesar & Loretz GmbH     | Eye paraffin                    | 21001982001  | 1       |
| 18092014                   | Paraffin, yellow                | 889574       | 1       |
| 20A0060                    | Unguentum Cordes <sup>®</sup>   | 20A0060      | 1       |
| 21.03.2017                 | Paraffin, yellow                | 12321902     | 1       |
| A.H. 05.06.13 ek: 3,33EUR  | Wool alcohol ointment DAB       | 13067101     | 1       |
| A.H.D.                     | Unguentum Cordes <sup>®</sup>   | 15A060       | 1       |
| Aallianc. Healthc. / Be... | Wool alcohol ointment DAB       | 82541010     | 1       |
| Aallianc. Healthc./Icht... | Unguentum Cordes <sup>®</sup>   | 17A087       | 1       |
| ACM                        | Paraffin, white                 | KNC1628J15   | 1       |
| aep Cordes                 | Unguentum Cordes <sup>®</sup>   | 18A112       | 1       |
| AEP/04.05.2021             | Eye paraffin                    | 20000627005  | 1       |
| AEP                        | Hydrophilic ointment DAB        | 18207602     | 1       |
| AEP                        | Hydrophilic ointment DAB        | 19025801     | 2       |
| AEP                        | Paraffin, white                 | 200003237001 | 1       |
| AEP                        | Wool alcohol ointment DAB       | 21000939002  | 1       |
| AEPD                       | Paraffin, white                 | 21002294     | 1       |
| AEPDirekt                  | Unguentum Cordes <sup>®</sup>   | 20A0126      | 1       |
| AEPDirekt                  | Unguentum Cordes <sup>®</sup>   | 21A0094      | 1       |
| AHC 08.07.13 EK5,61        | Paraffin, white                 | 12374502     | 1       |
| AHC/Lamotte                | Hydrophilic ointment DAB        | 8002320009   | 1       |
| AHC                        | Unguentum Cordes <sup>®</sup>   | 15A192       | 1       |
| AHC                        | Unguentum Cordes <sup>®</sup>   | 19A0149      | 1       |
| AHC                        | Paraffin, liquid                | 20004108001  | 1       |
| AHC                        | Hydrophilic ointment DAB        | 8005713007   | 1       |
| AHD 06.02.17 EK.9,28       | Wool alcohol ointment DAB       | 16198401     | 1       |
| AHD, 05.04.2013            | Wool alcohol ointment DAB       | 30831410     | 1       |
| AHD, 30.09.2013            | Paraffin, white                 | 279970       | 1       |
| Ahd/ Ichtyhol              | Unguentum Cordes <sup>®</sup>   | 18A050       | 1       |
| Ahd/ Ichtyhol              | Unguentum Cordes <sup>®</sup>   | 18A166       | 1       |
| AHD/Henry Lamotte          | Paraffin, white                 | 8002875007   | 3       |
| AHD/Ichthyol               | Unguentum Cordes <sup>®</sup>   | 18A051       | 1       |
| AHD/Ichthyol               | Unguentum Cordes <sup>®</sup>   | 20A0030      | 1       |
| AHD/Ichthyol-Gesellschaft  | Unguentum Cordes <sup>®</sup>   | 16A101       | 2       |
| AHD                        | Paraffin, white                 | 123test      | 1       |
| AHD                        | Paraffin, white                 | 13268410     | 2       |
| AHD                        | Hydrophilic ointment DAB        | 14024803     | 1       |
| AHD                        | Paraffin, white                 | 14355806     | 1       |
| AHD                        | Unguentum Cordes <sup>®</sup>   | 14A117       | 1       |
| AHD                        | Eye paraffin                    | 15441514     | 3       |
| AHD                        | Unguentum Cordes <sup>®</sup>   | 15A021       | 1       |
| AHD                        | Hydrophilic ointment DAB        | 16009301     | 1       |
| AHD                        | Paraffin, white                 | 16181901     | 3       |
| AHD                        | Paraffin, white                 | 16241105     | 4       |
| AHD                        | Paraffin, white                 | 16326706     | 1       |
| AHD                        | Paraffin, white                 | 16326707     | 1       |
| AHD                        | Unguentum Cordes <sup>®</sup>   | 16A070       | 1       |
| AHD                        | Unguentum Cordes <sup>®</sup>   | 16A085       | 1       |
| AHD                        | Unguentum Cordes <sup>®</sup>   | 16A140       | 1       |
| AHD                        | Paraffin, white                 | 17106004     | 3       |
| AHD                        | Paraffin, white                 | 17106005     | 2       |
| AHD                        | Hydrophilic ointment DAB        | 17330402     | 1       |
| AHD                        | Eye paraffin                    | 17342001     | 3       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| AHD                        | Eye paraffin                    | 17342008         | 1       |
| AHD                        | Paraffin, white                 | 17347803         | 2       |
| AHD                        | Unguentum Cordes®               | 17A045           | 1       |
| AHD                        | Unguentum Cordes®               | 17A085           | 1       |
| AHD                        | Paraffin, white                 | 18005001         | 3       |
| AHD                        | Wool alcohol ointment DAB       | 18005545         | 1       |
| AHD                        | Emulsifying hydrophobic base... | 18250301         | 1       |
| AHD                        | Eye ointment, emulsifying DAC   | 18A021115        | 1       |
| AHD                        | Unguentum Cordes®               | 18A070           | 1       |
| AHD                        | Unguentum Cordes®               | 18A113           | 1       |
| AHD                        | Unguentum Cordes®               | 18A131           | 3       |
| AHD                        | Paraffin, yellow                | 19005892         | 1       |
| AHD                        | Paraffin, white                 | 19006208         | 2       |
| AHD                        | Wool alcohol ointment SR/DAC    | 19006412         | 1       |
| AHD                        | Wool alcohol ointment SR wit... | 19189901         | 2       |
| AHD                        | Paraffin, white                 | 192008002        | 1       |
| AHD                        | Unguentum Cordes®               | 19A004           | 1       |
| AHD                        | Unguentum Cordes®               | 19A111           | 1       |
| AHD                        | Wool alcohol ointment DAB       | 305879           | 1       |
| AHD                        | Paraffin, white                 | 5489700          | 1       |
| AHD                        | Wool alcohol ointment DAB       | 72915810         | 1       |
| AHD                        | Wool alcohol ointment DAB       | 74017010         | 2       |
| AHD                        | Wool alcohol ointment DAB       | 81939510         | 1       |
| AHD                        | Wool alcohol ointment DAB       | 84132310         | 1       |
| AHL                        | Unguentum Cordes®               | 16A143           | 1       |
| AHL                        | Unguentum Cordes®               | 17A049           | 1       |
| AHL                        | Unguentum Cordes®               | 17A056           | 1       |
| ALH                        | Wool alcohol ointment DAB       | 15407001         | 1       |
| ALH                        | Unguentum Cordes®               | 16A061           | 1       |
| Allianc. Health. / Icht... | Unguentum Cordes®               | 16A184           | 1       |
| Allianc. Health. / Icht... | Unguentum Cordes®               | 18A111           | 1       |
| Allianc. Health. /Beier... | Wool alcohol ointment DAB       | 62031710         | 1       |
| Alliance Health 09.05.2... | Hydrophilic ointment DAB        | 14024701         | 1       |
| Alliance Health 11.03.14   | Unguentum Cordes®               | 13A090           | 1       |
| Alliance Health 30.10.2... | Wool alcohol ointment DAB       | 14H19-T02-011354 | 1       |
| Alliance Health            | Unguentum Cordes®               | 13A032           | 1       |
| Alliance health            | Unguentum Cordes®               | 14A079           | 1       |
| Alliance health            | Unguentum Cordes®               | 15A023           | 1       |
| Alliance Healthcare / H... | Hydrophilic ointment DAB        | 8004399001       | 1       |
| alliance Healthcare/Bei... | Wool alcohol ointment DAB       | 30851510         | 1       |
| Alliance Healthcare/Bei... | Wool alcohol ointment DAB       | 50454710         | 1       |
| Alliance Healthcare/Bei... | Wool alcohol ointment DAB       | 84222410         | 1       |
| Alliance Healthcare        | Paraffin, white                 | 12306302         | 1       |
| Alliance Healthcare        | Hydrophilic ointment DAB        | 12311102         | 1       |
| Alliance Healthcare        | Wool alcohol ointment DAB       | 13114001         | 1       |
| Alliance Healthcare        | Hydrophilic ointment DAB        | 13117501         | 1       |
| Alliance Healthcare        | Hydrophobic base gel DAC        | 18004043         | 1       |
| Alliance Healthcare        | Unguentum Cordes®               | 18A048           | 1       |
| Alliance Healthcare        | Unguentum Cordes®               | 18A112           | 2       |
| Alliance Healthcare        | Unguentum Cordes®               | 18A131           | 2       |
| Alliance Healthcare        | Unguentum Cordes®               | 18A156           | 1       |
| Alliance Healthcare        | Paraffin, white                 | 192540004        | 1       |
| Alliance Healthcare        | Paraffin, white                 | 21002101005      | 1       |
| Alliance Healthcare        | Paraffin, white                 | 276088           | 1       |
| Alliance Healthcare        | Paraffin, white                 | 277444           | 1       |
| Alliance Healthcare        | Paraffin, yellow                | 303809           | 1       |
| alliance healthcare        | Wool alcohol ointment DAB       | 84222410         | 1       |
| Alliance/ Ichthyol         | Unguentum Cordes®               | 18A223           | 1       |
| Alliance/Ichthyol          | Unguentum Cordes®               | 18A156           | 1       |
| Alliance/Ichthyol          | Unguentum Cordes®               | 18A224           | 1       |

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| Supplier                    | Substance                       | Batch        | Spectra |
|-----------------------------|---------------------------------|--------------|---------|
| Alliance/Ichthyol           | Unguentum Cordes <sup>®</sup>   | 19A0149      | 1       |
| Alliance/Ichthyol           | Unguentum Cordes <sup>®</sup>   | 20A0105      | 1       |
| Alliance/Ichthyol           | Unguentum Cordes <sup>®</sup>   | 20A0172      | 1       |
| Alliance/Ichthyol-Gesel...  | Unguentum Cordes <sup>®</sup>   | 18A223       | 1       |
| Alliance/Ichthyol-Gesel...  | Unguentum Cordes <sup>®</sup>   | 19A0154      | 1       |
| Alliance/Ichthyol-Gesel...  | Unguentum Cordes <sup>®</sup>   | 20A0049      | 2       |
| Alliance/Ichthyol-Gesel...  | Unguentum Cordes <sup>®</sup>   | 20A0153      | 1       |
| Alliance/Ichthyol-Gesell... | Unguentum Cordes <sup>®</sup>   | 18A051       | 1       |
| Alliance                    | Unguentum Cordes <sup>®</sup>   | 12A184       | 1       |
| Alliance                    | Paraffin, white                 | 13380720     | 1       |
| Alliance                    | Unguentum Cordes <sup>®</sup>   | 15A020       | 1       |
| alliance                    | Hydrophobic base gel DAC        | 18004043     | 1       |
| alliance                    | Unguentum Cordes <sup>®</sup>   | 21A0114      | 1       |
| Alliance                    | Wool alcohol ointment DAB       | 2831510      | 1       |
| Alliance                    | Hydrophilic ointment DAB        | 303216009101 | 1       |
| Alliance                    | Wool alcohol ointment DAB       | 93456310     | 1       |
| Allianz Healthcare          | Paraffin, white                 | 16181904     | 1       |
| Allianz Healthcare          | Hydrophilic ointment DAB        | 17040301     | 1       |
| Allianz Healthcare          | Paraffin, white                 | 18314803     | 1       |
| Allianz Healthcare          | Unguentum Cordes <sup>®</sup>   | 18a113       | 1       |
| Allianz Healthcare          | Unguentum Cordes <sup>®</sup>   | 18a223       | 1       |
| Allianz Healthcare          | Hydrophilic ointment DAB        | 19025401     | 1       |
| Allianz Healthcare          | Paraffin, white                 | 19135404     | 1       |
| Allianz Healthcare          | Wool alcohol ointment DAB       | 19181901     | 1       |
| Allianz                     | Hydrophobic base gel DAC        | 18075803     | 1       |
| Allianz                     | Unguentum Cordes <sup>®</sup>   | 18A002       | 1       |
| Alte Apotheke               | Paraffin, white                 | 16181902     | 1       |
| AMH Niemann GmbH & Co.K...  | Eye ointment, emulsifying DAC   | 1D100120     | 1       |
| AMH Niemann GmbH            | Eye ointment, emulsifying DAC   | 14C241120    | 1       |
| AMH Niemann/E               | Eye ointment, emulsifying DAC   | 1C080114     | 1       |
| AMH Niemann/Sanacorp        | Eye paraffin                    | 17052003     | 1       |
| AMH Niemann                 | Eye ointment, emulsifying DAC   | 2B050219     | 1       |
| AMH Niemannn GmbH           | Eye ointment, emulsifying DAC   | 5B110416     | 1       |
| AMH                         | Eye ointment, emulsifying DAC   | 16B011015    | 1       |
| Anza                        | Paraffin, white                 | 15162519     | 1       |
| Anza                        | Paraffin, white                 | 16181901     | 1       |
| Anza                        | Unguentum Cordes <sup>®</sup>   | 16A181       | 1       |
| Anza                        | Hydrophilic ointment DAB        | 305393       | 1       |
| Anzag 17.03.2014 EK 13...   | Hydrophilic ointment DAB        | 5448000      | 1       |
| Anzag 25.02.2014 Ek 8...    | Wool alcohol ointment DAB       | 13255001     | 1       |
| Anzag 05.11.12              | Emulsifying hydrophobic base... | 271106       | 1       |
| Anzag 08.10.12              | Paraffin, white                 | 270491       | 1       |
| Anzag 15.03.13 ek: 5,61EUR  | Paraffin, white                 | 12209210     | 1       |
| Anzag 26.09.2012            | Unguentum Cordes <sup>®</sup>   | 11A202       | 1       |
| Anzag 27.03.13 ek: 3,66EUR  | Paraffin, white                 | 12115101     | 1       |
| Anzag 27.12.12 ek:5.45      | Paraffin, white                 | 12209204     | 1       |
| Anzag 29.10.12              | Unguentum Cordes <sup>®</sup>   | 12A007       | 1       |
| Anzag Ek: 3,24EUR 11.09.12  | Wool alcohol ointment DAB       | 12076601     | 1       |
| Anzag, 03.01.2019           | Unguentum Cordes <sup>®</sup>   | 17A087       | 1       |
| Anzag/ Ichtyol              | Unguentum Cordes <sup>®</sup>   | 13A029       | 1       |
| Anzag/ Ichtyol              | Unguentum Cordes <sup>®</sup>   | 18A224       | 1       |
| Anzag/                      | Paraffin, white                 | 12182505     | 2       |
| Anzag/                      | Wool alcohol ointment DAB       | 23223410     | 1       |
| Anzag/Beiersdorf            | Wool alcohol ointment DAB       | 40930610     | 1       |
| Anzag/Beiersdorf            | Wool alcohol ointment DAB       | 50815310     | 1       |
| Anzag/Cordes                | Unguentum Cordes <sup>®</sup>   | 16A102       | 1       |
| Anzag/Cordes                | Unguentum Cordes <sup>®</sup>   | 16A184       | 1       |
| Anzag/Henry Lamotte         | Paraffin, white                 | 15060014     | 1       |
| Anzag/Ichthyol              | Unguentum Cordes <sup>®</sup>   | 13A180       | 1       |
| Anzag/Ichthyol              | Unguentum Cordes <sup>®</sup>   | 17A045       | 1       |

continued on the next page



continued from previous page

| Supplier                    | Substance                     | Batch       | Spectra |
|-----------------------------|-------------------------------|-------------|---------|
| Anzag/Ichthyol              | Unguentum Cordes®             | 18A110      | 1       |
| Anzag/Ichthyol              | Unguentum Cordes®             | 19A005      | 1       |
| Anzag/Ichthyol              | Unguentum Cordes®             | 20A0090     | 1       |
| Anzag/Ichthyol              | Unguentum Cordes®             | 21A0185     | 1       |
| Anzag/Ichthyol              | Unguentum Cordes®             | 20A0173     | 1       |
| Anzag/Ichthyol-Gesellsch... | Hydrophilic ointment DAB      | 16009201    | 1       |
| Anzag                       | Paraffin, white               | 1105029-01  | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 11335101    | 1       |
| ANZAG                       | Paraffin, white               | 12032413    | 1       |
| Anzag                       | Paraffin, white               | 12209204    | 1       |
| Anzag                       | Unguentum Cordes®             | 12A055      | 1       |
| Anzag                       | Unguentum Cordes®             | 12A115      | 1       |
| Anzag                       | Paraffin, white               | 13163701    | 1       |
| Anzag                       | Unguentum Cordes®             | 13A172      | 1       |
| Anzag                       | Paraffin, white               | 1402501     | 1       |
| anzag                       | Unguentum Cordes®             | 14A079      | 1       |
| Anzag                       | Paraffin, white               | 15349706    | 1       |
| Anzag                       | Unguentum Cordes®             | 15A021      | 1       |
| Anzag                       | Unguentum Cordes®             | 15A023      | 1       |
| anzag                       | Unguentum Cordes®             | 15A062      | 1       |
| anzag                       | Unguentum Cordes®             | 15a192      | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 16007201    | 1       |
| Anzag                       | Hydrophobic base gel DAC      | 16172301    | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 16198502    | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 16331702    | 1       |
| Anzag                       | Unguentum Cordes®             | 16A014      | 1       |
| Anzag                       | Unguentum Cordes®             | 16A178      | 1       |
| Anzag                       | Paraffin, white               | 17106005    | 1       |
| Anzag                       | Hydrophilic ointment DAB      | 17290703    | 1       |
| Anzag                       | Unguentum Cordes®             | 17A008      | 1       |
| Anzag                       | Hydrophilic ointment DAB      | 18004577    | 1       |
| Anzag                       | Paraffin, white               | 18005023    | 1       |
| Anzag                       | Unguentum Cordes®             | 18A007      | 1       |
| Anzag                       | Unguentum Cordes®             | 18A215      | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 19000472002 | 6       |
| Anzag                       | Wool alcohol ointment DAB     | 19182301    | 2       |
| Anzag                       | Paraffin, liquid              | 192559008   | 1       |
| Anzag                       | Unguentum Cordes®             | 19A004      | 1       |
| Anzag                       | Unguentum Cordes®             | 19A0153     | 1       |
| Anzag                       | Unguentum Cordes®             | 19A0257     | 1       |
| Anzag                       | Unguentum Cordes®             | 20A0090     | 1       |
| Anzag                       | Unguentum Cordes®             | 20A0153     | 1       |
| Anzag                       | Unguentum Cordes®             | 21A0164     | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 22412510    | 2       |
| Anzag                       | Wool alcohol ointment DAB     | 24254010    | 1       |
| Anzag                       | Hydrophilic ointment DAB      | 271047      | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 2711410     | 1       |
| Anzag                       | Paraffin, white               | 271435      | 1       |
| Anzag                       | Paraffin, white               | 285231      | 1       |
| Anzag                       | Hydrophilic ointment DAB      | 293264      | 1       |
| Anzag                       | Hydrophobic base gel DAC      | 294418      | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 3312E-01370 | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 51015610    | 1       |
| Anzag                       | Wool alcohol ointment DAB     | 93456310    | 1       |
| Apo Ident/ Noweda           | Paraffin, white               | 16326707    | 1       |
| Apo Ident/ Noweda           | Wool alcohol ointment DAB     | 83241810    | 1       |
| apo ident                   | Paraffin, white               | 1804011-01  | 1       |
| Apoident/ Phoenix           | Paraffin, liquid              | 2007019-01  | 1       |
| apo-ident                   | Paraffin, liquid              | 2007019-02  | 1       |
| apomix                      | Eye ointment, emulsifying DAC | 10111021    | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                     | Batch     | Spectra |
|----------|-------------------------------|-----------|---------|
| apomix   | Eye ointment, emulsifying DAC | 10A010615 | 3       |
| apomix   | Eye ointment, emulsifying DAC | 10A030818 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10A041016 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 10A100717 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10A210920 | 3       |
| apomix   | Eye ointment, emulsifying DAC | 10B030818 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10B041016 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 10B100717 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10B210920 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10C041016 | 3       |
| apomix   | Eye ointment, emulsifying DAC | 10C050919 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10C100717 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10C210920 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10D050919 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 10D210920 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11A011116 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11A030818 | 3       |
| apomix   | Eye ointment, emulsifying DAC | 11A111021 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11A170713 | 1       |
| apomix   | Paraffin, liquid              | 11A170719 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11B011116 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11B030818 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11B030912 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11B111021 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11B170713 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 11B221020 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 11C110919 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 11C221020 | 3       |
| apomix   | Eye ointment, emulsifying DAC | 11D030818 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 12A011019 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 12A070817 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12A221020 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12B070817 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 12B130918 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12C010814 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12C011012 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12C011019 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 12C011116 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 12C070817 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12C221020 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12C300813 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 12D011019 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 13A010715 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 13A071216 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 13A130918 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 13A151121 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 13B070817 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 13B071216 | 4       |
| apomix   | Eye ointment, emulsifying DAC | 13B130918 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 13C071216 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 13C130918 | 1       |
| apomix   | Eye ointment, emulsifying DAC | 13D07017  | 1       |
| apomix   | Eye ointment, emulsifying DAC | 13D070817 | 3       |
| apomix   | Eye ointment, emulsifying DAC | 13D101011 | 1       |
| apomix   | Wool alcohol ointment DAB     | 14153601  | 1       |
| apomix   | Eye ointment, emulsifying DAC | 14A011013 | 3       |
| apomix   | Eye ointment, emulsifying DAC | 14A091017 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 14A101018 | 2       |
| apomix   | Eye ointment, emulsifying DAC | 14A161019 | 5       |
| apomix   | Eye ointment, emulsifying DAC | 14b011013 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Eye ointment, emulsifying DAC   | 14B101018 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 14B241120 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 14c081112 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 14C161019 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 14C170914 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 14C241120 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 14D091017 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15A030815 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15A031218 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 15A051119 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 15A170914 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15A241013 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15A241120 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15B030815 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15B051119 | 3       |
| apomix   | Eye ointment, emulsifying DAC   | 15B091017 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15C030815 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15C091017 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15D030815 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 15D051119 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 16A031218 | 4       |
| apomix   | Eye ointment, emulsifying DAC   | 16A051119 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 16A141220 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 16A231014 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 16B011117 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 16B031218 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 16B051119 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 16B061212 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 16C011117 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 16C031218 | 1       |
| apomix   | Hydrophilic ointment DAB        | 17290701  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 17A111113 | 2       |
| apomix   | Unguentum Cordes®               | 17A142    | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 17A231014 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 17B011117 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 17B111113 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 17C011117 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 17C061212 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 17C11117  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 18A021115 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 18B021214 | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 18C021115 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 18C021214 | 2       |
| apomix   | Hydrophilic ointment DAB        | 19190601  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 19A021214 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 19B021115 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 1A100120  | 2       |
| apomix   | Wool alcohol ointment SR wit... | 1A110416  | 1       |
| apomix   | Wool alcohol ointment DAB       | 1A170214  | 1       |
| apomix   | Wool alcohol ointment SR wit... | 1A180215  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 1B020117  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 1B020221  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 1B040116  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 1B070113  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 1B090119  | 1       |
| apomix   | Wool alcohol ointment SR/DAC    | 1B210519  | 1       |
| apomix   | Wool alcohol ointment SR/DAC    | 1B220120  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 1C080114  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 1C100120  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 1C180118  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| apomix   | Eye ointment, emulsifying DAC   | 1D040116  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 1D100120  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 20B011215 | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 20D011215 | 2       |
| apomix   | Wool alcohol ointment DAB       | 285950    | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2a050219  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2A050219  | 3       |
| apomix   | Eye ointment, emulsifying DAC   | 2A070318  | 2       |
| apomix   | Wool alcohol ointment SR wit... | 2A070515  | 1       |
| apomix   | Wool alcohol ointment SR wit... | 2A080713  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2A100120  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 2A140322  | 2       |
| apomix   | Wool alcohol ointment SR/DAC    | 2A201118  | 1       |
| apomix   | Wool alcohol ointment SR/DAC    | 2A221117  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2B020117  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2B050219  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2C040116  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 2C050219  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2C100120  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2C110321  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2D020117  | 3       |
| apomix   | Eye ointment, emulsifying DAC   | 2D040116  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 2D050219  | 1       |
| apomix   | Wool alcohol ointment SR wit... | 302599    | 3       |
| apomix   | Paraffin, white                 | 306020    | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3270115   | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3A020320  | 3       |
| apomix   | Eye ointment, emulsifying DAC   | 3A060421  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3A070318  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3A180213  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3B010316  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3b060217  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3B060217  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3B060421  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 3B070319  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 3C060217  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 3C200114  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 3V060217  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 48200114  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 4A020320  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 4A260418  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 4B060217  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 4B200114  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 4B260418  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 4C010419  | 3       |
| apomix   | Eye ointment, emulsifying DAC   | 4C020320  | 3       |
| apomix   | Eye ointment, emulsifying DAC   | 4C060217  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 4D010419  | 1       |
| apomix   | Wool alcohol ointment SR wit... | 5231213   | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 5A010419  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 5A030314  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 5A040520  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 5B010419  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 5B040520  | 5       |
| apomix   | Eye ointment, emulsifying DAC   | 5B110416  | 4       |
| apomix   | Eye ointment, emulsifying DAC   | 5B220413  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 5B260418  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 5C010419  | 1       |
| apomix   | Eye ointment, emulsifying DAC   | 5C260418  | 2       |
| apomix   | Eye ointment, emulsifying DAC   | 5D110416  | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch    | Spectra |
|----------------------------|---------------------------------|----------|---------|
| apomix                     | Eye ointment, emulsifying DAC   | 60140519 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6A040520 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 6A070618 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6A070621 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6A090516 | 1       |
| apomix                     | Wool alcohol ointment SR wit... | 6A110912 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6A260418 | 1       |
| apomix                     | Wool alcohol ointment SR wit... | 6A290714 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6B090516 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 6B150317 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 6B260418 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 6C070621 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6C090516 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6C140519 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6C260418 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 6D090516 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6D140519 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 6D150317 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7A010616 | 3       |
| apomix                     | Eye ointment, emulsifying DAC   | 7A130720 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7A140519 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7A160315 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7A180417 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7A210513 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7B010616 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7B030314 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7B070618 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 7B140519 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 7C040612 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 7C180417 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 7D180417 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 7D210513 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 8A140820 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 8B050719 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 8B140820 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 8B150517 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 8B270921 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 8C070618 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 8C270921 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 8D020414 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9A050719 | 3       |
| apomix                     | Eye ointment, emulsifying DAC   | 9A070618 | 3       |
| apomix                     | Eye ointment, emulsifying DAC   | 9A080415 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 9A190514 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9A210920 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 9B050719 | 3       |
| apomix                     | Eye ointment, emulsifying DAC   | 9B050916 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 9B150517 | 4       |
| apomix                     | Eye ointment, emulsifying DAC   | 9B210920 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9B25061  | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9B270921 | 2       |
| apomix                     | Eye ointment, emulsifying DAC   | 9C050916 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9C070618 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9C150517 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9C190514 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9D050719 | 1       |
| apomix                     | Eye ointment, emulsifying DAC   | 9D070618 | 1       |
| Aponorm/Wepa               | Hydrophilic ointment DAB        | 17185501 | 1       |
| Apotheke/Defekturabfüll... | Wool alcohol ointment DAB       |          | 1       |
| Apotheker Bauer & Cie. ... | Eye paraffin                    | 17052010 | 1       |

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continued from previous page

| Supplier                   | Substance                 | Batch            | Spectra |
|----------------------------|---------------------------|------------------|---------|
| athensteadt/Noweda         | Wool alcohol ointment DAB | 180041           | 1       |
| Audor Pharma               | Paraffin, white           | 18174302         | 1       |
| Baiersdorf AG              | Wool alcohol ointment DAB | 40726610         | 1       |
| Baiersdorf                 | Wool alcohol ointment DAB | 4833010          | 1       |
| Baiersdorf                 | Wool alcohol ointment DAB | 82721410         | 1       |
| Baiersdorf                 | Wool alcohol ointment DAB | 83241810         | 1       |
| Bambastus/Jenne            | Wool alcohol ointment DAB | 19003802         | 1       |
| Bambustus/Noweda           | Paraffin, white           | 295265           | 1       |
| Bambustus/Noweda           | Paraffin, white           | 296854           | 4       |
| Bambynek/Gehe              | Paraffin, white           | 303786           | 1       |
| Bären Apotheke             | Wool alcohol ointment DAB | 16198502         | 1       |
| Basiscreme                 | Paraffin, white           | 16L27-T01-042281 | 2       |
| Bayersdorf                 | Wool alcohol ointment DAB | 54137710         | 1       |
| Bayersdorf                 | Wool alcohol ointment DAB | 61149910         | 1       |
| BDF Beiersdorf AG          | Wool alcohol ointment DAB | 31322010         | 1       |
| BDF Beiersdorf             | Wool alcohol ointment DAB | 70444110         | 1       |
| BDF Phönix                 | Wool alcohol ointment DAB | 22422510         | 1       |
| BDF/ Anzag                 | Wool alcohol ointment DAB | 93436310         | 1       |
| BDF/ Noweda                | Wool alcohol ointment DAB | 33343310         | 1       |
| BDF/AHD                    | Wool alcohol ointment DAB | 70434110         | 1       |
| BDF/Anzag                  | Wool alcohol ointment DAB | 1710910          | 1       |
| BDF                        | Wool alcohol ointment DAB | 33343310         | 1       |
| BDF                        | Wool alcohol ointment DAB | 43142910         | 1       |
| bei                        | Wool alcohol ointment DAB | 73035910         | 1       |
| Beidersdorf/Kehr           | Wool alcohol ointment DAB | 72915810         | 1       |
| Beieersdorf/ Noweda        | Wool alcohol ointment DAB | 61841610         | 1       |
| Beieradorf                 | Wool alcohol ointment DAB | 53437010         | 1       |
| Beierdorf/ Phönix          | Wool alcohol ointment DAB | 63052310         | 2       |
| Beierdorf                  | Wool alcohol ointment DAB | 1710910          | 1       |
| Beiersdorf/Phoenix         | Wool alcohol ointment DAB | 60839310         | 1       |
| Beiersdorf - Noweda        | Wool alcohol ointment DAB | 54157810         | 1       |
| Beiersdorf (DAB 2010)      | Wool alcohol ointment DAB | 13658410         | 1       |
| Beiersdorf (DAB 2010)      | Wool alcohol ointment DAB | 22412510         | 1       |
| Beiersdorf / AEP           | Wool alcohol ointment DAB | 81819410         | 1       |
| Beiersdorf / AHD           | Wool alcohol ointment DAB | 71214810         | 1       |
| Beiersdorf / Alliance H... | Wool alcohol ointment DAB | 83031710         | 1       |
| beiersdorf / Alliance      | Wool alcohol ointment DAB | 93917110         | 2       |
| Beiersdorf / Anzag         | Wool alcohol ointment DAB | 72925810         | 1       |
| Beiersdorf / E             | Wool alcohol ointment DAB | 41940610         | 1       |
| Beiersdorf / Fiebig        | Wool alcohol ointment DAB | 50815310         | 1       |
| Beiersdorf / G             | Wool alcohol ointment DAB | 71114510         | 1       |
| Beiersdorf / G             | Wool alcohol ointment DAB | 84232410         | 1       |
| Beiersdorf / Gehe          | Wool alcohol ointment DAB | 71114510         | 1       |
| Beiersdorf / Gehe          | Wool alcohol ointment DAB | 71274810         | 1       |
| Beiersdorf / Jenne         | Wool alcohol ointment DAB | 92125210         | 1       |
| Beiersdorf / K             | Wool alcohol ointment DAB | 22142410         | 1       |
| Beiersdorf / Kehr          | Wool alcohol ointment DAB | 2711410          | 1       |
| Beiersdorf / Kehr          | Wool alcohol ointment DAB | 61149910         | 1       |
| Beiersdorf / Kehr          | Wool alcohol ointment DAB | 94037210         | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 1710910          | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 1841110          | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 24233910         | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 2831510          | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 33343310         | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 34414610         | 2       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 414610           | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 41910710         | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 50444710         | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 50845210         | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 50925410         | 1       |

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continued from previous page

| Supplier                   | Substance                 | Batch     | Spectra |
|----------------------------|---------------------------|-----------|---------|
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 51115710  | 2       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 54147810  | 2       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 54157810  | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 74737410  | 2       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 74757510  | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 80331710  | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 829110    | 1       |
| Beiersdorf / Noweda        | Wool alcohol ointment DAB | 84132310  | 1       |
| Beiersdorf / Phoenix       | Wool alcohol ointment DAB | 50935410  | 1       |
| Beiersdorf / Phoenix       | Wool alcohol ointment DAB | 62031710  | 2       |
| Beiersdorf / Phoenix       | Wool alcohol ointment DAB | 71114510  | 1       |
| Beiersdorf / Phönix        | Wool alcohol ointment DAB | 62922210  | 1       |
| Beiersdorf / Phönix        | Wool alcohol ointment DAB | 73035910  | 1       |
| Beiersdorf / Phönix        | Wool alcohol ointment DAB | 74747510  | 1       |
| Beiersdorf / Phönix        | Wool alcohol ointment DAB | 83742110  | 1       |
| Beiersdorf / Sanacorp      | Wool alcohol ointment DAB | 2831510   | 1       |
| Beiersdorf / Sanacorp      | Wool alcohol ointment DAB | 3712310   | 1       |
| Beiersdorf / Sanacorp      | Wool alcohol ointment DAB | 53457110  | 1       |
| Beiersdorf / Sanacorp      | Wool alcohol ointment DAB | 94037210  | 1       |
| Beiersdorf /               | Wool alcohol ointment DAB | 82521010  | 1       |
| Beiersdorf /Alliance He... | Wool alcohol ointment DAB | 54127710  | 1       |
| Beiersdorf /Gehe           | Wool alcohol ointment DAB | 83241810  | 1       |
| Beiersdorf /Gehe           | Wool alcohol ointment DAB | 83241820  | 1       |
| Beiersdorf /Gehe           | Wool alcohol ointment DAB | 84232410  | 1       |
| Beiersdorf /Gehe           | Wool alcohol ointment DAB | 93556410  | 1       |
| Beiersdorf /Krieger        | Wool alcohol ointment DAB | 1710910   | 2       |
| Beiersdorf /Krieger        | Wool alcohol ointment DAB | 4012410   | 1       |
| Beiersdorf /Krieger        | Wool alcohol ointment DAB | 93556410  | 1       |
| Beiersdorf /Krieger        | Wool alcohol ointment DAB | 94947710  | 1       |
| Beiersdorf /Noweda         | Wool alcohol ointment DAB | 93456310  | 1       |
| Beiersdorf /Sanacorp       | Wool alcohol ointment DAB | 51025610  | 1       |
| Beiersdorf AG / Sanacorp   | Wool alcohol ointment DAB | 1821010   | 1       |
| Beiersdorf AG / Gotha      | Wool alcohol ointment DAB | 94947710  | 1       |
| Beiersdorf AG / Göttingen  | Wool alcohol ointment DAB | 70434110  | 1       |
| Beiersdorf AG / Noweda     | Wool alcohol ointment DAB | 33753710  | 1       |
| Beiersdorf AG / Phönix     | Wool alcohol ointment DAB | 40956810  | 1       |
| Beiersdorf AG / Phönix     | Wool alcohol ointment DAB | 41940610  | 1       |
| Beiersdorf AG Hamburg      | Wool alcohol ointment DAB | 2711410   | 1       |
| Beiersdorf AG/ GEHE        | Wool alcohol ointment DAB | 41829810  | 1       |
| Beiersdorf AG/Geilenkir... | Wool alcohol ointment DAB | 40726610  | 1       |
| Beiersdorf AG/Kehr         | Wool alcohol ointment DAB | 1710910   | 1       |
| Beiersdorf AG/NOWEDA       | Wool alcohol ointment DAB | 30831410  | 1       |
| Beiersdorf AG/Noweda       | Wool alcohol ointment DAB | 33323210  | 2       |
| Beiersdorf AG/Noweda       | Wool alcohol ointment DAB | 34414610  | 1       |
| Beiersdorf AG/Noweda       | Wool alcohol ointment DAB | 50815310  | 1       |
| Beiersdorf AG/NOWEDA       | Wool alcohol ointment DAB | 50845210  | 1       |
| Beiersdorf AG/Sanacorp     | Wool alcohol ointment DAB | 50444710  | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 10112014A | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 11052015B | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 11062014A | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 12523810  | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 13042015D | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 14549310  | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 15362002  | 1       |
| Beiersdorf AG              | Eye paraffin              | 15441502  | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 1710910   | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 21111310  | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 22532810  | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 23223410  | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 24254010  | 1       |

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| Supplier                   | Substance                 | Batch              | Spectra |
|----------------------------|---------------------------|--------------------|---------|
| Beiersdorf AG              | Wool alcohol ointment DAB | 2711410            | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 30721310           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 30731210           | 3       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 31231810           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 31251910           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 33323210           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 33343310           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 33753710           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 34344210           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 34554710           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 4012410            | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 40726610           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 41930610           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 50444710           | 3       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 50845210           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 51025610           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 51946010           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 53457110           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 6022014A           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 60419110           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 60919510           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 61149910           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 61841610           | 1       |
| Beiersdorf AG              | Unguentum Cordes®         | 62932210           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 63052310           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 64312910           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 64713510           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 71274810           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 74737410           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 81819410           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 82721410           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 829110             | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 83321910           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 84122310           | 2       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 93917110           | 1       |
| Beiersdorf AG              | Wool alcohol ointment DAB | 94037210           | 1       |
| Beiersdorf am 18.6.19      | Wool alcohol ointment DAB | 80658510P-190624-9 | 1       |
| Beiersdorf direkt          | Wool alcohol ointment DAB | 52056110           | 1       |
| Beiersdorf Gehe            | Wool alcohol ointment DAB | 12523810           | 1       |
| Beiersdorf Gehe            | Wool alcohol ointment DAB | 3841               | 1       |
| Beiersdorf GmbH / Anzag    | Wool alcohol ointment DAB | 1821010            | 1       |
| Beiersdorf Manufacturin... | Wool alcohol ointment DAB | 11333210           | 1       |
| Beiersdorf Manufacturin... | Wool alcohol ointment DAB | 1841110            | 1       |
| Beiersdorf Manufacturin... | Wool alcohol ointment DAB | 94037210           | 1       |
| Beiersdorf Manufacturing   | Wool alcohol ointment DAB | 30731210           | 1       |
| Beiersdorf NO              | Wool alcohol ointment DAB | 74747510           | 1       |
| Beiersdorf NO              | Wool alcohol ointment DAB | 83241810           | 1       |
| Beiersdorf Noweda          | Wool alcohol ointment DAB | 83742110           | 1       |
| Beiersdorf Noweda          | Wool alcohol ointment DAB | 84132310           | 1       |
| Beiersdorf ph              | Wool alcohol ointment DAB | 94957610           | 1       |
| Beiersdorf SA/Noweda       | Wool alcohol ointment DAB | 81819410           | 2       |
| Beiersdorf SA              | Wool alcohol ointment DAB | 41950710           | 1       |
| Beiersdorf SA              | Wool alcohol ointment DAB | 44824310           | 1       |
| Beiersdorf Sanacorp        | Wool alcohol ointment DAB | 94947710           | 1       |
| Beiersdorf über Phoenix    | Wool alcohol ointment DAB | 53437010           | 1       |
| Beiersdorf über Phönix     | Wool alcohol ointment DAB | 1821010            | 1       |
| Beiersdorf über Sanacorp   | Wool alcohol ointment DAB | 4012410            | 1       |
| Beiersdorf über Sanacorp   | Wool alcohol ointment DAB | 50444710           | 1       |
| Beiersdorf, Hamburg/ Je... | Wool alcohol ointment DAB | 1710910            | 1       |
| Beiersdorf, Hamburg/ Ph... | Wool alcohol ointment DAB | 11323310           | 1       |

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| Supplier                   | Substance                 | Batch    | Spectra |
|----------------------------|---------------------------|----------|---------|
| Beiersdorf, Hamburg/ Ph... | Wool alcohol ointment DAB | 2831510  | 1       |
| Beiersdorf, Phönix         | Wool alcohol ointment DAB | 30721310 | 1       |
| Beiersdorf, Phönix         | Wool alcohol ointment DAB | 31121710 | 1       |
| Beiersdorf, Phönix         | Wool alcohol ointment DAB | 82721410 | 1       |
| Beiersdorf/ AEP            | Wool alcohol ointment DAB | 74757510 | 1       |
| Beiersdorf/ AHC            | Wool alcohol ointment DAB | 71274810 | 1       |
| Beiersdorf/ Alliance       | Wool alcohol ointment DAB | 93436310 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 40916810 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 41930610 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 41950710 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 50414810 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 51125710 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 64312910 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 74017010 | 1       |
| Beiersdorf/ Gehe           | Wool alcohol ointment DAB | 82721410 | 1       |
| Beiersdorf/ Jenne          | Wool alcohol ointment DAB | 1710910  | 1       |
| Beiersdorf/ Jenne          | Wool alcohol ointment DAB | 1841110  | 1       |
| Beiersdorf/ Jenne          | Wool alcohol ointment DAB | 21526010 | 1       |
| Beiersdorf/ Jenne          | Wool alcohol ointment DAB | 2831510  | 1       |
| Beiersdorf/ Jenne          | Wool alcohol ointment DAB | 82721410 | 1       |
| Beiersdorf/ Krieger        | Wool alcohol ointment DAB | 93556410 | 1       |
| Beiersdorf/ Nowea          | Wool alcohol ointment DAB | 45054410 | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 31322010 | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 33323210 | 2       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 43142910 | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 50324610 | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 64833610 | 1       |
| beiersdorf/ Noweda         | Wool alcohol ointment DAB | 71214810 | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 829110   | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 83241810 | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 84132310 | 1       |
| Beiersdorf/ Noweda         | Wool alcohol ointment DAB | 93556410 | 1       |
| Beiersdorf/ Phoenix        | Wool alcohol ointment DAB | 54127710 | 1       |
| Beiersdorf/ Phoenix        | Wool alcohol ointment DAB | 81401270 | 1       |
| Beiersdorf/ Phoenix        | Wool alcohol ointment DAB | 81819410 | 1       |
| Beiersdorf/ Phoenix        | Wool alcohol ointment DAB | 83241810 | 1       |
| Beiersdorf/ Phoenix        | Wool alcohol ointment DAB | 93436310 | 1       |
| Beiersdorf/ Phönix         | Wool alcohol ointment DAB | 74747510 | 1       |
| Beiersdorf/ Phönix         | Wool alcohol ointment DAB | 93456310 | 1       |
| Beiersdorf/ Sanacorp       | Wool alcohol ointment DAB | 34344210 | 1       |
| Beiersdorf/ Sanacorp       | Wool alcohol ointment DAB | 44824310 | 1       |
| Beiersdorf/ Sanacorp       | Wool alcohol ointment DAB | 53457110 | 1       |
| Beiersdorf/ Sanacorp       | Wool alcohol ointment DAB | 82541010 | 1       |
| Beiersdorf/ Sanacorp       | Wool alcohol ointment DAB | 82721410 | 1       |
| Beiersdorf/2               | Wool alcohol ointment DAB | 94957610 | 1       |
| Beiersdorf/AEP             | Wool alcohol ointment DAB | 70434110 | 1       |
| Beiersdorf/AHC             | Wool alcohol ointment DAB | 62932210 | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 1710910  | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 1841110  | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 22412510 | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 2711410  | 1       |
| beiersdorf/AHD             | Wool alcohol ointment DAB | 348370   | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 61149910 | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 84132310 | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 84232410 | 1       |
| Beiersdorf/AHD             | Wool alcohol ointment DAB | 93456310 | 1       |
| Beiersdorf/Allia           | Wool alcohol ointment DAB | 11213110 | 1       |
| Beiersdorf/Alliance Hea... | Wool alcohol ointment DAB | 74737410 | 1       |
| Beiersdorf/Alliance        | Wool alcohol ointment DAB | 2711410  | 1       |
| Beiersdorf/Alliance        | Wool alcohol ointment DAB | 829110   | 1       |

*continued on the next page*

continued from previous page

| Supplier                   | Substance                 | Batch      | Spectra |
|----------------------------|---------------------------|------------|---------|
| Beiersdorf/Alliance        | Wool alcohol ointment DAB | 92945910   | 1       |
| Beiersdorf/Anzag           | Wool alcohol ointment DAB | 2831510    | 1       |
| Beiersdorf/Anzag           | Wool alcohol ointment DAB | 63052310   | 1       |
| Beiersdorf/Anzag           | Wool alcohol ointment DAB | 71114510   | 1       |
| Beiersdorf/Anzag           | Wool alcohol ointment DAB | 83742110   | 1       |
| Beiersdorf/Anzag           | Wool alcohol ointment DAB | 92125210   | 1       |
| Beiersdorf/Anzag           | Wool alcohol ointment DAB | 93436310   | 1       |
| Beiersdorf/Beiersdorf      | Wool alcohol ointment DAB | 1610810    | 1       |
| Beiersdorf/Beiersdorf      | Wool alcohol ointment DAB | 50815310   | 1       |
| Beiersdorf/Beiersdorf      | Wool alcohol ointment DAB | 50955510   | 1       |
| Beiersdorf/Beiersdorf      | Wool alcohol ointment DAB | 819210     | 1       |
| Beiersdorf/E               | Wool alcohol ointment DAB | 60419110   | 1       |
| Beiersdorf/Ebert           | Wool alcohol ointment DAB | 72435610   | 1       |
| Beiersdorf/Ebert           | Wool alcohol ointment DAB | 83321910   | 1       |
| Beiersdorf/EJ              | Wool alcohol ointment DAB | 74737410   | 1       |
| Beiersdorf/Fiebig          | Wool alcohol ointment DAB | 64833610   | 1       |
| Beiersdorf/Fiebig          | Wool alcohol ointment DAB | 74017010   | 1       |
| Beiersdorf/Fiebig          | Wool alcohol ointment DAB | 83241810   | 1       |
| Beiersdorf/Fiebig          | Wool alcohol ointment DAB | 84122310   | 1       |
| Beiersdorf/Fiebig          | Wool alcohol ointment DAB | 84132310   | 1       |
| Beiersdorf/Gehe 04.02.2... | Wool alcohol ointment DAB | 13144210   | 1       |
| Beiersdorf/Gehe 11.04.17   | Wool alcohol ointment DAB | 62932210   | 1       |
| Beiersdorf/Gehe/26,99      | Wool alcohol ointment DAB | 84132310   | 1       |
| Beiersdorf/Gehe            | Paraffin, white           | 1401017-01 | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 20745710   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 22412510   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 23223410   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 24123810   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 2831510    | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 2851610    | 1       |
| beiersdorf/Gehe            | Wool alcohol ointment DAB | 30721310   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 30731210   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 30831410   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 32352710   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 33753710   | 2       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 34554710   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 40726610   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 41930610   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 41940610   | 2       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 43142910   | 2       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 50955510   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 53447010   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 60539210   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 62922210   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 64342810   | 1       |
| beiersdorf/gehe            | Wool alcohol ointment DAB | 71114510   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 71114510   | 1       |
| Beiersdorf/GEHE            | Wool alcohol ointment DAB | 72915810   | 1       |
| Beiersdorf/gehe            | Wool alcohol ointment DAB | 74017010   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 74757510   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 747575410  | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 82541010   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 82721410   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 829110     | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 83031710   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 83241810   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 83352010   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 84222410   | 1       |
| Beiersdorf/Gehe            | Wool alcohol ointment DAB | 94957610   | 2       |
| Beiersdorf/Gehe_11.01.2... | Wool alcohol ointment DAB | 13554310   | 1       |

continued on the next page

continued from previous page

| Supplier                     | Substance                 | Batch            | Spectra |
|------------------------------|---------------------------|------------------|---------|
| Beiersdorf/Geibo             | Wool alcohol ointment DAB | 50925410         | 1       |
| Beiersdorf/Geibo             | Wool alcohol ointment DAB | 71274810         | 1       |
| Beiersdorf/Geibo             | Wool alcohol ointment DAB | 83321910         | 1       |
| Beiersdorf/Gumo              | Wool alcohol ointment DAB | 33323210         | 1       |
| Beiersdorf/Holdermann        | Wool alcohol ointment DAB | 50845210         | 1       |
| Beiersdorf/Jenne/16.03.20    | Wool alcohol ointment DAB | 94957610         | 1       |
| Beiersdorf/Jenne             | Wool alcohol ointment DAB | 84222410         | 1       |
| Beiersdorf/Kehr              | Wool alcohol ointment DAB | 11333210         | 1       |
| Beiersdorf/Kehr              | Wool alcohol ointment DAB | 1821010          | 1       |
| Beiersdorf/Kehr              | Wool alcohol ointment DAB | 2831510          | 1       |
| Beiersdorf/Kehr              | Wool alcohol ointment DAB | 4104701008/16    | 1       |
| Beiersdorf/Kehr              | Wool alcohol ointment DAB | 64312910         | 1       |
| Beiersdorf/Kehr              | Wool alcohol ointment DAB | 82521010         | 1       |
| Beiersdorf/Kehr              | Wool alcohol ointment DAB | 8521010          | 1       |
| Beiersdorf/Krieger/06.1....  | Wool alcohol ointment DAB | 33323210         | 1       |
| Beiersdorf/Krieger           | Wool alcohol ointment DAB | 1710910          | 1       |
| Beiersdorf/Krieger           | Wool alcohol ointment DAB | 81819410         | 1       |
| Beiersdorf/N/22.03.2013. ... | Wool alcohol ointment DAB | 24635410         | 1       |
| Beiersdorf/N                 | Wool alcohol ointment DAB | 50845210         | 1       |
| Beiersdorf/N                 | Wool alcohol ointment DAB | 50925410         | 1       |
| Beiersdorf/N                 | Wool alcohol ointment DAB | 51015610         | 1       |
| Beiersdorf/N                 | Wool alcohol ointment DAB | 53437010         | 1       |
| Beiersdorf/N                 | Wool alcohol ointment DAB | 53457110         | 1       |
| Beiersdorf/N                 | Wool alcohol ointment DAB | 54147810         | 1       |
| Beiersdorf/N                 | Wool alcohol ointment DAB | 60839310         | 1       |
| Beiersdorf/Nnoweda           | Wool alcohol ointment DAB | 71274810         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 11213110         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 12523810         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 1841110          | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 2081510          | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 2711410          | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 2851610          | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 31322010         | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 34424610         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 348370           | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 41910710         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 45054410         | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 50324610         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 50815310         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 50845210         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 53437010         | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 54127710         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 54147810         | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 54157810         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 60919510         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 62031710         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 62041710         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 62922210         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 64312910         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 64332810         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 72915810         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 74737410         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 74747510         | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 74757510         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 7477510          | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 81328810         | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 81819410         | 3       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 82721410         | 2       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 8272141083352010 | 1       |
| Beiersdorf/Noweda            | Wool alcohol ointment DAB | 829110           | 2       |

continued on the next page

continued from previous page

| Supplier           | Substance                 | Batch    | Spectra |
|--------------------|---------------------------|----------|---------|
| Beiersdorf/Noweda  | Wool alcohol ointment DAB | 83031710 | 1       |
| Beiersdorf/Noweda  | Wool alcohol ointment DAB | 83241810 | 3       |
| Beiersdorf/Noweda  | Wool alcohol ointment DAB | 83742110 | 2       |
| Beiersdorf/Noweda  | Wool alcohol ointment DAB | 84122310 | 1       |
| Beiersdorf/Noweda  | Wool alcohol ointment DAB | 84132310 | 1       |
| Beiersdorf/Noweda  | Wool alcohol ointment DAB | 93556410 | 3       |
| Beiersdorf/NOWEDA  | Wool alcohol ointment DAB | 93917110 | 1       |
| Beiersdorf/Noweda  | Wool alcohol ointment DAB | 94037210 | 2       |
| Beiersdorf/Otto    | Wool alcohol ointment DAB | 23033310 | 1       |
| Beiersdorf/Otto    | Wool alcohol ointment DAB | 31251910 | 1       |
| Beiersdorf/Otto    | Wool alcohol ointment DAB | 33753710 | 1       |
| Beiersdorf/Otto    | Wool alcohol ointment DAB | 41047010 | 1       |
| Beiersdorf/P       | Wool alcohol ointment DAB | 83241810 | 1       |
| Beiersdorf/Pheo    | Wool alcohol ointment DAB | 84222410 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 1710910  | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 2851610  | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 28521610 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 30711310 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 33723610 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 41910710 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 41930610 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 50845210 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 50935410 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 52656810 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 53447010 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 60539210 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 61149910 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 62932210 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 63052310 | 2       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 64713510 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 70314010 | 3       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 71114510 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 74017010 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 74057010 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 74747510 | 2       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 81819410 | 3       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 81859410 | 5       |
| beiersdorf/phoenix | Wool alcohol ointment DAB | 82541010 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 829110   | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 83321910 | 2       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 84132310 | 1       |
| Beiersdorf/Phoenix | Wool alcohol ointment DAB | 84222410 | 1       |
| Beiersdorf/Phoneix | Wool alcohol ointment DAB | 83742110 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 11213110 | 2       |
| beiersdorf/phönix  | Wool alcohol ointment DAB | 11333210 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 12523810 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 1710910  | 2       |
| beiersdorf/Phönix  | Wool alcohol ointment DAB | 1821010  | 2       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 20002127 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 2711410  | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 2831510  | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 2851610  | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 30841410 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 33343310 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 33723610 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 34554710 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 50935410 | 2       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 51015610 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 53437010 | 1       |
| Beiersdorf/Phönix  | Wool alcohol ointment DAB | 60429110 | 1       |

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continued from previous page

| Supplier                   | Substance                 | Batch    | Spectra |
|----------------------------|---------------------------|----------|---------|
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 61079710 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 61149910 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 61841610 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 62031710 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 64312910 | 2       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 64342810 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 71214810 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 72915810 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 82721410 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 829110   | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 83241810 | 2       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 83321910 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 83742110 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 84222410 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 93246210 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 93436310 | 1       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 93556410 | 2       |
| Beiersdorf/Phönix          | Wool alcohol ointment DAB | 94037210 | 1       |
| Beiersdorf/Sana            | Wool alcohol ointment DAB | 54137710 | 1       |
| Beiersdorf/Sanac.          | Wool alcohol ointment DAB | 84132310 | 1       |
| Beiersdorf/Sanac.          | Wool alcohol ointment DAB | 93456310 | 1       |
| Beiersdorf/Sanacorp 09...  | Wool alcohol ointment DAB | 93226110 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 11213110 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 11323310 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 171090   | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 28315100 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 31231810 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 34254110 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 50815310 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 53437010 | 2       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 54157810 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 60539210 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 62041710 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 62932210 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 64342810 | 3       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 70314010 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 71114510 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 73035910 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 74017010 | 2       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 74737410 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 74747510 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 74757510 | 2       |
| Beiersdorf/sanacorp        | Wool alcohol ointment DAB | 81819410 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 81819410 | 2       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 82541010 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 82721410 | 4       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 829110   | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 83031710 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 83241810 | 2       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 83742110 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 84132310 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 84222410 | 2       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 92125210 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 92515310 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 93456310 | 2       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 94037210 | 1       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 94947710 | 4       |
| Beiersdorf/Sanacorp        | Wool alcohol ointment DAB | 94957610 | 1       |
| Beiersdorf/Spangro 25.0... | Wool alcohol ointment DAB | 2841510  | 1       |
| Beiersdorf/Spangro         | Wool alcohol ointment DAB | 1123110  | 1       |

continued on the next page



continued from previous page

| Supplier           | Substance                 | Batch      | Spectra |
|--------------------|---------------------------|------------|---------|
| Beiersdorf/Spangro | Wool alcohol ointment DAB | 64833610   | 1       |
| Beiersdorf/V.d.L.  | Wool alcohol ointment DAB | 33723610   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 11213110   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 11235310   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 11856010   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 12523810   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 1253810    | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 13554310   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 14021301   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 14154810   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 14349010   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 14939610   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 1610810    | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 16267201   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 1710910    | 5       |
| Beiersdorf         | Wool alcohol ointment DAB | 18121010   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 1821010    | 4       |
| Beiersdorf         | Wool alcohol ointment DAB | 1841110    | 6       |
| Beiersdorf         | Wool alcohol ointment DAB | 20271211-3 | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 21241410   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 21431810   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 23223410   | 4       |
| Beiersdorf         | Wool alcohol ointment DAB | 23753710   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 24113810   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 24233910   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 24635410   | 3       |
| Beiersdorf         | Wool alcohol ointment DAB | 24655410   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 2531310    | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 25831510   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 2711410    | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 2721410    | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 2831510    | 4       |
| Beiersdorf         | Wool alcohol ointment DAB | 2851610    | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 30821610   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 30831410   | 1       |
| Beiersdorf         | Paraffin, white           | 30841410   | 3       |
| Beiersdorf         | Wool alcohol ointment DAB | 30851510   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 31121710   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 31231810   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 31241810   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 31322010   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 3311110    | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 33323210   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 33343310   | 4       |
| Beiersdorf         | Wool alcohol ointment DAB | 33723610   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 34224110   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 34414610   | 2       |
| beiersdorf         | Wool alcohol ointment DAB | 34424610   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 34554710   | 5       |
| Beiersdorf         | Wool alcohol ointment DAB | 3712310    | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 4012410    | 1       |
| beiersdorf         | Wool alcohol ointment DAB | 40726610   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 40726610   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 40956810   | 3       |
| Beiersdorf         | Wool alcohol ointment DAB | 41026910   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 41047010   | 3       |
| Beiersdorf         | Wool alcohol ointment DAB | 41839810   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 41910710   | 1       |
| Beiersdorf         | Wool alcohol ointment DAB | 41940610   | 2       |
| Beiersdorf         | Wool alcohol ointment DAB | 42531910   | 1       |

continued on the next page

continued from previous page

| Supplier   | Substance                 | Batch        | Spectra |
|------------|---------------------------|--------------|---------|
| Beiersdorf | Wool alcohol ointment DAB | 42541910     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 45054410     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 4552510      | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 50324610     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 50414810     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 50444710     | 4       |
| Beiersdorf | Wool alcohol ointment DAB | 50454710     | 2       |
| beiersdorf | Wool alcohol ointment DAB | 50815310     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 50815310     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 50845210     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 50855310     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 50925410     | 9       |
| Beiersdorf | Wool alcohol ointment DAB | 50935410     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 50955510     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 51015610     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 51115710     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 51125710     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 51946010     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 53437010     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 54127710     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 54147810     | 4       |
| Beiersdorf | Wool alcohol ointment DAB | 54157810     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 6039210      | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 60419110     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 60539210     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 60919510     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 61079710     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 61149910     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 62031710     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 62041710     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 62922210     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 62932210     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 63052310     | 4       |
| Beiersdorf | Wool alcohol ointment DAB | 64332810     | 5       |
| Beiersdorf | Wool alcohol ointment DAB | 643423810    | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 64342810     | 7       |
| Beiersdorf | Wool alcohol ointment DAB | 64713510     | 5       |
| beiersdorf | Wool alcohol ointment DAB | 64833610     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 64833610     | 3       |
| Beiersdorf | Wool alcohol ointment DAB | 648336105291 | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 6922210      | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 70314010     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 71114510     | 6       |
| Beiersdorf | Wool alcohol ointment DAB | 71124510     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 71214810     | 1       |
| beiersdorf | Wool alcohol ointment DAB | 71274810     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 71274810     | 7       |
| Beiersdorf | Wool alcohol ointment DAB | 72915810     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 730035910    | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 73035910     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 740170010    | 1       |
| beiersdorf | Wool alcohol ointment DAB | 74017010     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 74017010     | 5       |
| BEIERSDORF | Wool alcohol ointment DAB | 74017010     | 2       |
| Beiersdorf | Wool alcohol ointment DAB | 74727410     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 74737410     | 1       |
| beiersdorf | Wool alcohol ointment DAB | 74747410     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 74747510     | 5       |
| BEIERSDORF | Wool alcohol ointment DAB | 74747510     | 1       |
| Beiersdorf | Wool alcohol ointment DAB | 74757510     | 2       |

continued on the next page



continued from previous page

| Supplier                 | Substance                    | Batch     | Spectra |
|--------------------------|------------------------------|-----------|---------|
| BEIERSDORF               | Wool alcohol ointment DAB    | 74757510  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 747577510 | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 81328810  | 2       |
| Beiersdorf               | Wool alcohol ointment DAB    | 81819410  | 6       |
| Beiersdorf               | Wool alcohol ointment DAB    | 81939510  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 82350810  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 82521010  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 82541010  | 3       |
| Beiersdorf               | Wool alcohol ointment DAB    | 82721410  | 5       |
| Beiersdorf               | Wool alcohol ointment DAB    | 829110    | 8       |
| beiersdorf               | Wool alcohol ointment DAB    | 83031710  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 83031710  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 83241810  | 3       |
| Beiersdorf               | Wool alcohol ointment DAB    | 83352010  | 3       |
| beiersdorf               | Wool alcohol ointment DAB    | 83742110  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 83742110  | 7       |
| Beiersdorf               | Wool alcohol ointment DAB    | 84122310  | 1       |
| beiersdorf               | Wool alcohol ointment DAB    | 84132310  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 84132310  | 1       |
| beiersdorf               | Wool alcohol ointment DAB    | 84222410  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 84222410  | 6       |
| Beiersdorf               | Wool alcohol ointment DAB    | 84232410  | 3       |
| Beiersdorf               | Wool alcohol ointment DAB    | 8423410   | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 91955110  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 9212510   | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 92125210  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 93246210  | 2       |
| Beiersdorf               | Wool alcohol ointment DAB    | 93330610  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 93436310  | 2       |
| Beiersdorf               | Wool alcohol ointment DAB    | 93456310  | 3       |
| Beiersdorf               | Wool alcohol ointment DAB    | 93556410  | 4       |
| Beiersdorf               | Wool alcohol ointment DAB    | 93917110  | 3       |
| Beiersdorf               | Wool alcohol ointment DAB    | 93927110  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 94037210  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 94947710  | 4       |
| Beiersdorf               | Wool alcohol ointment DAB    | 94957610  | 3       |
| BeiersdorfAG/Kehr        | Wool alcohol ointment DAB    | 84232410  | 1       |
| Beiersdorfer             | Wool alcohol ointment DAB    | 62932210  | 2       |
| Beiersdorf-Noweda        | Wool alcohol ointment DAB    | 84222410  | 1       |
| Beiersdrof/Phönix        | Wool alcohol ointment DAB    | 4012410   | 1       |
| Beiersorf                | Wool alcohol ointment DAB    | 83742110  | 2       |
| Beiersorf                | Wool alcohol ointment DAB    | 93456310  | 1       |
| Beierssdorf              | Wool alcohol ointment DAB    | 81819410  | 1       |
| Beiersdorf Manufacturing | Wool alcohol ointment DAB    | 54147810  | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 74747510  | 1       |
| Beiersdorf / Gehe        | Wool alcohol ointment DAB    | 1710910   | 1       |
| Beiersdorf               | Wool alcohol ointment DAB    | 74747510  | 1       |
| Berkel AHK               | Paraffin, white              | 13338710  | 1       |
| Berkel AHK               | Unguentum Cordes®            | 13A158    | 1       |
| Berkel AHK               | Wool alcohol ointment DAB    | 14067201  | 1       |
| Berkel AHK               | Paraffin, white              | 14087403  | 1       |
| Berkel AHK               | Unguentum Cordes®            | 14A056    | 1       |
| Biersdorf                | Wool alcohol ointment DAB    | 64342810  | 1       |
| BiodermaEthics/Noweda    | Unguentum Cordes®            | 109948    | 1       |
| Bionorica Ethics         | Paraffin, white              | 311259    | 1       |
| Bobastus                 | Paraffin, white              | 302037    | 1       |
| Bomastus/Anzag           | Paraffin, white              | 18003484  | 1       |
| Bomastus/GEHE/06.11.19   | Wool alcohol ointment SR/DAC | 19004361  | 1       |
| Bomastus/Phönix          | Paraffin, white              | 307661    | 1       |
| Bomastus/Sanacorp        | Wool alcohol ointment DAB    | 200002127 | 1       |

continued on the next page

continued from previous page

| Supplier               | Substance                       | Batch      | Spectra |
|------------------------|---------------------------------|------------|---------|
| Bomastus               | Wool alcohol ointment DAB       | 293093     | 2       |
| Bomastus-Werke AG      | Paraffin, white                 | 18002117   | 1       |
| Bomb./Gehe             | Paraffin, white                 | 17000584   | 1       |
| Bomb./Gehe             | Wool alcohol ointment SR/DAC    | 17001146   | 1       |
| Bomb./Gehe             | Wool alcohol ointment DAB       | 18001095   | 1       |
| Bomb./Gehe             | Wool alcohol ointment SR/DAC    | 18003447   | 1       |
| Bomb./Gehe             | Paraffin, white                 | 18003484   | 1       |
| Bomb./Gehe             | Wool alcohol ointment SR/DAC    | 19001991   | 1       |
| Bomb./Gehe             | Wool alcohol ointment SR wit... | 305548     | 1       |
| Bomb./Gehe             | Wool alcohol ointment SR wit... | 308141     | 2       |
| Bomb./Gehe             | Wool alcohol ointment SR wit... | 308143     | 1       |
| Bomb./Gehe             | Wool alcohol ointment SR wit... | 310488     | 1       |
| Bomb./Gehe             | Wool alcohol ointment SR/DAC    | 310489     | 1       |
| Bomb./Gehe             | Wool alcohol ointment DAB       | 71114510   | 1       |
| Bomb/Alliance          | Hydrophobic base gel DAC        | 19003315   | 1       |
| Bomb/Gehe              | Paraffin, white                 | 304124     | 1       |
| Bomb/Phönix            | Hydrophilic ointment DAB        | 18004573   | 1       |
| bomb/phönix            | Hydrophobic base gel DAC        | 304036     | 1       |
| bomb/phönix            | Hydrophobic base gel DAC        | 306483     | 2       |
| bomb/phönix            | Hydrophilic ointment DAB        | 307092     | 1       |
| Bomba/ Kehr            | Wool alcohol ointment SR wit... | 288689     | 1       |
| Bombast./phönix        | Paraffin, white                 | 19004887   | 1       |
| Bombast/Gehe           | Hydrophilic ointment DAB        | 1900429    | 1       |
| BOMBAST/Noweda         | Wool alcohol ointment DAB       | 20002127   | 1       |
| Bombast/Spangro        | Hydrophilic ointment DAB        | 311063     | 1       |
| Bombast/Spangro        | Hydrophilic ointment DAB        | 311065     | 1       |
| BOMBASTU Gehe 20.04.18 | Paraffin, white                 | 17000584   | 1       |
| Bombastus              | Paraffin, white                 |            | 5       |
| Bombastus              | Paraffin, white                 | 1001312549 | 1       |
| Bombastus              | Hydrophobic base gel DAC        | 10071402   | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 104374     | 1       |
| Bombastus              | Wool alcohol ointment SR wit... | 106236     | 1       |
| Bombastus              | Paraffin, yellow                | 106429     | 1       |
| Bombastus              | Wool alcohol ointment SR/DAC    | 108187     | 1       |
| Bombastus              | Emulsifying hydrophobic base... | 11041301   | 1       |
| Bombastus              | Emulsifying hydrophobic base... | 11071308   | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 1109210014 | 1       |
| Bombastus              | Paraffin, white                 | 111967     | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 113842     | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 116684     | 1       |
| Bombastus              | Paraffin, yellow                | 1197768    | 1       |
| Bombastus              | Paraffin, white                 | 12/2019    | 1       |
| Bombastus              | Hydrophobic base gel DAC        | 12051806   | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 1211017-01 | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 1211018-01 | 1       |
| Bombastus              | Paraffin, white                 | 1223Test   | 1       |
| Bombastus              | Unguentum Cordes®               | 12A102     | 1       |
| Bombastus              | Unguentum Cordes®               | 12A123     | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 13255101   | 1       |
| Bombastus              | Unguentum Cordes®               | 13A042     | 1       |
| Bombastus              | Unguentum Cordes®               | 13A181     | 1       |
| Bombastus              | Hydrophilic ointment DAB        | 14025001   | 2       |
| Bombastus              | Paraffin, white                 | 1406212549 | 1       |
| Bombastus              | Paraffin, white                 | 14087402   | 1       |
| Bombastus              | Unguentum Cordes®               | 14A060     | 1       |
| Bombastus              | Hydrophobic base gel DAC        | 15081828   | 1       |
| Bombastus              | Hydrophilic ointment DAB        | 15221801   | 2       |
| Bombastus              | Paraffin, yellow                | 15330401   | 1       |
| Bombastus              | Eye paraffin                    | 15441501   | 1       |
| Bombastus              | Unguentum Cordes®               | 15a020     | 1       |

continued on the next page

continued from previous page

| Supplier  | Substance                         | Batch               | Spectra |
|-----------|-----------------------------------|---------------------|---------|
| Bombastus | Unguentum Cordes <sup>®</sup>     | 15A149              | 1       |
| Bombastus | Wool alcohol ointment DAB         | 16007201            | 2       |
| Bombastus | Hydrophobic base gel DAC          | 16054302            | 1       |
| Bombastus | Hydrophobic base gel DAC          | 160607HB            | 1       |
| Bombastus | Hydrophilic ointment DAB          | 16166801            | 1       |
| Bombastus | Hydrophilic ointment DAB          | 16167001            | 3       |
| Bombastus | Paraffin, yellow                  | 16181902            | 1       |
| Bombastus | Wool alcohol ointment DAB         | 16198502            | 1       |
| Bombastus | Eye paraffin                      | 16271810            | 1       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 16A083              | 1       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 16A099              | 1       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 16A176170613-6      | 1       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 16A183              | 1       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 16A184              | 1       |
| Bombastus | Hydrophilic ointment DAB          | 17/11-T04-48192     | 1       |
| Bombastus | Paraffin, white                   | 17000584            | 20      |
| Bombastus | Hydrophobic base gel DAC          | 17001132            | 2       |
| Bombastus | Hydrophobic base gel DAC          | 17001133            | 8       |
| Bombastus | Wool alcohol ointment SR/DAC      | 17001146            | 5       |
| Bombastus | Wool alcohol ointment SR wit. ... | 17001147            | 5       |
| Bombastus | Wool alcohol ointment SR/DAC      | 17001148            | 4       |
| Bombastus | Wool alcohol ointment SR/DAC      | 17001149            | 7       |
| Bombastus | Wool alcohol ointment DAB         | 17001874            | 2       |
| Bombastus | Wool alcohol ointment DAB         | 17001875            | 15      |
| Bombastus | Wool alcohol ointment DAB         | 17001876            | 8       |
| Bombastus | Wool alcohol ointment DAB         | 17001877            | 1       |
| Bombastus | Paraffin, white                   | 17038204            | 1       |
| Bombastus | Eye paraffin                      | 17052001            | 1       |
| Bombastus | Hydrophilic ointment DAB          | 17083301            | 1       |
| Bombastus | Paraffin, yellow                  | 1709015-01          | 1       |
| Bombastus | Paraffin, white                   | 17148702            | 1       |
| Bombastus | Hydrophilic ointment DAB          | 17185501            | 1       |
| Bombastus | Wool alcohol ointment DAB         | 17206001            | 1       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 17A003              | 1       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 17A005              | 2       |
| Bombastus | Unguentum Cordes <sup>®</sup>     | 17A104              | 1       |
| Bombastus | Paraffin, white                   | 17L22-T05-054145    | 1       |
| Bombastus | Paraffin, yellow                  | 180000670           | 1       |
| Bombastus | Paraffin, white                   | 18000100            | 3       |
| Bombastus | Paraffin, white                   | 18000101            | 30      |
| Bombastus | Paraffin, white                   | 180002116P-180827-5 | 1       |
| Bombastus | Hydrophobic base gel DAC          | 180005370           | 1       |
| Bombastus | Wool alcohol ointment SR wit. ... | 18000621            | 6       |
| Bombastus | Wool alcohol ointment SR/DAC      | 18000622            | 5       |
| Bombastus | Wool alcohol ointment SR/DAC      | 18000623            | 7       |
| Bombastus | Wool alcohol ointment SR wit. ... | 18000625            | 3       |
| Bombastus | Paraffin, yellow                  | 18000669            | 3       |
| Bombastus | Paraffin, white                   | 18000670            | 23      |
| Bombastus | Wool alcohol ointment DAB         | 18001094            | 21      |
| Bombastus | Wool alcohol ointment DAB         | 18001095            | 7       |
| Bombastus | Wool alcohol ointment DAB         | 18001096            | 3       |
| Bombastus | Hydrophobic base gel DAC          | 18001099            | 9       |
| Bombastus | Hydrophilic ointment DAB          | 18001503            | 1       |
| Bombastus | Hydrophilic ointment DAB          | 18001504            | 1       |
| Bombastus | Hydrophilic ointment DAB          | 18001505            | 2       |
| Bombastus | Hydrophilic ointment DAB          | 18001506            | 8       |
| Bombastus | Paraffin, white                   | 18002116            | 1       |
| Bombastus | Paraffin, white                   | 18002117            | 28      |
| Bombastus | Paraffin, liquid                  | 18002494            | 2       |
| Bombastus | Wool alcohol ointment DAB         | 18002495            | 3       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch              | Spectra |
|-----------|---------------------------------|--------------------|---------|
| Bombastus | Wool alcohol ointment DAB       | 18002496           | 3       |
| Bombastus | Wool alcohol ointment DAB       | 18002497           | 12      |
| Bombastus | Wool alcohol ointment DAB       | 18002498           | 6       |
| Bombastus | Hydrophilic ointment DAB        | 18002963           | 11      |
| Bombastus | Hydrophobic base gel DAC        | 18003236           | 10      |
| Bombastus | Wool alcohol ointment SR/DAC    | 18003445           | 5       |
| Bombastus | Wool alcohol ointment SR wit... | 18003446           | 7       |
| Bombastus | Wool alcohol ointment SR wit... | 18003447           | 4       |
| Bombastus | Wool alcohol ointment SR wit... | 18003448           | 12      |
| Bombastus | Wool alcohol ointment SR wit... | 18003449           | 5       |
| Bombastus | Eye paraffin                    | 1800348            | 1       |
| Bombastus | Paraffin, white                 | 18003483           | 1       |
| Bombastus | Paraffin, white                 | 18003484           | 54      |
| Bombastus | Paraffin, white                 | 18003513P-190312-6 | 1       |
| Bombastus | Hydrophobic base gel DAC        | 18004043           | 7       |
| Bombastus | Wool alcohol ointment DAB       | 18004090           | 14      |
| Bombastus | Wool alcohol ointment DAB       | 18004091           | 8       |
| Bombastus | Wool alcohol ointment DAB       | 18004092           | 5       |
| Bombastus | Paraffin, yellow                | 18004334           | 13      |
| Bombastus | Wool alcohol ointment SR/DAC    | 1800433445         | 1       |
| Bombastus | Hydrophilic ointment DAB        | 18004573           | 2       |
| Bombastus | Hydrophilic ointment DAB        | 18004574           | 7       |
| Bombastus | Hydrophilic ointment DAB        | 18004575           | 5       |
| Bombastus | Hydrophilic ointment DAB        | 18004576           | 3       |
| Bombastus | Hydrophilic ointment DAB        | 18004577           | 4       |
| Bombastus | Hydrophilic ointment DAB        | 18004578           | 3       |
| Bombastus | Hydrophilic ointment DAB        | 18004579           | 8       |
| Bombastus | Hydrophilic ointment DAB        | 18004580           | 11      |
| Bombastus | Hydrophilic ointment DAB        | 18004581           | 9       |
| Bombastus | Wool alcohol ointment SR/DAC    | 18005346           | 4       |
| Bombastus | Wool alcohol ointment SR/DAC    | 18005347           | 7       |
| Bombastus | Wool alcohol ointment SR/DAC    | 18005348           | 6       |
| Bombastus | Wool alcohol ointment SR/DAC    | 18005349           | 5       |
| Bombastus | Hydrophobic base gel DAC        | 18005369           | 6       |
| Bombastus | Hydrophobic base gel DAC        | 18005370           | 7       |
| Bombastus | Wool alcohol ointment SR/DAC    | 180055348          | 1       |
| Bombastus | Wool alcohol ointment DAB       | 18005544           | 2       |
| Bombastus | Wool alcohol ointment DAB       | 18005545           | 21      |
| Bombastus | Wool alcohol ointment DAB       | 18005546           | 20      |
| Bombastus | Wool alcohol ointment DAB       | 18005547           | 13      |
| Bombastus | Paraffin, white                 | 18005698           | 34      |
| Bombastus | Paraffin, yellow                | 18005700           | 2       |
| Bombastus | Paraffin, yellow                | 18005701           | 12      |
| Bombastus | Paraffin, white                 | 18006513           | 1       |
| Bombastus | Paraffin, white                 | 18006514           | 25      |
| Bombastus | Paraffin, yellow                | 18006802           | 1       |
| Bombastus | Paraffin, yellow                | 18006803           | 20      |
| Bombastus | Emulsifying hydrophobic base... | 18075802           | 1       |
| Bombastus | Paraffin, white                 | 18174312           | 1       |
| Bombastus | Wool alcohol ointment DAB       | 18250402           | 2       |
| Bombastus | Emulsifying hydrophobic base... | 18315801           | 1       |
| Bombastus | Unguentum Cordes®               | 18A050             | 1       |
| Bombastus | Paraffin, white                 | 190006208          | 1       |
| Bombastus | Hydrophobic base gel DAC        | 19001129           | 1       |
| Bombastus | Hydrophobic base gel DAC        | 19001130           | 14      |
| Bombastus | Paraffin, liquid                | 19001235           | 1       |
| Bombastus | Paraffin, white                 | 19001674P-190718-6 | 1       |
| Bombastus | Paraffin, white                 | 19001675           | 39      |
| Bombastus | Wool alcohol ointment DAB       | 19001789           | 2       |
| Bombastus | Wool alcohol ointment DAB       | 19001790           | 2       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch              | Spectra |
|-----------|---------------------------------|--------------------|---------|
| Bombastus | Wool alcohol ointment DAB       | 19001791           | 7       |
| Bombastus | Wool alcohol ointment DAB       | 19001792           | 4       |
| Bombastus | Paraffin, yellow                | 19001881           | 1       |
| Bombastus | Paraffin, yellow                | 19001882           | 19      |
| Bombastus | Wool alcohol ointment DAB       | 1900191            | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 19001990           | 1       |
| Bombastus | Wool alcohol ointment DAB       | 19001991           | 4       |
| Bombastus | Wool alcohol ointment SR/DAC    | 19001992           | 5       |
| Bombastus | Wool alcohol ointment SR/DAC    | 19001993           | 8       |
| Bombastus | Wool alcohol ointment SR wit... | 19001994           | 3       |
| Bombastus | Wool alcohol ointment DAB       | 19002478           | 1       |
| Bombastus | Wool alcohol ointment DAB       | 19002479           | 2       |
| Bombastus | Wool alcohol ointment DAB       | 19002480           | 2       |
| Bombastus | Hydrophobic base gel DAC        | 19002600           | 1       |
| Bombastus | Paraffin, white                 | 190030174          | 1       |
| Bombastus | Paraffin, white                 | 19003073           | 1       |
| Bombastus | Paraffin, white                 | 19003074           | 40      |
| Bombastus | Hydrophobic base gel DAC        | 19003314           | 1       |
| Bombastus | Hydrophobic base gel DAC        | 19003315           | 11      |
| Bombastus | Wool alcohol ointment DAB       | 19003800           | 1       |
| Bombastus | Wool alcohol ointment DAB       | 19003801           | 9       |
| Bombastus | Wool alcohol ointment DAB       | 19003802           | 15      |
| Bombastus | Wool alcohol ointment DAB       | 19003803           | 4       |
| Bombastus | Paraffin, liquid                | 19004134           | 14      |
| Bombastus | Wool alcohol ointment SR/DAC    | 19004358           | 2       |
| Bombastus | Wool alcohol ointment SR/DAC    | 19004359           | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 19004360           | 5       |
| Bombastus | Wool alcohol ointment SR wit... | 19004361           | 6       |
| Bombastus | Paraffin, yellow                | 19004375           | 6       |
| Bombastus | Hydrophilic ointment DAB        | 19004428           | 2       |
| Bombastus | Hydrophilic ointment DAB        | 19004429           | 3       |
| Bombastus | Hydrophilic ointment DAB        | 19004430           | 7       |
| Bombastus | Hydrophobic base gel DAC        | 19004796           | 1       |
| Bombastus | Hydrophobic base gel DAC        | 19004797           | 1       |
| Bombastus | Paraffin, white                 | 19004887           | 2       |
| Bombastus | Paraffin, white                 | 19004888           | 47      |
| Bombastus | Wool alcohol ointment DAB       | 19005078           | 14      |
| Bombastus | Wool alcohol ointment DAB       | 19005079           | 8       |
| Bombastus | Wool alcohol ointment DAB       | 19005080           | 1       |
| Bombastus | Paraffin, yellow                | 19005891           | 1       |
| Bombastus | Paraffin, yellow                | 19005892           | 10      |
| Bombastus | Paraffin, white                 | 19006207           | 1       |
| Bombastus | Paraffin, white                 | 19006207P-200326-6 | 1       |
| Bombastus | Paraffin, white                 | 19006208           | 36      |
| Bombastus | Hydrophilic ointment DAB        | 19006221           | 2       |
| Bombastus | Hydrophilic ointment DAB        | 19006223           | 9       |
| Bombastus | Hydrophilic ointment DAB        | 19006224           | 5       |
| Bombastus | Wool alcohol ointment SR/DAC    | 19006412           | 1       |
| Bombastus | Paraffin, liquid                | 19006616           | 10      |
| Bombastus | Hydrophobic base gel DAC        | 19011905           | 1       |
| Bombastus | Paraffin, white                 | 190617112651       | 3       |
| Bombastus | Paraffin, white                 | 19101701           | 1       |
| Bombastus | Hydrophobic base gel DAC        | 2(18001099)        | 1       |
| Bombastus | Hydrophobic base gel DAC        | 20000051           | 4       |
| Bombastus | Hydrophobic base gel DAC        | 20000052           | 2       |
| Bombastus | Paraffin, white                 | 200001819          | 2       |
| Bombastus | Paraffin, white                 | 200003115          | 1       |
| Bombastus | Wool alcohol ointment DAB       | 20000378           | 3       |
| Bombastus | Wool alcohol ointment DAB       | 20000379           | 9       |
| Bombastus | Wool alcohol ointment DAB       | 20000380           | 11      |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch      | Spectra |
|-----------|---------------------------------|------------|---------|
| Bombastus | Wool alcohol ointment DAB       | 20000381   | 5       |
| Bombastus | Paraffin, white                 | 200004954  | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 20000785   | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 20000786   | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 20000787   | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 20000788   | 1       |
| Bombastus | Hydrophobic base gel DAC        | 20001105   | 8       |
| Bombastus | Paraffin, white                 | 20001305   | 1       |
| Bombastus | Paraffin, white                 | 20001819   | 11      |
| Bombastus | Hydrophilic ointment DAB        | 20001927   | 10      |
| Bombastus | Wool alcohol ointment DAB       | 20002125   | 2       |
| Bombastus | Wool alcohol ointment DAB       | 20002126   | 3       |
| Bombastus | Wool alcohol ointment DAB       | 20002127   | 5       |
| Bombastus | Wool alcohol ointment DAB       | 20002128   | 3       |
| Bombastus | Paraffin, yellow                | 20002910   | 5       |
| Bombastus | Paraffin, white                 | 20003114   | 1       |
| Bombastus | Paraffin, white                 | 20003115   | 19      |
| Bombastus | Paraffin, liquid                | 20003767   | 2       |
| Bombastus | Wool alcohol ointment DAB       | 2000381    | 1       |
| Bombastus | Wool alcohol ointment DAB       | 20003915   | 3       |
| Bombastus | Wool alcohol ointment DAB       | 20003916   | 8       |
| Bombastus | Wool alcohol ointment SR wit... | 20004157   | 1       |
| Bombastus | Hydrophilic ointment DAB        | 20004176   | 1       |
| Bombastus | Hydrophobic base gel DAC        | 20004214   | 4       |
| Bombastus | Hydrophobic base gel DAC        | 20004864   | 1       |
| Bombastus | Paraffin, white                 | 20004954   | 24      |
| Bombastus | Hydrophilic ointment DAB        | 20005190   | 2       |
| Bombastus | Paraffin, yellow                | 20005305   | 9       |
| Bombastus | Paraffin, liquid                | 20005329   | 5       |
| Bombastus | Wool alcohol ointment DAB       | 2002127    | 1       |
| Bombastus | Paraffin, white                 | 2002312549 | 1       |
| Bombastus | Paraffin, white                 | 2003115    | 2       |
| Bombastus | Paraffin, white                 | 2014Q2549  | 1       |
| Bombastus | Paraffin, white                 | 21000094   | 1       |
| Bombastus | Hydrophobic base gel DAC        | 21000169   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 21000375   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 21000376   | 2       |
| Bombastus | Wool alcohol ointment DAB       | 21000377   | 3       |
| Bombastus | Paraffin, white                 | 21000545   | 7       |
| Bombastus | Hydrophilic ointment DAB        | 21002000   | 2       |
| Bombastus | Paraffin, white                 | 21002249   | 1       |
| Bombastus | Paraffin, white                 | 21002294   | 15      |
| Bombastus | Paraffin, liquid                | 21002304   | 2       |
| Bombastus | Paraffin, yellow                | 21002776   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 21003021   | 2       |
| Bombastus | Wool alcohol ointment DAB       | 21003022   | 2       |
| Bombastus | Wool alcohol ointment DAB       | 21003023   | 1       |
| Bombastus | Paraffin, white                 | 21003553   | 4       |
| Bombastus | Hydrophilic ointment DAB        | 21003586   | 1       |
| Bombastus | Hydrophilic ointment DAB        | 21003588   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 21004816   | 1       |
| Bombastus | Paraffin, white                 | 21005337   | 3       |
| Bombastus | Wool alcohol ointment DAB       | 22000956   | 1       |
| Bombastus | Emulsifying hydrophobic base... | 22011402   | 1       |
| Bombastus | Emulsifying hydrophobic base... | 22111307   | 1       |
| Bombastus | Hydrophobic base gel DAC        | 23121704   | 1       |
| Bombastus | Hydrophobic base gel DAC        | 24031504   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 254685     | 1       |
| Bombastus | Emulsifying hydrophobic base... | 255106     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 256518     | 1       |

continued on the next page



continued from previous page

| Supplier  | Substance                       | Batch      | Spectra |
|-----------|---------------------------------|------------|---------|
| Bombastus | Paraffin, white                 | 258551     | 1       |
| Bombastus | Hydrophobic base gel DAC        | 26081706   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 261436     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 262037     | 1       |
| Bombastus | Emulsifying hydrophobic base... | 262696     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 263456     | 1       |
| Bombastus | Paraffin, white                 | 263683     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 265139     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 265502     | 1       |
| Bombastus | Paraffin, white                 | 265508     | 1       |
| Bombastus | Paraffin, white                 | 265814     | 2       |
| Bombastus | Paraffin, white                 | 267009     | 1       |
| Bombastus | Paraffin, white                 | 267010     | 2       |
| Bombastus | Paraffin, white                 | 267671     | 2       |
| Bombastus | Wool alcohol ointment DAB       | 267675     | 2       |
| Bombastus | Hydrophobic base gel DAC        | 268013     | 1       |
| Bombastus | Paraffin, white                 | 268016     | 1       |
| Bombastus | Paraffin, white                 | 268099     | 2       |
| Bombastus | Paraffin, white                 | 268390     | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 268467     | 1       |
| Bombastus | Hydrophilic ointment DAB        | 269532     | 1       |
| Bombastus | Hydrophilic ointment DAB        | 269534     | 2       |
| Bombastus | Hydrophilic ointment DAB        | 269536     | 1       |
| Bombastus | Hydrophilic ointment DAB        | 269537     | 1       |
| Bombastus | Hydrophilic ointment DAB        | 269539     | 3       |
| Bombastus | Wool alcohol ointment DAB       | 269617     | 1       |
| Bombastus | Paraffin, white                 | 269731     | 1       |
| Bombastus | Paraffin, white                 | 269732     | 1       |
| Bombastus | Paraffin, white                 | 269733     | 1       |
| Bombastus | Paraffin, white                 | 269734     | 3       |
| Bombastus | Paraffin, white                 | 270163     | 2       |
| Bombastus | Paraffin, white                 | 270165     | 1       |
| Bombastus | Paraffin, white                 | 2704212549 | 1       |
| Bombastus | Paraffin, white                 | 270489     | 3       |
| Bombastus | Paraffin, white                 | 270490     | 1       |
| Bombastus | Paraffin, white                 | 270491     | 1       |
| Bombastus | Paraffin, white                 | 270492     | 1       |
| Bombastus | Paraffin, white                 | 270553     | 1       |
| Bombastus | Paraffin, white                 | 270634     | 3       |
| Bombastus | Paraffin, white                 | 270635     | 4       |
| Bombastus | Wool alcohol ointment DAB       | 270640     | 2       |
| Bombastus | Wool alcohol ointment DAB       | 270642     | 3       |
| Bombastus | Wool alcohol ointment DAB       | 270643     | 5       |
| Bombastus | Wool alcohol ointment SR wit... | 270776     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 270780     | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 270781     | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 270784     | 2       |
| Bombastus | Paraffin, white                 | 270831     | 1       |
| Bombastus | Paraffin, white                 | 270834     | 4       |
| Bombastus | Paraffin, white                 | 270976     | 4       |
| Bombastus | Paraffin, white                 | 270977     | 2       |
| Bombastus | Paraffin, white                 | 270978     | 3       |
| Bombastus | Paraffin, white                 | 270979     | 5       |
| Bombastus | Paraffin, white                 | 270980     | 2       |
| Bombastus | Paraffin, white                 | 270981     | 1       |
| Bombastus | Paraffin, white                 | 270982     | 3       |
| Bombastus | Paraffin, white                 | 270983     | 1       |
| Bombastus | Paraffin, white                 | 270984     | 1       |
| Bombastus | Emulsifying hydrophobic base... | 271106     | 2       |
| Bombastus | Paraffin, white                 | 271213     | 3       |

continued on the next page



continued from previous page

| Supplier  | Substance                       | Batch    | Spectra |
|-----------|---------------------------------|----------|---------|
| Bombastus | Paraffin, white                 | 271260   | 1       |
| Bombastus | Paraffin, white                 | 271261   | 2       |
| Bombastus | Paraffin, white                 | 271435   | 1       |
| Bombastus | Paraffin, white                 | 271437   | 4       |
| Bombastus | Hydrophobic base gel DAC        | 271904   | 2       |
| Bombastus | Wool alcohol ointment DAB       | 272171   | 1       |
| Bombastus | Hydrophilic ointment DAB        | 274002   | 1       |
| Bombastus | Hydrophilic ointment DAB        | 274003   | 1       |
| Bombastus | Hydrophilic ointment DAB        | 274004   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 274282   | 3       |
| Bombastus | Wool alcohol ointment SR wit... | 274517   | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 274518   | 3       |
| Bombastus | Wool alcohol ointment SR wit... | 274521   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 275999   | 3       |
| Bombastus | Paraffin, white                 | 276088   | 1       |
| Bombastus | Paraffin, white                 | 2761127  | 1       |
| Bombastus | Paraffin, white                 | 276127   | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 276135   | 1       |
| Bombastus | Hydrophilic ointment DAB        | 276670   | 1       |
| Bombastus | Hydrophilic ointment DAB        | 276671   | 5       |
| Bombastus | Paraffin, white                 | 276968   | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 277022   | 3       |
| Bombastus | Wool alcohol ointment SR wit... | 277023   | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 277024   | 6       |
| Bombastus | Paraffin, white                 | 277059   | 2       |
| Bombastus | Paraffin, white                 | 277060   | 5       |
| Bombastus | Wool alcohol ointment DAB       | 277190   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 277191   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 277192   | 3       |
| Bombastus | Hydrophobic base gel DAC        | 277443   | 3       |
| Bombastus | Paraffin, white                 | 277986   | 2       |
| Bombastus | Paraffin, white                 | 277987   | 5       |
| Bombastus | Paraffin, white                 | 277988   | 2       |
| Bombastus | Paraffin, white                 | 278595   | 1       |
| Bombastus | Paraffin, white                 | 278620   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 278684   | 4       |
| Bombastus | Hydrophilic ointment DAB        | 279000   | 2       |
| Bombastus | Hydrophilic ointment DAB        | 279001   | 2       |
| Bombastus | Hydrophilic ointment DAB        | 279002   | 8       |
| Bombastus | Hydrophobic base gel DAC        | 279074   | 5       |
| Bombastus | Wool alcohol ointment SR wit... | 279103   | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 279104   | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 279105   | 4       |
| Bombastus | Paraffin, white                 | 279161   | 6       |
| Bombastus | Paraffin, white                 | 279805   | 1       |
| Bombastus | Wool alcohol ointment DAB       | 279927   | 4       |
| Bombastus | Wool alcohol ointment DAB       | 279928   | 4       |
| Bombastus | Wool alcohol ointment DAB       | 279934   | 4       |
| Bombastus | Paraffin, white                 | 279969   | 3       |
| Bombastus | Paraffin, white                 | 279970   | 4       |
| Bombastus | Wool alcohol ointment SR wit... | 280057   | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 280058   | 3       |
| Bombastus | Wool alcohol ointment SR wit... | 280059   | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 280060   | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 280061   | 3       |
| Bombastus | Paraffin, white                 | 280452   | 8       |
| Bombastus | Paraffin, white                 | 280702   | 3       |
| Bombastus | Hydrophobic base gel DAC        | 28111403 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 281248   | 1       |
| Bombastus | Paraffin, white                 | 281291   | 6       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch  | Spectra |
|-----------|---------------------------------|--------|---------|
| Bombastus | Hydrophilic ointment DAB        | 281346 | 2       |
| Bombastus | Hydrophilic ointment DAB        | 281347 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 281348 | 3       |
| Bombastus | Hydrophilic ointment DAB        | 281349 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 281350 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 281351 | 6       |
| Bombastus | Paraffin, white                 | 281539 | 1       |
| Bombastus | Wool alcohol ointment DAB       | 281690 | 5       |
| Bombastus | Hydrophobic base gel DAC        | 282094 | 6       |
| Bombastus | Paraffin, white                 | 282336 | 2       |
| Bombastus | Paraffin, white                 | 282699 | 1       |
| Bombastus | Paraffin, yellow                | 28270  | 1       |
| Bombastus | Paraffin, white                 | 282700 | 5       |
| Bombastus | Paraffin, white                 | 282964 | 3       |
| Bombastus | Paraffin, white                 | 282966 | 8       |
| Bombastus | Wool alcohol ointment SR wit... | 283174 | 1       |
| Bombastus | Wool alcohol ointment DAB       | 283175 | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 283176 | 5       |
| Bombastus | Wool alcohol ointment DAB       | 283618 | 7       |
| Bombastus | Wool alcohol ointment DAB       | 283619 | 3       |
| Bombastus | Paraffin, white                 | 283873 | 1       |
| Bombastus | Paraffin, white                 | 283948 | 1       |
| Bombastus | Paraffin, white                 | 283949 | 6       |
| Bombastus | Paraffin, white                 | 283951 | 1       |
| Bombastus | Hydrophobic base gel DAC        | 283998 | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 284378 | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 284379 | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 284381 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 284746 | 2       |
| Bombastus | Hydrophilic ointment DAB        | 284747 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 284748 | 6       |
| Bombastus | Paraffin, white                 | 285231 | 3       |
| Bombastus | Paraffin, white                 | 285309 | 2       |
| Bombastus | Paraffin, white                 | 285310 | 13      |
| Bombastus | Wool alcohol ointment DAB       | 285423 | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 285952 | 2       |
| Bombastus | Hydrophobic base gel DAC        | 286013 | 1       |
| Bombastus | Paraffin, white                 | 286095 | 3       |
| Bombastus | Paraffin, white                 | 286096 | 5       |
| Bombastus | Hydrophilic ointment DAB        | 286543 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 286544 | 6       |
| Bombastus | Hydrophilic ointment DAB        | 286545 | 9       |
| Bombastus | Wool alcohol ointment SR wit... | 286880 | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 286884 | 1       |
| Bombastus | Wool alcohol ointment DAB       | 287012 | 1       |
| Bombastus | Wool alcohol ointment DAB       | 287013 | 4       |
| Bombastus | Paraffin, white                 | 287147 | 1       |
| Bombastus | Paraffin, white                 | 287148 | 3       |
| Bombastus | Paraffin, white                 | 287149 | 6       |
| Bombastus | Wool alcohol ointment DAB       | 287619 | 2       |
| Bombastus | Hydrophilic ointment DAB        | 288366 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 288367 | 4       |
| Bombastus | Hydrophilic ointment DAB        | 288368 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 288369 | 6       |
| Bombastus | Wool alcohol ointment SR wit... | 288686 | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 288688 | 2       |
| Bombastus | Paraffin, white                 | 288714 | 5       |
| Bombastus | Paraffin, white                 | 288715 | 5       |
| Bombastus | Paraffin, white                 | 288716 | 6       |
| Bombastus | Paraffin, white                 | 288717 | 3       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch       | Spectra |
|-----------|---------------------------------|-------------|---------|
| Bombastus | Wool alcohol ointment DAB       | 288766      | 2       |
| Bombastus | Wool alcohol ointment DAB       | 288834      | 8       |
| Bombastus | Paraffin, white                 | 2888717     | 1       |
| Bombastus | Hydrophobic base gel DAC        | 289213      | 1       |
| Bombastus | Hydrophobic base gel DAC        | 289214      | 7       |
| Bombastus | Paraffin, white                 | 289344      | 6       |
| Bombastus | Wool alcohol ointment DAB       | 289509      | 7       |
| Bombastus | Wool alcohol ointment DAB       | 289510      | 4       |
| Bombastus | Paraffin, white                 | 290271      | 6       |
| Bombastus | Paraffin, white                 | 290441      | 8       |
| Bombastus | Hydrophilic ointment DAB        | 290597      | 2       |
| Bombastus | Hydrophilic ointment DAB        | 290599      | 4       |
| Bombastus | Hydrophilic ointment DAB        | 290600      | 3       |
| Bombastus | Hydrophilic ointment DAB        | 290601      | 9       |
| Bombastus | Paraffin, yellow                | 290713      | 2       |
| Bombastus | Paraffin, white                 | 290714      | 5       |
| Bombastus | Wool alcohol ointment DAB       | 290735      | 2       |
| Bombastus | Paraffin, white                 | 2909212549  | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 291175      | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 291176      | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 291177      | 2       |
| Bombastus | Paraffin, white                 | 291318      | 14      |
| Bombastus | Paraffin, white                 | 291319      | 3       |
| Bombastus | Wool alcohol ointment DAB       | 291794      | 1       |
| Bombastus | Wool alcohol ointment DAB       | 291795      | 4       |
| Bombastus | Wool alcohol ointment DAB       | 291796      | 3       |
| Bombastus | Wool alcohol ointment DAB       | 291797      | 2       |
| Bombastus | Paraffin, white                 | 292219      | 2       |
| Bombastus | Paraffin, white                 | 292220      | 7       |
| Bombastus | Hydrophobic base gel DAC        | 292717      | 2       |
| Bombastus | Wool alcohol ointment DAB       | 293091      | 3       |
| Bombastus | Wool alcohol ointment DAB       | 293092      | 7       |
| Bombastus | Wool alcohol ointment DAB       | 293093      | 5       |
| Bombastus | Wool alcohol ointment DAB       | 29309932ma1 | 1       |
| Bombastus | Hydrophilic ointment DAB        | 293261      | 4       |
| Bombastus | Hydrophilic ointment DAB        | 293262      | 4       |
| Bombastus | Hydrophilic ointment DAB        | 293263      | 2       |
| Bombastus | Hydrophilic ointment DAB        | 293264      | 7       |
| Bombastus | Wool alcohol ointment SR wit... | 293374      | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 293375      | 1       |
| Bombastus | Wool alcohol ointment DAB       | 293376      | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 293378      | 1       |
| Bombastus | Paraffin, white                 | 293553      | 3       |
| Bombastus | Paraffin, yellow                | 293629      | 12      |
| Bombastus | Wool alcohol ointment DAB       | 293956      | 14      |
| Bombastus | Hydrophobic base gel DAC        | 294417      | 1       |
| Bombastus | Hydrophobic base gel DAC        | 294418      | 4       |
| Bombastus | Hydrophilic ointment DAB        | 294448      | 4       |
| Bombastus | Hydrophilic ointment DAB        | 294449      | 2       |
| Bombastus | Hydrophilic ointment DAB        | 294451      | 4       |
| Bombastus | Paraffin, white                 | 294851      | 1       |
| Bombastus | Paraffin, white                 | 294852      | 7       |
| Bombastus | Wool alcohol ointment DAB       | 295218      | 3       |
| Bombastus | Paraffin, white                 | 295265      | 2       |
| Bombastus | Paraffin, white                 | 295300      | 1       |
| Bombastus | Paraffin, white                 | 295301      | 10      |
| Bombastus | Paraffin, white                 | 295344      | 5       |
| Bombastus | Wool alcohol ointment DAB       | 295357      | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 295358      | 3       |
| Bombastus | Wool alcohol ointment SR wit... | 295359      | 2       |

continued on the next page

continued from previous page

| Supplier  | Substance                       | Batch     | Spectra |
|-----------|---------------------------------|-----------|---------|
| Bombastus | Wool alcohol ointment SR wit... | 295360    | 4       |
| Bombastus | Hydrophobic base gel DAC        | 295369    | 1       |
| Bombastus | Hydrophobic base gel DAC        | 295729    | 6       |
| Bombastus | Wool alcohol ointment DAB       | 296235    | 1       |
| Bombastus | Wool alcohol ointment DAB       | 296435    | 12      |
| Bombastus | Wool alcohol ointment DAB       | 296436    | 3       |
| Bombastus | Wool alcohol ointment DAB       | 296437    | 2       |
| Bombastus | Paraffin, yellow                | 296654    | 11      |
| Bombastus | Hydrophilic ointment DAB        | 296865    | 3       |
| Bombastus | Hydrophilic ointment DAB        | 296866    | 3       |
| Bombastus | Hydrophilic ointment DAB        | 296867    | 1       |
| Bombastus | Hydrophilic ointment DAB        | 296868    | 6       |
| Bombastus | Wool alcohol ointment SR wit... | 297125    | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 297127    | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 297128    | 4       |
| Bombastus | Wool alcohol ointment SR wit... | 297129    | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 297130    | 1       |
| Bombastus | Paraffin, white                 | 297282    | 6       |
| Bombastus | Paraffin, white                 | 297283    | 12      |
| Bombastus | Hydrophobic base gel DAC        | 297392    | 1       |
| Bombastus | Hydrophobic base gel DAC        | 297433    | 1       |
| Bombastus | Paraffin, white                 | 298427    | 4       |
| Bombastus | Wool alcohol ointment DAB       | 298577    | 12      |
| Bombastus | Wool alcohol ointment DAB       | 298578    | 4       |
| Bombastus | Wool alcohol ointment DAB       | 298579    | 5       |
| Bombastus | Paraffin, white                 | 298599    | 15      |
| Bombastus | Paraffin, white                 | 298600    | 1       |
| Bombastus | Hydrophobic base gel DAC        | 299263    | 3       |
| Bombastus | Hydrophilic ointment DAB        | 299390    | 4       |
| Bombastus | Hydrophilic ointment DAB        | 299391    | 2       |
| Bombastus | Hydrophilic ointment DAB        | 299392    | 3       |
| Bombastus | Paraffin, white                 | 299468    | 2       |
| Bombastus | Paraffin, white                 | 299469    | 15      |
| Bombastus | Paraffin, white                 | 2999469   | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 2A221117  | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 300080    | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 300081    | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 300082    | 4       |
| Bombastus | Wool alcohol ointment SR wit... | 300083    | 2       |
| Bombastus | Wool alcohol ointment SR wit... | 300084    | 4       |
| Bombastus | Hydrophobic base gel DAC        | 3000896   | 1       |
| Bombastus | Paraffin, white                 | 300119    | 3       |
| Bombastus | Paraffin, white                 | 300120    | 14      |
| Bombastus | Wool alcohol ointment DAB       | 300281    | 1       |
| Bombastus | Wool alcohol ointment DAB       | 300282    | 6       |
| Bombastus | Wool alcohol ointment DAB       | 300283    | 4       |
| Bombastus | Paraffin, yellow                | 300422    | 1       |
| Bombastus | Paraffin, yellow                | 300423    | 9       |
| Bombastus | Paraffin, white                 | 30061201  | 1       |
| Bombastus | Wool alcohol ointment SR wit... | 30079     | 1       |
| Bombastus | Hydrophobic base gel DAC        | 300895    | 1       |
| Bombastus | Hydrophobic base gel DAC        | 300896    | 4       |
| Bombastus | Hydrophilic ointment DAB        | 301094    | 1       |
| Bombastus | Hydrophilic ointment DAB        | 301095    | 1       |
| Bombastus | Hydrophilic ointment DAB        | 301096    | 3       |
| Bombastus | Hydrophilic ointment DAB        | 301097    | 7       |
| Bombastus | Wool alcohol ointment DAB       | 301199    | 1       |
| Bombastus | Wool alcohol ointment DAB       | 301200    | 3       |
| Bombastus | Wool alcohol ointment DAB       | 301202    | 5       |
| Bombastus | Paraffin, white                 | 3013M2549 | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>             | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------------------|--------------|----------------|
| Bombastus       | Paraffin, yellow             | 301908       | 12             |
| Bombastus       | Wool alcohol ointment SR/DAC | 301935       | 1              |
| Bombastus       | Wool alcohol ointment SR/DAC | 301937       | 2              |
| Bombastus       | Wool alcohol ointment SR/DAC | 301938       | 2              |
| Bombastus       | Wool alcohol ointment SR/DAC | 301940       | 2              |
| Bombastus       | Paraffin, white              | 302037       | 26             |
| Bombastus       | Hydrophobic base gel DAC     | 302142       | 1              |
| Bombastus       | Hydrophobic base gel DAC     | 302145       | 2              |
| Bombastus       | Wool alcohol ointment DAB    | 302206       | 11             |
| Bombastus       | Wool alcohol ointment DAB    | 302207       | 3              |
| Bombastus       | Wool alcohol ointment DAB    | 302208       | 2              |
| Bombastus       | Wool alcohol ointment DAB    | 30226        | 2              |
| Bombastus       | Wool alcohol ointment SR/DAC | 302598       | 4              |
| Bombastus       | Wool alcohol ointment SR/DAC | 302599       | 7              |
| Bombastus       | Wool alcohol ointment SR/DAC | 302600       | 2              |
| Bombastus       | Hydrophilic ointment DAB     | 302998       | 1              |
| Bombastus       | Hydrophilic ointment DAB     | 302999       | 1              |
| Bombastus       | Hydrophobic base gel DAC     | 302I45       | 1              |
| Bombastus       | Hydrophilic ointment DAB     | 303000       | 1              |
| Bombastus       | Hydrophilic ointment DAB     | 303001       | 4              |
| Bombastus       | Paraffin, white              | 303786       | 1              |
| Bombastus       | Paraffin, yellow             | 303809       | 9              |
| Bombastus       | Wool alcohol ointment DAB    | 303846       | 13             |
| Bombastus       | Wool alcohol ointment DAB    | 303847       | 8              |
| Bombastus       | Wool alcohol ointment DAB    | 303848       | 2              |
| Bombastus       | Paraffin, yellow             | 303871       | 1              |
| Bombastus       | Wool alcohol ointment SR/DAC | 303993       | 1              |
| Bombastus       | Wool alcohol ointment SR/DAC | 303994       | 1              |
| Bombastus       | Wool alcohol ointment SR/DAC | 303995       | 4              |
| Bombastus       | Wool alcohol ointment DAB    | 303996       | 4              |
| Bombastus       | Hydrophobic base gel DAC     | 304035       | 4              |
| Bombastus       | Hydrophobic base gel DAC     | 304036       | 8              |
| Bombastus       | Hydrophobic base gel DAC     | 304045       | 3              |
| Bombastus       | Paraffin, white              | 304124       | 21             |
| Bombastus       | Paraffin, white              | 304125       | 1              |
| Bombastus       | Paraffin, white              | 304126       | 1              |
| Bombastus       | Paraffin, yellow             | 304847       | 5              |
| Bombastus       | Wool alcohol ointment DAB    | 304998       | 3              |
| Bombastus       | Paraffin, white              | 305140       | 1              |
| Bombastus       | Paraffin, white              | 305197       | 1              |
| Bombastus       | Hydrophilic ointment DAB     | 305394       | 3              |
| Bombastus       | Hydrophilic ointment DAB     | 305395       | 7              |
| Bombastus       | Hydrophilic ointment DAB     | 305396       | 3              |
| Bombastus       | Hydrophilic ointment DAB     | 305397       | 4              |
| Bombastus       | Wool alcohol ointment SR/DAC | 305546       | 1              |
| Bombastus       | Wool alcohol ointment SR/DAC | 305548       | 4              |
| Bombastus       | Wool alcohol ointment DAB    | 305878       | 2              |
| Bombastus       | Wool alcohol ointment DAB    | 305879       | 19             |
| Bombastus       | Wool alcohol ointment DAB    | 305880       | 5              |
| Bombastus       | Wool alcohol ointment DAB    | 305881       | 4              |
| Bombastus       | Paraffin, white              | 306019       | 1              |
| Bombastus       | Paraffin, white              | 306020       | 29             |
| Bombastus       | Paraffin, yellow             | 306182       | 14             |
| Bombastus       | Wool alcohol ointment SR/DAC | 306218       | 1              |
| Bombastus       | Hydrophobic base gel DAC     | 306482       | 3              |
| Bombastus       | Paraffin, yellow             | 307079       | 14             |
| Bombastus       | Hydrophilic ointment DAB     | 307092       | 2              |
| Bombastus       | Hydrophilic ointment DAB     | 307093       | 2              |
| Bombastus       | Hydrophilic ointment DAB     | 307094       | 5              |
| Bombastus       | Hydrophilic ointment DAB     | 307095       | 10             |

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continued from previous page

| Supplier  | Substance                       | Batch       | Spectra |
|-----------|---------------------------------|-------------|---------|
| Bombastus | Paraffin, white                 | 307661      | 29      |
| Bombastus | Wool alcohol ointment DAB       | 307773      | 1       |
| Bombastus | Wool alcohol ointment DAB       | 307774      | 11      |
| Bombastus | Wool alcohol ointment DAB       | 307775      | 11      |
| Bombastus | Wool alcohol ointment DAB       | 307776      | 4       |
| Bombastus | Wool alcohol ointment SR/DAC    | 308138      | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 308142      | 5       |
| Bombastus | Wool alcohol ointment SR/DAC    | 308143      | 2       |
| Bombastus | Wool alcohol ointment SR/DAC    | 308144      | 3       |
| Bombastus | Wool alcohol ointment SR wit... | 308145      | 10      |
| Bombastus | Wool alcohol ointment SR/DAC    | 308146      | 2       |
| Bombastus | Paraffin, white                 | 308197      | 23      |
| Bombastus | Hydrophobic base gel DAC        | 308439      | 2       |
| Bombastus | Hydrophobic base gel DAC        | 308440      | 7       |
| Bombastus | Wool alcohol ointment DAB       | 308843      | 8       |
| Bombastus | Wool alcohol ointment DAB       | 308844      | 1       |
| Bombastus | Wool alcohol ointment DAB       | 308845      | 2       |
| Bombastus | Hydrophilic ointment DAB        | 308899      | 2       |
| Bombastus | Hydrophilic ointment DAB        | 308900      | 3       |
| Bombastus | Paraffin, white                 | 309122      | 8       |
| Bombastus | Paraffin, white                 | 309563      | 2       |
| Bombastus | Paraffin, white                 | 309564      | 26      |
| Bombastus | Paraffin, yellow                | 310191      | 1       |
| Bombastus | Paraffin, yellow                | 310192      | 19      |
| Bombastus | Wool alcohol ointment DAB       | 310488      | 5       |
| Bombastus | Wool alcohol ointment SR/DAC    | 310489      | 1       |
| Bombastus | Hydrophobic base gel DAC        | 310631      | 8       |
| Bombastus | Hydrophilic ointment DAB        | 311063      | 2       |
| Bombastus | Hydrophilic ointment DAB        | 311064      | 1       |
| Bombastus | Hydrophilic ointment DAB        | 311065      | 4       |
| Bombastus | Hydrophilic ointment DAB        | 311066      | 2       |
| Bombastus | Hydrophilic ointment DAB        | 311067      | 9       |
| Bombastus | Paraffin, white                 | 311259      | 16      |
| Bombastus | Wool alcohol ointment DAB       | 311386      | 1       |
| Bombastus | Wool alcohol ointment DAB       | 311387      | 4       |
| Bombastus | Wool alcohol ointment DAB       | 311388      | 5       |
| Bombastus | Wool alcohol ointment DAB       | 311389      | 3       |
| Bombastus | Paraffin, white                 | 3113Q02549  | 1       |
| Bombastus | Paraffin, white                 | 31259       | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 3505546     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 3516A-01370 | 1       |
| Bombastus | Eye ointment, emulsifying DAC   | 3B070318    | 1       |
| Bombastus | Paraffin, white                 | 4013E-02549 | 1       |
| Bombastus | Hydrophobic base gel DAC        | 4082880     | 1       |
| Bombastus | Hydrophobic base gel DAC        | 4082897     | 1       |
| Bombastus | Hydrophilic ointment DAB        | 4717Q-02539 | 1       |
| Bombastus | Hydrophobic base gel DAC        | 5121804     | 1       |
| Bombastus | Paraffin, white                 | 5213A2549   | 1       |
| Bombastus | Paraffin, white                 | 5215200     | 1       |
| Bombastus | Wool alcohol ointment DAB       | 60080201    | 1       |
| Bombastus | Wool alcohol ointment DAB       | 60080202    | 2       |
| Bombastus | Wool alcohol ointment DAB       | 60080203    | 4       |
| Bombastus | Hydrophilic ointment DAB        | 60080501    | 3       |
| Bombastus | Paraffin, white                 | 60081102    | 4       |
| Bombastus | Wool alcohol ointment SR/DAC    | 60089602    | 1       |
| Bombastus | Wool alcohol ointment SR/DAC    | 60089603    | 1       |
| Bombastus | Hydrophobic base gel DAC        | 60092501    | 1       |
| Bombastus | Paraffin, white                 | 6861102     | 1       |
| Bombastus | Paraffin, white                 | 6861393     | 3       |
| Bombastus | Wool alcohol ointment DAB       | 72915810    | 1       |

continued on the next page



continued from previous page

| Supplier               | Substance                       | Batch            | Spectra |
|------------------------|---------------------------------|------------------|---------|
| Bombastus              | Wool alcohol ointment DAB       | 74747510         | 1       |
| Bombastus              | Wool alcohol ointment SR/DAC    | 8003445          | 1       |
| Bombastus              | Paraffin, white                 | 90016751         | 1       |
| Bombastus              | Hydrophobic base gel DAC        | 9031704          | 1       |
| Bombastus              | Wool alcohol ointment DAB       | 915M-01370       | 1       |
| Bombastu-Werke AG/Gehe | Paraffin, white                 | 282964           | 3       |
| Bombatus/Gehe          | Paraffin, white                 | 302037           | 2       |
| Bombatus/Phönix        | Wool alcohol ointment SR/DAC    | 303995           | 1       |
| Bombatus               | Hydrophilic ointment DAB        | 18004579         | 2       |
| Bombatus               | Paraffin, yellow                | 18006803         | 2       |
| bombatus               | Paraffin, yellow                | 19005891         | 1       |
| Bombstus/ Phoenix      | Paraffin, white                 | 18003484         | 1       |
| Bombstus/ Phönix       | Paraffin, white                 | 280451           | 1       |
| Bombstus               | Wool alcohol ointment DAB       | 18005546         | 1       |
| C17342007aelo/Noweda   | Eye paraffin                    | 17342007         | 1       |
| cae                    | Paraffin, white                 | 13380706         | 1       |
| cae                    | Eye paraffin                    | 181797002        | 1       |
| Caeanol                | Wool alcohol ointment DAB       | 16198501         | 1       |
| caedo                  | Hydrophilic ointment DAB        | 17185501         | 1       |
| Caela                  | Paraffin, white                 | 15441505         | 1       |
| Caele/ Jenne           | Wool alcohol ointment SR wit... | 13340003         | 1       |
| Caele                  | Eye paraffin                    | 15050002         | 1       |
| Caeleo/ Krieger        | Hydrophilic ointment DAB        | 21000365001      | 1       |
| Caelo                  | Paraffin, white                 |                  | 35      |
| Caelo                  | Paraffin, white                 | 100/AKD8         | 1       |
| Caelo                  | Paraffin, white                 | 10021803         | 1       |
| Caelo                  | Hydrophilic ointment DAB        | 10025601         | 1       |
| Caelo                  | Paraffin, white                 | 10039598         | 1       |
| Caelo                  | Paraffin, white                 | 10051402         | 1       |
| Caelo                  | Paraffin, white                 | 10061715         | 1       |
| Caelo                  | Paraffin, white                 | 10071304         | 1       |
| Caelo                  | Hydrophilic ointment DAB        | 10082901         | 1       |
| Caelo                  | Paraffin, white                 | 10091301         | 1       |
| Caelo                  | Wool alcohol ointment DAB       | 10136901         | 1       |
| Caelo                  | Paraffin, white                 | 10155402         | 1       |
| Caelo                  | Paraffin, white                 | 1021302          | 1       |
| Caelo                  | Paraffin, white                 | 10220214         | 1       |
| Caelo                  | Paraffin, liquid                | 102559003        | 1       |
| Caelo                  | Paraffin, white                 | 10271001         | 1       |
| Caelo                  | Eye paraffin                    | 10271807         | 1       |
| Caelo                  | Hydrophilic ointment DAB        | 103/AKD15        | 1       |
| Caelo                  | Hydrophilic ointment DAB        | 103312539        | 1       |
| Caelo                  | Paraffin, yellow                | 1041701          | 1       |
| Caelo                  | Hydrophilic ointment DAB        | 105/AKD16        | 1       |
| Caelo                  | Paraffin, yellow                | 1052401          | 1       |
| Caelo                  | Paraffin, white                 | 1061301          | 1       |
| Caelo                  | Eye paraffin                    | 10752008         | 1       |
| Caelo                  | Paraffin, white                 | 108/AKD12        | 1       |
| Caelo                  | Paraffin, white                 | 1081409          | 1       |
| Caelo                  | Wool alcohol ointment DAB       | 10999472002      | 1       |
| Caelo                  | Unguentum Cordes®               | 10A105           | 1       |
| Caelo                  | Hydrophobic base gel DAC        | 10L14-T54-009128 | 1       |
| Caelo                  | Paraffin, white                 | 11011309         | 1       |
| Caelo                  | Hydrophilic ointment DAB        | 11015402         | 1       |
| Caelo                  | Paraffin, white                 | 1101559          | 1       |
| Caelo                  | Emulsifying hydrophobic base... | 11016804         | 1       |
| Caelo                  | Paraffin, white                 | 11021510         | 1       |
| Caelo                  | Paraffin, white                 | 11031403         | 1       |
| Caelo                  | Paraffin, white                 | 11031707         | 1       |
| Caelo                  | Paraffin, white                 | 11040603         | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch    | Spectra |
|----------|---------------------------------|----------|---------|
| Caelo    | Paraffin, white                 | 11041302 | 1       |
| Caelo    | Paraffin, white                 | 11051702 | 1       |
| Caelo    | Paraffin, white                 | 11060201 | 1       |
| Caelo    | Paraffin, white                 | 11060209 | 3       |
| Caelo    | Paraffin, white                 | 11060210 | 1       |
| Caelo    | Paraffin, white                 | 11060211 | 1       |
| Caelo    | Paraffin, white                 | 11060212 | 2       |
| Caelo    | Paraffin, white                 | 11060213 | 3       |
| Caelo    | Wool alcohol ointment DAB       | 11068001 | 1       |
| Caelo    | Paraffin, white                 | 11091402 | 1       |
| Caelo    | Paraffin, white                 | 11104901 | 1       |
| Caelo    | Paraffin, white                 | 11104903 | 1       |
| Caelo    | Paraffin, white                 | 11104910 | 5       |
| Caelo    | Emulsifying hydrophobic base... | 11105002 | 1       |
| Caelo    | Paraffin, white                 | 11108710 | 1       |
| Caelo    | Paraffin, white                 | 11108711 | 1       |
| Caelo    | Paraffin, white                 | 11111111 | 1       |
| Caelo    | Paraffin, white                 | 11111704 | 1       |
| Caelo    | Paraffin, white                 | 11115501 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 11133601 | 3       |
| Caelo    | Hydrophilic ointment DAB        | 11133701 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1116756  | 1       |
| Caelo    | Wool alcohol ointment DAB       | 11184901 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 11184902 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 11185001 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 11185201 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1120019  | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1120462  | 3       |
| Caelo    | Emulsifying hydrophobic base... | 11209302 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 11211601 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 11212001 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 11212201 | 2       |
| Caelo    | Wool alcohol ointment DAB       | 11232902 | 1       |
| Caelo    | Paraffin, white                 | 11265701 | 1       |
| Caelo    | Paraffin, white                 | 11265703 | 1       |
| Caelo    | Paraffin, white                 | 11265708 | 2       |
| Caelo    | Paraffin, white                 | 11265711 | 1       |
| Caelo    | Paraffin, white                 | 11283902 | 1       |
| Caelo    | Paraffin, white                 | 11301301 | 5       |
| Caelo    | Emulsifying hydrophobic base... | 11301605 | 1       |
| Caelo    | Paraffin, white                 | 11315401 | 1       |
| Caelo    | Paraffin, white                 | 11315402 | 1       |
| Caelo    | Paraffin, white                 | 11315408 | 2       |
| Caelo    | Paraffin, white                 | 11315412 | 1       |
| Caelo    | Paraffin, white                 | 11315413 | 2       |
| Caelo    | Wool alcohol ointment DAB       | 11335001 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 11335002 | 6       |
| Caelo    | Wool alcohol ointment DAB       | 11335003 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 11335101 | 5       |
| Caelo    | Wool alcohol ointment DAB       | 11335201 | 1       |
| Caelo    | Paraffin, white                 | 11374903 | 4       |
| Caelo    | Paraffin, white                 | 11374906 | 4       |
| Caelo    | Unguentum Cordes®               | 11A118   | 2       |
| Caelo    | Unguentum Cordes®               | 11A162   | 1       |
| Caelo    | Unguentum Cordes®               | 11A202   | 1       |
| Caelo    | Paraffin, white                 | 12003603 | 1       |
| Caelo    | Paraffin, white                 | 12012604 | 2       |
| Caelo    | Paraffin, white                 | 12012605 | 1       |
| Caelo    | Paraffin, white                 | 12012609 | 6       |
| Caelo    | Paraffin, white                 | 12012707 | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Hydrophilic ointment DAB        | 12014601    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 12014602    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 12014701    | 2       |
| Caelo    | Hydrophilic ointment DAB        | 12015001    | 3       |
| Caelo    | Wool alcohol ointment DAB       | 12016202    | 2       |
| Caelo    | Wool alcohol ointment DAB       | 12016203    | 6       |
| Caelo    | Paraffin, white                 | 12031202    | 1       |
| Caelo    | Paraffin, white                 | 12032404    | 1       |
| Caelo    | Paraffin, white                 | 12032405    | 1       |
| Caelo    | Paraffin, white                 | 12032412    | 2       |
| Caelo    | Paraffin, white                 | 12032413    | 21      |
| Caelo    | Paraffin, white                 | 1203413     | 1       |
| Caelo    | Paraffin, white                 | 12041801    | 1       |
| Caelo    | Paraffin, white                 | 1204209     | 1       |
| Caelo    | Hydrophilic ointment DAB        | 12051401    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 12055801    | 2       |
| Caelo    | Hydrophilic ointment DAB        | 12055901    | 7       |
| Caelo    | Hydrophilic ointment DAB        | 12056001    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 12056002    | 4       |
| Caelo    | Paraffin, white                 | 12061201    | 1       |
| Caelo    | Paraffin, white                 | 12071804    | 1       |
| Caelo    | Paraffin, white                 | 12071805    | 5       |
| Caelo    | Wool alcohol ointment DAB       | 12076601    | 2       |
| Caelo    | Wool alcohol ointment DAB       | 12076602    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 12076701    | 2       |
| Caelo    | Emulsifying hydrophobic base... | 12078001    | 1       |
| Caelo    | Paraffin, white                 | 12078105    | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 12078201    | 1       |
| Caelo    | Paraffin, white                 | 12081404    | 1       |
| Caelo    | Paraffin, white                 | 12081502    | 1       |
| Caelo    | Paraffin, white                 | 12081504    | 1       |
| Caelo    | Paraffin, white                 | 12081601    | 3       |
| Caelo    | Hydrophilic ointment DAB        | 12086702    | 3       |
| Caelo    | Paraffin, white                 | 1210006-01  | 1       |
| Caelo    | Paraffin, white                 | 12111203    | 1       |
| Caelo    | Paraffin, white                 | 12111307    | 1       |
| Caelo    | Paraffin, white                 | 12115101    | 12      |
| Caelo    | Paraffin, white                 | 12115102    | 16      |
| Caelo    | Paraffin, white                 | 12115105    | 1       |
| Caelo    | Paraffin, white                 | 12115106    | 7       |
| Caelo    | Paraffin, white                 | 12115107    | 10      |
| Caelo    | Paraffin, white                 | 12115108    | 5       |
| Caelo    | Paraffin, white                 | 12115113    | 1       |
| Caelo    | Paraffin, white                 | 12121201    | 1       |
| Caelo    | Paraffin, white                 | 12121204    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1212M-01370 | 1       |
| Caelo    | Paraffin, white                 | 1215106     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 12151801    | 2       |
| Caelo    | Wool alcohol ointment DAB       | 12151802    | 2       |
| Caelo    | Wool alcohol ointment DAB       | 12151901    | 5       |
| Caelo    | Wool alcohol ointment DAB       | 12151903    | 6       |
| Caelo    | Wool alcohol ointment DAB       | 12152001    | 5       |
| Caelo    | Emulsifying hydrophobic base... | 12160201    | 4       |
| Caelo    | Emulsifying hydrophobic base... | 12182303    | 3       |
| Caelo    | Paraffin, white                 | 12182504    | 1       |
| Caelo    | Paraffin, white                 | 12182505    | 9       |
| Caelo    | Paraffin, white                 | 12190401    | 4       |
| Caelo    | Hydrophilic ointment DAB        | 12204802    | 6       |
| Caelo    | Hydrophilic ointment DAB        | 12204803    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 12204901    | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Hydrophilic ointment DAB        | 12205001  | 7       |
| Caelo    | Hydrophilic ointment DAB        | 12205101  | 4       |
| Caelo    | Hydrophilic ointment DAB        | 12205201  | 7       |
| Caelo    | Paraffin, white                 | 122092004 | 1       |
| Caelo    | Paraffin, white                 | 12209203  | 3       |
| Caelo    | Paraffin, white                 | 12209204  | 17      |
| Caelo    | Paraffin, white                 | 12209210  | 30      |
| Caelo    | Hydrophobic base gel DAC        | 12229001  | 6       |
| Caelo    | Hydrophobic base gel DAC        | 12229003  | 7       |
| Caelo    | Hydrophobic base gel DAC        | 12229005  | 1       |
| Caelo    | Paraffin, yellow                | 1223102   | 1       |
| Caelo    | Emulsifying hydrophobic base... | 12303402  | 6       |
| Caelo    | Paraffin, white                 | 12306202  | 2       |
| Caelo    | Paraffin, white                 | 12306302  | 7       |
| Caelo    | Paraffin, white                 | 12306303  | 1       |
| Caelo    | Paraffin, white                 | 12306401  | 5       |
| Caelo    | Paraffin, white                 | 1231010   | 1       |
| Caelo    | Paraffin, white                 | 12311003  | 4       |
| Caelo    | Paraffin, white                 | 12311004  | 6       |
| Caelo    | Paraffin, white                 | 12311010  | 12      |
| Caelo    | Paraffin, white                 | 12311011  | 12      |
| Caelo    | Hydrophilic ointment DAB        | 12311102  | 5       |
| Caelo    | Hydrophilic ointment DAB        | 12311301  | 8       |
| Caelo    | Hydrophilic ointment DAB        | 12311401  | 11      |
| Caelo    | Hydrophilic ointment DAB        | 12311501  | 14      |
| Caelo    | Hydrophilic ointment DAB        | 12311502  | 2       |
| Caelo    | Hydrophilic ointment DAB        | 12311701  | 6       |
| Caelo    | Hydrophilic ointment DAB        | 12311801  | 3       |
| Caelo    | Paraffin, white                 | 12321902  | 2       |
| Caelo    | Paraffin, white                 | 12321905  | 4       |
| Caelo    | Paraffin, white                 | 12321906  | 3       |
| Caelo    | Paraffin, white                 | 12321908  | 4       |
| Caelo    | Paraffin, white                 | 12337701  | 5       |
| Caelo    | Paraffin, white                 | 12337703  | 16      |
| Caelo    | Paraffin, white                 | 12337704  | 12      |
| Caelo    | Paraffin, white                 | 12337706  | 13      |
| Caelo    | Paraffin, white                 | 12337707  | 9       |
| Caelo    | Paraffin, white                 | 12337708  | 18      |
| Caelo    | Paraffin, white                 | 12337709  | 15      |
| Caelo    | Wool alcohol ointment DAB       | 12339901  | 4       |
| Caelo    | Wool alcohol ointment DAB       | 12340001  | 4       |
| Caelo    | Wool alcohol ointment DAB       | 12340002  | 3       |
| Caelo    | Wool alcohol ointment DAB       | 12340003  | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1234002   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 12340101  | 7       |
| Caelo    | Emulsifying hydrophobic base... | 12343501  | 4       |
| Caelo    | Paraffin, white                 | 123456    | 2       |
| Caelo    | Hydrophobic base gel DAC        | 12362503  | 5       |
| Caelo    | Hydrophobic base gel DAC        | 12362504  | 3       |
| Caelo    | Hydrophobic base gel DAC        | 12362505  | 5       |
| Caelo    | Hydrophobic base gel DAC        | 123662505 | 1       |
| Caelo    | Paraffin, white                 | 12374501  | 5       |
| Caelo    | Paraffin, white                 | 12374502  | 12      |
| Caelo    | Unguentum Cordes®               | 12A021    | 1       |
| Caelo    | Unguentum Cordes®               | 12A022    | 1       |
| Caelo    | Unguentum Cordes®               | 12A056    | 1       |
| Caelo    | Unguentum Cordes®               | 12A060    | 1       |
| Caelo    | Unguentum Cordes®               | 12A078    | 1       |
| Caelo    | Unguentum Cordes®               | 12A130    | 2       |
| Caelo    | Unguentum Cordes®               | 12A131    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Unguentum Cordes®               | 12A140           | 1       |
| Caelo    | Unguentum Cordes®               | 12A141           | 1       |
| Caelo    | Unguentum Cordes®               | 12A146           | 1       |
| Caelo    | Unguentum Cordes®               | 12A156           | 1       |
| Caelo    | Unguentum Cordes®               | 12A183           | 2       |
| Caelo    | Unguentum Cordes®               | 12A185           | 1       |
| Caelo    | Unguentum Cordes®               | 12A206           | 4       |
| Caelo    | Unguentum Cordes®               | 12A211           | 1       |
| Caelo    | Paraffin, white                 | 12D19-T54-000715 | 3       |
| Caelo    | Hydrophilic ointment DAB        | 12J31T04         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 12J31-T04        | 1       |
| Caelo    | Paraffin, white                 | 12K01-T52-002659 | 1       |
| Caelo    | Paraffin, white                 | 13005701         | 8       |
| Caelo    | Paraffin, white                 | 13005708         | 2       |
| Caelo    | Paraffin, white                 | 13005710         | 6       |
| Caelo    | Paraffin, white                 | 13005711         | 14      |
| Caelo    | Paraffin, white                 | 13005712         | 13      |
| Caelo    | Paraffin, white                 | 13005713         | 5       |
| Caelo    | Paraffin, white                 | 13005719         | 9       |
| Caelo    | Paraffin, white                 | 13005720         | 2       |
| Caelo    | Paraffin, white                 | 13011407         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 13013901         | 2       |
| Caelo    | Hydrophilic ointment DAB        | 13014001         | 4       |
| Caelo    | Hydrophilic ointment DAB        | 13014002         | 7       |
| Caelo    | Hydrophilic ointment DAB        | 13014003         | 5       |
| Caelo    | Hydrophilic ointment DAB        | 13014101         | 6       |
| Caelo    | Paraffin, white                 | 13028302         | 1       |
| Caelo    | Paraffin, white                 | 13031301         | 1       |
| Caelo    | Paraffin, white                 | 13050102         | 1       |
| Caelo    | Paraffin, white                 | 1305031-01       | 1       |
| Caelo    | Paraffin, white                 | 130510           | 1       |
| Caelo    | Paraffin, white                 | 13051305         | 1       |
| Caelo    | Paraffin, liquid                | 13052001         | 1       |
| Caelo    | Hydrophobic base gel DAC        | 13052002         | 1       |
| Caelo    | Emulsifying hydrophobic base... | 13066802         | 10      |
| Caelo    | Wool alcohol ointment DAB       | 13066903         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13067101         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13067102         | 13      |
| Caelo    | Wool alcohol ointment DAB       | 13067103         | 7       |
| Caelo    | Wool alcohol ointment DAB       | 13067201         | 10      |
| Caelo    | Wool alcohol ointment SR wit... | 13077301         | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 13077302         | 1       |
| Caelo    | Paraffin, white                 | 13084902         | 14      |
| Caelo    | Paraffin, white                 | 13084903         | 1       |
| Caelo    | Paraffin, white                 | 13084905         | 13      |
| Caelo    | Paraffin, white                 | 13084906         | 17      |
| Caelo    | Paraffin, white                 | 13084907         | 1       |
| Caelo    | Hydrophobic base gel DAC        | 13085004         | 2       |
| Caelo    | Wool alcohol ointment DAB       | 13093202         | 1       |
| Caelo    | Paraffin, white                 | 13095601         | 10      |
| Caelo    | Paraffin, white                 | 13095602         | 1       |
| Caelo    | Paraffin, white                 | 13095701         | 5       |
| Caelo    | Paraffin, white                 | 13109010         | 1       |
| Caelo    | Paraffin, white                 | 1310909          | 1       |
| Caelo    | Paraffin, white                 | 1310911          | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13114001         | 8       |
| Caelo    | Wool alcohol ointment DAB       | 13114102         | 8       |
| Caelo    | Wool alcohol ointment DAB       | 13114103         | 4       |
| Caelo    | Hydrophilic ointment DAB        | 13117102         | 5       |
| Caelo    | Hydrophilic ointment DAB        | 13117103         | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Hydrophilic ointment DAB        | 13117201      | 2       |
| Caelo    | Hydrophilic ointment DAB        | 13117301      | 21      |
| Caelo    | Hydrophilic ointment DAB        | 13117401      | 7       |
| Caelo    | Hydrophilic ointment DAB        | 13117501      | 13      |
| Caelo    | Hydrophilic ointment DAB        | 13117601      | 6       |
| Caelo    | Paraffin, white                 | 13121303      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 13123101      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13126001      | 10      |
| Caelo    | Wool alcohol ointment DAB       | 13126101      | 1       |
| Caelo    | Paraffin, white                 | 13130901      | 5       |
| Caelo    | Paraffin, white                 | 13130907      | 6       |
| Caelo    | Paraffin, white                 | 13130909      | 16      |
| Caelo    | Paraffin, white                 | 13130910      | 8       |
| Caelo    | Paraffin, white                 | 13130911      | 7       |
| Caelo    | Paraffin, white                 | 13130912      | 13      |
| Caelo    | Paraffin, white                 | 13163602      | 2       |
| Caelo    | Paraffin, yellow                | 13163606      | 1       |
| Caelo    | Paraffin, white                 | 13163701      | 6       |
| Caelo    | Paraffin, white                 | 13163702      | 4       |
| Caelo    | Hydrophobic base gel DAC        | 13165201      | 4       |
| Caelo    | Hydrophobic base gel DAC        | 13165205      | 2       |
| Caelo    | Paraffin, white                 | 13174901      | 1       |
| Caelo    | Emulsifying hydrophobic base... | 13177601      | 6       |
| Caelo    | Emulsifying hydrophobic base... | 13177602      | 1       |
| Caelo    | Paraffin, white                 | 13185504      | 1       |
| Caelo    | Paraffin, white                 | 13185501      | 1       |
| Caelo    | Paraffin, white                 | 13185502      | 9       |
| Caelo    | Paraffin, white                 | 13185504      | 4       |
| Caelo    | Paraffin, white                 | 13185505      | 1       |
| Caelo    | Paraffin, white                 | 13185506      | 5       |
| Caelo    | Paraffin, white                 | 13185507      | 7       |
| Caelo    | Paraffin, white                 | 13185512      | 10      |
| Caelo    | Paraffin, white                 | 13185513      | 3       |
| Caelo    | Paraffin, white                 | 13185514      | 2       |
| Caelo    | Unguentum Cordes®               | 131A043       | 1       |
| Caelo    | Paraffin, yellow                | 132(16096904) | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13242401      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13242601      | 11      |
| Caelo    | Wool alcohol ointment DAB       | 13242602      | 16      |
| Caelo    | Wool alcohol ointment DAB       | 13242603      | 5       |
| Caelo    | Wool alcohol ointment DAB       | 13242901      | 5       |
| Caelo    | Wool alcohol ointment DAB       | 13242902      | 7       |
| Caelo    | Hydrophilic ointment DAB        | 13245301      | 7       |
| Caelo    | Hydrophilic ointment DAB        | 13245302      | 5       |
| Caelo    | Hydrophilic ointment DAB        | 13245303      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 13245401      | 12      |
| Caelo    | Hydrophilic ointment DAB        | 13245501      | 6       |
| Caelo    | Hydrophilic ointment DAB        | 13245601      | 9       |
| Caelo    | Hydrophilic ointment DAB        | 13245701      | 7       |
| Caelo    | Hydrophilic ointment DAB        | 13245801      | 4       |
| Caelo    | Hydrophilic ointment DAB        | 13245901      | 10      |
| Caelo    | Hydrophilic ointment DAB        | 13246002      | 3       |
| Caelo    | Wool alcohol ointment DAB       | 1324602       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13255001      | 9       |
| Caelo    | Wool alcohol ointment DAB       | 1325501       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 13255101      | 25      |
| Caelo    | Wool alcohol ointment DAB       | 13255201      | 11      |
| Caelo    | Wool alcohol ointment SR wit... | 13264102      | 2       |
| Caelo    | Paraffin, white                 | 13268408      | 22      |
| Caelo    | Paraffin, white                 | 13268409      | 13      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Paraffin, white                 | 13268410      | 9       |
| Caelo    | Paraffin, white                 | 13268411      | 7       |
| Caelo    | Paraffin, white                 | 13268420      | 4       |
| Caelo    | Paraffin, white                 | 13268421      | 16      |
| Caelo    | Paraffin, white                 | 13268422      | 4       |
| Caelo    | Paraffin, white                 | 13268423      | 5       |
| Caelo    | Hydrophobic base gel DAC        | 13295701      | 11      |
| Caelo    | Hydrophobic base gel DAC        | 13295801      | 4       |
| Caelo    | Hydrophobic base gel DAC        | 13299604      | 10      |
| Caelo    | Paraffin, yellow                | 133(16096910) | 1       |
| Caelo    | Paraffin, white                 | 13333101      | 1       |
| Caelo    | Paraffin, white                 | 133380703     | 1       |
| Caelo    | Paraffin, white                 | 13338702      | 6       |
| Caelo    | Paraffin, white                 | 13338703      | 13      |
| Caelo    | Paraffin, white                 | 13338704      | 3       |
| Caelo    | Paraffin, white                 | 13338707      | 9       |
| Caelo    | Paraffin, white                 | 13338710      | 13      |
| Caelo    | Paraffin, white                 | 13338711      | 5       |
| Caelo    | Paraffin, white                 | 13338712      | 7       |
| Caelo    | Paraffin, white                 | 13338713      | 14      |
| Caelo    | Paraffin, white                 | 13338714      | 7       |
| Caelo    | Wool alcohol ointment SR wit... | 13340003      | 1       |
| Caelo    | Emulsifying hydrophobic base... | 13340814      | 1       |
| Caelo    | Paraffin, white                 | 13341602      | 4       |
| Caelo    | Paraffin, white                 | 13341604      | 1       |
| Caelo    | Paraffin, white                 | 13341605      | 7       |
| Caelo    | Paraffin, white                 | 13341606      | 7       |
| Caelo    | Paraffin, white                 | 13341608      | 8       |
| Caelo    | Paraffin, white                 | 13341612      | 7       |
| Caelo    | Hydrophobic base gel DAC        | 13341701      | 2       |
| Caelo    | Hydrophobic base gel DAC        | 13341703      | 3       |
| Caelo    | Wool alcohol ointment DAB       | 13355202      | 1       |
| Caelo    | Emulsifying hydrophobic base... | 13361004      | 7       |
| Caelo    | Paraffin, white                 | 13365103      | 3       |
| Caelo    | Paraffin, white                 | 13365104      | 4       |
| Caelo    | Paraffin, white                 | 13380702      | 4       |
| Caelo    | Paraffin, white                 | 13380703      | 14      |
| Caelo    | Paraffin, white                 | 13380704      | 5       |
| Caelo    | Paraffin, white                 | 13380706      | 3       |
| Caelo    | Paraffin, white                 | 13380707      | 12      |
| Caelo    | Paraffin, white                 | 13380708      | 12      |
| Caelo    | Paraffin, white                 | 13380709      | 9       |
| Caelo    | Paraffin, white                 | 13380719      | 8       |
| Caelo    | Paraffin, white                 | 13380720      | 25      |
| Caelo    | Paraffin, white                 | 13380721      | 16      |
| Caelo    | Paraffin, white                 | 133807212     | 1       |
| Caelo    | Paraffin, white                 | 1338714       | 1       |
| Caelo    | Paraffin, yellow                | 134(16096910) | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1367101       | 1       |
| Caelo    | Unguentum Cordes®               | 13A004        | 1       |
| Caelo    | Unguentum Cordes®               | 13A042        | 2       |
| Caelo    | Unguentum Cordes®               | 13A043        | 1       |
| Caelo    | Unguentum Cordes®               | 13A043        | 1       |
| Caelo    | Unguentum Cordes®               | 13A049        | 1       |
| Caelo    | Unguentum Cordes®               | 13A055        | 1       |
| Caelo    | Unguentum Cordes®               | 13A090        | 2       |
| Caelo    | Unguentum Cordes®               | 13A113        | 1       |
| Caelo    | Unguentum Cordes®               | 13A136        | 1       |
| Caelo    | Unguentum Cordes®               | 13A138        | 3       |
| Caelo    | Unguentum Cordes®               | 13A141        | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Unguentum Cordes <sup>®</sup>   | 13A153           | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 13A157           | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 13A159           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 13A171           | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 13A172           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 13A181           | 3       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 13A047           | 1       |
| Caelo    | Hydrophilic ointment DAB        | 13B04-T18-001061 | 2       |
| Caelo    | Paraffin, white                 | 13D02-T02-002660 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 13H13-T03-006141 | 1       |
| Caelo    | Paraffin, yellow                | 1401017-01       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 14022902         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 14024601         | 4       |
| Caelo    | Wool alcohol ointment DAB       | 14024701         | 15      |
| Caelo    | Hydrophilic ointment DAB        | 14024802         | 5       |
| Caelo    | Hydrophilic ointment DAB        | 14024803         | 3       |
| Caelo    | Hydrophilic ointment DAB        | 14024901         | 10      |
| Caelo    | Hydrophilic ointment DAB        | 14025001         | 7       |
| Caelo    | Paraffin, white                 | 1402501          | 1       |
| Caelo    | Paraffin, white                 | 14025101         | 4       |
| Caelo    | Paraffin, white                 | 14025201         | 11      |
| Caelo    | Wool alcohol ointment SR wit... | 14032501         | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 14032502         | 1       |
| Caelo    | Hydrophobic base gel DAC        | 14044601         | 13      |
| Caelo    | Wool alcohol ointment DAB       | 14067001         | 6       |
| Caelo    | Wool alcohol ointment DAB       | 14067002         | 5       |
| Caelo    | Wool alcohol ointment DAB       | 1406701          | 1       |
| Caelo    | Wool alcohol ointment DAB       | 14067101         | 5       |
| Caelo    | Wool alcohol ointment SR wit... | 14067201         | 19      |
| Caelo    | Wool alcohol ointment DAB       | 14067301         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 14067401         | 4       |
| Caelo    | Paraffin, white                 | 14081205         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 14085901         | 1       |
| Caelo    | Paraffin, white                 | 14087402         | 5       |
| Caelo    | Paraffin, white                 | 14087403         | 2       |
| Caelo    | Paraffin, white                 | 14087404         | 12      |
| Caelo    | Paraffin, white                 | 14087405         | 4       |
| Caelo    | Paraffin, white                 | 14087406         | 2       |
| Caelo    | Paraffin, white                 | 14087408         | 2       |
| Caelo    | Paraffin, white                 | 14087409         | 3       |
| Caelo    | Paraffin, white                 | 14087410         | 6       |
| Caelo    | Hydrophobic base gel DAC        | 14087501         | 10      |
| Caelo    | Hydrophobic base gel DAC        | 14087503         | 2       |
| Caelo    | Paraffin, white                 | 14092015B        | 1       |
| Caelo    | Hydrophobic base gel DAC        | 14102502         | 5       |
| Caelo    | Hydrophobic base gel DAC        | 14102504         | 3       |
| Caelo    | Hydrophobic base gel DAC        | 14102505         | 2       |
| Caelo    | Hydrophilic ointment DAB        | 14123101         | 16      |
| Caelo    | Hydrophilic ointment DAB        | 14123201         | 4       |
| Caelo    | Hydrophilic ointment DAB        | 14123301         | 10      |
| Caelo    | Hydrophilic ointment DAB        | 14123401         | 12      |
| Caelo    | Hydrophilic ointment DAB        | 14123502         | 3       |
| Caelo    | Paraffin, white                 | 14124702         | 1       |
| Caelo    | Paraffin, white                 | 14124703         | 9       |
| Caelo    | Paraffin, white                 | 14124704         | 12      |
| Caelo    | Paraffin, white                 | 14124705         | 9       |
| Caelo    | Paraffin, white                 | 14124706         | 10      |
| Caelo    | Paraffin, white                 | 14124707         | 32      |
| Caelo    | Paraffin, white                 | 14124708         | 11      |
| Caelo    | Eye paraffin                    | 1412703          | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Wool alcohol ointment DAB       | 14152803    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 14152901    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 14152902    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 14153101    | 14      |
| Caelo    | Wool alcohol ointment DAB       | 14153601    | 13      |
| Caelo    | Wool alcohol ointment DAB       | 14153602    | 3       |
| Caelo    | Wool alcohol ointment DAB       | 14153603    | 9       |
| Caelo    | Hydrophobic base gel DAC        | 14158002    | 4       |
| Caelo    | Hydrophobic base gel DAC        | 14158003    | 10      |
| Caelo    | Hydrophobic base gel DAC        | 14158006    | 1       |
| Caelo    | Emulsifying hydrophobic base... | 14161401    | 1       |
| Caelo    | Emulsifying hydrophobic base... | 14161402    | 1       |
| Caelo    | Hydrophobic base gel DAC        | 14161501    | 14      |
| Caelo    | Paraffin, white                 | 14189002    | 8       |
| Caelo    | Paraffin, white                 | 14189003    | 2       |
| Caelo    | Paraffin, white                 | 14189004    | 5       |
| Caelo    | Paraffin, white                 | 14189005    | 1       |
| Caelo    | Paraffin, white                 | 14189006    | 8       |
| Caelo    | Paraffin, white                 | 14189007    | 8       |
| Caelo    | Paraffin, white                 | 14189008    | 2       |
| Caelo    | Paraffin, white                 | 14189012    | 2       |
| Caelo    | Paraffin, white                 | 14189018    | 10      |
| Caelo    | Paraffin, white                 | 14189019    | 1       |
| Caelo    | Unguentum Cordes®               | 1418E-02532 | 1       |
| Caelo    | Paraffin, white                 | 14200901    | 4       |
| Caelo    | Paraffin, white                 | 14201001    | 3       |
| Caelo    | Paraffin, white                 | 14201003    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 14207702    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 14224701    | 4       |
| Caelo    | Hydrophilic ointment DAB        | 14224901    | 5       |
| Caelo    | Hydrophilic ointment DAB        | 14225001    | 9       |
| Caelo    | Hydrophilic ointment DAB        | 14225002    | 12      |
| Caelo    | Hydrophilic ointment DAB        | 1423101     | 1       |
| Caelo    | Hydrophilic ointment DAB        | 14231901    | 8       |
| Caelo    | Eye paraffin                    | 1424704     | 1       |
| Caelo    | Paraffin, white                 | 14248403    | 7       |
| Caelo    | Wool alcohol ointment SR wit... | 14251402    | 1       |
| Caelo    | Emulsifying hydrophobic base... | 14276301    | 6       |
| Caelo    | Hydrophobic base gel DAC        | 14276401    | 17      |
| Caelo    | Emulsifying hydrophobic base... | 14276402    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 14277601    | 9       |
| Caelo    | Hydrophilic ointment DAB        | 14277701    | 4       |
| Caelo    | Hydrophilic ointment DAB        | 14277801    | 8       |
| Caelo    | Hydrophilic ointment DAB        | 14277901    | 15      |
| Caelo    | Hydrophilic ointment DAB        | 14278002    | 2       |
| Caelo    | Hydrophilic ointment DAB        | 14278003    | 5       |
| Caelo    | Wool alcohol ointment DAB       | 14282801    | 11      |
| Caelo    | Wool alcohol ointment DAB       | 14282901    | 5       |
| Caelo    | Wool alcohol ointment DAB       | 14283001    | 15      |
| Caelo    | Wool alcohol ointment DAB       | 14283101    | 4       |
| Caelo    | Wool alcohol ointment DAB       | 14283102    | 11      |
| Caelo    | Wool alcohol ointment DAB       | 14283103    | 14      |
| Caelo    | Wool alcohol ointment DAB       | 1428801     | 1       |
| Caelo    | Paraffin, white                 | 14301804    | 23      |
| Caelo    | Paraffin, white                 | 14301805    | 16      |
| Caelo    | Eye paraffin                    | 14301806    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 143020402   | 1       |
| Caelo    | Hydrophobic base gel DAC        | 14304603    | 3       |
| Caelo    | Hydrophobic base gel DAC        | 14304604    | 1       |
| Caelo    | Hydrophobic base gel DAC        | 14304624    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Paraffin, white                 | 14324301         | 19      |
| Caelo    | Paraffin, white                 | 14324402         | 2       |
| Caelo    | Paraffin, yellow                | 14324501         | 11      |
| Caelo    | Paraffin, white                 | 14324601         | 7       |
| Caelo    | Paraffin, yellow                | 1432501          | 1       |
| Caelo    | Paraffin, white                 | 14347302         | 10      |
| Caelo    | Paraffin, white                 | 14355806         | 11      |
| Caelo    | Eye paraffin                    | 14551510         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1483101          | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A009           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A055           | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A056           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A063           | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A079           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A095           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A113           | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A114           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A115           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A116           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A117           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A143           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A172           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A173           | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A213           | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 14A312           | 1       |
| Caelo    | Eye ointment, emulsifying DAC   | 14B101018        | 1       |
| Caelo    | Eye ointment, emulsifying DAC   | 14C030815        | 1       |
| Caelo    | Paraffin, white                 | 14E30-T07-014286 | 1       |
| Caelo    | Paraffin, white                 | 14J03-T03-020831 | 1       |
| Caelo    | Paraffin, white                 | 14J03-Z03-020829 | 1       |
| Caelo    | Paraffin, white                 | 150(17038202)    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 15016501         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 15016502         | 10      |
| Caelo    | Hydrophilic ointment DAB        | 15016503         | 4       |
| Caelo    | Hydrophilic ointment DAB        | 15016601         | 19      |
| Caelo    | Hydrophilic ointment DAB        | 15016602         | 3       |
| Caelo    | Hydrophilic ointment DAB        | 15016701         | 8       |
| Caelo    | Hydrophilic ointment DAB        | 15016801         | 11      |
| Caelo    | Hydrophilic ointment DAB        | 15016901         | 12      |
| Caelo    | Paraffin, yellow                | 1503036-01       | 1       |
| Caelo    | Paraffin, white                 | 15031402         | 1       |
| Caelo    | Paraffin, white                 | 15031806         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 15034801         | 8       |
| Caelo    | Wool alcohol ointment DAB       | 15034901         | 5       |
| Caelo    | Wool alcohol ointment DAB       | 15035301         | 10      |
| Caelo    | Wool alcohol ointment DAB       | 15035501         | 6       |
| Caelo    | Wool alcohol ointment DAB       | 15035502         | 16      |
| Caelo    | Wool alcohol ointment DAB       | 15035503         | 3       |
| Caelo    | Paraffin, white                 | 15041305         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 15042014B        | 1       |
| Caelo    | Paraffin, white                 | 1504304          | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 15047002         | 3       |
| Caelo    | Wool alcohol ointment SR wit... | 15047003         | 2       |
| Caelo    | Wool alcohol ointment SR wit... | 15047004         | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 15047101         | 3       |
| Caelo    | Paraffin, white                 | 15050002         | 44      |
| Caelo    | Paraffin, white                 | 15050003         | 18      |
| Caelo    | Paraffin, white                 | 15050004         | 17      |
| Caelo    | Paraffin, white                 | 15050005         | 11      |
| Caelo    | Eye paraffin                    | 15050007         | 4       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch          | Spectra |
|----------|---------------------------------|----------------|---------|
| Caelo    | Eye paraffin                    | 1505002        | 2       |
| Caelo    | Eye paraffin                    | 1505003        | 1       |
| Caelo    | Hydrophobic base gel DAC        | 15055701       | 1       |
| Caelo    | Hydrophobic base gel DAC        | 15055702       | 2       |
| Caelo    | Hydrophobic base gel DAC        | 15055705       | 6       |
| Caelo    | Hydrophilic ointment DAB        | 15056002       | 1       |
| Caelo    | Paraffin, white                 | 15060003       | 13      |
| Caelo    | Paraffin, white                 | 15060004       | 6       |
| Caelo    | Paraffin, white                 | 15060005       | 10      |
| Caelo    | Paraffin, white                 | 15060006       | 8       |
| Caelo    | Paraffin, white                 | 15060007       | 3       |
| Caelo    | Paraffin, white                 | 15060008       | 4       |
| Caelo    | Paraffin, white                 | 15060011       | 2       |
| Caelo    | Paraffin, white                 | 15060012       | 5       |
| Caelo    | Paraffin, white                 | 15060013       | 5       |
| Caelo    | Paraffin, white                 | 15060014       | 15      |
| Caelo    | Paraffin, white                 | 1506005        | 1       |
| Caelo    | Paraffin, yellow                | 15063901       | 1       |
| Caelo    | Paraffin, yellow                | 15063902       | 5       |
| Caelo    | Paraffin, yellow                | 15063904       | 4       |
| Caelo    | Hydrophobic base gel DAC        | 15064001       | 5       |
| Caelo    | Hydrophobic base gel DAC        | 15064101       | 23      |
| Caelo    | Hydrophobic base gel DAC        | 15064201       | 5       |
| Caelo    | Paraffin, yellow                | 150717VF       | 1       |
| Caelo    | Paraffin, white                 | 15081406       | 1       |
| Caelo    | Paraffin, white                 | 1509019-01     | 1       |
| Caelo    | Hydrophilic ointment DAB        | 15097714       | 1       |
| Caelo    | Paraffin, white                 | 151 (17204209) | 1       |
| Caelo    | Paraffin, white                 | 15101308       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 15113602       | 1       |
| Caelo    | Paraffin, white                 | 15121407       | 1       |
| Caelo    | Hydrophobic base gel DAC        | 15149602       | 1       |
| Caelo    | Hydrophobic base gel DAC        | 15149603       | 3       |
| Caelo    | Hydrophobic base gel DAC        | 15149604       | 9       |
| Caelo    | Hydrophobic base gel DAC        | 15149605       | 3       |
| Caelo    | Eye paraffin                    | 151509         | 1       |
| Caelo    | Paraffin, white                 | 15162501       | 3       |
| Caelo    | Paraffin, white                 | 15162503       | 8       |
| Caelo    | Paraffin, white                 | 15162504       | 12      |
| Caelo    | Paraffin, white                 | 15162505       | 14      |
| Caelo    | Paraffin, white                 | 15162506       | 1       |
| Caelo    | Paraffin, white                 | 15162507       | 12      |
| Caelo    | Paraffin, white                 | 15162508       | 7       |
| Caelo    | Paraffin, white                 | 15162512       | 7       |
| Caelo    | Paraffin, white                 | 15162519       | 1       |
| Caelo    | Paraffin, white                 | 152 (17350004) | 1       |
| Caelo    | Paraffin, white                 | 15201301       | 1       |
| Caelo    | Paraffin, white                 | 15201303       | 1       |
| Caelo    | Paraffin, white                 | 15204301       | 12      |
| Caelo    | Paraffin, white                 | 15204302       | 12      |
| Caelo    | Paraffin, white                 | 15204303       | 24      |
| Caelo    | Paraffin, white                 | 15204304       | 6       |
| Caelo    | Hydrophobic base gel DAC        | 15205002       | 16      |
| Caelo    | Hydrophobic base gel DAC        | 15205101       | 3       |
| Caelo    | Emulsifying hydrophobic base... | 15205102       | 1       |
| Caelo    | Paraffin, white                 | 15219903       | 15      |
| Caelo    | Paraffin, yellow                | 15219904       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 15221501       | 5       |
| Caelo    | Hydrophilic ointment DAB        | 15221601       | 18      |
| Caelo    | Hydrophilic ointment DAB        | 15221602       | 8       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Hydrophilic ointment DAB        | 15221701            | 30      |
| Caelo    | Hydrophilic ointment DAB        | 15221801            | 7       |
| Caelo    | Hydrophilic ointment DAB        | 15221901            | 3       |
| Caelo    | Hydrophilic ointment DAB        | 15221902            | 6       |
| Caelo    | Wool alcohol ointment DAB       | 15225401            | 4       |
| Caelo    | Wool alcohol ointment DAB       | 15225501            | 11      |
| Caelo    | Wool alcohol ointment DAB       | 15225601            | 16      |
| Caelo    | Wool alcohol ointment DAB       | 1522802             | 1       |
| Caelo    | Wool alcohol ointment DAB       | 15228201            | 9       |
| Caelo    | Wool alcohol ointment DAB       | 15228202            | 26      |
| Caelo    | Hydrophobic base gel DAC        | 15240801            | 7       |
| Caelo    | Hydrophobic base gel DAC        | 15240802            | 2       |
| Caelo    | Hydrophobic base gel DAC        | 15240805            | 12      |
| Caelo    | Hydrophobic base gel DAC        | 15240806            | 2       |
| Caelo    | Hydrophobic base gel DAC        | 15240807            | 3       |
| Caelo    | Emulsifying hydrophobic base... | 15269102            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 15269201            | 17      |
| Caelo    | Wool alcohol ointment SR wit... | 15269302            | 2       |
| Caelo    | Wool alcohol ointment SR wit... | 15269303            | 1       |
| Caelo    | Emulsifying hydrophobic base... | 15276104            | 1       |
| Caelo    | Eye paraffin                    | 152778809           | 1       |
| Caelo    | Eye paraffin                    | 152788              | 2       |
| Caelo    | Eye paraffin                    | 1527880             | 1       |
| Caelo    | Paraffin, white                 | 15278801            | 27      |
| Caelo    | Eye paraffin                    | 15278801/20160309/5 | 1       |
| Caelo    | Eye paraffin                    | 15278802            | 2       |
| Caelo    | Eye paraffin                    | 15278803            | 5       |
| Caelo    | Eye paraffin                    | 15278803/170314VA   | 1       |
| Caelo    | Paraffin, white                 | 15278804            | 24      |
| Caelo    | Paraffin, white                 | 15278805            | 20      |
| Caelo    | Paraffin, white                 | 15278808            | 9       |
| Caelo    | Paraffin, white                 | 15278809            | 14      |
| Caelo    | Paraffin, white                 | 153(17204201)       | 1       |
| Caelo    | Paraffin, white                 | 15327602            | 1       |
| Caelo    | Paraffin, white                 | 15330401            | 11      |
| Caelo    | Paraffin, yellow                | 15330402            | 4       |
| Caelo    | Paraffin, white                 | 15330502            | 2       |
| Caelo    | Paraffin, white                 | 15330601            | 16      |
| Caelo    | Emulsifying hydrophobic base... | 15331101            | 2       |
| Caelo    | Hydrophobic base gel DAC        | 15331102            | 6       |
| Caelo    | Wool alcohol ointment SR wit... | 15334702            | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 15334703            | 1       |
| Caelo    | Paraffin, white                 | 15336808            | 4       |
| Caelo    | Paraffin, white                 | 15336809            | 7       |
| Caelo    | Paraffin, white                 | 15336810            | 4       |
| Caelo    | Paraffin, white                 | 15339801            | 1       |
| Caelo    | Paraffin, white                 | 15339805            | 3       |
| Caelo    | Paraffin, white                 | 15339806            | 19      |
| Caelo    | Paraffin, white                 | 15339807            | 18      |
| Caelo    | Paraffin, white                 | 15339808            | 16      |
| Caelo    | Paraffin, white                 | 15349701            | 13      |
| Caelo    | Paraffin, white                 | 15349702            | 14      |
| Caelo    | Paraffin, white                 | 15349705            | 1       |
| Caelo    | Paraffin, white                 | 15349706            | 5       |
| Caelo    | Paraffin, white                 | 15349707            | 4       |
| Caelo    | Paraffin, white                 | 15349708            | 15      |
| Caelo    | Paraffin, white                 | 15349709            | 4       |
| Caelo    | Paraffin, white                 | 15350017            | 1       |
| Caelo    | Paraffin, white                 | 15355806            | 1       |
| Caelo    | Paraffin, white                 | 15359105            | 9       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Wool alcohol ointment DAB       | 15361801      | 19      |
| Caelo    | Wool alcohol ointment DAB       | 15361901      | 14      |
| Caelo    | Wool alcohol ointment DAB       | 15362001      | 32      |
| Caelo    | Wool alcohol ointment DAB       | 15362002      | 13      |
| Caelo    | Wool alcohol ointment DAB       | 15362003      | 10      |
| Caelo    | Hydrophobic base gel DAC        | 15383005      | 1       |
| Caelo    | Paraffin, white                 | 154(18174302) | 1       |
| Caelo    | Hydrophilic ointment DAB        | 15400701      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 154035502     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 15407001      | 3       |
| Caelo    | Hydrophilic ointment DAB        | 15416401      | 17      |
| Caelo    | Hydrophilic ointment DAB        | 15416502      | 13      |
| Caelo    | Hydrophobic base gel DAC        | 15436102      | 8       |
| Caelo    | Hydrophobic base gel DAC        | 15436103      | 6       |
| Caelo    | Hydrophobic base gel DAC        | 15436105      | 3       |
| Caelo    | Hydrophobic base gel DAC        | 15436106      | 1       |
| Caelo    | Eye paraffin                    | 1544111       | 1       |
| Caelo    | Eye paraffin                    | 15441414      | 1       |
| Caelo    | Eye paraffin                    | 154415        | 2       |
| Caelo    | Paraffin, white                 | 1544150       | 1       |
| Caelo    | Paraffin, white                 | 15441501      | 27      |
| Caelo    | Paraffin, white                 | 15441502      | 35      |
| Caelo    | Paraffin, white                 | 15441504      | 43      |
| Caelo    | Paraffin, white                 | 15441505      | 35      |
| Caelo    | Paraffin, white                 | 15441506      | 12      |
| Caelo    | Eye paraffin                    | 15441508      | 1       |
| Caelo    | Paraffin, white                 | 15441509      | 37      |
| Caelo    | Paraffin, white                 | 15441510      | 36      |
| Caelo    | Paraffin, white                 | 15441511      | 59      |
| Caelo    | Eye paraffin                    | 15441513      | 1       |
| Caelo    | Paraffin, white                 | 15441514      | 79      |
| Caelo    | Paraffin, white                 | 15441515      | 7       |
| Caelo    | Paraffin, white                 | 1544159       | 1       |
| Caelo    | Eye paraffin                    | 1544514       | 2       |
| Caelo    | Paraffin, white                 | 155(18174304) | 1       |
| Caelo    | Paraffin, white                 | 156(18174312) | 1       |
| Caelo    | Paraffin, white                 | 157(18314803) | 1       |
| Caelo    | Eye paraffin                    | 1578809       | 1       |
| Caelo    | Emulsifying hydrophobic base... | 15964101      | 1       |
| Caelo    | Unguentum Cordes®               | 15a020        | 1       |
| Caelo    | Unguentum Cordes®               | 15A020        | 1       |
| Caelo    | Unguentum Cordes®               | 15A023        | 2       |
| Caelo    | Unguentum Cordes®               | 15A027        | 1       |
| Caelo    | Unguentum Cordes®               | 15A040        | 1       |
| Caelo    | Unguentum Cordes®               | 15A042        | 1       |
| Caelo    | Unguentum Cordes®               | 15A060        | 3       |
| Caelo    | Unguentum Cordes®               | 15A061        | 3       |
| Caelo    | Unguentum Cordes®               | 15A062        | 4       |
| Caelo    | Unguentum Cordes®               | 15a073        | 1       |
| Caelo    | Unguentum Cordes®               | 15A073        | 2       |
| Caelo    | Unguentum Cordes®               | 15A089        | 1       |
| Caelo    | Unguentum Cordes®               | 15A090        | 1       |
| Caelo    | Unguentum Cordes®               | 15A091        | 1       |
| Caelo    | Unguentum Cordes®               | 15A092        | 2       |
| Caelo    | Unguentum Cordes®               | 15A106        | 1       |
| Caelo    | Unguentum Cordes®               | 15A123        | 2       |
| Caelo    | Unguentum Cordes®               | 15a124        | 1       |
| Caelo    | Unguentum Cordes®               | 15A124        | 2       |
| Caelo    | Unguentum Cordes®               | 15A125        | 1       |
| Caelo    | Unguentum Cordes®               | 15A137        | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch                | Spectra |
|----------|-------------------------------|----------------------|---------|
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A139               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A141               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15a149               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A149               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A150               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A155               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A156               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A159               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A191               | 6       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 15A192               | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup> | 16/082/C             | 1       |
| Caelo    | Hydrophilic ointment DAB      | 16003101             | 1       |
| Caelo    | Wool alcohol ointment DAB     | 16007201             | 15      |
| Caelo    | Wool alcohol ointment DAB     | 16007202             | 13      |
| Caelo    | Wool alcohol ointment DAB     | 16007203             | 1       |
| Caelo    | Hydrophilic ointment DAB      | 16008701             | 25      |
| Caelo    | Hydrophilic ointment DAB      | 16008702             | 11      |
| Caelo    | Hydrophilic ointment DAB      | 16008901             | 8       |
| Caelo    | Hydrophilic ointment DAB      | 16009001             | 8       |
| Caelo    | Hydrophilic ointment DAB      | 16009101             | 29      |
| Caelo    | Hydrophilic ointment DAB      | 16009101-20160615Ma2 | 1       |
| Caelo    | Hydrophilic ointment DAB      | 16009101-20160615Ma3 | 1       |
| Caelo    | Hydrophilic ointment DAB      | 16009201             | 17      |
| Caelo    | Hydrophilic ointment DAB      | 16009202             | 1       |
| Caelo    | Hydrophilic ointment DAB      | 16009301             | 19      |
| Caelo    | Hydrophilic ointment DAB      | 16009401             | 10      |
| Caelo    | Paraffin, white               | 1602910              | 1       |
| Caelo    | Paraffin, white               | 16029208             | 1       |
| Caelo    | Paraffin, white               | 16029210             | 3       |
| Caelo    | Paraffin, white               | 16029211             | 15      |
| Caelo    | Paraffin, white               | 16029212             | 5       |
| Caelo    | Paraffin, white               | 16029213             | 5       |
| Caelo    | Paraffin, white               | 16029219             | 5       |
| Caelo    | Paraffin, white               | 16029220             | 9       |
| Caelo    | Paraffin, white               | 16029220/1170117     | 1       |
| Caelo    | Paraffin, white               | 16029221             | 7       |
| Caelo    | Paraffin, white               | 16029222             | 8       |
| Caelo    | Paraffin, yellow              | 16032502             | 3       |
| Caelo    | Paraffin, white               | 16032602             | 15      |
| Caelo    | Paraffin, yellow              | 16032603             | 5       |
| Caelo    | Hydrophilic ointment DAB      | 160408UE             | 1       |
| Caelo    | Eye paraffin                  | 160427VA0            | 1       |
| Caelo    | Paraffin, white               | 1605019-01           | 1       |
| Caelo    | Hydrophobic base gel DAC      | 16054201             | 29      |
| Caelo    | Hydrophobic base gel DAC      | 16054302             | 10      |
| Caelo    | Paraffin, yellow              | 1606029              | 1       |
| Caelo    | Paraffin, yellow              | 1606029-01           | 1       |
| Caelo    | Paraffin, white               | 16061403             | 1       |
| Caelo    | Wool alcohol ointment DAB     | 16066401             | 3       |
| Caelo    | Wool alcohol ointment DAB     | 16066501             | 10      |
| Caelo    | Wool alcohol ointment DAB     | 16066601             | 8       |
| Caelo    | Wool alcohol ointment DAB     | 16066701             | 5       |
| Caelo    | Wool alcohol ointment DAB     | 16066801             | 15      |
| Caelo    | Hydrophobic base gel DAC      | 160705               | 1       |
| Caelo    | Hydrophobic base gel DAC      | 1607050              | 1       |
| Caelo    | Hydrophobic base gel DAC      | 16070501             | 1       |
| Caelo    | Hydrophobic base gel DAC      | 16070502             | 5       |
| Caelo    | Hydrophobic base gel DAC      | 16070503             | 14      |
| Caelo    | Hydrophobic base gel DAC      | 16070505             | 6       |
| Caelo    | Paraffin, white               | 16071306             | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Paraffin, white                 | 16082701   | 2       |
| Caelo    | Wool alcohol ointment DAB       | 160905EA   | 1       |
| Caelo    | Paraffin, yellow                | 1609603    | 1       |
| Caelo    | Paraffin, yellow                | 16096903   | 10      |
| Caelo    | Paraffin, yellow                | 16096904   | 5       |
| Caelo    | Paraffin, yellow                | 16096905   | 2       |
| Caelo    | Paraffin, yellow                | 16096908   | 2       |
| Caelo    | Paraffin, yellow                | 16096910   | 1       |
| Caelo    | Paraffin, white                 | 16096913   | 27      |
| Caelo    | Paraffin, white                 | 1612007-01 | 3       |
| Caelo    | Eye paraffin                    | 16121502   | 1       |
| Caelo    | Paraffin, white                 | 161338003  | 1       |
| Caelo    | Paraffin, white                 | 16138002   | 2       |
| Caelo    | Paraffin, white                 | 16138003   | 22      |
| Caelo    | Paraffin, white                 | 16138004   | 27      |
| Caelo    | Hydrophobic base gel DAC        | 16140606   | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 16142802   | 2       |
| Caelo    | Wool alcohol ointment SR wit... | 16142803   | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1614U2539  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 16151101   | 7       |
| Caelo    | Hydrophobic base gel DAC        | 16151102   | 7       |
| Caelo    | Hydrophobic base gel DAC        | 16151105   | 13      |
| Caelo    | Hydrophobic base gel DAC        | 16151107   | 1       |
| Caelo    | Paraffin, yellow                | 161587801  | 1       |
| Caelo    | Paraffin, white                 | 16161901   | 1       |
| Caelo    | Hydrophilic ointment DAB        | 16166701   | 26      |
| Caelo    | Hydrophilic ointment DAB        | 16166801   | 52      |
| Caelo    | Hydrophilic ointment DAB        | 16166802   | 2       |
| Caelo    | Hydrophilic ointment DAB        | 16166901   | 19      |
| Caelo    | Hydrophilic ointment DAB        | 16166902   | 26      |
| Caelo    | Hydrophilic ointment DAB        | 16167001   | 26      |
| Caelo    | Hydrophilic ointment DAB        | 1616801    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1617001    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1617102    | 2       |
| Caelo    | Hydrophobic base gel DAC        | 16172201   | 11      |
| Caelo    | Hydrophobic base gel DAC        | 16172301   | 17      |
| Caelo    | Hydrophobic base gel DAC        | 16172401   | 19      |
| Caelo    | Emulsifying hydrophobic base... | 16172402   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 16177603   | 1       |
| Caelo    | Paraffin, white                 | 16181804   | 1       |
| Caelo    | Paraffin, white                 | 16181901   | 6       |
| Caelo    | Paraffin, white                 | 16181902   | 24      |
| Caelo    | Paraffin, white                 | 16181903   | 20      |
| Caelo    | Paraffin, white                 | 16181904   | 27      |
| Caelo    | Paraffin, white                 | 16181907   | 8       |
| Caelo    | Paraffin, white                 | 161819207  | 1       |
| Caelo    | Paraffin, yellow                | 1618701    | 1       |
| Caelo    | Paraffin, yellow                | 16187702   | 5       |
| Caelo    | Paraffin, yellow                | 16187801   | 8       |
| Caelo    | Wool alcohol ointment DAB       | 16196401   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 16198101   | 21      |
| Caelo    | Wool alcohol ointment DAB       | 16198301   | 5       |
| Caelo    | Wool alcohol ointment DAB       | 16198401   | 17      |
| Caelo    | Wool alcohol ointment DAB       | 16198501   | 26      |
| Caelo    | Wool alcohol ointment DAB       | 16198502   | 53      |
| Caelo    | Wool alcohol ointment DAB       | 16198503   | 8       |
| Caelo    | Wool alcohol ointment DAB       | 16198601   | 30      |
| Caelo    | Paraffin, white                 | 16224704   | 1       |
| Caelo    | Emulsifying hydrophobic base... | 16225902   | 2       |
| Caelo    | Hydrophobic base gel DAC        | 16226002   | 11      |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Paraffin, white                 | 16227401             | 2       |
| Caelo    | Paraffin, white                 | 16227402             | 9       |
| Caelo    | Paraffin, white                 | 16227403             | 8       |
| Caelo    | Paraffin, white                 | 16227404             | 30      |
| Caelo    | Paraffin, white                 | 16227405             | 13      |
| Caelo    | Paraffin, white                 | 16227406             | 20      |
| Caelo    | Paraffin, white                 | 16227411             | 9       |
| Caelo    | Paraffin, white                 | 16227412             | 14      |
| Caelo    | Hydrophilic ointment DAB        | 1622801              | 1       |
| Caelo    | Paraffin, liquid                | 16238803             | 1       |
| Caelo    | Hydrophobic base gel DAC        | 16240104             | 6       |
| Caelo    | Hydrophobic base gel DAC        | 16240105             | 11      |
| Caelo    | Hydrophobic base gel DAC        | 16240107             | 9       |
| Caelo    | Hydrophobic base gel DAC        | 16240110             | 1       |
| Caelo    | Hydrophobic base gel DAC        | 16240111             | 6       |
| Caelo    | Hydrophobic base gel DAC        | 16240112             | 10      |
| Caelo    | Hydrophobic base gel DAC        | 16240114             | 10      |
| Caelo    | Paraffin, white                 | 16241105             | 5       |
| Caelo    | Wool alcohol ointment DAB       | 16248802             | 3       |
| Caelo    | Wool alcohol ointment SR wit... | 1625102              | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 16251301             | 2       |
| Caelo    | Wool alcohol ointment SR wit... | 16251302             | 8       |
| Caelo    | Wool alcohol ointment SR wit... | 16251303             | 2       |
| Caelo    | Paraffin, white                 | 16271807             | 44      |
| Caelo    | Eye paraffin                    | 16271808             | 4       |
| Caelo    | Paraffin, white                 | 16271810             | 48      |
| Caelo    | Paraffin, white                 | 16272001             | 1       |
| Caelo    | Paraffin, white                 | 16272002             | 15      |
| Caelo    | Paraffin, white                 | 16272003             | 13      |
| Caelo    | Paraffin, white                 | 16272004             | 6       |
| Caelo    | Paraffin, white                 | 16272008             | 2       |
| Caelo    | Paraffin, white                 | 16272009             | 9       |
| Caelo    | Paraffin, white                 | 16272010             | 16      |
| Caelo    | Paraffin, white                 | 16272017             | 17      |
| Caelo    | Paraffin, white                 | 16272018             | 3       |
| Caelo    | Paraffin, white                 | 16272990             | 1       |
| Caelo    | Eye paraffin                    | 1627810              | 1       |
| Caelo    | Paraffin, yellow                | 16281001             | 27      |
| Caelo    | Paraffin, yellow                | 16281002             | 4       |
| Caelo    | Paraffin, yellow                | 1628101              | 1       |
| Caelo    | Hydrophilic ointment DAB        | 16282401             | 23      |
| Caelo    | Hydrophilic ointment DAB        | 16282402             | 28      |
| Caelo    | Hydrophilic ointment DAB        | 16282403             | 1       |
| Caelo    | Hydrophilic ointment DAB        | 16282501             | 7       |
| Caelo    | Hydrophilic ointment DAB        | 16282702             | 8       |
| Caelo    | Hydrophilic ointment DAB        | 16282801             | 11      |
| Caelo    | Hydrophilic ointment DAB        | 1628401              | 1       |
| Caelo    | Hydrophilic ointment DAB        | 16288602             | 1       |
| Caelo    | Wool alcohol ointment DAB       | 16295101             | 16      |
| Caelo    | Wool alcohol ointment DAB       | 16295102             | 5       |
| Caelo    | Wool alcohol ointment DAB       | 16298502             | 1       |
| Caelo    | Paraffin, white                 | 16326702             | 58      |
| Caelo    | Paraffin, white                 | 16326702-20170704Ma3 | 1       |
| Caelo    | Paraffin, white                 | 16326707             | 4       |
| Caelo    | Wool alcohol ointment DAB       | 16331701             | 13      |
| Caelo    | Wool alcohol ointment DAB       | 16331702             | 33      |
| Caelo    | Wool alcohol ointment DAB       | 163317025398         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 16331704             | 4       |
| Caelo    | Wool alcohol ointment DAB       | 16331801             | 3       |
| Caelo    | Wool alcohol ointment DAB       | 16331802             | 4       |

continued on the next page

continued from previous page

| Supplier | Substance                 | Batch             | Spectra |
|----------|---------------------------|-------------------|---------|
| Caelo    | Wool alcohol ointment DAB | 16331901          | 20      |
| Caelo    | Paraffin, white           | 1672017           | 1       |
| Caelo    | Hydrophilic ointment DAB  | 1682401           | 2       |
| Caelo    | Paraffin, white           | 16872018          | 1       |
| Caelo    | Unguentum Cordes®         | 16A010            | 1       |
| Caelo    | Unguentum Cordes®         | 16A013            | 1       |
| Caelo    | Unguentum Cordes®         | 16A022            | 1       |
| Caelo    | Unguentum Cordes®         | 16A045            | 1       |
| Caelo    | Unguentum Cordes®         | 16A047            | 1       |
| Caelo    | Unguentum Cordes®         | 16A048            | 1       |
| Caelo    | Unguentum Cordes®         | 16A051            | 2       |
| Caelo    | Unguentum Cordes®         | 16A058            | 5       |
| Caelo    | Unguentum Cordes®         | 16A072            | 1       |
| Caelo    | Unguentum Cordes®         | 16A073            | 1       |
| Caelo    | Unguentum Cordes®         | 16A077            | 1       |
| Caelo    | Unguentum Cordes®         | 16A083            | 3       |
| Caelo    | Unguentum Cordes®         | 16A085            | 1       |
| Caelo    | Unguentum Cordes®         | 16A085            | 5       |
| Caelo    | Unguentum Cordes®         | 16A099            | 5       |
| Caelo    | Unguentum Cordes®         | 16A101            | 1       |
| Caelo    | Unguentum Cordes®         | 16A102            | 7       |
| Caelo    | Unguentum Cordes®         | 16A119            | 1       |
| Caelo    | Unguentum Cordes®         | 16A122            | 4       |
| Caelo    | Unguentum Cordes®         | 16A123            | 2       |
| Caelo    | Unguentum Cordes®         | 16A137            | 3       |
| Caelo    | Unguentum Cordes®         | 16A139            | 1       |
| Caelo    | Unguentum Cordes®         | 16A140            | 3       |
| Caelo    | Unguentum Cordes®         | 16A141            | 1       |
| Caelo    | Unguentum Cordes®         | 16A142            | 4       |
| Caelo    | Unguentum Cordes®         | 16A143            | 1       |
| Caelo    | Unguentum Cordes®         | 16A144            | 4       |
| Caelo    | Unguentum Cordes®         | 16A153            | 4       |
| Caelo    | Unguentum Cordes®         | 16A173            | 1       |
| Caelo    | Unguentum Cordes®         | 16A176            | 3       |
| Caelo    | Unguentum Cordes®         | 16A183            | 3       |
| Caelo    | Unguentum Cordes®         | 16A184            | 8       |
| Caelo    | Unguentum Cordes®         | 16A210            | 2       |
| Caelo    | Unguentum Cordes®         | 16A239            | 1       |
| Caelo    | Unguentum Cordes®         | 16A044            | 1       |
| Caelo    | Unguentum Cordes®         | 16A074            | 1       |
| Caelo    | Hydrophilic ointment DAB  | 16K09-T02-038560  | 1       |
| Caelo    | Hydrophilic ointment DAB  | 16K09-T03-03854   | 1       |
| Caelo    | Paraffin, white           | 17000584          | 3       |
| Caelo    | Hydrophobic base gel DAC  | 17001133          | 1       |
| Caelo    | Paraffin, white           | 17011309          | 1       |
| Caelo    | Eye paraffin              | 1702009           | 1       |
| Caelo    | Paraffin, white           | 170203VA/16181901 | 1       |
| Caelo    | Hydrophobic base gel DAC  | 17032102          | 2       |
| Caelo    | Hydrophobic base gel DAC  | 17032201          | 12      |
| Caelo    | Hydrophobic base gel DAC  | 17032303          | 32      |
| Caelo    | Paraffin, white           | 170350007         | 1       |
| Caelo    | Paraffin, white           | 17038201          | 5       |
| Caelo    | Paraffin, white           | 17038202          | 19      |
| Caelo    | Paraffin, white           | 17038203          | 19      |
| Caelo    | Paraffin, white           | 17038204          | 11      |
| Caelo    | Paraffin, white           | 170382045420      | 1       |
| Caelo    | Paraffin, white           | 17038206          | 1       |
| Caelo    | Paraffin, white           | 170382063         | 1       |
| Caelo    | Paraffin, white           | 17038212          | 21      |
| Caelo    | Paraffin, white           | 17038213          | 6       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Paraffin, white                 | 17038215           | 5       |
| Caelo    | Paraffin, white                 | 17038219           | 44      |
| Caelo    | Hydrophilic ointment DAB        | 17040201           | 32      |
| Caelo    | Hydrophilic ointment DAB        | 17040202           | 8       |
| Caelo    | Hydrophilic ointment DAB        | 1704021            | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17040301           | 39      |
| Caelo    | Hydrophilic ointment DAB        | 17040315375        | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17040501           | 15      |
| Caelo    | Hydrophilic ointment DAB        | 17040601           | 10      |
| Caelo    | Paraffin, white                 | 1704209-1703824    | 1       |
| Caelo    | Hydrophobic base gel DAC        | 17043604           | 5       |
| Caelo    | Hydrophobic base gel DAC        | 17043605           | 11      |
| Caelo    | Hydrophobic base gel DAC        | 17043606           | 5       |
| Caelo    | Wool alcohol ointment DAB       | 1704903            | 1       |
| Caelo    | Paraffin, white                 | 1705015-01         | 3       |
| Caelo    | Eye paraffin                    | 17050212           | 1       |
| Caelo    | Eye paraffin                    | 170520             | 1       |
| Caelo    | Paraffin, white                 | 17052001           | 87      |
| Caelo    | Paraffin, white                 | 17052002           | 1       |
| Caelo    | Paraffin, white                 | 17052003           | 40      |
| Caelo    | Eye paraffin                    | 17052005           | 1       |
| Caelo    | Eye paraffin                    | 17052007           | 5       |
| Caelo    | Paraffin, white                 | 17052008           | 26      |
| Caelo    | Paraffin, white                 | 17052009           | 14      |
| Caelo    | Paraffin, white                 | 17052010           | 103     |
| Caelo    | Eye paraffin                    | 17052010P-190409-1 | 1       |
| Caelo    | Paraffin, white                 | 17052012           | 57      |
| Caelo    | Eye paraffin                    | 1705210            | 1       |
| Caelo    | Paraffin, yellow                | 17052401           | 28      |
| Caelo    | Paraffin, yellow                | 17052402           | 12      |
| Caelo    | Wool alcohol ointment DAB       | 170531811          | 1       |
| Caelo    | Paraffin, yellow                | 1705402            | 1       |
| Caelo    | Eye paraffin                    | 170552003          | 1       |
| Caelo    | Hydrophilic ointment DAB        | 170614183          | 1       |
| Caelo    | Eye paraffin                    | 17061704           | 1       |
| Caelo    | Hydrophilic ointment DAB        | 170683301          | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1708002            | 1       |
| Caelo    | Paraffin, white                 | 17081202           | 1       |
| Caelo    | Paraffin, yellow                | 17082015E          | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17083002           | 51      |
| Caelo    | Hydrophilic ointment DAB        | 17083004           | 6       |
| Caelo    | Hydrophilic ointment DAB        | 17083102           | 4       |
| Caelo    | Hydrophilic ointment DAB        | 17083103           | 7       |
| Caelo    | Hydrophilic ointment DAB        | 17083201           | 14      |
| Caelo    | Hydrophilic ointment DAB        | 17083202           | 7       |
| Caelo    | Hydrophilic ointment DAB        | 17083301           | 15      |
| Caelo    | Hydrophilic ointment DAB        | 170905UE/16167001  | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17093002           | 1       |
| Caelo    | Paraffin, white                 | 17101410           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 17104901           | 22      |
| Caelo    | Wool alcohol ointment DAB       | 17104902           | 34      |
| Caelo    | Wool alcohol ointment DAB       | 17104903           | 17      |
| Caelo    | Wool alcohol ointment SR wit... | 17105001           | 30      |
| Caelo    | Wool alcohol ointment DAB       | 17105101           | 4       |
| Caelo    | Wool alcohol ointment DAB       | 17105401           | 34      |
| Caelo    | Wool alcohol ointment DAB       | 171054101          | 1       |
| Caelo    | Paraffin, white                 | 17106001           | 23      |
| Caelo    | Paraffin, white                 | 17106002           | 29      |
| Caelo    | Paraffin, white                 | 17106004           | 12      |
| Caelo    | Paraffin, white                 | 17106005           | 42      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Paraffin, white                 | 17106008           | 3       |
| Caelo    | Paraffin, white                 | 1710650            | 1       |
| Caelo    | Paraffin, white                 | 171065005          | 1       |
| Caelo    | Paraffin, white                 | 171114VA/16241105  | 1       |
| Caelo    | Paraffin, white                 | 17111801           | 1       |
| Caelo    | Eye paraffin                    | 17111804           | 1       |
| Caelo    | Eye paraffin                    | 171123VPA/16271808 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 17113702           | 25      |
| Caelo    | Hydrophobic base gel DAC        | 17113703           | 62      |
| Caelo    | Emulsifying hydrophobic base... | 171137703          | 1       |
| Caelo    | Paraffin, white                 | 1712008-01         | 2       |
| Caelo    | Paraffin, white                 | 17121206           | 1       |
| Caelo    | Paraffin, yellow                | 17130401           | 1       |
| Caelo    | Paraffin, yellow                | 17130402           | 9       |
| Caelo    | Wool alcohol ointment SR/DAC    | 17133102           | 1       |
| Caelo    | Emulsifying hydrophobic base... | 17133703           | 1       |
| Caelo    | Eye paraffin                    | 171342007          | 5       |
| Caelo    | Eye paraffin                    | 171342015          | 1       |
| Caelo    | Wool alcohol ointment DAB       | 17141201           | 5       |
| Caelo    | Wool alcohol ointment DAB       | 17141202           | 37      |
| Caelo    | Wool alcohol ointment DAB       | 17141203           | 58      |
| Caelo    | Wool alcohol ointment DAB       | 171412035537       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 17141401           | 34      |
| Caelo    | Wool alcohol ointment DAB       | 17141404           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 17141601           | 4       |
| Caelo    | Hydrophilic ointment DAB        | 17156302           | 4       |
| Caelo    | Hydrophilic ointment DAB        | 17156401           | 15      |
| Caelo    | Paraffin, yellow                | 17162901           | 1       |
| Caelo    | Paraffin, yellow                | 17162903           | 1       |
| Caelo    | Paraffin, yellow                | 17162904           | 3       |
| Caelo    | Paraffin, yellow                | 17162906           | 5       |
| Caelo    | Hydrophobic base gel DAC        | 1716707            | 1       |
| Caelo    | Unguentum Cordes®               | 1717004            | 1       |
| Caelo    | Hydrophilic ointment DAB        | 171855001          | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17185501           | 36      |
| Caelo    | Hydrophilic ointment DAB        | 17185502           | 11      |
| Caelo    | Hydrophilic ointment DAB        | 17186601           | 1       |
| Caelo    | Hydrophobic base gel DAC        | 17196703           | 5       |
| Caelo    | Hydrophobic base gel DAC        | 17196704           | 24      |
| Caelo    | Hydrophobic base gel DAC        | 17196705           | 9       |
| Caelo    | Hydrophobic base gel DAC        | 17196706           | 2       |
| Caelo    | Hydrophobic base gel DAC        | 17196707           | 5       |
| Caelo    | Hydrophobic base gel DAC        | 17196708           | 1       |
| Caelo    | Hydrophobic base gel DAC        | 17196709           | 6       |
| Caelo    | Hydrophobic base gel DAC        | 17196712           | 27      |
| Caelo    | Hydrophobic base gel DAC        | 17196713           | 5       |
| Caelo    | Hydrophobic base gel DAC        | 17196714           | 2       |
| Caelo    | Hydrophobic base gel DAC        | 17196715           | 3       |
| Caelo    | Emulsifying hydrophobic base... | 17197901           | 1       |
| Caelo    | Paraffin, white                 | 1720401            | 1       |
| Caelo    | Paraffin, white                 | 1720420            | 1       |
| Caelo    | Paraffin, white                 | 17204201           | 58      |
| Caelo    | Paraffin, white                 | 17204203           | 4       |
| Caelo    | Paraffin, white                 | 17204204           | 9       |
| Caelo    | Paraffin, white                 | 17204207           | 11      |
| Caelo    | Paraffin, white                 | 17204209           | 16      |
| Caelo    | Wool alcohol ointment DAB       | 17206001           | 30      |
| Caelo    | Wool alcohol ointment DAB       | 17206202           | 6       |
| Caelo    | Paraffin, yellow                | 17223102           | 19      |
| Caelo    | Paraffin, yellow                | 17223103           | 8       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Hydrophilic ointment DAB        | 17254501             | 1       |
| Caelo    | Unguentum Cordes®               | 17255301             | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1726001              | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17262701             | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17290601             | 4       |
| Caelo    | Hydrophilic ointment DAB        | 17290603             | 10      |
| Caelo    | Hydrophilic ointment DAB        | 17290701             | 45      |
| Caelo    | Hydrophilic ointment DAB        | 17290702             | 35      |
| Caelo    | Hydrophilic ointment DAB        | 17290703             | 23      |
| Caelo    | Hydrophilic ointment DAB        | 17290801             | 35      |
| Caelo    | Paraffin, white                 | 1730005              | 1       |
| Caelo    | Paraffin, yellow                | 173003501            | 1       |
| Caelo    | Wool alcohol ointment DAB       | 17300901             | 2       |
| Caelo    | Wool alcohol ointment DAB       | 17300902             | 25      |
| Caelo    | Wool alcohol ointment DAB       | 17301001             | 35      |
| Caelo    | Wool alcohol ointment DAB       | 17301101             | 29      |
| Caelo    | Paraffin, yellow                | 17303401             | 24      |
| Caelo    | Paraffin, white                 | 17303501             | 47      |
| Caelo    | Paraffin, yellow                | 17303501P-180920-4   | 1       |
| Caelo    | Paraffin, yellow                | 17303503             | 4       |
| Caelo    | Wool alcohol ointment SR wit... | 17319101             | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 17319102             | 2       |
| Caelo    | Eye paraffin                    | 1732008              | 2       |
| Caelo    | Hydrophobic base gel DAC        | 17320408             | 3       |
| Caelo    | Hydrophobic base gel DAC        | 17320409             | 22      |
| Caelo    | Paraffin, liquid                | 17321503             | 1       |
| Caelo    | Paraffin, liquid                | 17321506             | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17330202             | 6       |
| Caelo    | Hydrophilic ointment DAB        | 17330301             | 88      |
| Caelo    | Hydrophilic ointment DAB        | 17330301-H20190115Ma | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17330302             | 18      |
| Caelo    | Hydrophilic ointment DAB        | 17330303             | 7       |
| Caelo    | Hydrophilic ointment DAB        | 1733031              | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17330401             | 13      |
| Caelo    | Hydrophilic ointment DAB        | 17330402             | 25      |
| Caelo    | Hydrophilic ointment DAB        | 17330501             | 33      |
| Caelo    | Hydrophilic ointment DAB        | 1733051              | 1       |
| Caelo    | Hydrophilic ointment DAB        | 17330601             | 24      |
| Caelo    | Hydrophilic ointment DAB        | 1733501              | 1       |
| Caelo    | Eye paraffin                    | 173402016            | 1       |
| Caelo    | Eye paraffin                    | 17342001             | 12      |
| Caelo    | Paraffin, white                 | 17342005             | 22      |
| Caelo    | Eye paraffin                    | 173420055675         | 1       |
| Caelo    | Paraffin, white                 | 17342006             | 18      |
| Caelo    | Eye paraffin                    | 17342007             | 26      |
| Caelo    | Paraffin, white                 | 17342008             | 45      |
| Caelo    | Eye paraffin                    | 17342009             | 1       |
| Caelo    | Eye paraffin                    | 1734201              | 1       |
| Caelo    | Eye paraffin                    | 17342013             | 3       |
| Caelo    | Eye paraffin                    | 17342014             | 28      |
| Caelo    | Paraffin, white                 | 17342015             | 33      |
| Caelo    | Paraffin, white                 | 17342016             | 49      |
| Caelo    | Eye paraffin                    | 17342016P-190718-4   | 1       |
| Caelo    | Eye paraffin                    | 17345005             | 1       |
| Caelo    | Paraffin, white                 | 17347003             | 1       |
| Caelo    | Paraffin, white                 | 17347801             | 23      |
| Caelo    | Paraffin, white                 | 17347802             | 25      |
| Caelo    | Paraffin, white                 | 17347802-V20181115Ma | 1       |
| Caelo    | Paraffin, white                 | 17347803             | 1       |
| Caelo    | Paraffin, white                 | 17347901             | 11      |

continued on the next page

continued from previous page

| Supplier | Substance                 | Batch            | Spectra |
|----------|---------------------------|------------------|---------|
| Caelo    | Paraffin, white           | 17347901/2110418 | 1       |
| Caelo    | Paraffin, white           | 17347902         | 8       |
| Caelo    | Paraffin, white           | 17347903         | 15      |
| Caelo    | Paraffin, white           | 17350002         | 3       |
| Caelo    | Paraffin, white           | 17350003         | 2       |
| Caelo    | Paraffin, white           | 17350004         | 17      |
| Caelo    | Paraffin, white           | 17350005         | 11      |
| Caelo    | Paraffin, white           | 17350006         | 2       |
| Caelo    | Paraffin, white           | 17350007         | 6       |
| Caelo    | Paraffin, white           | 17350013         | 11      |
| Caelo    | Paraffin, white           | 17350014         | 19      |
| Caelo    | Paraffin, white           | 17350015         | 2       |
| Caelo    | Paraffin, white           | 17350016         | 24      |
| Caelo    | Paraffin, white           | 17350017         | 14      |
| Caelo    | Paraffin, white           | 17350018         | 5       |
| Caelo    | Paraffin, white           | 17350019         | 1       |
| Caelo    | Eye paraffin              | 17352016         | 1       |
| Caelo    | Wool alcohol ointment DAB | 17411202         | 1       |
| Caelo    | Eye paraffin              | 17432008         | 1       |
| Caelo    | Paraffin, white           | 17560004         | 1       |
| Caelo    | Unguentum Cordes®         | 17A002           | 2       |
| Caelo    | Unguentum Cordes®         | 17A0025376       | 1       |
| Caelo    | Unguentum Cordes®         | 17A003           | 8       |
| Caelo    | Unguentum Cordes®         | 17a004           | 1       |
| Caelo    | Unguentum Cordes®         | 17A004           | 5       |
| Caelo    | Unguentum Cordes®         | 17a005           | 1       |
| Caelo    | Unguentum Cordes®         | 17A005           | 4       |
| Caelo    | Unguentum Cordes®         | 17A007           | 1       |
| Caelo    | Unguentum Cordes®         | 17A045           | 6       |
| Caelo    | Unguentum Cordes®         | 17A051           | 1       |
| Caelo    | Unguentum Cordes®         | 17A053           | 2       |
| Caelo    | Unguentum Cordes®         | 17A054           | 1       |
| Caelo    | Unguentum Cordes®         | 17a055           | 1       |
| Caelo    | Unguentum Cordes®         | 17A055           | 2       |
| Caelo    | Unguentum Cordes®         | 17A067           | 4       |
| Caelo    | Unguentum Cordes®         | 17A069           | 1       |
| Caelo    | Unguentum Cordes®         | 17A070           | 3       |
| Caelo    | Unguentum Cordes®         | 17a084           | 1       |
| Caelo    | Unguentum Cordes®         | 17A084           | 6       |
| Caelo    | Unguentum Cordes®         | 17a085           | 1       |
| Caelo    | Unguentum Cordes®         | 17A085           | 5       |
| Caelo    | Unguentum Cordes®         | 17a087           | 1       |
| Caelo    | Unguentum Cordes®         | 17A087           | 4       |
| Caelo    | Unguentum Cordes®         | 17A098           | 2       |
| Caelo    | Unguentum Cordes®         | 17A101           | 2       |
| Caelo    | Unguentum Cordes®         | 17A104           | 3       |
| Caelo    | Unguentum Cordes®         | 17A105           | 1       |
| Caelo    | Unguentum Cordes®         | 17A112           | 1       |
| Caelo    | Unguentum Cordes®         | 17A113           | 7       |
| Caelo    | Unguentum Cordes®         | 17A126           | 3       |
| Caelo    | Unguentum Cordes®         | 17A127           | 4       |
| Caelo    | Unguentum Cordes®         | 17A142           | 6       |
| Caelo    | Unguentum Cordes®         | 17A163           | 2       |
| Caelo    | Unguentum Cordes®         | 17A164           | 2       |
| Caelo    | Unguentum Cordes®         | 17A202           | 1       |
| Caelo    | Unguentum Cordes®         | 17A217           | 2       |
| Caelo    | Unguentum Cordes®         | 17A085           | 1       |
| Caelo    | Hydrophilic ointment DAB  | 17E04-T08-044042 | 2       |
| Caelo    | Hydrophilic ointment DAB  | 17I11-T03-048188 | 3       |
| Caelo    | Hydrophobic base gel DAC  | 17L22-T02-054697 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Paraffin, white                 | 17L22-T05-056478  | 1       |
| Caelo    | Paraffin, white                 | 17L22-T05-056479  | 1       |
| Caelo    | Paraffin, white                 | 18000101          | 3       |
| Caelo    | Wool alcohol ointment DAB       | 18001094          | 2       |
| Caelo    | Wool alcohol ointment DAB       | 18001095          | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18001099          | 1       |
| Caelo    | Hydrophilic ointment DAB        | 18001503          | 1       |
| Caelo    | Paraffin, white                 | 18002023          | 1       |
| Caelo    | Paraffin, white                 | 18002117          | 4       |
| Caelo    | Hydrophobic base gel DAC        | 18003235          | 1       |
| Caelo    | Paraffin, white                 | 18003484          | 3       |
| Caelo    | Hydrophobic base gel DAC        | 18004042          | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18004043          | 1       |
| Caelo    | Hydrophilic ointment DAB        | 18004578          | 1       |
| Caelo    | Hydrophilic ointment DAB        | 18004580          | 1       |
| Caelo    | Paraffin, white                 | 18005001          | 8       |
| Caelo    | Paraffin, white                 | 18005004          | 1       |
| Caelo    | Paraffin, white                 | 18005015          | 33      |
| Caelo    | Paraffin, white                 | 18005016          | 20      |
| Caelo    | Paraffin, white                 | 18005017          | 3       |
| Caelo    | Paraffin, white                 | 18005023          | 31      |
| Caelo    | Paraffin, white                 | 18005025          | 1       |
| Caelo    | Paraffin, white                 | 18005029          | 5       |
| Caelo    | Paraffin, white                 | 18005031          | 7       |
| Caelo    | Paraffin, white                 | 18005033          | 34      |
| Caelo    | Paraffin, white                 | 18005034          | 3       |
| Caelo    | Paraffin, white                 | 18005039          | 14      |
| Caelo    | Paraffin, white                 | 18005040          | 1       |
| Caelo    | Paraffin, white                 | 1800505           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 18005546          | 2       |
| Caelo    | Paraffin, white                 | 18005698          | 9       |
| Caelo    | Paraffin, white                 | 18006401          | 35      |
| Caelo    | Paraffin, white                 | 18006402          | 2       |
| Caelo    | Paraffin, white                 | 18006404          | 17      |
| Caelo    | Paraffin, white                 | 18006406          | 18      |
| Caelo    | Paraffin, white                 | 18006410          | 1       |
| Caelo    | Eye paraffin                    | 180206AV/17052002 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 180207501         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 180207502         | 1       |
| Caelo    | Unguentum Cordes®               | 18025702          | 1       |
| Caelo    | Paraffin, white                 | 1804011-01        | 1       |
| Caelo    | Paraffin, yellow                | 1804012-01        | 1       |
| Caelo    | Paraffin, white                 | 18041315          | 1       |
| Caelo    | Paraffin, white                 | 18041504          | 1       |
| Caelo    | Wool alcohol ointment DAB       | 18066901          | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 18074502          | 8       |
| Caelo    | Hydrophobic base gel DAC        | 18075802          | 24      |
| Caelo    | Hydrophobic base gel DAC        | 18075803          | 55      |
| Caelo    | Emulsifying hydrophobic base... | 18075804          | 1       |
| Caelo    | Paraffin, white                 | 1808001-01        | 1       |
| Caelo    | Hydrophilic ointment DAB        | 180808183         | 1       |
| Caelo    | Paraffin, yellow                | 180912015         | 1       |
| Caelo    | Paraffin, yellow                | 18092001          | 4       |
| Caelo    | Paraffin, yellow                | 18092002          | 10      |
| Caelo    | Paraffin, yellow                | 18092006          | 1       |
| Caelo    | Paraffin, yellow                | 18092008          | 6       |
| Caelo    | Paraffin, yellow                | 18092010          | 3       |
| Caelo    | Paraffin, white                 | 18092014          | 19      |
| Caelo    | Paraffin, yellow                | 18092015          | 6       |
| Caelo    | Paraffin, liquid                | 18110311          | 1       |

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continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Eye paraffin                    | 18121707             | 1       |
| Caelo    | Wool alcohol ointment DAB       | 18132501             | 35      |
| Caelo    | Wool alcohol ointment DAB       | 18132603             | 36      |
| Caelo    | Wool alcohol ointment DAB       | 18132603-W20181115Ma | 1       |
| Caelo    | Wool alcohol ointment DAB       | 18132604             | 21      |
| Caelo    | Wool alcohol ointment DAB       | 18132606             | 2       |
| Caelo    | Wool alcohol ointment DAB       | 181352501            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 181400604            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18140603             | 5       |
| Caelo    | Hydrophobic base gel DAC        | 18140604             | 11      |
| Caelo    | Hydrophobic base gel DAC        | 18140605             | 11      |
| Caelo    | Hydrophobic base gel DAC        | 18140606             | 27      |
| Caelo    | Hydrophobic base gel DAC        | 18140607             | 12      |
| Caelo    | Paraffin, white                 | 1814301              | 1       |
| Caelo    | Unguentum Cordes®               | 18167702             | 3       |
| Caelo    | Paraffin, white                 | 18174301             | 17      |
| Caelo    | Paraffin, white                 | 18174302             | 12      |
| Caelo    | Paraffin, white                 | 18174303             | 11      |
| Caelo    | Paraffin, white                 | 18174304             | 16      |
| Caelo    | Paraffin, white                 | 18174305             | 2       |
| Caelo    | Paraffin, white                 | 18174307             | 3       |
| Caelo    | Paraffin, white                 | 18174310             | 1       |
| Caelo    | Paraffin, white                 | 18174311             | 6       |
| Caelo    | Paraffin, white                 | 18174312             | 30      |
| Caelo    | Paraffin, white                 | 18174314             | 8       |
| Caelo    | Paraffin, white                 | 18174317             | 4       |
| Caelo    | Paraffin, white                 | 18174604             | 1       |
| Caelo    | Paraffin, liquid                | 18177001             | 2       |
| Caelo    | Paraffin, liquid                | 18177004             | 1       |
| Caelo    | Paraffin, liquid                | 18177007             | 3       |
| Caelo    | Paraffin, liquid                | 18177008             | 5       |
| Caelo    | Paraffin, liquid                | 181777004            | 1       |
| Caelo    | Eye paraffin                    | 1817916              | 3       |
| Caelo    | Eye paraffin                    | 1817917              | 1       |
| Caelo    | Paraffin, white                 | 181797002            | 35      |
| Caelo    | Eye paraffin                    | 181797003            | 2       |
| Caelo    | Eye paraffin                    | 18179702             | 2       |
| Caelo    | Paraffin, white                 | 18179703             | 27      |
| Caelo    | Paraffin, white                 | 18179704             | 24      |
| Caelo    | Paraffin, white                 | 18179716             | 91      |
| Caelo    | Paraffin, white                 | 18179717             | 100     |
| Caelo    | Eye paraffin                    | 18179718             | 6       |
| Caelo    | Eye paraffin                    | 1817976              | 1       |
| Caelo    | Eye paraffin                    | 18179797002          | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 18189901             | 2       |
| Caelo    | Wool alcohol ointment SR wit... | 18189903             | 2       |
| Caelo    | Paraffin, yellow                | 18191503             | 23      |
| Caelo    | Paraffin, yellow                | 18191504             | 8       |
| Caelo    | Eye paraffin                    | 1819717              | 1       |
| Caelo    | Hydrophilic ointment DAB        | 18207501             | 22      |
| Caelo    | Hydrophilic ointment DAB        | 18207502             | 40      |
| Caelo    | Hydrophilic ointment DAB        | 18207503             | 8       |
| Caelo    | Hydrophilic ointment DAB        | 18207601             | 1       |
| Caelo    | Hydrophilic ointment DAB        | 18207602             | 16      |
| Caelo    | Hydrophilic ointment DAB        | 182107602            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 182280301            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18228301             | 22      |
| Caelo    | Hydrophobic base gel DAC        | 18240302             | 14      |
| Caelo    | Hydrophobic base gel DAC        | 18240304             | 4       |
| Caelo    | Hydrophobic base gel DAC        | 18240305             | 4       |

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continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Hydrophobic base gel DAC        | 18240305P-190909-4 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18240307           | 13      |
| Caelo    | Hydrophobic base gel DAC        | 18240308           | 10      |
| Caelo    | Hydrophobic base gel DAC        | 18242501           | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18250301           | 9       |
| Caelo    | Wool alcohol ointment DAB       | 18250401           | 21      |
| Caelo    | Wool alcohol ointment DAB       | 18250402           | 40      |
| Caelo    | Wool alcohol ointment DAB       | 18250403           | 7       |
| Caelo    | Wool alcohol ointment DAB       | 18250421           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 18250601           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 18250701           | 17      |
| Caelo    | Wool alcohol ointment DAB       | 18250801           | 14      |
| Caelo    | Wool alcohol ointment DAB       | 18250901           | 18      |
| Caelo    | Wool alcohol ointment DAB       | 18251001           | 12      |
| Caelo    | Paraffin, white                 | 18296802           | 32      |
| Caelo    | Hydrophilic ointment DAB        | 1830301            | 1       |
| Caelo    | Hydrophilic ointment DAB        | 18303301           | 8       |
| Caelo    | Hydrophilic ointment DAB        | 18303302           | 6       |
| Caelo    | Paraffin, white                 | 18314801           | 7       |
| Caelo    | Paraffin, white                 | 18314802           | 9       |
| Caelo    | Paraffin, white                 | 18314803           | 17      |
| Caelo    | Paraffin, white                 | 18314804           | 1       |
| Caelo    | Paraffin, white                 | 18314809           | 52      |
| Caelo    | Paraffin, white                 | 18314810           | 7       |
| Caelo    | Paraffin, white                 | 18314811           | 14      |
| Caelo    | Paraffin, white                 | 183148809          | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18315801           | 26      |
| Caelo    | Emulsifying hydrophobic base... | 18315802           | 3       |
| Caelo    | Wool alcohol ointment DAB       | 1832501            | 1       |
| Caelo    | Paraffin, white                 | 1834809            | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1841110            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 184240307          | 1       |
| Caelo    | Eye paraffin                    | 1879716            | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A003             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A005             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A007             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A048             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A049             | 3       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A050             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A052             | 5       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A067             | 3       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A070             | 3       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A101             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A105             | 3       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A107             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A110             | 6       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A111             | 3       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A112             | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A130             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18a131             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A131             | 2       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A147             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A190             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A191             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A215             | 3       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A216             | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 18A256P-191022-4   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 18B09-T12-058739   | 1       |
| Caelo    | Hydrophobic base gel DAC        | 18K01-T05-062018   | 1       |
| Caelo    | Paraffin, liquid                | 19/1/3/3           | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Eye paraffin                    | 19/AKD13           | 1       |
| Caelo    | Eye paraffin                    | 19/AKD2            | 1       |
| Caelo    | Eye paraffin                    | 19/AKD7            | 1       |
| Caelo    | Hydrophilic ointment DAB        | 190000413001       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 190000470001       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1900012001         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 190004080001       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 19000408001        | 24      |
| Caelo    | Hydrophilic ointment DAB        | 1900041001         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 190004113001       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 190004120002       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 19000412001        | 31      |
| Caelo    | Hydrophilic ointment DAB        | 19000412002        | 15      |
| Caelo    | Hydrophilic ointment DAB        | 190004122002       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 19000413001        | 64      |
| Caelo    | Hydrophilic ointment DAB        | 1900041301         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19000467001        | 4       |
| Caelo    | Wool alcohol ointment DAB       | 19000468001        | 15      |
| Caelo    | Wool alcohol ointment DAB       | 19000469001        | 11      |
| Caelo    | Wool alcohol ointment DAB       | 19000470001        | 15      |
| Caelo    | Wool alcohol ointment DAB       | 19000471001        | 12      |
| Caelo    | Wool alcohol ointment DAB       | 19000472001        | 41      |
| Caelo    | Wool alcohol ointment DAB       | 19000472002        | 55      |
| Caelo    | Wool alcohol ointment SR wit... | 19000657002        | 4       |
| Caelo    | Abwaschbare Salbengrundlage ... | 19000678002        | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19000766001        | 3       |
| Caelo    | Hydrophobic base gel DAC        | 19001130           | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1900143001         | 1       |
| Caelo    | Paraffin, yellow                | 19001803           | 22      |
| Caelo    | Paraffin, yellow                | 19001803P-190926-6 | 1       |
| Caelo    | Paraffin, yellow                | 19001804           | 5       |
| Caelo    | Paraffin, liquid                | 1900303            | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19003801           | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1900412001         | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1900413001         | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 19004202           | 2       |
| Caelo    | Wool alcohol ointment SR wit... | 19004203           | 1       |
| Caelo    | Paraffin, white                 | 19004888           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19005080           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19006204           | 15      |
| Caelo    | Wool alcohol ointment DAB       | 19006301           | 3       |
| Caelo    | Wool alcohol ointment DAB       | 19006302           | 5       |
| Caelo    | Wool alcohol ointment DAB       | 19006902           | 5       |
| Caelo    | Wool alcohol ointment DAB       | 19007001           | 11      |
| Caelo    | Wool alcohol ointment DAB       | 19007101           | 19      |
| Caelo    | Wool alcohol ointment DAB       | 19007102           | 38      |
| Caelo    | Wool alcohol ointment DAB       | 190078103          | 1       |
| Caelo    | Paraffin, liquid                | 1901011-01         | 1       |
| Caelo    | Paraffin, liquid                | 19010301           | 1       |
| Caelo    | Paraffin, liquid                | 19010302           | 8       |
| Caelo    | Paraffin, liquid                | 19010303           | 21      |
| Caelo    | Paraffin, liquid                | 19010304           | 17      |
| Caelo    | Paraffin, liquid                | 19010305           | 1       |
| Caelo    | Paraffin, liquid                | 19010307           | 29      |
| Caelo    | Paraffin, liquid                | 19010308           | 1       |
| Caelo    | Paraffin, liquid                | 19010310           | 3       |
| Caelo    | Paraffin, liquid                | 19010313           | 25      |
| Caelo    | Paraffin, liquid                | 19010315           | 30      |
| Caelo    | Paraffin, liquid                | 19010316           | 22      |
| Caelo    | Paraffin, liquid                | 1901034            | 1       |

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continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Hydrophilic ointment DAB        | 19014801           | 1       |
| Caelo    | Hydrophobic base gel DAC        | 19021301           | 12      |
| Caelo    | Hydrophilic ointment DAB        | 19025401           | 39      |
| Caelo    | Hydrophilic ointment DAB        | 19025402           | 65      |
| Caelo    | Hydrophilic ointment DAB        | 19025701           | 6       |
| Caelo    | Hydrophilic ointment DAB        | 19025702           | 11      |
| Caelo    | Hydrophilic ointment DAB        | 19025801           | 26      |
| Caelo    | Hydrophobic base gel DAC        | 19031301           | 1       |
| Caelo    | Paraffin, liquid                | 1904026-01         | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19041002           | 30      |
| Caelo    | Wool alcohol ointment DAB       | 19041003           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19041004           | 4       |
| Caelo    | Wool alcohol ointment DAB       | 19041101           | 35      |
| Caelo    | Wool alcohol ointment DAB       | 19041104           | 1       |
| Caelo    | Hydrophobic base gel DAC        | 19044902           | 11      |
| Caelo    | Hydrophobic base gel DAC        | 19044903           | 30      |
| Caelo    | Hydrophobic base gel DAC        | 19044904           | 2       |
| Caelo    | Hydrophobic base gel DAC        | 1904494            | 1       |
| Caelo    | Eye paraffin                    | 19051504           | 1       |
| Caelo    | Paraffin, white                 | 19060102           | 1       |
| Caelo    | Paraffin, white                 | 19071401           | 1       |
| Caelo    | Paraffin, liquid                | 1909010-01         | 2       |
| Caelo    | Paraffin, white                 | 19091308           | 1       |
| Caelo    | Hydrophobic base gel DAC        | 19101801           | 36      |
| Caelo    | Hydrophobic base gel DAC        | 19101802           | 13      |
| Caelo    | Paraffin, white                 | 19101810           | 1       |
| Caelo    | Paraffin, white                 | 19121801           | 1       |
| Caelo    | Hydrophobic base gel DAC        | 19123606           | 18      |
| Caelo    | Hydrophobic base gel DAC        | 19123607           | 17      |
| Caelo    | Hydrophobic base gel DAC        | 19123607P-191115-3 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 19123609           | 2       |
| Caelo    | Paraffin, white                 | 191254004          | 1       |
| Caelo    | Wool alcohol ointment DAB       | 1912M-01370        | 1       |
| Caelo    | Paraffin, white                 | 191350404          | 1       |
| Caelo    | Paraffin, white                 | 191354006          | 7       |
| Caelo    | Paraffin, white                 | 19135402           | 5       |
| Caelo    | Paraffin, white                 | 19135403           | 13      |
| Caelo    | Paraffin, white                 | 19135404           | 22      |
| Caelo    | Paraffin, white                 | 19135405           | 22      |
| Caelo    | Paraffin, white                 | 19135406           | 21      |
| Caelo    | Paraffin, white                 | 19135408           | 37      |
| Caelo    | Paraffin, white                 | 19135410           | 15      |
| Caelo    | Unguentum Cordes®               | 19141001           | 2       |
| Caelo    | Paraffin, yellow                | 19156702           | 1       |
| Caelo    | Paraffin, yellow                | 19165701           | 21      |
| Caelo    | Paraffin, yellow                | 19165701P-200319-7 | 1       |
| Caelo    | Paraffin, yellow                | 19165702           | 14      |
| Caelo    | Paraffin, yellow                | 19165803           | 9       |
| Caelo    | Paraffin, yellow                | 19177601           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19181801           | 2       |
| Caelo    | Wool alcohol ointment DAB       | 19181901           | 18      |
| Caelo    | Wool alcohol ointment DAB       | 19181902           | 41      |
| Caelo    | Wool alcohol ointment DAB       | 19181903           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19182101           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19182103           | 1       |
| Caelo    | Wool alcohol ointment DAB       | 19182201           | 14      |
| Caelo    | Wool alcohol ointment DAB       | 19182301           | 10      |
| Caelo    | Wool alcohol ointment DAB       | 19182401           | 13      |
| Caelo    | Wool alcohol ointment SR wit... | 19189901           | 2       |
| Caelo    | Wool alcohol ointment SR wit... | 19189902           | 2       |

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continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Wool alcohol ointment SR wit... | 19189904            | 2       |
| Caelo    | Hydrophilic ointment DAB        | 191900601           | 1       |
| Caelo    | Hydrophilic ointment DAB        | 19190601            | 64      |
| Caelo    | Hydrophilic ointment DAB        | 19190701            | 27      |
| Caelo    | Hydrophilic ointment DAB        | 19190703            | 9       |
| Caelo    | Hydrophilic ointment DAB        | 19190801            | 15      |
| Caelo    | Hydrophilic ointment DAB        | 1919081             | 1       |
| Caelo    | Hydrophilic ointment DAB        | 19190901            | 20      |
| Caelo    | Hydrophilic ointment DAB        | 19191001            | 13      |
| Caelo    | Hydrophobic base gel DAC        | 19194701            | 8       |
| Caelo    | Hydrophobic base gel DAC        | 19194801            | 18      |
| Caelo    | Eye paraffin                    | 192008002           | 10      |
| Caelo    | Paraffin, white                 | 192008003           | 41      |
| Caelo    | Wool alcohol ointment DAB       | 19209002            | 9       |
| Caelo    | Hydrophobic base gel DAC        | 1921539004          | 1       |
| Caelo    | Eye paraffin                    | 1922008002          | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 19226402            | 7       |
| Caelo    | Paraffin, yellow                | 1923000002          | 1       |
| Caelo    | Paraffin, yellow                | 192300002           | 3       |
| Caelo    | Paraffin, yellow                | 192300004           | 14      |
| Caelo    | Unguentum Cordes®               | 19233702            | 2       |
| Caelo    | Paraffin, white                 | 19240001            | 1       |
| Caelo    | Paraffin, liquid                | 19241401            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 19244203            | 14      |
| Caelo    | Hydrophobic base gel DAC        | 19244301            | 20      |
| Caelo    | Paraffin, yellow                | 192497004           | 8       |
| Caelo    | Hydrophobic base gel DAC        | 19253004            | 1       |
| Caelo    | Hydrophobic base gel DAC        | 192539003           | 2       |
| Caelo    | Hydrophobic base gel DAC        | 192539004           | 27      |
| Caelo    | Hydrophobic base gel DAC        | 192539004P-200514-1 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 192539004P-200602-5 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 192539004P200622-1  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 192539004P-200709-8 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 192539005           | 10      |
| Caelo    | Hydrophobic base gel DAC        | 19253902            | 7       |
| Caelo    | Hydrophobic base gel DAC        | 19253903            | 9       |
| Caelo    | Hydrophobic base gel DAC        | 19253904            | 17      |
| Caelo    | Paraffin, white                 | 192540001           | 78      |
| Caelo    | Paraffin, white                 | 192540002           | 15      |
| Caelo    | Paraffin, white                 | 192540003           | 1       |
| Caelo    | Paraffin, white                 | 192540004           | 12      |
| Caelo    | Paraffin, white                 | 19254001            | 4       |
| Caelo    | Paraffin, white                 | 19254002            | 1       |
| Caelo    | Paraffin, liquid                | 192559003           | 33      |
| Caelo    | Paraffin, liquid                | 1925590036          | 1       |
| Caelo    | Paraffin, liquid                | 192559004           | 58      |
| Caelo    | Paraffin, liquid                | 192559006           | 1       |
| Caelo    | Paraffin, liquid                | 192559007           | 32      |
| Caelo    | Paraffin, liquid                | 192559008           | 38      |
| Caelo    | Paraffin, liquid                | 192559011           | 22      |
| Caelo    | Paraffin, liquid                | 192559012           | 20      |
| Caelo    | Paraffin, liquid                | 192559033           | 1       |
| Caelo    | Hydrophilic ointment DAB        | 1925801             | 1       |
| Caelo    | Paraffin, liquid                | 19259007            | 1       |
| Caelo    | Paraffin, white                 | 192601009           | 31      |
| Caelo    | Paraffin, white                 | 19260102            | 28      |
| Caelo    | Paraffin, white                 | 19260103            | 1       |
| Caelo    | Paraffin, liquid                | 19271401            | 52      |
| Caelo    | Paraffin, liquid                | 19271402            | 15      |
| Caelo    | Paraffin, liquid                | 19271403            | 1       |

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continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Paraffin, liquid                | 192771402    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 19288602     | 9       |
| Caelo    | Hydrophilic ointment DAB        | 19288801     | 20      |
| Caelo    | Hydrophilic ointment DAB        | 1928881      | 1       |
| Caelo    | Paraffin, white                 | 19314809     | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 19A003       | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 19A008       | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 19A0182      | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 19A112       | 1       |
| Caelo    | Paraffin, yellow                | 200000003003 | 1       |
| Caelo    | Paraffin, yellow                | 20000002001  | 8       |
| Caelo    | Paraffin, white                 | 20000003003  | 20      |
| Caelo    | Paraffin, yellow                | 20000003004  | 3       |
| Caelo    | Paraffin, yellow                | 2000003004   | 1       |
| Caelo    | Paraffin, white                 | 200000510007 | 1       |
| Caelo    | Eye paraffin                    | 200000627005 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 200001559014 | 1       |
| Caelo    | Emulsifying hydrophobic base... | 200002020002 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 200002200002 | 1       |
| Caelo    | Hydrophobic base gel DAC        | 20000220002  | 21      |
| Caelo    | Paraffin, white                 | 200002327003 | 3       |
| Caelo    | Paraffin, liquid                | 200002999003 | 1       |
| Caelo    | Eye paraffin                    | 20000327005  | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20000381     | 1       |
| Caelo    | Paraffin, liquid                | 200004108001 | 1       |
| Caelo    | Paraffin, liquid                | 200004108006 | 1       |
| Caelo    | Paraffin, white                 | 20000510003  | 10      |
| Caelo    | Paraffin, white                 | 20000510006  | 3       |
| Caelo    | Paraffin, white                 | 20000510007  | 17      |
| Caelo    | Paraffin, white                 | 20000510009  | 4       |
| Caelo    | Paraffin, white                 | 20000510011  | 1       |
| Caelo    | Paraffin, white                 | 20000510012  | 1       |
| Caelo    | Paraffin, white                 | 20000510013  | 20      |
| Caelo    | Paraffin, white                 | 20000510014  | 8       |
| Caelo    | Paraffin, white                 | 2000051003   | 1       |
| Caelo    | Paraffin, white                 | 2000051007   | 1       |
| Caelo    | Paraffin, white                 | 2000051009   | 1       |
| Caelo    | Paraffin, white                 | 20000627002  | 54      |
| Caelo    | Eye paraffin                    | 20000627003  | 2       |
| Caelo    | Paraffin, white                 | 20000627005  | 39      |
| Caelo    | Eye paraffin                    | 20000627009  | 2       |
| Caelo    | Eye paraffin                    | 20000627010  | 42      |
| Caelo    | Eye paraffin                    | 20000627022  | 1       |
| Caelo    | Paraffin, white                 | 20000792001  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 20000848001  | 28      |
| Caelo    | Emulsifying hydrophobic base... | 20000849002  | 1       |
| Caelo    | Emulsifying hydrophobic base... | 20000850001  | 4       |
| Caelo    | Paraffin, white                 | 200011       | 1       |
| Caelo    | Paraffin, white                 | 2000112002   | 2       |
| Caelo    | Paraffin, white                 | 20001122001  | 19      |
| Caelo    | Paraffin, white                 | 20001122002  | 1       |
| Caelo    | Unguentum Cordes <sup>®</sup>   | 20001329001  | 3       |
| Caelo    | Hydrophobic base gel DAC        | 20001559002  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 20001559003  | 8       |
| Caelo    | Hydrophobic base gel DAC        | 20001559004  | 2       |
| Caelo    | Hydrophobic base gel DAC        | 20001559006  | 7       |
| Caelo    | Hydrophobic base gel DAC        | 20001559007  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 20001559008  | 5       |
| Caelo    | Hydrophobic base gel DAC        | 20001559012  | 4       |
| Caelo    | Hydrophobic base gel DAC        | 20001559015  | 14      |

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continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Hydrophobic base gel DAC        | 20001559017  | 5       |
| Caelo    | Hydrophobic base gel DAC        | 20001587001  | 9       |
| Caelo    | Emulsifying hydrophobic base... | 20001587002  | 1       |
| Caelo    | Emulsifying hydrophobic base... | 20001588001  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 20001588002  | 8       |
| Caelo    | Abwaschbare Salbengrundlage ... | 20001666002  | 1       |
| Caelo    | Paraffin, yellow                | 20001759001  | 11      |
| Caelo    | Paraffin, yellow                | 20001760002  | 13      |
| Caelo    | Wool alcohol ointment DAB       | 20001899002  | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20001900001  | 2       |
| Caelo    | Wool alcohol ointment DAB       | 20001901001  | 32      |
| Caelo    | Wool alcohol ointment DAB       | 20001901002  | 23      |
| Caelo    | Wool alcohol ointment DAB       | 20001902002  | 1       |
| Caelo    | Hydrophilic ointment DAB        | 20001982001  | 1       |
| Caelo    | Hydrophilic ointment DAB        | 20001982002  | 3       |
| Caelo    | Hydrophilic ointment DAB        | 20002047001  | 20      |
| Caelo    | Hydrophilic ointment DAB        | 200020470010 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 20002047002  | 20      |
| Caelo    | Wool alcohol ointment SR wit... | 20002124002  | 1       |
| Caelo    | Paraffin, white                 | 20002327003  | 15      |
| Caelo    | Paraffin, white                 | 20002327004  | 1       |
| Caelo    | Paraffin, yellow                | 20002456001  | 7       |
| Caelo    | Hydrophilic ointment DAB        | 20002928001  | 12      |
| Caelo    | Hydrophilic ointment DAB        | 20002929001  | 8       |
| Caelo    | Hydrophilic ointment DAB        | 20002930002  | 8       |
| Caelo    | Hydrophilic ointment DAB        | 20002930003  | 1       |
| Caelo    | Hydrophilic ointment DAB        | 20002930004  | 9       |
| Caelo    | Hydrophilic ointment DAB        | 20002930004  | 1       |
| Caelo    | Paraffin, liquid                | 2000299003   | 2       |
| Caelo    | Paraffin, liquid                | 2000299004   | 2       |
| Caelo    | Paraffin, liquid                | 20002999003  | 39      |
| Caelo    | Paraffin, liquid                | 20002999004  | 11      |
| Caelo    | Paraffin, liquid                | 20002999004  | 2       |
| Caelo    | Hydrophobic base gel DAC        | 20003042003  | 7       |
| Caelo    | Emulsifying hydrophobic base... | 20003042005  | 7       |
| Caelo    | Wool alcohol ointment DAB       | 20003084001  | 9       |
| Caelo    | Wool alcohol ointment DAB       | 20003085002  | 6       |
| Caelo    | Wool alcohol ointment DAB       | 20003085003  | 9       |
| Caelo    | Wool alcohol ointment DAB       | 20003085004  | 4       |
| Caelo    | Paraffin, white                 | 20003237001  | 25      |
| Caelo    | Wool alcohol ointment SR wit... | 20003440002  | 1       |
| Caelo    | Eye paraffin                    | 20003442002  | 12      |
| Caelo    | Hydrophobic base gel DAC        | 20003511001  | 11      |
| Caelo    | Hydrophobic base gel DAC        | 20003511002  | 6       |
| Caelo    | Wool alcohol ointment DAB       | 20003637001  | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20003637002  | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20003638002  | 10      |
| Caelo    | Wool alcohol ointment DAB       | 20003638003  | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20003638004  | 7       |
| Caelo    | Wool alcohol ointment DAB       | 200036446001 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20003646001  | 8       |
| Caelo    | Emulsifying hydrophobic base... | 20003772003  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 20003953001  | 4       |
| Caelo    | Hydrophobic base gel DAC        | 20003953002  | 2       |
| Caelo    | Hydrophobic base gel DAC        | 20003953003  | 6       |
| Caelo    | Hydrophobic base gel DAC        | 20003953007  | 1       |
| Caelo    | Hydrophobic base gel DAC        | 20003953011  | 5       |
| Caelo    | Hydrophobic base gel DAC        | 20003953012  | 3       |
| Caelo    | Paraffin, liquid                | 20004015003  | 1       |
| Caelo    | Paraffin, liquid                | 20004108001  | 34      |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Paraffin, liquid                | 20004108002  | 14      |
| Caelo    | Paraffin, liquid                | 20004108006  | 21      |
| Caelo    | Paraffin, liquid                | 20004108007  | 3       |
| Caelo    | Paraffin, liquid                | 20004108008  | 16      |
| Caelo    | Paraffin, liquid                | 20004108011  | 24      |
| Caelo    | Paraffin, liquid                | 20004108012  | 1       |
| Caelo    | Paraffin, liquid                | 2000418008   | 1       |
| Caelo    | Paraffin, white                 | 2000510003   | 1       |
| Caelo    | Paraffin, white                 | 2000510009   | 1       |
| Caelo    | Paraffin, white                 | 2000510013   | 1       |
| Caelo    | Paraffin, white                 | 2000510014   | 1       |
| Caelo    | Hydrophobic base gel DAC        | 2000559012   | 1       |
| Caelo    | Eye paraffin                    | 2000627010   | 2       |
| Caelo    | Paraffin, liquid                | 2000999003   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 2001901001   | 2       |
| Caelo    | Paraffin, white                 | 2002327003   | 1       |
| Caelo    | Paraffin, liquid                | 2002999004   | 1       |
| Caelo    | Paraffin, white                 | 20031303     | 1       |
| Caelo    | Paraffin, white                 | 20031518     | 1       |
| Caelo    | Paraffin, liquid                | 2004108001   | 1       |
| Caelo    | Paraffin, liquid                | 2004108011   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20061204     | 1       |
| Caelo    | Paraffin, white                 | 20061206     | 1       |
| Caelo    | Paraffin, white                 | 20061503     | 1       |
| Caelo    | Paraffin, liquid                | 2007019-01   | 1       |
| Caelo    | Paraffin, white                 | 20071505     | 1       |
| Caelo    | Emulsifying hydrophobic base... | 20081302     | 1       |
| Caelo    | Paraffin, white                 | 20081304     | 1       |
| Caelo    | Hydrophobic base gel DAC        | 200832508    | 1       |
| Caelo    | Eye paraffin                    | 20101401     | 1       |
| Caelo    | Eye paraffin                    | 2015A-02550  | 1       |
| Caelo    | Paraffin, white                 | 20160812-4   | 1       |
| Caelo    | Paraffin, white                 | 2016E-07061  | 1       |
| Caelo    | Emulsifying hydrophobic base... | 2018-J-03579 | 1       |
| Caelo    | Paraffin, white                 | 2021901      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 20221110-1   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 20271211-1   | 1       |
| Caelo    | Paraffin, white                 | 2061201      | 1       |
| Caelo    | Unguentum Cordes®               | 20A0084      | 1       |
| Caelo    | Unguentum Cordes®               | 20A0131      | 1       |
| Caelo    | Unguentum Cordes®               | 20A0153      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 210000363001 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 210000362001 | 1       |
| Caelo    | Wool alcohol ointment DAB       | 210001941001 | 1       |
| Caelo    | Paraffin, white                 | 21000297004  | 1       |
| Caelo    | Paraffin, white                 | 21000297006  | 1       |
| Caelo    | Paraffin, white                 | 21000297007  | 25      |
| Caelo    | Paraffin, white                 | 21000297008  | 6       |
| Caelo    | Paraffin, white                 | 21000297009  | 1       |
| Caelo    | Paraffin, white                 | 2100029707   | 1       |
| Caelo    | Hydrophilic ointment DAB        | 2100036001   | 1       |
| Caelo    | Hydrophilic ointment DAB        | 21000361001  | 7       |
| Caelo    | Hydrophilic ointment DAB        | 21000362001  | 11      |
| Caelo    | Hydrophilic ointment DAB        | 21000363001  | 9       |
| Caelo    | Hydrophilic ointment DAB        | 21000365001  | 8       |
| Caelo    | Hydrophilic ointment DAB        | 21000365002  | 5       |
| Caelo    | Paraffin, yellow                | 21000380002  | 4       |
| Caelo    | Paraffin, yellow                | 21000380011  | 1       |
| Caelo    | Paraffin, white                 | 21000381002  | 6       |
| Caelo    | Paraffin, white                 | 21000381003  | 6       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch          | Spectra |
|----------|---------------------------------|----------------|---------|
| Caelo    | Hydrophobic base gel DAC        | 21000556001    | 4       |
| Caelo    | Emulsifying hydrophobic base... | 21000557002    | 3       |
| Caelo    | Wool alcohol ointment SR wit... | 21000778001    | 1       |
| Caelo    | Wool alcohol ointment SR wit... | 21000778002    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 21000939002    | 6       |
| Caelo    | Wool alcohol ointment DAB       | 21000940002    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 21000940003    | 2       |
| Caelo    | Wool alcohol ointment DAB       | 21000941001    | 18      |
| Caelo    | Wool alcohol ointment DAB       | 21000941002    | 3       |
| Caelo    | Wool alcohol ointment DAB       | 21000941003    | 3       |
| Caelo    | Wool alcohol ointment DAB       | 21000942001    | 4       |
| Caelo    | Paraffin, white                 | 2100097004     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 2100124003     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 21001242003    | 2       |
| Caelo    | Hydrophobic base gel DAC        | 21001323002    | 3       |
| Caelo    | Hydrophilic ointment DAB        | 2100143002     | 1       |
| Caelo    | Abwaschbare Salbengrundlage ... | 21001433003    | 2       |
| Caelo    | Hydrophilic ointment DAB        | 21001473001    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 21001473002    | 2       |
| Caelo    | Hydrophilic ointment DAB        | 21001473003    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 21001474001    | 3       |
| Caelo    | Paraffin, white                 | 21001517002    | 5       |
| Caelo    | Hydrophobic base gel DAC        | 21001592002    | 10      |
| Caelo    | Hydrophobic base gel DAC        | 21001592007    | 1       |
| Caelo    | Hydrophobic base gel DAC        | 21001592008    | 2       |
| Caelo    | Hydrophobic base gel DAC        | 21001592012    | 6       |
| Caelo    | Abwaschbare Salbengrundlage ... | 2100194002     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 21001946003    | 2       |
| Caelo    | Eye paraffin                    | 21001962001    | 1       |
| Caelo    | Paraffin, white                 | 21001982001    | 20      |
| Caelo    | Eye paraffin                    | 21001982003    | 4       |
| Caelo    | Eye paraffin                    | 21001982005    | 2       |
| Caelo    | Paraffin, white                 | 21002101004    | 5       |
| Caelo    | Paraffin, white                 | 21002101005    | 4       |
| Caelo    | Paraffin, white                 | 21002101010    | 2       |
| Caelo    | Hydrophobic base gel DAC        | 21002112001    | 4       |
| Caelo    | Hydrophobic base gel DAC        | 21002113001    | 4       |
| Caelo    | Abwaschbare Salbengrundlage ... | 21002194002    | 1       |
| Caelo    | Paraffin, liquid                | 21002861001    | 5       |
| Caelo    | Paraffin, liquid                | 21002861002    | 5       |
| Caelo    | Hydrophilic ointment DAB        | 21003015003    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 21003016001    | 4       |
| Caelo    | Hydrophilic ointment DAB        | 21003016003    | 1       |
| Caelo    | Hydrophobic base gel DAC        | 21003145002    | 2       |
| Caelo    | Wool alcohol ointment DAB       | 21003589001    | 3       |
| Caelo    | Wool alcohol ointment DAB       | 21003591002    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 2100361001     | 2       |
| Caelo    | Abwaschbare Salbengrundlage ... | 21003701002    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 21004065001    | 1       |
| Caelo    | Hydrophobic base gel DAC        | 21004115004    | 1       |
| Caelo    | Emulsifying hydrophobic base... | 2100556001     | 1       |
| Caelo    | Paraffin, white                 | 2101013-01     | 1       |
| Caelo    | Paraffin, white                 | 21031701       | 1       |
| Caelo    | Paraffin, white                 | 21051509       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 21051510       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 2109212539     | 1       |
| Caelo    | Paraffin, white                 | 21101306       | 1       |
| Caelo    | Paraffin, liquid                | 21215200041081 | 1       |
| Caelo    | Paraffin, white                 | 2121704        | 1       |
| Caelo    | Paraffin, liquid                | 2125200041081  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Paraffin, white                 | 213E-02549  | 1       |
| Caelo    | Unguentum Cordes®               | 21A0150     | 2       |
| Caelo    | Hydrophobic base gel DAC        | 22000134003 | 1       |
| Caelo    | Paraffin, white                 | 22011401    | 1       |
| Caelo    | Paraffin, white                 | 22011510    | 1       |
| Caelo    | Paraffin, white                 | 22081206    | 1       |
| Caelo    | Paraffin, white                 | 22091803    | 1       |
| Caelo    | Paraffin, yellow                | 22091804    | 1       |
| Caelo    | Paraffin, white                 | 22111306    | 1       |
| Caelo    | Paraffin, white                 | 22111401    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 22412510    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 22532810    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 23023210    | 1       |
| Caelo    | Paraffin, white                 | 23051101    | 1       |
| Caelo    | Paraffin, white                 | 23051404    | 1       |
| Caelo    | Eye paraffin                    | 23051817    | 1       |
| Caelo    | Eye paraffin                    | 23061813    | 1       |
| Caelo    | Paraffin, white                 | 23071202    | 1       |
| Caelo    | Paraffin, white                 | 23101702    | 1       |
| Caelo    | Paraffin, white                 | 23121701    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 2313E-01370 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 24011315    | 1       |
| Caelo    | Eye paraffin                    | 24031503    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 24233910    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 24243910    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 24655410    | 1       |
| Caelo    | Paraffin, white                 | 25021403    | 1       |
| Caelo    | Paraffin, white                 | 250414002   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 25051306    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 25051307    | 1       |
| Caelo    | Paraffin, white                 | 25051801    | 1       |
| Caelo    | Paraffin, white                 | 25112014A   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 259166      | 1       |
| Caelo    | Paraffin, white                 | 26011805    | 1       |
| Caelo    | Paraffin, white                 | 26041702    | 1       |
| Caelo    | Paraffin, yellow                | 26051810    | 1       |
| Caelo    | Paraffin, white                 | 26061307    | 1       |
| Caelo    | Paraffin, white                 | 26081409    | 1       |
| Caelo    | Paraffin, white                 | 26081705    | 1       |
| Caelo    | Paraffin, white                 | 26091303    | 1       |
| Caelo    | Paraffin, white                 | 26091406    | 1       |
| Caelo    | Paraffin, white                 | 26101202    | 1       |
| Caelo    | Paraffin, white                 | 26111203    | 1       |
| Caelo    | Paraffin, white                 | 27021402    | 1       |
| Caelo    | Paraffin, white                 | 27061301    | 1       |
| Caelo    | Paraffin, white                 | 27061401    | 1       |
| Caelo    | Paraffin, white                 | 27091205    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 27101806    | 1       |
| Caelo    | Paraffin, white                 | 27121304    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 27121301    | 1       |
| Caelo    | Paraffin, yellow                | 2717M-02551 | 1       |
| Caelo    | Eye paraffin                    | 2752        | 1       |
| Caelo    | Paraffin, white                 | 276127      | 1       |
| Caelo    | Eye paraffin                    | 2791        | 1       |
| Caelo    | Hydrophilic ointment DAB        | 2803212539  | 1       |
| Caelo    | Paraffin, white                 | 28041508    | 1       |
| Caelo    | Emulsifying hydrophobic base... | 28051301    | 1       |
| Caelo    | Paraffin, white                 | 280702      | 1       |
| Caelo    | Paraffin, yellow                | 28071509    | 1       |
| Caelo    | Paraffin, white                 | 28071709    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Hydrophilic ointment DAB        | 2810        | 1       |
| Caelo    | Wool alcohol ointment DAB       | 28101703    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 281347      | 2       |
| Caelo    | Hydrophilic ointment DAB        | 281349      | 2       |
| Caelo    | Hydrophilic ointment DAB        | 281351      | 1       |
| Caelo    | Hydrophobic base gel DAC        | 282094      | 2       |
| Caelo    | Wool alcohol ointment DAB       | 2823        | 1       |
| Caelo    | Hydrophobic base gel DAC        | 2825        | 1       |
| Caelo    | Paraffin, white                 | 282700      | 1       |
| Caelo    | Paraffin, white                 | 282964      | 1       |
| Caelo    | Paraffin, white                 | 283949      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 2851610     | 1       |
| Caelo    | Hydrophobic base gel DAC        | 286013      | 3       |
| Caelo    | Paraffin, white                 | 286095      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 286545      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 286882      | 1       |
| Caelo    | Paraffin, white                 | 2895        | 1       |
| Caelo    | Paraffin, white                 | 290441      | 2       |
| Caelo    | Paraffin, white                 | 29051201    | 1       |
| Caelo    | Paraffin, white                 | 29061803    | 1       |
| Caelo    | Eye paraffin                    | 29101401    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 291175      | 1       |
| Caelo    | Eye paraffin                    | 2918E-02550 | 1       |
| Caelo    | Paraffin, white                 | 292220      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 293091      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 293093      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 294449      | 2       |
| Caelo    | Paraffin, white                 | 2948852     | 1       |
| Caelo    | Paraffin, white                 | 295300      | 1       |
| Caelo    | Paraffin, white                 | 295301      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 296865      | 1       |
| Caelo    | Paraffin, white                 | 297283      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 298578      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 299392      | 1       |
| Caelo    | Paraffin, white                 | 299469      | 1       |
| Caelo    | Paraffin, white                 | 30012014F   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 300283      | 1       |
| Caelo    | Emulsifying hydrophobic base... | 30071201    | 1       |
| Caelo    | Paraffin, white                 | 30081813    | 1       |
| Caelo    | Paraffin, white                 | 30091701    | 1       |
| Caelo    | Paraffin, white                 | 3009191     | 1       |
| Caelo    | Hydrophilic ointment DAB        | 301097      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 30111302    | 1       |
| Caelo    | Paraffin, white                 | 30121427    | 1       |
| Caelo    | Paraffin, white                 | 301424      | 1       |
| Caelo    | Paraffin, yellow                | 3018E-02551 | 2       |
| Caelo    | Paraffin, white                 | 302037      | 4       |
| Caelo    | Hydrophobic base gel DAC        | 302142      | 1       |
| Caelo    | Hydrophobic base gel DAC        | 302145      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 302206      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 302207      | 2       |
| Caelo    | Paraffin, white                 | 303786      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 303847      | 1       |
| Caelo    | Hydrophobic base gel DAC        | 304036      | 1       |
| Caelo    | Paraffin, white                 | 304124      | 3       |
| Caelo    | Paraffin, yellow                | 304847      | 1       |
| Caelo    | Unguentum Cordes®               | 3051804     | 1       |
| Caelo    | Eye paraffin                    | 3051809     | 1       |
| Caelo    | Paraffin, white                 | 3051811     | 1       |
| Caelo    | Hydrophilic ointment DAB        | 305396      | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch         | Spectra |
|----------|-------------------------------|---------------|---------|
| Caelo    | Wool alcohol ointment DAB     | 305879        | 1       |
| Caelo    | Wool alcohol ointment DAB     | 305881        | 2       |
| Caelo    | Paraffin, white               | 306020        | 2       |
| Caelo    | Paraffin, yellow              | 307079        | 2       |
| Caelo    | Hydrophilic ointment DAB      | 307095        | 2       |
| Caelo    | Paraffin, white               | 3071202       | 1       |
| Caelo    | Paraffin, white               | 3071709       | 1       |
| Caelo    | Wool alcohol ointment DAB     | 30731210      | 1       |
| Caelo    | Paraffin, white               | 307661        | 2       |
| Caelo    | Wool alcohol ointment DAB     | 307775        | 3       |
| Caelo    | Wool alcohol ointment DAB     | 307776        | 1       |
| Caelo    | Wool alcohol ointment SR/DAC  | 308141        | 1       |
| Caelo    | Paraffin, white               | 308197        | 2       |
| Caelo    | Wool alcohol ointment DAB     | 30831410      | 1       |
| Caelo    | Wool alcohol ointment DAB     | 3084001       | 1       |
| Caelo    | Wool alcohol ointment DAB     | 30841410      | 1       |
| Caelo    | Wool alcohol ointment DAB     | 308844        | 2       |
| Caelo    | Hydrophilic ointment DAB      | 308900        | 3       |
| Caelo    | Paraffin, white               | 3091209       | 1       |
| Caelo    | Paraffin, white               | 3091702       | 1       |
| Caelo    | Paraffin, white               | 309564        | 1       |
| Caelo    | Paraffin, yellow              | 310192        | 1       |
| Caelo    | Wool alcohol ointment SR/DAC  | 310488        | 1       |
| Caelo    | Hydrophobic base gel DAC      | 310630        | 3       |
| Caelo    | Eye paraffin                  | 31071502      | 1       |
| Caelo    | Hydrophilic ointment DAB      | 311067        | 1       |
| Caelo    | Wool alcohol ointment DAB     | 31121710      | 1       |
| Caelo    | Paraffin, white               | 311259        | 2       |
| Caelo    | Unguentum Cordes®             | 3112A-02532   | 1       |
| Caelo    | Wool alcohol ointment DAB     | 311387        | 1       |
| Caelo    | Wool alcohol ointment DAB     | 311388        | 1       |
| Caelo    | Wool alcohol ointment DAB     | 31251910      | 1       |
| Caelo    | Eye paraffin                  | 3210-16271807 | 1       |
| Caelo    | Paraffin, white               | 323915339805  | 1       |
| Caelo    | Paraffin, white               | 3260          | 1       |
| Caelo    | Unguentum Cordes®             | 3264          | 1       |
| Caelo    | Hydrophobic base gel DAC      | 3289          | 1       |
| Caelo    | Eye paraffin                  | 3294          | 1       |
| Caelo    | Paraffin, white               | 3348          | 1       |
| Caelo    | Wool alcohol ointment DAB     | 33753710      | 1       |
| Caelo    | Paraffin, white               | 3417E-02549   | 1       |
| Caelo    | Eye paraffin                  | 3443          | 1       |
| Caelo    | Hydrophilic ointment DAB      | 3613Q2539     | 1       |
| Caelo    | Hydrophilic ointment DAB      | 3962/V04/16   | 1       |
| Caelo    | Eye ointment, emulsifying DAC | 3A180213      | 1       |
| Caelo    | Paraffin, white               | 402312550     | 1       |
| Caelo    | Paraffin, white               | 4031406       | 1       |
| Caelo    | Paraffin, white               | 4051502       | 1       |
| Caelo    | Wool alcohol ointment DAB     | 4051505       | 1       |
| Caelo    | Wool alcohol ointment DAB     | 4061204       | 1       |
| Caelo    | Wool alcohol ointment DAB     | 4067201       | 1       |
| Caelo    | Paraffin, white               | 4091517       | 1       |
| Caelo    | Wool alcohol ointment DAB     | 41026910      | 1       |
| Caelo    | Wool alcohol ointment DAB     | 41047010      | 1       |
| Caelo    | Wool alcohol ointment DAB     | 41839810      | 1       |
| Caelo    | Wool alcohol ointment DAB     | 41910710      | 1       |
| Caelo    | Wool alcohol ointment DAB     | 41930610      | 1       |
| Caelo    | Wool alcohol ointment DAB     | 41940610      | 1       |
| Caelo    | Hydrophilic ointment DAB      | 4225001       | 1       |
| Caelo    | Wool alcohol ointment DAB     | 44/AKD9       | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Wool alcohol ointment DAB       | 45054410     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 46/AKD2      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 468001       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 4715M-02539  | 1       |
| Caelo    | Hydrophilic ointment DAB        | 4912E-02539  | 1       |
| Caelo    | Eye ointment, emulsifying DAC   | 4A270212     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 50/AKD7      | 1       |
| Caelo    | Paraffin, white                 | 50115/1      | 1       |
| Caelo    | Eye paraffin                    | 5011507      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 50324610     | 1       |
| Caelo    | Paraffin, white                 | 5041303      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 50414810     | 1       |
| Caelo    | Paraffin, white                 | 5061412      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 50815310     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 50835210     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 50845210     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 50925410     | 1       |
| Caelo    | Paraffin, white                 | 5098800      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 5099200      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 51(17104903) | 1       |
| Caelo    | Wool alcohol ointment DAB       | 51015610     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 51025610     | 2       |
| Caelo    | Paraffin, yellow                | 5114E-02551  | 1       |
| Caelo    | Paraffin, white                 | 51210195     | 1       |
| Caelo    | Paraffin, white                 | 5121403      | 1       |
| Caelo    | Paraffin, white                 | 5121803      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 52(17141401) | 1       |
| Caelo    | Wool alcohol ointment DAB       | 53(18132501) | 1       |
| Caelo    | Wool alcohol ointment DAB       | 53437010     | 2       |
| Caelo    | Wool alcohol ointment DAB       | 53457110     | 1       |
| Caelo    | Abwaschbare Salbengrundlage ... | 5359645      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 54(18132501) | 1       |
| Caelo    | Wool alcohol ointment DAB       | 54157810     | 1       |
| Caelo    | Emulsifying hydrophobic base... | 5462107      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 55(18250901) | 1       |
| Caelo    | Wool alcohol ointment DAB       | 56(19007001) | 1       |
| Caelo    | Eye ointment, emulsifying DAC   | 5D110416     | 1       |
| Caelo    | Paraffin, white                 | 6000083007   | 2       |
| Caelo    | Hydrophilic ointment DAB        | 6001368013   | 1       |
| Caelo    | Paraffin, white                 | 6002062001   | 1       |
| Caelo    | Paraffin, yellow                | 60081202     | 1       |
| Caelo    | Eye paraffin                    | 6021505      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 60429110     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 60539210     | 1       |
| Caelo    | Paraffin, white                 | 6061302      | 1       |
| Caelo    | Paraffin, white                 | 6061801      | 1       |
| Caelo    | Paraffin, yellow                | 6111703      | 1       |
| Caelo    | Paraffin, white                 | 613Q-02549   | 1       |
| Caelo    | Paraffin, white                 | 617Q-02549   | 1       |
| Caelo    | Wool alcohol ointment DAB       | 62041710     | 1       |
| Caelo    | Eye paraffin                    | 6271810      | 1       |
| Caelo    | Paraffin, white                 | 6272009      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 62922210     | 1       |
| Caelo    | Wool alcohol ointment DAB       | 62932210     | 2       |
| Caelo    | Wool alcohol ointment DAB       | 63052310     | 2       |
| Caelo    | Paraffin, white                 | 6326702      | 1       |
| Caelo    | Hydrophobic base gel DAC        | 64/2014      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 64342810     | 5       |
| Caelo    | Wool alcohol ointment DAB       | 64713510     | 2       |
| Caelo    | Wool alcohol ointment DAB       | 64833610     | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Wool alcohol ointment SR wit... | 6550115       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 6550118       | 1       |
| Caelo    | Paraffin, white                 | 6861393       | 1       |
| Caelo    | Paraffin, yellow                | 6895914       | 2       |
| Caelo    | Eye ointment, emulsifying DAC   | 6B260418      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 70314010      | 3       |
| Caelo    | Paraffin, white                 | 7031502       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 70434110      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 70444110      | 1       |
| Caelo    | Paraffin, white                 | 7061802       | 1       |
| Caelo    | Paraffin, white                 | 7082010       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 70913UngEm    | 1       |
| Caelo    | Paraffin, white                 | 7106001       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 71124510      | 2       |
| Caelo    | Wool alcohol ointment DAB       | 7121202       | 1       |
| Caelo    | Paraffin, white                 | 713I-02549    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 72915810      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 73035910      | 2       |
| Caelo    | Wool alcohol ointment DAB       | 74017010      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 74057010      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 7457510       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 74727410      | 2       |
| Caelo    | Wool alcohol ointment DAB       | 74737410      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 74747510      | 2       |
| Caelo    | Paraffin, liquid                | 75001925597   | 1       |
| Caelo    | Paraffin, white                 | 790619-021159 | 1       |
| Caelo    | Hydrophilic ointment DAB        | 8003325012    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 8004399001    | 3       |
| Caelo    | Paraffin, white                 | 8012014D      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 80127028      | 1       |
| Caelo    | Paraffin, white                 | 8021401       | 1       |
| Caelo    | Paraffin, white                 | 8031302       | 1       |
| Caelo    | Paraffin, white                 | 8041703       | 1       |
| Caelo    | Paraffin, white                 | 8051303       | 1       |
| Caelo    | Paraffin, yellow                | 8061714       | 1       |
| Caelo    | Paraffin, white                 | 8101302       | 1       |
| Caelo    | Wool alcohol ointment DAB       | 81328810      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 81348810      | 2       |
| Caelo    | Paraffin, white                 | 813E-02549    | 1       |
| Caelo    | Wool alcohol ointment DAB       | 81819410      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 82521010      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 82541010      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 82721410      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 83031710      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 83241810      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 83321910      | 2       |
| Caelo    | Wool alcohol ointment DAB       | 83742110      | 3       |
| Caelo    | Wool alcohol ointment DAB       | 84132310      | 1       |
| Caelo    | Wool alcohol ointment DAB       | 84222410      | 2       |
| Caelo    | Wool alcohol ointment DAB       | 8422410       | 1       |
| Caelo    | Hydrophilic ointment DAB        | 8703          | 1       |
| Caelo    | Paraffin, yellow                | 889574        | 1       |
| Caelo    | Hydrophilic ointment DAB        | 9(18207501)   | 1       |
| Caelo    | Hydrophilic ointment DAB        | 9000413001    | 1       |
| Caelo    | Paraffin, white                 | 90292119      | 1       |
| Caelo    | Paraffin, yellow                | 9061818       | 1       |
| Caelo    | Hydrophobic base gel DAC        | 9082013C      | 1       |
| Caelo    | Hydrophilic ointment DAB        | 91190601      | 1       |
| Caelo    | Unguentum Cordes®               | 913M-02532    | 1       |
| Caelo    | Hydrophilic ointment DAB        | 916I-02539    | 1       |

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continued from previous page

| Supplier                   | Substance                 | Batch                  | Spectra |
|----------------------------|---------------------------|------------------------|---------|
| Caelo                      | Wool alcohol ointment DAB | 9215210                | 1       |
| Caelo                      | Wool alcohol ointment DAB | 92515310P-200514-3     | 1       |
| Caelo                      | Paraffin, liquid          | 9271401                | 1       |
| Caelo                      | Wool alcohol ointment DAB | 93246210               | 1       |
| Caelo                      | Wool alcohol ointment DAB | 93436310               | 1       |
| Caelo                      | Wool alcohol ointment DAB | 93556410               | 1       |
| Caelo                      | Wool alcohol ointment DAB | 9365602                | 1       |
| Caelo                      | Wool alcohol ointment DAB | 93917110               | 1       |
| Caelo                      | Wool alcohol ointment DAB | 94947710               | 1       |
| Caelo                      | Paraffin, white           | 9639991                | 1       |
| Caelo                      | Unguentum Cordes®         | 9A163                  | 1       |
| Caelo                      | Paraffin, white           | AKD50                  | 1       |
| Caelo                      | Wool alcohol ointment DAB | B19182201              | 1       |
| Caelo                      | Paraffin, white           | Caelo-Prima21000297007 | 1       |
| Caelo                      | Paraffin, yellow          | CH-B16096913           | 1       |
| Caelo                      | Hydrophilic ointment DAB  | CH-B17290701           | 1       |
| Caelo                      | Eye paraffin              | CHB18179716            | 1       |
| Caelo                      | Hydrophilic ointment DAB  | CHB18207501            | 1       |
| Caelo                      | Paraffin, liquid          | CHB19010307            | 1       |
| Caelo                      | Unguentum Cordes®         | Ichtyol                | 1       |
| Caelo                      | Paraffin, white           | jjjjjj                 | 1       |
| Caelo                      | Paraffin, white           | P159/14                | 1       |
| Caelo                      | Paraffin, white           | P-503                  | 1       |
| Caelo                      | Paraffin, white           | PV43                   | 1       |
| Caelo                      | Hydrophilic ointment DAB  | Test                   | 1       |
| Caelo                      | Hydrophilic ointment DAB  | U-020413-1             | 1       |
| Caelo                      | Wool alcohol ointment DAB | U-240513-3             | 1       |
| Caeol/ Noweda              | Paraffin, white           | 16272002               | 1       |
| Caeol/ Noweda              | Paraffin, white           | 16272003               | 1       |
| Caeol/ Noweda              | Unguentum Cordes®         | 16A023                 | 1       |
| Caeol/ Noweda              | Paraffin, yellow          | 17052401               | 1       |
| Caeol/Noweda               | Eye paraffin              | 15441511               | 1       |
| Caeol/Noweda               | Hydrophilic ointment DAB  | 17330302               | 1       |
| Caeol/Phönix               | Paraffin, white           | 17038212               | 1       |
| Caeol/Phornix              | Wool alcohol ointment DAB | 16198502               | 1       |
| Caeol/Phornix              | Paraffin, white           | 17038219               | 1       |
| Caeolo/Gehe                | Unguentum Cordes®         | 17A004                 | 1       |
| Caeolo/Krieger             | Wool alcohol ointment DAB | 16331802               | 1       |
| Caeolo/Noweda              | Wool alcohol ointment DAB | 15361901               | 1       |
| Caeolo/Noweda              | Eye paraffin              | 15441504               | 1       |
| Caeolo/Noweda              | Hydrophilic ointment DAB  | 16167102               | 1       |
| Caeolo/Noweda              | Paraffin, white           | 20001122002            | 1       |
| Caeolo/Noweda              | Hydrophilic ointment DAB  | 6/2019                 | 1       |
| Caeolo                     | Wool alcohol ointment DAB | 14067101               | 1       |
| Caeolo                     | Paraffin, white           | 15394701               | 1       |
| Caeolo                     | Eye paraffin              | 15441514               | 1       |
| Caesar & Lorenz GmbH       | Paraffin, white           | 15162512               | 1       |
| Caesar & Loretz /Noweda    | Hydrophilic ointment DAB  | 19000412002            | 1       |
| Caesar & Loretz /Phönix    | Eye paraffin              | 20003442002            | 1       |
| Caesar & Loretz GmbH / ... | Paraffin, white           | 18005015               | 1       |
| Caesar & Loretz GmbH / ... | Paraffin, white           | 1811025-01             | 2       |
| Caesar & Loretz GmbH / ... | Paraffin, white           | 192540001              | 3       |
| Caesar & Loretz GmbH / ... | Wool alcohol ointment DAB | 19000468001            | 1       |
| Caesar & Loretz GmbH / ... | Paraffin, white           | 21000297007            | 3       |
| Caesar & Loretz GmbH / ... | Eye paraffin              | 14301804               | 1       |
| Caesar & Loretz GmbH / ... | Eye paraffin              | 17342016               | 1       |
| Caesar & Loretz GmbH / ... | Eye paraffin              | 18179716               | 3       |
| Caesar & Loretz GmbH / ... | Hydrophobic base gel DAC  | 18240305               | 1       |
| Caesar & Loretz GmbH / ... | Paraffin, yellow          | 19001803               | 1       |
| Caesar & Loretz GmbH / ... | Wool alcohol ointment DAB | 19006902               | 1       |

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| Supplier                     | Substance                       | Batch       | Spectra |
|------------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment DAB       | 20003084001 | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, white                 | 192540004   | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, liquid                | 20004108011 | 1       |
| Caesar & Loretz GmbH / ...   | Hydrophilic ointment DAB        | 19190601    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, liquid                | 19271401    | 2       |
| Caesar & Loretz GmbH / ...   | Eye paraffin                    | 18179716    | 1       |
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment DAB       | 19041002    | 2       |
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment SR wit... | 19189902    | 2       |
| Caesar & Loretz GmbH / ...   | Paraffin, white                 | 18005023    | 1       |
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment DAB       | 19000472002 | 3       |
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment DAB       | 19007102    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, liquid                | 19010307    | 1       |
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment DAB       | 19041101    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, white                 | 19135403    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, white                 | 19135408    | 1       |
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment DAB       | 17301001    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, white                 | 18005031    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, white                 | 18006401    | 1       |
| Caesar & Loretz GmbH / ...   | Wool alcohol ointment DAB       | 18250901    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, liquid                | 19010313    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, liquid                | 19010316    | 1       |
| Caesar & Loretz GmbH / ...   | Paraffin, white                 | 19260102    | 2       |
| Caesar & Loretz GmbH / G...  | Paraffin, liquid                | 20002999003 | 1       |
| Caesar & Loretz GmbH / K...  | Wool alcohol ointment SR wit... | 19004203    | 1       |
| Caesar & Loretz GmbH 40...   | Wool alcohol ointment DAB       | 11185101    | 1       |
| Caesar & Loretz GmbH Hi...   | Paraffin, white                 | 13095701    | 1       |
| Caesar & Loretz GmbH Hi...   | Unguentum Cordes®               | 13A090      | 1       |
| Caesar & Loretz GmbH Hi...   | Wool alcohol ointment DAB       | 14283001    | 1       |
| Caesar & Loretz GmbH Hi...   | Paraffin, yellow                | 14324601    | 1       |
| Caesar & Loretz GmbH Hi...   | Hydrophilic ointment DAB        | 16008701    | 2       |
| Caesar & Loretz GmbH Hi...   | Hydrophobic base gel DAC        | 16070503    | 2       |
| Caesar & Loretz GmbH Hi...   | Paraffin, white                 | 16227403    | 1       |
| Caesar & Loretz GmbH Je...   | Paraffin, yellow                | 20000003003 | 1       |
| Caesar & Loretz GmbH Ph...   | Paraffin, yellow                | 20001759001 | 1       |
| Caesar & Loretz GmbH Sa...   | Paraffin, liquid                | 192559007   | 2       |
| Caesar & Loretz GmbH & / ... | Paraffin, white                 | 18179702    | 1       |
| Caesar & Loretz GmbH, 4...   | Paraffin, white                 | 11301301    | 1       |
| Caesar & Loretz GmbH, 4...   | Hydrophilic ointment DAB        | 12056002    | 1       |
| Caesar & Loretz GmbH, 4...   | Paraffin, white                 | 12071805    | 1       |
| Caesar & Loretz GmbH, 4...   | Paraffin, white                 | 12209204    | 1       |
| Caesar & Loretz GmbH, 4...   | Paraffin, white                 | 12209210    | 1       |
| Caesar & Loretz GmbH, 4...   | Paraffin, white                 | 12337706    | 1       |
| Caesar & Loretz GmbH, 4...   | Hydrophilic ointment DAB        | 13117501    | 1       |
| Caesar & Loretz GmbH, 4...   | Paraffin, white                 | 13130911    | 1       |
| Caesar & Loretz GmbH, 4...   | Hydrophobic base gel DAC        | 13165201    | 1       |
| Caesar & Loretz GmbH, P...   | Wool alcohol ointment DAB       | 17141401    | 1       |
| Caesar & Loretz GmbH, P...   | Paraffin, yellow                | 16090913    | 1       |
| Caesar & Loretz GmbH, P...   | Wool alcohol ointment DAB       | 17105001    | 1       |
| Caesar & Loretz GmbH, P...   | Wool alcohol ointment DAB       | 18251001    | 1       |
| Caesar & Loretz GmbH/ AEP    | Paraffin, liquid                | 192559004   | 1       |
| Caesar & Loretz GmbH/ AEP    | Paraffin, liquid                | 20004108006 | 1       |
| Caesar & Loretz GmbH/ AEP    | Paraffin, white                 | 21001517002 | 3       |
| Caesar & Loretz GmbH/ F...   | Hydrophilic ointment DAB        | 19025402    | 1       |
| Caesar & Loretz GmbH/ F...   | Hydrophobic base gel DAC        | 192539004   | 2       |
| Caesar & Loretz GmbH/ G...   | Paraffin, white                 | 18314809    | 1       |
| Caesar & Loretz GmbH/ G...   | Wool alcohol ointment DAB       | 19209002    | 1       |
| Caesar & Loretz GmbH/ G...   | Wool alcohol ointment DAB       | 19209002    | 1       |
| Caesar & Loretz GmbH/ G...   | Paraffin, liquid                | 192559004   | 1       |
| Caesar & Loretz GmbH/ G...   | Eye paraffin                    | 20000627002 | 1       |
| Caesar & Loretz GmbH/ G...   | Eye paraffin                    | 20000627005 | 2       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/ G... | Hydrophobic base gel DAC        | 20001559012 | 1       |
| Caesar & Loretz GmbH/ G... | Paraffin, liquid                | 20004108006 | 1       |
| Caesar & Loretz GmbH/ G... | Paraffin, white                 | 21000381003 | 1       |
| Caesar & Loretz GmbH/ G... | Wool alcohol ointment DAB       | 22000244004 | 1       |
| Caesar & Loretz GmbH/ J... | Eye paraffin                    | 192008003   | 1       |
| Caesar & Loretz GmbH/ J... | Paraffin, white                 | 192540002   | 1       |
| Caesar & Loretz GmbH/ J... | Eye paraffin                    | 20000627010 | 2       |
| Caesar & Loretz GmbH/ J... | Hydrophobic base gel DAC        | 20001559012 | 1       |
| Caesar & Loretz GmbH/ K... | Paraffin, white                 | 20001122001 | 1       |
| Caesar & Loretz GmbH/ K... | Paraffin, white                 | 18314809    | 1       |
| Caesar & Loretz GmbH/ K... | Hydrophilic ointment DAB        | 19190801    | 1       |
| Caesar & Loretz GmbH/ K... | Hydrophilic ointment DAB        | 19191001    | 1       |
| Caesar & Loretz GmbH/ M... | Paraffin, white                 | 18005023    | 1       |
| Caesar & Loretz GmbH/ M... | Wool alcohol ointment DAB       | 19007102    | 1       |
| Caesar & Loretz GmbH/ P... | Hydrophilic ointment DAB        | 21000365001 | 2       |
| Caesar & Loretz GmbH/ P... | Wool alcohol ointment DAB       | 20001901002 | 1       |
| Caesar & Loretz GmbH/ P... | Wool alcohol ointment DAB       | 20003084001 | 1       |
| Caesar & Loretz GmbH/ P... | Emulsifying hydrophobic base... | 20003511001 | 2       |
| Caesar & Loretz GmbH/ S... | Emulsifying hydrophobic base... | 20000848001 | 1       |
| Caesar & Loretz GmbH/ S... | Hydrophilic ointment DAB        | 19000408001 | 1       |
| Caesar & Loretz GmbH/ S... | Paraffin, liquid                | 19010313    | 1       |
| Caesar & Loretz GmbH/ S... | Paraffin, liquid                | CaeLo       | 1       |
| Caesar & Loretz GmbH/      | Paraffin, white                 | 21004079002 | 1       |
| Caesar & Loretz GmbH/AEP   | Eye paraffin                    | 181797002   | 1       |
| Caesar & Loretz GmbH/AEP   | Eye paraffin                    | 18179704    | 1       |
| Caesar & Loretz GmbH/AEP   | Eye paraffin                    | 18179716    | 1       |
| Caesar & Loretz GmbH/AEP   | Paraffin, liquid                | 192559011   | 1       |
| Caesar & Loretz GmbH/AEP   | Paraffin, liquid                | 21002861002 | 1       |
| Caesar & Loretz GmbH/AHD   | Paraffin, white                 | 18314809    | 1       |
| Caesar & Loretz GmbH/AHD   | Paraffin, liquid                | 19010303    | 1       |
| Caesar & Loretz GmbH/AHD   | Hydrophobic base gel DAC        | 19044903    | 1       |
| Caesar & Loretz GmbH/AHD   | Hydrophobic base gel DAC        | 19253903    | 1       |
| Caesar & Loretz GmbH/AHD   | Paraffin, white                 | 192540001   | 1       |
| Caesar & Loretz GmbH/AHD   | Paraffin, white                 | 19260102    | 1       |
| Caesar & Loretz GmbH/AHD   | Paraffin, liquid                | 20004108008 | 1       |
| Caesar & Loretz GmbH/AHD   | Eye paraffin                    | 21001982001 | 2       |
| Caesar & Loretz GmbH/Al... | Paraffin, white                 | 18314801    | 1       |
| Caesar & Loretz GmbH/Al... | Hydrophilic ointment DAB        | 19000413001 | 1       |
| Caesar & Loretz GmbH/Al... | Wool alcohol ointment DAB       | 19181901    | 2       |
| Caesar & Loretz GmbH/Al... | Paraffin, liquid                | 20002999002 | 2       |
| Caesar & Loretz GmbH/AN... | Paraffin, white                 | 17342016    | 1       |
| Caesar & Loretz GmbH/An... | Paraffin, white                 | 18005015    | 1       |
| Caesar & Loretz GmbH/An... | Wool alcohol ointment DAB       | 19181902    | 1       |
| Caesar & Loretz GmbH/Fi... | Paraffin, yellow                | 17303501    | 1       |
| Caesar & Loretz GmbH/Fi... | Wool alcohol ointment DAB       | 18250401    | 1       |
| Caesar & Loretz GmbH/Fi... | Paraffin, white                 | 18314809    | 2       |
| Caesar & Loretz GmbH/Fi... | Eye paraffin                    | 20000627002 | 1       |
| Caesar & Loretz GmbH/fi... | Wool alcohol ointment DAB       | 20003638004 | 1       |
| Caesar & Loretz GmbH/Gehe  | Eye paraffin                    | 17342016    | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, white                 | 18174312    | 1       |
| Caesar & Loretz GmbH/Gehe  | Eye paraffin                    | 181797002   | 1       |
| Caesar & Loretz GmbH/GEHE  | Eye paraffin                    | 18179703    | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic ointment DAB        | 18207501    | 1       |
| Caesar & Loretz GmbH/Gehe  | Wool alcohol ointment DAB       | 18250401    | 1       |
| Caesar & Loretz GmbH/GEHE  | Wool alcohol ointment DAB       | 18250603    | 1       |
| Caesar & Loretz GmbH/Gehe  | Wool alcohol ointment DAB       | 18251001    | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, white                 | 18314803    | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic ointment DAB        | 19000413001 | 1       |
| Caesar & Loretz GmbH/GEHE  | Wool alcohol ointment DAB       | 19000468001 | 1       |
| Caesar & Loretz GmbH/GEHE  | Wool alcohol ointment DAB       | 19000469001 | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/GEHE  | Wool alcohol ointment DAB       | 19000470001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, liquid                | 19010303    | 1       |
| Caesar & Loretz GmbH/Gehe  | Hydrophobic base gel DAC        | 19101801    | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, white                 | 19135408    | 1       |
| Caesar & Loretz GmbH/Gehe  | Wool alcohol ointment DAB       | 19182301    | 1       |
| Caesar & Loretz GmbH/Gehe  | Eye paraffin                    | 192008003   | 1       |
| Caesar & Loretz GmbH/GEHE  | Eye paraffin                    | 192008003   | 1       |
| Caesar & Loretz GmbH/Gehe  | Wool alcohol ointment DAB       | 19212101    | 1       |
| Caesar & Loretz GmbH/GEHE  | Hydrophobic base gel DAC        | 19253904    | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, white                 | 192540001   | 4       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, white                 | 192540002   | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, liquid                | 192559007   | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, liquid                | 192559008   | 2       |
| Caesar & Loretz GmbH/GEHE  | Paraffin, liquid                | 19271402    | 2       |
| Caesar & Loretz GmbH/Gehe  | Hydrophilic ointment DAB        | 19288801    | 1       |
| Caesar & Loretz GmbH/GEHE  | Eye paraffin                    | 20000627002 | 2       |
| Caesar & Loretz GmbH/Gehe  | Eye paraffin                    | 20000627005 | 1       |
| Caesar & Loretz GmbH/Gehe  | Eye paraffin                    | 20000627010 | 2       |
| Caesar & Loretz GmbH/GEHE  | Eye paraffin                    | 20000627010 | 1       |
| Caesar & Loretz GmbH/Gehe  | Wool alcohol ointment DAB       | 20001901002 | 1       |
| Caesar & Loretz GmbH/Gehe  | Emulsifying hydrophobic base... | 20003511001 | 2       |
| Caesar & Loretz GmbH/GEHE  | Abwaschbare Salbengrundlage ... | 20003915003 | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, liquid                | 20004108001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, liquid                | 20004108002 | 1       |
| Caesar & Loretz GmbH/Gehe  | Paraffin, white                 | 21000297007 | 1       |
| Caesar & Loretz GmbH/Gehe  | Abwaschbare Salbengrundlage ... | 21001433003 | 2       |
| Caesar & Loretz GmbH/GEHE  | Eye paraffin                    | 21002363005 | 1       |
| Caesar & Loretz GmbH/Ge... | Eye paraffin                    | 20000627005 | 3       |
| Caesar & Loretz GmbH/Go... | Hydrophilic ointment DAB        | 19025402    | 1       |
| Caesar & Loretz GmbH/Gö... | Hydrophilic ointment DAB        | 19190601    | 1       |
| Caesar & Loretz GmbH/Ho... | Wool alcohol ointment DAB       | 19000472002 | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, white                 | 18314803    | 1       |
| Caesar & Loretz GmbH/Je... | Emulsifying hydrophobic base... | 18315801    | 1       |
| Caesar & Loretz GmbH/Je... | Hydrophilic ointment DAB        | 19000413001 | 1       |
| Caesar & Loretz GmbH/Je... | Wool alcohol ointment DAB       | 19000468001 | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, liquid                | 19010313    | 1       |
| Caesar & Loretz GmbH/Je... | Hydrophilic ointment DAB        | 19025402    | 1       |
| Caesar & Loretz GmbH/Je... | Hydrophobic base gel DAC        | 19123607    | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, white                 | 19135405    | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, white                 | 19135408    | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, yellow                | 19165803    | 1       |
| Caesar & Loretz GmbH/Je... | Eye paraffin                    | 192008003   | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, liquid                | 19271402    | 1       |
| Caesar & Loretz GmbH/Je... | Eye paraffin                    | 20000627010 | 1       |
| Caesar & Loretz GmbH/Je... | Hydrophilic ointment DAB        | 20002047001 | 2       |
| Caesar & Loretz GmbH/Je... | Hydrophilic ointment DAB        | 20002930004 | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, liquid                | 20004108008 | 1       |
| Caesar & Loretz GmbH/Je... | Paraffin, white                 | 21000297008 | 2       |
| Caesar & Loretz GmbH/Je... | Eye paraffin                    | 21001982001 | 1       |
| Caesar & Loretz GmbH/Kehr  | Paraffin, white                 | 18179718    | 1       |
| Caesar & Loretz GmbH/Kehr  | Paraffin, liquid                | 19010315    | 2       |
| Caesar & Loretz GmbH/Kehr  | Hydrophilic ointment DAB        | 19190701    | 1       |
| Caesar & Loretz GmbH/Kehr  | Emulsifying hydrophobic base... | 19194801    | 1       |
| Caesar & Loretz GmbH/Kehr  | Paraffin, liquid                | 192559004   | 1       |
| Caesar & Loretz GmbH/Kehr  | Eye paraffin                    | 20000627002 | 1       |
| Caesar & Loretz GmbH/Kr... | Hydrophilic ointment DAB        | 17330601    | 1       |
| Caesar & Loretz GmbH/Kr... | Paraffin, white                 | 18005023    | 2       |
| Caesar & Loretz GmbH/Kr... | Eye paraffin                    | 18179718    | 1       |
| Caesar & Loretz GmbH/Kr... | Paraffin, liquid                | 19010313    | 1       |
| Caesar & Loretz GmbH/Kr... | Paraffin, liquid                | 19010316    | 1       |

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| Supplier                   | Substance                 | Batch             | Spectra |
|----------------------------|---------------------------|-------------------|---------|
| Caesar & Loretz GmbH/Kr... | Hydrophilic ointment DAB  | 19025402          | 1       |
| Caesar & Loretz GmbH/Kr... | Paraffin, yellow          | 19165701          | 1       |
| Caesar & Loretz GmbH/Kr... | Eye paraffin              | 192008002         | 1       |
| Caesar & Loretz GmbH/Kr... | Paraffin, white           | 192540001         | 1       |
| Caesar & Loretz GmbH/Kr... | Hydrophilic ointment DAB  | 19288801          | 1       |
| Caesar & Loretz GmbH/Kr... | Paraffin, liquid          | 20002999004       | 1       |
| Caesar & Loretz GmbH/Kr... | Hydrophilic ointment DAB  | 21000361001       | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, yellow          | 17303401          | 1       |
| Caesar & Loretz GmbH/No... | Eye paraffin              | 17342007          | 1       |
| Caesar & Loretz GmbH/No... | Eye paraffin              | 18179704          | 1       |
| Caesar & Loretz GmbH/No... | Eye paraffin              | 18179716          | 1       |
| Caesar & Loretz GmbH/No... | Eye paraffin              | 18179717          | 3       |
| Caesar & Loretz GmbH/No... | Wool alcohol ointment DAB | 18250901          | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, white           | 18314809          | 2       |
| Caesar & Loretz GmbH/No... | Wool alcohol ointment DAB | 19000472002       | 2       |
| Caesar & Loretz GmbH/No... | Paraffin, yellow          | 19001804          | 1       |
| Caesar & Loretz GmbH/No... | Wool alcohol ointment DAB | 19007101          | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, liquid          | 19010316          | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic ointment DAB  | 19025401          | 2       |
| Caesar & Loretz GmbH/No... | Wool alcohol ointment DAB | 19181901          | 4       |
| Caesar & Loretz GmbH/No... | Wool alcohol ointment DAB | 19182401          | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic ointment DAB  | 19190601          | 1       |
| Caesar & Loretz GmbH/No... | Hydrophobic base gel DAC  | 19194801          | 1       |
| Caesar & Loretz GmbH/No... | Eye paraffin              | 192008003         | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, yellow          | 192300002         | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, liquid          | 19271402          | 3       |
| Caesar & Loretz GmbH/No... | Paraffin, white           | 20000510003       | 1       |
| Caesar & Loretz GmbH/No... | Hydrophobic base gel DAC  | 20000848001       | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, white           | 20001819          | 1       |
| Caesar & Loretz GmbH/No... | Wool alcohol ointment DAB | 20001901001       | 2       |
| Caesar & Loretz GmbH/NO... | Hydrophilic ointment DAB  | 20002047002       | 1       |
| Caesar & Loretz GmbH/No... | Hydrophilic ointment DAB  | 20002930004       | 1       |
| Caesar & Loretz GmbH/No... | Wool alcohol ointment DAB | 20003085002       | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, liquid          | 20004108001       | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, liquid          | 20004108011       | 1       |
| Caesar & Loretz GmbH/No... | Paraffin, white           | 20004954          | 2       |
| Caesar & Loretz GmbH/No... | Eye paraffin              | 21001982003       | 1       |
| Caesar & Loretz GmbH/P     | Paraffin, liquid          | 192559003         | 3       |
| Caesar & Loretz GmbH/Ph... | Eye paraffin              | 17342015          | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, white           | 18174312          | 1       |
| Caesar & Loretz GmbH/Ph... | Eye paraffin              | 18179717          | 1       |
| Caesar & Loretz GmbH/Ph... | Wool alcohol ointment DAB | 18250402          | 1       |
| Caesar & Loretz GmbH/Ph... | Wool alcohol ointment DAB | 19000472001       | 2       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 19191001          | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 192559003         | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, white           | 19C12-T06-0777000 | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 20002047001       | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 21000362001       | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 21000363001       | 1       |
| Caesar & Loretz GmbH/Ph... | Wool alcohol ointment DAB | 19182201          | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 10910313          | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, white           | 18006401          | 1       |
| Caesar & Loretz GmbH/Ph... | Wool alcohol ointment DAB | 18132604          | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 1819M-02539       | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophobic base gel DAC  | 18240305          | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 19000412002       | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 19010304          | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 19010315          | 1       |
| Caesar & Loretz GmbH/Ph... | Wool alcohol ointment DAB | 19041002          | 2       |
| Caesar & Loretz GmbH/Ph... | Paraffin, white           | 19135404          | 1       |

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| Supplier                   | Substance                 | Batch       | Spectra |
|----------------------------|---------------------------|-------------|---------|
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 19190801    | 1       |
| Caesar & Loretz GmbH/Ph... | Eye paraffin              | 192008003   | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophobic base gel DAC  | 19253904    | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, white           | 192540001   | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 192559008   | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 192559011   | 2       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 192559012   | 1       |
| Caesar & Loretz GmbH/Ph... | Eye paraffin              | 20000627010 | 3       |
| Caesar & Loretz GmbH/Ph... | Paraffin, yellow          | 20001759001 | 2       |
| Caesar & Loretz GmbH/Ph... | Paraffin, yellow          | 20001760002 | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 20002929001 | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 20002930003 | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 20002999004 | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 20004108001 | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, liquid          | 20004108008 | 1       |
| Caesar & Loretz GmbH/Ph... | Paraffin, white           | 21000297007 | 1       |
| Caesar & Loretz GmbH/Ph... | Hydrophilic ointment DAB  | 21000361001 | 1       |
| Caesar & Loretz GmbH/Ph... | Wool alcohol ointment DAB | 21000941002 | 3       |
| Caesar & Loretz GmbH/Ph... | Wool alcohol ointment DAB | 419E-01370  | 1       |
| Caesar & Loretz GmbH/Px    | Wool alcohol ointment DAB | 18250901    | 1       |
| Caesar & Loretz GmbH/Sana  | Paraffin, white           | 20002327003 | 1       |
| Caesar & Loretz GmbH/Sana  | Paraffin, liquid          | 20004108001 | 1       |
| Caesar & Loretz GmbH/Sana  | Hydrophilic ointment DAB  | 21001473003 | 1       |
| Caesar & Loretz GmbH/Sa... | Wool alcohol ointment DAB | 11323310    | 1       |
| Caesar & Loretz GmbH/Sa... | Eye paraffin              | 17342006    | 1       |
| Caesar & Loretz GmbH/Sa... | Eye paraffin              | 17342016    | 2       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 18005016    | 2       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 18005031    | 2       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 18005039    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 18005698    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 18174311    | 1       |
| Caesar & Loretz GmbH/Sa... | Eye paraffin              | 18179716    | 3       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 18314810    | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic ointment DAB  | 19000412002 | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic ointment DAB  | 19000413001 | 3       |
| Caesar & Loretz GmbH/Sa... | Wool alcohol ointment DAB | 19000470001 | 1       |
| Caesar & Loretz GmbH/Sa... | Wool alcohol ointment DAB | 19000471001 | 1       |
| Caesar & Loretz GmbH/Sa... | Wool alcohol ointment DAB | 19000766001 | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, yellow          | 19001803    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 19004888    | 3       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic ointment DAB  | 19025402    | 2       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic ointment DAB  | 19025801    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 19135411    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, yellow          | 19165701    | 1       |
| Caesar & Loretz GmbH/Sa... | Wool alcohol ointment DAB | 19182401    | 1       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic ointment DAB  | 19190801    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 192540001   | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, liquid          | 192559011   | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 192601009   | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, liquid          | 19271402    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 20000627002 | 5       |
| Caesar & Loretz GmbH/Sa... | Eye paraffin              | 20000627010 | 1       |
| Caesar & Loretz GmbH/sa... | Paraffin, yellow          | 20001760002 | 2       |
| Caesar & Loretz GmbH/Sa... | Paraffin, liquid          | 20002999004 | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 20003237001 | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, liquid          | 20004108002 | 2       |
| Caesar & Loretz GmbH/Sa... | Hydrophilic ointment DAB  | 21000362001 | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | 21001517002 | 1       |
| Caesar & Loretz GmbH/Sa... | Wool alcohol ointment DAB | 94037210    | 1       |
| Caesar & Loretz GmbH/Sa... | Paraffin, white           | AP210622-02 | 1       |

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| Supplier                     | Substance                       | Batch       | Spectra |
|------------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Sa. ... | Wool alcohol ointment DAB       | T11-0734407 | 1       |
| Caesar & Loretz GmbH         | Paraffin, liquid                |             | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 13014002    | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 13245401    | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 14024901    | 2       |
| Caesar & Loretz GmbH         | Emulsifying hydrophobic base... | 14276401    | 2       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 14277801    | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 14277901    | 1       |
| Caesar & Loretz GmbH         | Eye ointment, emulsifying DAC   | 14A101018   | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 15221701    | 2       |
| Caesar & Loretz GmbH         | Paraffin, yellow                | 15330401    | 1       |
| Caesar & Loretz GmbH         | Paraffin, yellow                | 16032602    | 1       |
| Caesar & Loretz GmbH         | Paraffin, yellow                | 16096910    | 1       |
| Caesar & Loretz GmbH         | Wool alcohol ointment DAB       | 16198401    | 1       |
| Caesar & Loretz GmbH         | Emulsifying hydrophobic base... | 16226002    | 1       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 16271810    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17038204    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17038213    | 2       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 17052007    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17052010    | 7       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 17052012    | 1       |
| Caesar & Loretz GmbH         | Emulsifying hydrophobic base... | 17113702    | 1       |
| Caesar & Loretz GmbH         | Wool alcohol ointment DAB       | 17141401    | 1       |
| Caesar & Loretz GmbH         | Hydrophobic base gel DAC        | 17196707    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17204201    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17204207    | 3       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 17290601    | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 17290701    | 1       |
| Caesar & Loretz GmbH         | Wool alcohol ointment DAB       | 17300902    | 2       |
| Caesar & Loretz GmbH         | Wool alcohol ointment DAB       | 17301101    | 2       |
| Caesar & Loretz GmbH         | Paraffin, yellow                | 17303501    | 2       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 17330301    | 3       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 17330501    | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 17330601    | 6       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 17342006    | 3       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 17342007    | 5       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 17342008    | 2       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 17342013    | 6       |
| Caesar & Loretz GmbH         | Eye paraffin                    | 17342015    | 11      |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17342016    | 10      |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17347801    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17347802    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17347902    | 2       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17347903    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17350004    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 17350018    | 1       |
| Caesar & Loretz GmbH         | Unguentum Cordes®               | 17A087      | 1       |
| Caesar & Loretz GmbH         | Hydrophilic ointment DAB        | 18004579    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005001    | 3       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005015    | 18      |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005016    | 6       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005023    | 17      |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005025    | 2       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005029    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005031    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005033    | 8       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005034    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005039    | 8       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18005040    | 1       |
| Caesar & Loretz GmbH         | Paraffin, white                 | 18006401    | 1       |

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| Supplier             | Substance                       | Batch       | Spectra |
|----------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH | Paraffin, white                 | 18006404    | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18006406    | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 18092002    | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 18092006    | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 18092008    | 1       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 18092014    | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 18092015    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18132501    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18132603    | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18140604    | 2       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18140606    | 2       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18174301    | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18174302    | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18174303    | 3       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18174304    | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18174312    | 12      |
| Caesar & Loretz GmbH | Paraffin, white                 | 18174317    | 1       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 18177005    | 1       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 18177008    | 4       |
| Caesar & Loretz GmbH | Paraffin, white                 | 181797002   | 8       |
| Caesar & Loretz GmbH | Eye paraffin                    | 181797003   | 1       |
| Caesar & Loretz GmbH | Eye paraffin                    | 18179702    | 1       |
| Caesar & Loretz GmbH | Eye paraffin                    | 18179703    | 5       |
| Caesar & Loretz GmbH | Eye paraffin                    | 18179704    | 8       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18179716    | 21      |
| Caesar & Loretz GmbH | Paraffin, white                 | 18179717    | 27      |
| Caesar & Loretz GmbH | Eye paraffin                    | 18179718    | 10      |
| Caesar & Loretz GmbH | Paraffin, yellow                | 18191503    | 3       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 18207501    | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 18207502    | 6       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 18207503    | 2       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 18207601    | 1       |
| Caesar & Loretz GmbH | Emulsifying hydrophobic base... | 18228301    | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18240302    | 4       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18240305    | 4       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18240307    | 2       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18240308    | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18250301    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18250401    | 3       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18250402    | 8       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18250403    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18250701    | 9       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18250801    | 4       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18250901    | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 18251001    | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 18296802    | 4       |
| Caesar & Loretz GmbH | Eye paraffin                    | 18312102    | 2       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18314801    | 2       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18314803    | 4       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18314809    | 16      |
| Caesar & Loretz GmbH | Paraffin, white                 | 18314810    | 3       |
| Caesar & Loretz GmbH | Paraffin, white                 | 18314811    | 2       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 18315801    | 4       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19000408001 | 11      |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19000412001 | 8       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19000412002 | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19000413001 | 21      |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000467001 | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000468001 | 7       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000469001 | 6       |

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| Supplier             | Substance                       | Batch       | Spectra |
|----------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000470001 | 8       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000471001 | 4       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000472001 | 8       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000472002 | 8       |
| Caesar & Loretz GmbH | Wool alcohol ointment SR wit... | 19000657002 | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19000766001 | 1       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 19001803    | 7       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 19001804    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19006204    | 5       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19006301    | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19006302    | 4       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19006902    | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19007001    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19007101    | 3       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19007102    | 9       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19010303    | 2       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19010304    | 5       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19010307    | 6       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19010313    | 7       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19010315    | 1       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19010316    | 3       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19010317    | 1       |
| Caesar & Loretz GmbH | Emulsifying hydrophobic base... | 19021301    | 2       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19025401    | 7       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19025402    | 23      |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19025702    | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19025801    | 7       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19041002    | 4       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19041003    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19041004    | 3       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19041101    | 4       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19044902    | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19044903    | 3       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19044904    | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment SR wit... | 19068902    | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19101801    | 9       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19101802    | 3       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19123606    | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19123607    | 4       |
| Caesar & Loretz GmbH | Paraffin, white                 | 191354006   | 2       |
| Caesar & Loretz GmbH | Paraffin, white                 | 19135402    | 5       |
| Caesar & Loretz GmbH | Paraffin, white                 | 19135403    | 5       |
| Caesar & Loretz GmbH | Paraffin, white                 | 19135404    | 5       |
| Caesar & Loretz GmbH | Paraffin, white                 | 19135405    | 8       |
| Caesar & Loretz GmbH | Paraffin, white                 | 19135406    | 3       |
| Caesar & Loretz GmbH | Paraffin, white                 | 19135408    | 10      |
| Caesar & Loretz GmbH | Paraffin, white                 | 19135410    | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 19165701    | 8       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 19165702    | 1       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 19165803    | 4       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19181801    | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19181901    | 8       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19181902    | 12      |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19181903    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19182101    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19182103    | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19182201    | 3       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19182301    | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19182401    | 5       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19190601    | 12      |

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continued from previous page

| Supplier             | Substance                       | Batch            | Spectra |
|----------------------|---------------------------------|------------------|---------|
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19190701         | 11      |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19190801         | 2       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19190901         | 7       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19191001         | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19194701         | 2       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19194801         | 3       |
| Caesar & Loretz GmbH | Paraffin, white                 | 192008002        | 8       |
| Caesar & Loretz GmbH | Eye paraffin                    | 192008003        | 15      |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19209002         | 3       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19226402         | 5       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 192300004        | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 19236801         | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19244203         | 1       |
| Caesar & Loretz GmbH | Emulsifying hydrophobic base... | 19244301         | 1       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 192497004        | 4       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 192539004        | 7       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 192539005        | 5       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19253902         | 6       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19253903         | 2       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 19253904         | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 192540001        | 12      |
| Caesar & Loretz GmbH | Paraffin, white                 | 192540002        | 3       |
| Caesar & Loretz GmbH | Paraffin, white                 | 192540004        | 7       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559002        | 2       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559003        | 7       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559004        | 14      |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559007        | 10      |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559008        | 9       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559010        | 1       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559011        | 8       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 192559012        | 6       |
| Caesar & Loretz GmbH | Paraffin, white                 | 192601009        | 14      |
| Caesar & Loretz GmbH | Paraffin, white                 | 19260102         | 8       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19271401         | 7       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19271402         | 4       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19288602         | 2       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19288801         | 5       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19D25-T1-066650  | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19D25-T11-066650 | 2       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 19D25-T12-066644 | 1       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 19H09-T01-070898 | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000002001      | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 20000003003      | 7       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20000220002      | 5       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000510003      | 5       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000510006      | 2       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000510007      | 6       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000510009      | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000510012      | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000510013      | 4       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000510014      | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000627002      | 19      |
| Caesar & Loretz GmbH | Eye paraffin                    | 20000627003      | 2       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000627005      | 18      |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000627009      | 5       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20000627010      | 6       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20000848001      | 3       |
| Caesar & Loretz GmbH | Emulsifying hydrophobic base... | 20000850001      | 2       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20001122001      | 7       |
| Caesar & Loretz GmbH | Abwaschbare Salbengrundlage ... | 20001329001      | 1       |

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| Supplier             | Substance                       | Batch            | Spectra |
|----------------------|---------------------------------|------------------|---------|
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559002      | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559003      | 3       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559004      | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559006      | 3       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559008      | 3       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559010      | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559012      | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559014      | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20001559015      | 1       |
| Caesar & Loretz GmbH | Abwaschbare Salbengrundlage ... | 20001666002      | 1       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 20001760002      | 3       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20001899002      | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20001900001      | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20001900002      | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20001901001      | 13      |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20001901002      | 2       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 20001982002      | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 20002047001      | 7       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 20002047002      | 3       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20002327003      | 5       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 20002928001      | 5       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 20002929001      | 2       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 20002930002      | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 20002930004      | 2       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20002999003      | 7       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20002999004      | 13      |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20003042005      | 3       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20003084001      | 4       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20003085003      | 4       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20003085004      | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 20003237001      | 9       |
| Caesar & Loretz GmbH | Eye paraffin                    | 20003442002      | 4       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20003511001      | 5       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20003637002      | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20003638004      | 2       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 20003646001      | 1       |
| Caesar & Loretz GmbH | Abwaschbare Salbengrundlage ... | 20003915003      | 4       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 20003953003      | 2       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20004108001      | 11      |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20004108002      | 12      |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20004108006      | 5       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20004108007      | 2       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20004108008      | 9       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20004108011      | 3       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 2007019-02       | 2       |
| Caesar & Loretz GmbH | Paraffin, liquid                | 20B10-T34-078149 | 1       |
| Caesar & Loretz GmbH | Paraffin, white                 | 21000297007      | 10      |
| Caesar & Loretz GmbH | Paraffin, white                 | 21000297012      | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 21000361001      | 3       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 21000362001      | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 21000363001      | 3       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 21000365001      | 1       |
| Caesar & Loretz GmbH | Hydrophilic ointment DAB        | 21000365002      | 2       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 21000380002      | 1       |
| Caesar & Loretz GmbH | Paraffin, yellow                | 21000380009      | 3       |
| Caesar & Loretz GmbH | Paraffin, white                 | 21000381003      | 1       |
| Caesar & Loretz GmbH | Hydrophobic base gel DAC        | 21000556001      | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment SR wit... | 21000778002      | 1       |
| Caesar & Loretz GmbH | Abwaschbare Salbengrundlage ... | 21000937001      | 1       |
| Caesar & Loretz GmbH | Wool alcohol ointment DAB       | 21000939002      | 3       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 21000940002      | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 21000941001      | 6       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 21000941002      | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 21001242003      | 2       |
| Caesar & Loretz GmbH       | Hydrophilic ointment DAB        | 21001473001      | 2       |
| Caesar & Loretz GmbH       | Paraffin, white                 | 21001517002      | 1       |
| Caesar & Loretz GmbH       | Hydrophobic base gel DAC        | 21001592002      | 2       |
| Caesar & Loretz GmbH       | Hydrophobic base gel DAC        | 21001592011      | 1       |
| Caesar & Loretz GmbH       | Hydrophobic base gel DAC        | 21001592012      | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 21001946002      | 1       |
| Caesar & Loretz GmbH       | Eye paraffin                    | 21001982001      | 3       |
| Caesar & Loretz GmbH       | Eye paraffin                    | 21001982003      | 1       |
| Caesar & Loretz GmbH       | Paraffin, white                 | 21002101005      | 5       |
| Caesar & Loretz GmbH       | Paraffin, white                 | 21002101007      | 2       |
| Caesar & Loretz GmbH       | Paraffin, white                 | 21002101010      | 1       |
| Caesar & Loretz GmbH       | Hydrophobic base gel DAC        | 21002112001      | 2       |
| Caesar & Loretz GmbH       | Emulsifying hydrophobic base... | 21002113001      | 1       |
| Caesar & Loretz GmbH       | Paraffin, liquid                | 21002861001      | 3       |
| Caesar & Loretz GmbH       | Paraffin, liquid                | 21002861002      | 2       |
| Caesar & Loretz GmbH       | Hydrophilic ointment DAB        | 21003016001      | 3       |
| Caesar & Loretz GmbH       | Hydrophilic ointment DAB        | 21003016002      | 1       |
| Caesar & Loretz GmbH       | Hydrophobic base gel DAC        | 21003145003      | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 21003590002      | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 2711410          | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 2831510          | 1       |
| Caesar & Loretz GmbH       | Hydrophilic ointment DAB        | 2QE03-T03-079927 | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 41930610         | 1       |
| Caesar & Loretz GmbH       | Hydrophilic ointment DAB        | T10-0726202      | 1       |
| Caesar & Loretz GmbH/AHD   | Hydrophobic base gel DAC        | 18140606         | 1       |
| Caesar & Loretz GmbH-Al... | Eye paraffin                    | 20000627002      | 1       |
| Caesar & Loretz Hilden/... | Hydrophobic base gel DAC        | 20001559012      | 1       |
| Caesar & Loretz Hilden     | Wool alcohol ointment SR/DAC    | 18074502         | 1       |
| Caesar & Loretz Hilden     | Paraffin, white                 | 18174304         | 1       |
| Caesar & Loretz Hilden     | Paraffin, white                 | 18174312         | 1       |
| Caesar & Loretz Hilden     | Paraffin, white                 | 18314803         | 1       |
| Caesar & Loretz Hilden     | Wool alcohol ointment SR wit... | 19000657002      | 2       |
| Caesar & Loretz Hilden     | Wool alcohol ointment SR wit... | 19004203         | 1       |
| Caesar & Loretz Hilden     | Paraffin, liquid                | 19010307         | 1       |
| Caesar & Loretz Hilden     | Wool alcohol ointment DAB       | 19041101         | 2       |
| Caesar & Loretz Hilden     | Paraffin, white                 | 19135406         | 1       |
| Caesar & Loretz(Phönix     | Paraffin, white                 | 21000297007      | 1       |
| Caesar & Loretz/ Noweda    | Paraffin, yellow                | 1606913          | 1       |
| Caesar & Loretz/ Noweda    | Paraffin, white                 | 1710005          | 1       |
| Caesar & Loretz/AHD        | Wool alcohol ointment DAB       | 18005544         | 1       |
| Caesar & Loretz/Fiebig     | Eye paraffin                    | 20000627010      | 1       |
| Caesar & Loretz/Geilenk... | Paraffin, white                 | 19135403         | 1       |
| Caesar & Loretz/Geilenk... | Eye paraffin                    | 192008003        | 1       |
| Caesar & Loretz/Geilenk... | Paraffin, liquid                | 19271401         | 1       |
| Caesar & Loretz/Geilenk... | Paraffin, white                 | 20000510009      | 1       |
| Caesar & Loretz/Geilenk... | Wool alcohol ointment DAB       | 20001901001      | 1       |
| Caesar & Loretz/Geilenk... | Wool alcohol ointment DAB       | 20003085003      | 1       |
| Caesar & Loretz/Geilenk... | Wool alcohol ointment DAB       | 20003638004      | 1       |
| Caesar & Loretz/Geilenk... | Paraffin, liquid                | 20004108008      | 1       |
| Caesar & Loretz/Geilenk... | Wool alcohol ointment DAB       | 21000941001      | 1       |
| Caesar & Loretz/Geilenk... | Hydrophobic base gel DAC        | 20000848001      | 1       |
| Caesar & Loretz/Noweda     | Eye paraffin                    | 150500004        | 1       |
| Caesar & Loretz/Noweda     | Paraffin, yellow                | 15330401         | 1       |
| Caesar & Loretz/Noweda     | Paraffin, white                 | 15339806         | 1       |
| Caesar & Loretz/Noweda     | Wool alcohol ointment DAB       | 16066601         | 1       |
| Caesar & Loretz/Noweda     | Wool alcohol ointment DAB       | 16295102         | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz/Noweda     | Paraffin, white                 | 16326702    | 1       |
| Caesar & Loretz/Noweda     | Hydrophilic ointment DAB        | 19190701    | 1       |
| Caesar & Loretz/Noweda     | Paraffin, white                 | 192540002   | 1       |
| Caesar & Loretz/Noweda     | Paraffin, liquid                | 192559012   | 1       |
| Caesar & Loretz/Noweda     | Eye paraffin                    | 20000627002 | 1       |
| Caesar & Loretz/Noweda     | Emulsifying hydrophobic base... | 20003042005 | 1       |
| Caesar & Loretz/Noweda     | Paraffin, liquid                | 20004108008 | 1       |
| Caesar & Loretz/Phönix     | Paraffin, white                 | 18005034    | 2       |
| Caesar & Loretz/Phönix     | Hydrophobic base gel DAC        | 18140606    | 1       |
| Caesar & Loretz/Phönix     | Paraffin, white                 | 21002101005 | 1       |
| Caesar & Loretz            | Paraffin, white                 | 15339808    | 1       |
| Caesar & Loretz            | Hydrophilic ointment DAB        | 16166701    | 1       |
| Caesar & Loretz            | Wool alcohol ointment DAB       | 16198401    | 1       |
| Caesar & Loretz            | Eye paraffin                    | 16271807    | 1       |
| Caesar & Loretz            | Emulsifying hydrophobic base... | 17032303    | 1       |
| Caesar & Loretz            | Eye paraffin                    | 17052010    | 1       |
| Caesar & Loretz            | Hydrophobic base gel DAC        | 17113703    | 1       |
| Caesar & Loretz            | Wool alcohol ointment DAB       | 17141202    | 1       |
| Caesar & Loretz            | Hydrophobic base gel DAC        | 17196706    | 1       |
| Caesar & Loretz            | Hydrophobic base gel DAC        | 17320408    | 1       |
| Caesar & Loretz            | Hydrophilic ointment DAB        | 17330302    | 1       |
| Caesar & Loretz            | Hydrophilic ointment DAB        | 17330501    | 1       |
| Caesar & Loretz            | Paraffin, white                 | 18005029    | 1       |
| Caesar & Loretz            | Paraffin, yellow                | 18092002    | 1       |
| Caesar & Loretz            | Hydrophobic base gel DAC        | 18140604    | 1       |
| Caesar & Loretz            | Eye paraffin                    | 181797002   | 1       |
| Caesar & Loretz            | Wool alcohol ointment DAB       | 18250402    | 1       |
| CAESAR & LORETZ            | Paraffin, white                 | 18314809    | 2       |
| Caesar & Loretz            | Wool alcohol ointment DAB       | 19007101    | 1       |
| Caesar & Loretz            | Hydrophilic ointment DAB        | 19025702    | 1       |
| Caesar & Loretz GmbH       | Wool alcohol ointment DAB       | 12340003    | 1       |
| Caesar Sanacorp            | Hydrophilic ointment DAB        | 19000413001 | 2       |
| Caesar und Loretz GmbH     | Paraffin, yellow                | 19001803    | 1       |
| Caesar und Loretz          | Wool alcohol ointment DAB       | 293092      | 2       |
| caesar&lrenz               | Wool alcohol ointment DAB       | 16331702    | 1       |
| Caesar&Lorenz              | Paraffin, liquid                | 20004108008 | 1       |
| Caesar&Lorenz              | Paraffin, yellow                | 21000380004 | 1       |
| Caesar&Loretz GmbH,27.0... | Paraffin, white                 | 16227405    | 1       |
| Caesar&Loretz GmbH/Anzag   | Paraffin, white                 | 12337708    | 1       |
| Caesar&Loretz GmbH/Anzag   | Hydrophilic ointment DAB        | 13245301    | 1       |
| Caesar&Loretz GmbH/Anzag   | Hydrophilic ointment DAB        | 13245401    | 1       |
| Caesar&Loretz GmbH/Anzag   | Hydrophilic ointment DAB        | 14277901    | 1       |
| Caesar&Loretz GmbH/Anzag   | Hydrophilic ointment DAB        | 16009101    | 1       |
| Caesar&Loretz GmbH/Gehe    | Hydrophobic base gel DAC        | 19044903    | 1       |
| Caesar&Loretz GmbH         | Wool alcohol ointment DAB       | 15362002    | 1       |
| Caesar&Loretz GmbH         | Paraffin, white                 | 17038203    | 1       |
| Caesar&Loretz GmbH         | Hydrophobic base gel DAC        | 17043605    | 1       |
| Caesar&Loretz GmbH         | Wool alcohol ointment DAB       | 21000941002 | 1       |
| Caesar&loretz,Anzag        | Paraffin, white                 | 12003601    | 2       |
| Caesar&loretz,Phoenix      | Hydrophilic ointment DAB        | 12311501    | 1       |
| Caesar&loretz,Phoenix      | Hydrophilic ointment DAB        | 13245401    | 1       |
| caesar&loretz,Phönix       | Wool alcohol ointment DAB       | 15225601    | 1       |
| Caesar&Loretz/Gehe         | Wool alcohol ointment DAB       | 19007102    | 1       |
| Caesar&Loretz/Noweda       | Paraffin, yellow                | 14324301    | 1       |
| Caesar&Loretz              | Paraffin, yellow                | 16096903    | 1       |
| Caesar&Loretz              | Paraffin, white                 | 17350014    | 1       |
| Caesar&Loretz              | Paraffin, liquid                | 19010303    | 1       |
| Caesar/Lorenz              | Paraffin, white                 | 12321906    | 1       |
| Caesar/Lorenz              | Paraffin, white                 | 12337704    | 1       |
| Caesar/Noweda              | Paraffin, white                 | 13084905    | 1       |

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continued from previous page

| Supplier               | Substance                       | Batch       | Spectra |
|------------------------|---------------------------------|-------------|---------|
| Caesar/Noweda          | Hydrophobic base gel DAC        | 15436103    | 1       |
| Caesar/Sanacorp        | Wool alcohol ointment DAB       | 19000472002 | 4       |
| Caesar                 | Hydrophilic ointment DAB        | 18207501    | 1       |
| Caesar und Loretz GmbH | Eye paraffin                    | 18179716    | 1       |
| Caesar und Loretz GmbH | Hydrophilic ointment DAB        | 19025801    | 2       |
| Caesar&Loretz GmbH     | Paraffin, white                 | 192540002   | 2       |
| Caesar&Loretz/Phönix   | Hydrophilic ointment DAB        |             | 1       |
| Caleo/ Noweda          | Paraffin, white                 | 17204201    | 2       |
| Caleo/ Noweda          | Hydrophilic ointment DAB        | 17290701    | 1       |
| Caleo/ Noweda          | Hydrophilic ointment DAB        | 17330302    | 1       |
| Caleo/ Noweda          | Paraffin, white                 | 17350017    | 1       |
| Caleo/ Noweda          | Paraffin, liquid                | 192559004   | 2       |
| Caleo/gehe             | Paraffin, white                 | 17052008    | 1       |
| Caleo/no               | Paraffin, liquid                | 19271402    | 1       |
| Caleo/Noweda           | Hydrophilic ointment DAB        | 17040201    | 1       |
| Caleo/Phönix           | Emulsifying hydrophobic base... | 15064201    | 1       |
| Caleo/Phönix           | Paraffin, white                 | 18005034    | 1       |
| Caleo                  | Wool alcohol ointment DAB       | 17104903    | 1       |
| Caleo                  | Emulsifying hydrophobic base... | 20000848001 | 1       |
| calo                   | Paraffin, white                 | 13380703    | 1       |
| canaea, gehe           | Paraffin, white                 | 13095701    | 2       |
| Caolo/Anzag            | Paraffin, white                 | 13185505    | 1       |
| Cealo / Noweda         | Emulsifying hydrophobic base... | 13361004    | 4       |
| Cealo / Phönix         | Hydrophilic ointment DAB        | 17330301    | 1       |
| Cealo/ Alliance        | Eye paraffin                    | 17342005    | 1       |
| Cealo/ Anzag           | Hydrophilic ointment DAB        | 17040301    | 1       |
| Cealo/ Anzag           | Paraffin, white                 | 17052001    | 1       |
| Cealo/ Noweda          | Eye paraffin                    | 14301804    | 1       |
| Cealo/AEP              | Hydrophilic ointment DAB        | 20002047001 | 1       |
| Cealo/AHD              | Paraffin, white                 | 16272004    | 1       |
| Cealo/AHD              | Wool alcohol ointment DAB       | 16331701    | 1       |
| Cealo/Gehe             | Wool alcohol ointment DAB       | 16331704    | 2       |
| Cealo/Gehe             | Paraffin, white                 | 17038213    | 1       |
| Cealo/Gehe             | Eye paraffin                    | 17052012    | 1       |
| Cealo/GEHE             | Wool alcohol ointment DAB       | 19006902    | 1       |
| Cealo/Noweda           | Hydrophilic ointment DAB        | 15221601    | 1       |
| Cealo/Noweda           | Paraffin, white                 | 16272003    | 2       |
| Cealo/Noweda           | Unguentum Cordes®               | 16A142      | 2       |
| Cealo/Noweda           | Unguentum Cordes®               | 16A143      | 1       |
| Cealo/Noweda           | Hydrophilic ointment DAB        | 19025701    | 1       |
| Cealo/Phönix           | Hydrophilic ointment DAB        | 17330601    | 1       |
| Cealo/Sanacorp         | Wool alcohol ointment DAB       | 17300902    | 1       |
| Cealo/Sanacorp         | Emulsifying hydrophobic base... | 18075803    | 1       |
| Cealo                  | Paraffin, white                 | 12209210    | 1       |
| Cealo                  | Paraffin, white                 | 14124707    | 1       |
| Cealo                  | Unguentum Cordes®               | 14A113      | 1       |
| Cealo                  | Eye paraffin                    | 15441509    | 1       |
| Cealo                  | Eye paraffin                    | 17052010    | 2       |
| Cealo                  | Paraffin, yellow                | 17052401    | 1       |
| Cealo                  | Paraffin, white                 | 17204201    | 1       |
| Cealo                  | Wool alcohol ointment DAB       | 17301001    | 1       |
| Cealo                  | Wool alcohol ointment DAB       | 19041101    | 1       |
| Cealo                  | Paraffin, white                 | 19135402    | 1       |
| Cealo                  | Eye paraffin                    | 20000627002 | 1       |
| Cealo                  | Wool alcohol ointment DAB       | 81939510    | 1       |
| Ceasar & Lorentz GmbH  | Eye paraffin                    | 18179716    | 1       |
| Celo/Jenne             | Paraffin, white                 | 18005033    | 1       |
| Celo                   | Hydrophilic ointment DAB        | 16009101    | 1       |
| Celo                   | Hydrophobic base gel DAC        | 16172301    | 1       |
| Celo                   | Paraffin, white                 | 16181902    | 2       |

continued on the next page



continued from previous page

| Supplier               | Substance                | Batch    | Spectra |
|------------------------|--------------------------|----------|---------|
| chaelo/gehe            | Paraffin, white          | 17106002 | 1       |
| Chaelo                 | Hydrophilic ointment DAB | 17083102 | 1       |
| Chiesi/Krieger         | Hydrophilic ointment DAB | 17330302 | 1       |
| Chiesi                 | Unguentum Cordes®        | 17A004   | 1       |
| CIchthyol/K            | Unguentum Cordes®        | 11A199   | 1       |
| Cordes / Gehe          | Unguentum Cordes®        | 17A085   | 1       |
| Cordes / Noweda        | Unguentum Cordes®        | 19A111   | 1       |
| Cordes- Fiebig         | Unguentum Cordes®        | 17A070   | 1       |
| Cordes Hermann         | Unguentum Cordes®        | 15A020   | 1       |
| Cordes Hermann         | Unguentum Cordes®        | 16A085   | 1       |
| Cordes Phönix          | Unguentum Cordes®        | 17A051   | 1       |
| Cordes, Hermani / Gehe | Unguentum Cordes®        | 14A112   | 1       |
| Cordes, Hermani / Gehe | Unguentum Cordes®        | 14A171   | 1       |
| Cordes/AHD             | Unguentum Cordes®        | 17A126   | 1       |
| Cordes/Alia            | Unguentum Cordes®        | 18A190   | 1       |
| Cordes/Anzag           | Unguentum Cordes®        | 17A002   | 1       |
| Cordes/Gehe/07.05.21   | Unguentum Cordes®        | 20A0090  | 1       |
| Cordes/Gehe            | Unguentum Cordes®        | 13A157   | 1       |
| Cordes/Gehe            | Unguentum Cordes®        | 13A172   | 1       |
| Cordes/Gehe            | Unguentum Cordes®        | 16A155   | 1       |
| Cordes/gehe            | Unguentum Cordes®        | 17A084   | 1       |
| Cordes/Gehe            | Unguentum Cordes®        | 17A098   | 1       |
| Cordes/Gehe            | Paraffin, white          | 18314803 | 1       |
| Cordes/Gehe            | Unguentum Cordes®        | 18A111   | 1       |
| Cordes/Gehe            | Unguentum Cordes®        | 19A004   | 1       |
| Cordes/Gehe            | Unguentum Cordes®        | 19A128   | 1       |
| Cordes/Geilenkirchen   | Unguentum Cordes®        | 19A0154  | 1       |
| Cordes/Noweda          | Unguentum Cordes®        | 16A101   | 1       |
| Cordes/Noweda          | Unguentum Cordes®        | 16A121   | 1       |
| Cordes/Noweda          | Unguentum Cordes®        | 16A140   | 2       |
| Cordes/Noweda          | Unguentum Cordes®        | 17a002   | 1       |
| Cordes/Noweda          | Unguentum Cordes®        | 17A106   | 1       |
| CORDES/NOWEDA          | Unguentum Cordes®        | 18A107   | 2       |
| CORDES/NOWEDA          | Unguentum Cordes®        | 20A0045  | 1       |
| cordes/phoenix         | Unguentum Cordes®        | 13A047   | 1       |
| Cordes/Phoenix         | Unguentum Cordes®        | 15A124   | 1       |
| Cordes/Phoenix         | Unguentum Cordes®        | 15A125   | 1       |
| Cordes/Phoenix         | Unguentum Cordes®        | 16A102   | 1       |
| Cordes/Phoenix         | Unguentum Cordes®        | 18A101   | 1       |
| Cordes/Phönix          | Unguentum Cordes®        | 13A050   | 1       |
| Cordes/Phönix          | Unguentum Cordes®        | 15A124   | 1       |
| Cordes/Phönix          | Unguentum Cordes®        | 16A083   | 2       |
| Cordes/Phönix          | Unguentum Cordes®        | 16A142   | 2       |
| Cordes/Phönix          | Unguentum Cordes®        | 17A055   | 2       |
| Cordes/Phönix          | Unguentum Cordes®        | 18A051   | 1       |
| Cordes/Phönix          | Unguentum Cordes®        | 18A113   | 1       |
| Cordes/Phönix          | Unguentum Cordes®        | 19A0181  | 1       |
| Cordes/Phönix          | Unguentum Cordes®        | 21A0184  | 1       |
| Cordes/Sanacorp        | Unguentum Cordes®        | 17A045   | 1       |
| Cordes/Sanacorp        | Unguentum Cordes®        | 20A0153  | 1       |
| Cordes                 | Unguentum Cordes®        | 12A079   | 1       |
| Cordes                 | Unguentum Cordes®        | 12A155   | 1       |
| Cordes                 | Unguentum Cordes®        | 13a025   | 1       |
| Cordes                 | Unguentum Cordes®        | 13A052   | 1       |
| Cordes                 | Unguentum Cordes®        | 13A106   | 1       |
| Cordes                 | Unguentum Cordes®        | 14A055   | 1       |
| Cordes                 | Unguentum Cordes®        | 14A062   | 1       |
| cordes                 | Unguentum Cordes®        | 14A116   | 1       |
| Cordes                 | Unguentum Cordes®        | 14A117   | 2       |
| Cordes                 | Unguentum Cordes®        | 15A040   | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch       | Spectra |
|----------------------------|-------------------------------|-------------|---------|
| Cordes                     | Unguentum Cordes <sup>®</sup> | 15A060      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 15A106      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 16A046      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 16A051      | 1       |
| CORDES                     | Unguentum Cordes <sup>®</sup> | 16A101      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 16A122      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 16A137      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 16A184      | 1       |
| CORDES                     | Unguentum Cordes <sup>®</sup> | 16A184      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 17A004      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 17A005      | 2       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 17A045      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 17A067      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 17A084      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 17A087      | 1       |
| cordes                     | Unguentum Cordes <sup>®</sup> | 18A048      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 18A048      | 1       |
| cordes                     | Unguentum Cordes <sup>®</sup> | 18A051      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 18A051      | 1       |
| cordes                     | Unguentum Cordes <sup>®</sup> | 18A105      | 1       |
| CORDES                     | Unguentum Cordes <sup>®</sup> | 18A156      | 1       |
| Cordes                     | Unguentum Cordes <sup>®</sup> | 18A223      | 1       |
| Cordesl/Phönix             | Unguentum Cordes <sup>®</sup> | 17A142      | 1       |
| DAB 2008 Henry Lamotte ... | Hydrophilic ointment DAB      | 5243000     | 1       |
| DAB 2008                   | Wool alcohol ointment DAB     | 13255101    | 1       |
| DAC 2011                   | Wool alcohol ointment DAB     | 268471      | 1       |
| Defektur / Wolf-Apotheke   | Hydrophilic ointment DAB      | 299390      | 3       |
| Defektur Nasensalbe mit... | Paraffin, white               | 1716M-07002 | 1       |
| Defektur Nasensalbe mit... | Paraffin, white               | 617Q-07061  | 1       |
| Defektur Nasensalbe mit... | Paraffin, white               | 816E-07061  | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 10/15       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 18/14       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 2/13        | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 26/14       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 3/14        | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 38/14       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 3812        | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 40/13       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 41/14       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 42/14       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 45/14       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 47/13       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 5/15        | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 53/13       | 1       |
| Defektur                   | Wool alcohol ointment DAB     | 6/14        | 1       |
| Defekur                    | Hydrophilic ointment DAB      | 3216M-02539 | 1       |
| Delta                      | Unguentum Cordes <sup>®</sup> | 17A045      | 1       |
| Doroderm GmbH/ Noweda      | Paraffin, white               | 12115106    | 1       |
| Doroderm GmbH/ Noweda      | Hydrophilic ointment DAB      | 12311501    | 1       |
| Dr. August Wolff/Phönix    | Unguentum Cordes <sup>®</sup> | 17A087      | 1       |
| E Plus                     | Hydrophobic base gel DAC      | 17043605    | 1       |
| E Plus                     | Hydrophobic base gel DAC      | 17196704    | 1       |
| E Plus                     | Hydrophobic base gel DAC      | 17196705    | 2       |
| E Plus                     | Unguentum Cordes <sup>®</sup> | 17A051      | 1       |
| E Plus                     | Unguentum Cordes <sup>®</sup> | 17A101      | 1       |
| E Plus                     | Unguentum Cordes <sup>®</sup> | 17A163      | 1       |
| E Plus                     | Paraffin, white               | 309122      | 2       |
| Ebert & Jacobi 19.07...    | Paraffin, white               | 1509019-01  | 1       |
| Ebert & Jacobi 31.05...    | Eye paraffin                  | 15278809    | 1       |
| Ebert & Jacobi 03.08.16    | Hydrophilic ointment DAB      | 160091001   | 1       |

continued on the next page

continued from previous page

| Supplier                 | Substance                     | Batch       | Spectra |
|--------------------------|-------------------------------|-------------|---------|
| Ebert & Jacobi           | Hydrophilic ointment DAB      | 17083004    | 1       |
| Ebert & Jacobi           | Eye paraffin                  | 192008003   | 1       |
| Ebert 17.08.16 KKH       | Unguentum Cordes®             | 16A048      | 1       |
| Ebert 18.10.16           | Wool alcohol ointment DAB     | 62031710    | 1       |
| Ebert u. Jacobi 20.07... | Eye paraffin                  | 15441505    | 1       |
| Ebert/Ichthyol           | Unguentum Cordes®             | 13A052      | 1       |
| Ebert                    | Wool alcohol ointment DAB     | 13242602    | 1       |
| Ebert-Jacobi             | Unguentum Cordes®             | 17A008      | 1       |
| Eigen Defektur           | Hydrophilic ointment DAB      | 1716E-02539 | 1       |
| Eigen Defektur           | Hydrophilic ointment DAB      | 316M-02539  | 1       |
| Eigen/Defektur           | Hydrophilic ointment DAB      | 2516A-02539 | 1       |
| Eigen/Defektur           | Hydrophilic ointment DAB      | 3415I-02539 | 1       |
| Eigen/Defektur           | Hydrophilic ointment DAB      | 4215E-02539 | 1       |
| Eigen/Defektur           | Hydrophilic ointment DAB      | 5015E-02539 | 1       |
| Eigen                    | Paraffin, white               | 1120E-07061 | 1       |
| Eigen                    | Paraffin, white               | 181120      | 1       |
| Eigene Herstellung       | Paraffin, white               | 3218Q-07061 | 1       |
| eigene                   | Hydrophilic ointment DAB      | 1919I-02539 | 1       |
| EJ/Ichthyol              | Unguentum Cordes®             | 18A005      | 1       |
| EJ/Ichthyol              | Unguentum Cordes®             | 18A084      | 1       |
| Engel-Apotheke           | Eye paraffin                  | 2119I-07033 | 1       |
| Eplus                    | Paraffin, yellow              | 16187702    | 1       |
| E-Plus                   | Unguentum Cordes®             | 16A101      | 1       |
| Eplus                    | Paraffin, white               | 307661      | 2       |
| eucerinum                | Wool alcohol ointment DAB     | 33753710    | 1       |
| eucerinum                | Wool alcohol ointment DAB     | 34554710    | 1       |
| EuRho / 2                | Paraffin, liquid              | 2002013-01  | 1       |
| EuRho 08.01.18           | Paraffin, white               | 1705015-01  | 1       |
| EuRho/ Noweda            | Hydrophilic ointment DAB      | 14277601    | 1       |
| EuRho/Gehe               | Paraffin, white               |             | 1       |
| Eurho/Noweda             | Wool alcohol ointment DAB     | 1211017-01  | 1       |
| EuRho/Noweda             | Paraffin, white               | 1705015-01  | 1       |
| EuRho/Noweda             | Paraffin, liquid              | 1904026-01  | 4       |
| EuRho/Noweda             | Paraffin, white               | 76940h      | 1       |
| EuRho/Phoenix            | Paraffin, white               | 1135232     | 1       |
| eurho                    | Unguentum Cordes®             | 14a079      | 1       |
| Euro OTC                 | Eye ointment, emulsifying DAC | 10B030818   | 1       |
| Euro OTC                 | Paraffin, white               | 1108046-01  | 2       |
| Euro OTC                 | Paraffin, white               | 1109002-01  | 2       |
| Euro OTC                 | Hydrophilic ointment DAB      | 11211601    | 2       |
| Euro OTC                 | Wool alcohol ointment DAB     | 1204030-01  | 1       |
| Euro OTC                 | Paraffin, white               | 1205048-01  | 3       |
| Euro OTC                 | Paraffin, white               | 1210006-01  | 8       |
| Euro OTC                 | Paraffin, white               | 1210009-01  | 3       |
| Euro OTC                 | Paraffin, white               | 1210010-01  | 2       |
| Euro OTC                 | Wool alcohol ointment DAB     | 1211017-01  | 3       |
| Euro OTC                 | Wool alcohol ointment DAB     | 1211018-01  | 2       |
| Euro OTC                 | Wool alcohol ointment DAB     | 1223768     | 1       |
| Euro OTC                 | Paraffin, white               | 1230341     | 2       |
| Euro OTC                 | Paraffin, yellow              | 12321908    | 1       |
| Euro OTC                 | Paraffin, white               | 12337707    | 1       |
| Euro OTC                 | Hydrophobic base gel DAC      | 12362505    | 1       |
| Euro OTC                 | Paraffin, liquid              | 1264597     | 1       |
| Euro OTC                 | Paraffin, liquid              | 1283254     | 1       |
| Euro OTC                 | Paraffin, white               | 1302022-01  | 8       |
| Euro OTC                 | Paraffin, white               | 130503101   | 1       |
| Euro OTC                 | Paraffin, white               | 1305031-01  | 13      |
| Euro OTC                 | Paraffin, liquid              | 1305440     | 3       |
| Euro OTC                 | Hydrophilic ointment DAB      | 13117102    | 1       |
| Euro OTC                 | Paraffin, white               | 13163701    | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Euro OTC | Paraffin, liquid                | 1328624          | 1       |
| Euro OTC | Paraffin, white                 | 1328784          | 1       |
| Euro OTC | Paraffin, yellow                | 1342270          | 1       |
| Euro OTC | Paraffin, liquid                | 1350840          | 3       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 13A068           | 1       |
| Euro OTC | Paraffin, white                 | 1401017-01       | 4       |
| Euro OTC | Paraffin, white                 | 1401018-01       | 2       |
| Euro OTC | Paraffin, white                 | 1405014-01       | 9       |
| Euro OTC | Paraffin, white                 | 140900901        | 1       |
| Euro OTC | Paraffin, white                 | 1409009-01       | 3       |
| Euro OTC | Hydrophilic ointment DAB        | 14A06-T10-009049 | 1       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 14A078           | 2       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 14A079           | 1       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 14A172           | 1       |
| Euro OTC | Paraffin, white                 | 1501037-01       | 8       |
| Euro OTC | Paraffin, yellow                | 1503036-01       | 20      |
| Euro OTC | Paraffin, white                 | 1505017-01       | 7       |
| Euro OTC | Paraffin, white                 | 150901           | 1       |
| Euro OTC | Paraffin, white                 | 150901901        | 1       |
| Euro OTC | Paraffin, white                 | 1509019-01       | 7       |
| Euro OTC | Paraffin, white                 | 15339806         | 1       |
| Euro OTC | Hydrophobic base gel DAC        | 15436102         | 1       |
| Euro OTC | Paraffin, white                 | 15441505         | 1       |
| Euro OTC | Eye paraffin                    | 15441514         | 2       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 15A155           | 1       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 15A159           | 1       |
| Euro OTC | Paraffin, white                 | 1602009-01       | 4       |
| Euro OTC | Paraffin, white                 | 1605019-01       | 13      |
| Euro OTC | Paraffin, white                 | 160519-01        | 1       |
| Euro OTC | Paraffin, yellow                | 1606029/01       | 1       |
| Euro OTC | Paraffin, yellow                | 1606029-01       | 4       |
| Euro OTC | Wool alcohol ointment DAB       | 1608040-01       | 1       |
| Euro OTC | Paraffin, white                 | 1608041-01       | 9       |
| Euro OTC | Paraffin, white                 | 1612007-01       | 3       |
| Euro OTC | Paraffin, white                 | 16138004         | 1       |
| Euro OTC | Emulsifying hydrophobic base... | 16172201         | 3       |
| Euro OTC | Emulsifying hydrophobic base... | 16172301         | 1       |
| Euro OTC | Paraffin, white                 | 16227404         | 1       |
| Euro OTC | Hydrophobic base gel DAC        | 16240105         | 1       |
| Euro OTC | Wool alcohol ointment DAB       | 16331901         | 1       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 16A074           | 1       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 16A101           | 1       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 16A123           | 1       |
| Euro OTC | Unguentum Cordes <sup>®</sup>   | 16A139           | 1       |
| Euro OTC | Hydrophilic ointment DAB        | 17040202         | 1       |
| Euro OTC | Paraffin, liquid                | 1704023-01       | 1       |
| Euro OTC | Paraffin, white                 | 1705015-01       | 8       |
| Euro OTC | Paraffin, yellow                | 1705016-01       | 1       |
| Euro OTC | Paraffin, white                 | 17052012         | 1       |
| Euro OTC | Hydrophilic ointment DAB        | 17083202         | 1       |
| Euro OTC | Paraffin, yellow                | 1709015-01       | 7       |
| Euro OTC | Paraffin, white                 | 170901601        | 1       |
| Euro OTC | Paraffin, white                 | 1709016-01       | 7       |
| Euro OTC | Paraffin, white                 | 17106001         | 1       |
| Euro OTC | Emulsifying hydrophobic base... | 17113703         | 1       |
| Euro OTC | Paraffin, white                 | 171200801        | 1       |
| Euro OTC | Paraffin, white                 | 1712008-01       | 14      |
| Euro OTC | Wool alcohol ointment DAB       | 17141202         | 1       |
| Euro OTC | Paraffin, yellow                | 17303501         | 1       |
| Euro OTC | Hydrophilic ointment DAB        | 17330301         | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch       | Spectra |
|----------|-------------------------------|-------------|---------|
| Euro OTC | Eye paraffin                  | 17342005    | 1       |
| Euro OTC | Paraffin, white               | 17342006    | 1       |
| Euro OTC | Eye paraffin                  | 17342007    | 1       |
| Euro OTC | Paraffin, white               | 17347802    | 1       |
| Euro OTC | Paraffin, white               | 17347903    | 1       |
| Euro OTC | Unguentum Cordes®             | 17A007      | 1       |
| Euro OTC | Unguentum Cordes®             | 17A085      | 1       |
| Euro OTC | Unguentum Cordes®             | 17A087      | 1       |
| Euro OTC | Paraffin, white               | 18005015    | 1       |
| Euro OTC | Wool alcohol ointment SR/DAC  | 18005347    | 1       |
| Euro OTC | Paraffin, white               | 18006404    | 1       |
| Euro OTC | Paraffin, white               | 18006513    | 1       |
| Euro OTC | Paraffin, white               | 18006514    | 1       |
| Euro OTC | Paraffin, white               | 1804011-01  | 11      |
| Euro OTC | Paraffin, yellow              | 180401201   | 1       |
| Euro OTC | Paraffin, yellow              | 1804012-01  | 13      |
| Euro OTC | Wool alcohol ointment DAB     | 1804013-01  | 2       |
| Euro OTC | Paraffin, white               | 1808001-01  | 11      |
| Euro OTC | Paraffin, yellow              | 18092002    | 1       |
| Euro OTC | Wool alcohol ointment DAB     | 1811023-01  | 1       |
| Euro OTC | Paraffin, yellow              | 181102401   | 1       |
| Euro OTC | Paraffin, yellow              | 1811024-01  | 8       |
| Euro OTC | Paraffin, white               | 1811025-01  | 15      |
| Euro OTC | Paraffin, white               | 1811925-01  | 1       |
| Euro OTC | Wool alcohol ointment DAB     | 18250402    | 1       |
| Euro OTC | Eye ointment, emulsifying DAC | 18A021115   | 1       |
| Euro OTC | Paraffin, liquid              | 190101101   | 1       |
| Euro OTC | Paraffin, liquid              | 1901011-01  | 6       |
| Euro OTC | Paraffin, liquid              | 1904026-01  | 16      |
| Euro OTC | Paraffin, liquid              | 1904026-01  | 1       |
| Euro OTC | Paraffin, yellow              | 1904027-01  | 3       |
| Euro OTC | Paraffin, yellow              | 1904027-02  | 1       |
| Euro OTC | Paraffin, yellow              | 1904027-1   | 1       |
| Euro OTC | Paraffin, white               | 190402801   | 1       |
| Euro OTC | Paraffin, white               | 1904028-01  | 13      |
| Euro OTC | Paraffin, white               | 1904028-0-1 | 1       |
| Euro OTC | Paraffin, white               | 1904028-02  | 11      |
| Euro OTC | Paraffin, liquid              | 190901000   | 1       |
| Euro OTC | Paraffin, liquid              | 1909010-01  | 27      |
| Euro OTC | Paraffin, liquid              | 1909016-01  | 1       |
| Euro OTC | Paraffin, liquid              | 190910-01   | 1       |
| Euro OTC | Paraffin, liquid              | 19099016_01 | 1       |
| Euro OTC | Paraffin, yellow              | 1911029-01  | 5       |
| Euro OTC | Wool alcohol ointment DAB     | 1911030-01  | 1       |
| Euro OTC | Wool alcohol ointment SR/DAC  | 20000019    | 1       |
| Euro OTC | Paraffin, liquid              | 200201301   | 2       |
| Euro OTC | Paraffin, liquid              | 2002013-01  | 24      |
| Euro OTC | Paraffin, white               | 2003054-01  | 15      |
| Euro OTC | Paraffin, white               | 200501501   | 1       |
| Euro OTC | Paraffin, yellow              | 2005015-01  | 1       |
| Euro OTC | Paraffin, yellow              | 2005915-01  | 1       |
| Euro OTC | Paraffin, liquid              | 2006036-01  | 1       |
| Euro OTC | Paraffin, liquid              | 2007019-01  | 22      |
| Euro OTC | Paraffin, liquid              | 200701902   | 1       |
| Euro OTC | Paraffin, liquid              | 2007019-02  | 16      |
| Euro OTC | Paraffin, liquid              | 21007029-01 | 1       |
| Euro OTC | Paraffin, white               | 2101013-01  | 8       |
| Euro OTC | Paraffin, liquid              | 2107029-01  | 5       |
| Euro OTC | Paraffin, white               | 2109017-01  | 1       |
| Euro OTC | Paraffin, white               | 232110      | 1       |

continued on the next page

continued from previous page

| Supplier               | Substance                       | Batch            | Spectra |
|------------------------|---------------------------------|------------------|---------|
| Euro OTC               | Wool alcohol ointment DAB       | 270642           | 1       |
| Euro OTC               | Hydrophilic ointment DAB        | 288369           | 1       |
| Euro OTC               | Paraffin, white                 | 288714           | 1       |
| Euro OTC               | Paraffin, yellow                | 289344           | 1       |
| Euro OTC               | Paraffin, white                 | 297283           | 1       |
| Euro OTC               | Paraffin, white                 | 302037           | 1       |
| Euro OTC               | Paraffin, white                 | 306020           | 2       |
| Euro OTC               | Paraffin, white                 | 307661           | 1       |
| Euro OTC               | Wool alcohol ointment SR/DAC    | 310489           | 1       |
| Euro OTC               | Wool alcohol ointment DAB       | 6550215          | 1       |
| Euro OTC               | Wool alcohol ointment DAB       | 70434110         | 1       |
| Euro OTC               | Paraffin, white                 | 929392           | 1       |
| Euro OTC               | Paraffin, yellow                | B1811024-01      | 1       |
| Euro OTC               | Paraffin, white                 | F602635          | 1       |
| Euro OTC               | Paraffin, white                 | F603290          | 1       |
| Euro/Krieger           | Unguentum Cordes®               | 18A052           | 1       |
| Euro/Noweda            | Hydrophobic base gel DAC        | 16151105         | 1       |
| Euro/Phönix            | Paraffin, white                 | 17347901         | 3       |
| Euroo/Gehe             | Paraffin, white                 | 1602009-01       | 1       |
| EuroOTV                | Wool alcohol ointment DAB       | 1608040-01       | 1       |
| Europ Ots Pharma       | Hydrophobic base gel DAC        | 13299604         | 1       |
| Europharm / Gehe       | Paraffin, yellow                | 16096910         | 1       |
| Fa. Hansen & Rosenthal | Paraffin, white                 | 21812            | 26      |
| Fagro                  | Hydrophobic base gel DAC        | 15240805         | 1       |
| Fagron                 | Hydrophobic base gel DAC        |                  | 4       |
| Fagron                 | Wool alcohol ointment DAB       | 101114a          | 1       |
| Fagron                 | Paraffin, white                 | 10H12-T01        | 1       |
| Fagron                 | Hydrophobic base gel DAC        | 10L14-T54        | 3       |
| Fagron                 | Hydrophobic base gel DAC        | 10L14-T54-000713 | 1       |
| Fagron                 | Emulsifying hydrophobic base... | 10L14-T54-003418 | 1       |
| Fagron                 | Hydrophobic base gel DAC        | 10L14-T54-006109 | 5       |
| Fagron                 | Hydrophobic base gel DAC        | 10L14-T54-009128 | 2       |
| Fagron                 | Emulsifying hydrophobic base... | 10L14-T54-111713 | 1       |
| Fagron                 | Emulsifying hydrophobic base... | 1108-T01         | 1       |
| Fagron                 | Paraffin, white                 | 1140324          | 1       |
| Fagron                 | Paraffin, white                 | 1166979          | 1       |
| Fagron                 | Hydrophobic base gel DAC        | 117382           | 1       |
| Fagron                 | Hydrophobic base gel DAC        | 1177382          | 1       |
| Fagron                 | Paraffin, white                 | 11G11-T02        | 2       |
| Fagron                 | Emulsifying hydrophobic base... | 11G25-T01        | 1       |
| Fagron                 | Emulsifying hydrophobic base... | 11I08-T01        | 2       |
| Fagron                 | Paraffin, white                 | 11K14-T01        | 7       |
| Fagron                 | Hydrophobic base gel DAC        | 11K23-T01        | 1       |
| Fagron                 | Paraffin, white                 | 12/17-T01        | 2       |
| Fagron                 | Paraffin, white                 | 12/17-To1        | 1       |
| Fagron                 | Paraffin, white                 | 1205317          | 3       |
| Fagron                 | Hydrophobic base gel DAC        | 1207907          | 6       |
| Fagron                 | Paraffin, white                 | 12115107         | 1       |
| Fagron                 | Wool alcohol ointment DAB       | 1234             | 1       |
| Fagron                 | Paraffin, white                 | 1260333          | 7       |
| Fagron                 | Hydrophobic base gel DAC        | 1261203          | 5       |
| Fagron                 | Hydrophilic ointment DAB        | 12A12-T03        | 1       |
| Fagron                 | Unguentum Cordes®               | 12A152           | 1       |
| Fagron                 | Paraffin, white                 | 12B20-T02        | 1       |
| Fagron                 | Emulsifying hydrophobic base... | 12B20-T05        | 1       |
| Fagron                 | Hydrophilic ointment DAB        | 12C09-T01        | 2       |
| Fagron                 | Paraffin, white                 | 12D16-T01        | 2       |
| Fagron                 | Paraffin, white                 | 12D16-To1        | 1       |
| Fagron                 | Paraffin, white                 | 12D19-T54-000715 | 1       |
| Fagron                 | Emulsifying hydrophobic base... | 12F29-T01        | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                 | Batch            | Spectra |
|----------|---------------------------|------------------|---------|
| Fagron   | Paraffin, white           | 12H10-T05        | 2       |
| Fagron   | Paraffin, white           | 12I17-T01        | 2       |
| Fagron   | Hydrophilic ointment DAB  | 12J31-T04        | 3       |
| Fagron   | Paraffin, white           | 12J31-T52-000963 | 1       |
| Fagron   | Paraffin, white           | 12K01-T52        | 1       |
| Fagron   | Paraffin, white           | 12K01-T52-000717 | 1       |
| Fagron   | Paraffin, white           | 12K01-T52-002659 | 2       |
| Fagron   | Paraffin, white           | 13/19-T05-006192 | 1       |
| Fagron   | Paraffin, white           | 13/19-T05-006193 | 1       |
| Fagron   | Paraffin, white           | 13/19-T05-008452 | 1       |
| Fagron   | Hydrophobic base gel DAC  | 1313160          | 2       |
| Fagron   | Paraffin, white           | 13338703         | 1       |
| Fagron   | Hydrophobic base gel DAC  | 1382028          | 1       |
| Fagron   | Unguentum Cordes®         | 13A178           | 1       |
| Fagron   | Hydrophilic ointment DAB  | 13B04-T18-001057 | 3       |
| Fagron   | Paraffin, white           | 13D02T02002660   | 1       |
| Fagron   | Paraffin, white           | 13D02-T02-002660 | 1       |
| Fagron   | Paraffin, white           | 13D02-T02-004621 | 1       |
| Fagron   | Wool alcohol ointment DAB | 13D09-T04        | 1       |
| Fagron   | Wool alcohol ointment DAB | 13D09T04003308   | 2       |
| Fagron   | Wool alcohol ointment DAB | 13D09-T04-003308 | 4       |
| Fagron   | Wool alcohol ointment DAB | 13D09-T04-007315 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 13E10-T06-003563 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 13H13T04006144   | 1       |
| Fagron   | Hydrophilic ointment DAB  | 13H13-T04-006144 | 1       |
| Fagron   | Paraffin, white           | 13h19-T05-008453 | 1       |
| Fagron   | Paraffin, yellow          | 13I03-T03-007018 | 1       |
| Fagron   | Paraffin, white           | 13I19-T05-006192 | 2       |
| Fagron   | Paraffin, white           | 13I19-T05-006193 | 1       |
| Fagron   | Paraffin, white           | 13I19-T05-008452 | 2       |
| Fagron   | Paraffin, yellow          | 13K20-T05-009125 | 2       |
| Fagron   | Paraffin, white           | 13I19-T05-008452 | 1       |
| Fagron   | Paraffin, white           | 1401453          | 1       |
| Fagron   | Wool alcohol ointment DAB | 14153601         | 1       |
| Fagron   | Paraffin, white           | 14189012         | 2       |
| Fagron   | Paraffin, white           | 14189019         | 1       |
| Fagron   | Paraffin, white           | 14201001         | 1       |
| Fagron   | Wool alcohol ointment DAB | 14819510         | 1       |
| Fagron   | Hydrophilic ointment DAB  | 14A06-T10-009049 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 14A06-T11        | 1       |
| Fagron   | Hydrophilic ointment DAB  | 14A06T11009054   | 1       |
| Fagron   | Hydrophilic ointment DAB  | 14A06-T11-009054 | 3       |
| Fagron   | Unguentum Cordes®         | 14A079           | 1       |
| Fagron   | Paraffin, white           | 14C14T01         | 3       |
| Fagron   | Paraffin, yellow          | 14C14-T01-012612 | 1       |
| Fagron   | Paraffin, white           | 14E30-T07        | 3       |
| Fagron   | Paraffin, white           | 14E30-T07-012094 | 1       |
| Fagron   | Paraffin, white           | 14e30-t07-012095 | 1       |
| Fagron   | Paraffin, white           | 14E30-T07-012095 | 1       |
| Fagron   | Paraffin, white           | 14E30-T07-012096 | 4       |
| Fagron   | Paraffin, white           | 14E30-T07-014285 | 9       |
| Fagron   | Paraffin, white           | 14F30-T07-014285 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 14G08-T06        | 1       |
| Fagron   | Hydrophilic ointment DAB  | 14G08-T06-013947 | 2       |
| Fagron   | Hydrophilic ointment DAB  | 14G08-T06-013948 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 14G08-T07-013951 | 2       |
| Fagron   | Hydrophilic ointment DAB  | 14G08-T08-013954 | 5       |
| Fagron   | Hydrophilic ointment DAB  | 14Go8-To8-013954 | 1       |
| Fagron   | Wool alcohol ointment DAB | 14H19-T01-011354 | 1       |
| Fagron   | Wool alcohol ointment DAB | 14H19-T02-011354 | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                         | Batch             | Spectra |
|----------|-----------------------------------|-------------------|---------|
| Fagron   | Wool alcohol ointment DAB         | 14H19T02018184    | 1       |
| Fagron   | Wool alcohol ointment DAB         | 14H19-T02-018184  | 2       |
| Fagron   | Paraffin, white                   | 14I03-T03-020831  | 1       |
| Fagron   | Paraffin, white                   | 14J03-020827      | 1       |
| Fagron   | Paraffin, white                   | 14j03-t003-020827 | 1       |
| Fagron   | Paraffin, white                   | 14J03-T03         | 1       |
| Fagron   | Paraffin, white                   | 14j03-t03-020827  | 1       |
| Fagron   | Paraffin, white                   | 14J03-T03-020827  | 6       |
| Fagron   | Paraffin, white                   | 14j03-t03020831   | 1       |
| Fagron   | Paraffin, white                   | 14J03T03020831    | 1       |
| Fagron   | Paraffin, white                   | 14J03T-03-020831  | 1       |
| Fagron   | Paraffin, white                   | 14J03-T03-020831  | 2       |
| Fagron   | Paraffin, white                   | 14j03-to3-020827  | 1       |
| Fagron   | Paraffin, yellow                  | 14K27T29019302    | 1       |
| Fagron   | Paraffin, yellow                  | 14K27-T29-019303  | 2       |
| Fagron   | Paraffin, white                   | 14L11-T03-0277930 | 1       |
| Fagron   | Paraffin, white                   | 14L11-T03-027930  | 7       |
| Fagron   | Paraffin, white                   | 14L11-T03-027930  | 1       |
| Fagron   | Paraffin, white                   | 14L11-T03-027931  | 1       |
| Fagron   | Wool alcohol ointment SR wit. ... | 15047101          | 5       |
| Fagron   | Eye paraffin                      | 1505004           | 1       |
| Fagron   | Wool alcohol ointment DAB         | 15225601          | 1       |
| Fagron   | Hydrophobic base gel DAC          | 15240805          | 1       |
| Fagron   | Hydrophobic base gel DAC          | 15436101          | 3       |
| Fagron   | Eye paraffin                      | 15441514          | 2       |
| Fagron   | Unguentum Cordes®                 | 15A010            | 1       |
| Fagron   | Unguentum Cordes®                 | 15A020            | 1       |
| Fagron   | Unguentum Cordes®                 | 15A073            | 1       |
| Fagron   | Hydrophilic ointment DAB          | 15B19-T01         | 1       |
| Fagron   | Hydrophilic ointment DAB          | 15B19-T01-019409  | 1       |
| Fagron   | Hydrophilic ointment DAB          | 15B19-T01-019411  | 2       |
| Fagron   | Wool alcohol ointment DAB         | 15E18-20-021463   | 1       |
| Fagron   | Wool alcohol ointment DAB         | 15E18-T20-021463  | 4       |
| Fagron   | Hydrophilic ointment DAB          | 15F09-T02-023370  | 2       |
| Fagron   | Hydrophilic ointment DAB          | 15F23-T12-023864  | 2       |
| Fagron   | Hydrophilic ointment DAB          | 15F24-T05-023887  | 1       |
| Fagron   | Hydrophobic base gel DAC          | 15J02-T09-023890  | 2       |
| Fagron   | Hydrophilic ointment DAB          | 15K24-T01-027590  | 1       |
| Fagron   | Hydrophobic base gel DAC          | 15L10-T04-028696  | 2       |
| Fagron   | Wool alcohol ointment DAB         | 16066601          | 1       |
| Fagron   | Paraffin, white                   | 16181902          | 2       |
| Fagron   | Paraffin, white                   | 162274112         | 4       |
| Fagron   | Paraffin, white                   | 16272004          | 3       |
| Fagron   | Paraffin, yellow                  | 16E17-T01-035265  | 1       |
| Fagron   | Paraffin, yellow                  | 16E17-T01-035266  | 1       |
| Fagron   | Hydrophilic ointment DAB          | 16G18-T04-035261  | 3       |
| Fagron   | Wool alcohol ointment DAB         | 16H03-T01-032569  | 1       |
| Fagron   | Wool alcohol ointment DAB         | 16H03T01035269    | 1       |
| Fagron   | Hydrophobic base gel DAC          | 16H24-T02-034643  | 4       |
| Fagron   | Wool alcohol ointment DAB         | 16H3-T01-035269   | 1       |
| Fagron   | Hydrophilic ointment DAB          | 16K09-T02-038560  | 3       |
| Fagron   | Hydrophilic ointment DAB          | 16K09-T03-038564  | 1       |
| Fagron   | Hydrophilic ointment DAB          | 16K09-T09-038560  | 1       |
| Fagron   | Paraffin, white                   | 16L27T01042281    | 1       |
| Fagron   | Paraffin, white                   | 16L27-T01-042281  | 3       |
| Fagron   | Paraffin, white                   | 16L27-T01-042282  | 1       |
| Fagron   | Hydrophilic ointment DAB          | 17/11-T03-048188  | 3       |
| Fagron   | Hydrophobic base gel DAC          | 17001133          | 1       |
| Fagron   | Wool alcohol ointment DAB         | 17001877          | 2       |
| Fagron   | Hydrophobic base gel DAC          | 17032201          | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                 | Batch            | Spectra |
|----------|---------------------------|------------------|---------|
| Fagron   | Hydrophilic ointment DAB  | 17040501         | 3       |
| Fagron   | Paraffin, yellow          | 1705016-01       | 1       |
| Fagron   | Paraffin, white           | 17052001         | 1       |
| Fagron   | Eye paraffin              | 17052010         | 1       |
| Fagron   | Paraffin, liquid          | 1710025-1        | 1       |
| Fagron   | Hydrophilic ointment DAB  | 17111-T03-048188 | 1       |
| Fagron   | Wool alcohol ointment DAB | 17301001         | 1       |
| Fagron   | Hydrophilic ointment DAB  | 17330202         | 1       |
| Fagron   | Paraffin, white           | 17347903         | 1       |
| Fagron   | Paraffin, white           | 1735004          | 1       |
| Fagron   | Unguentum Cordes®         | 1744             | 1       |
| Fagron   | Unguentum Cordes®         | 17A005           | 1       |
| Fagron   | Unguentum Cordes®         | 17A007           | 1       |
| Fagron   | Unguentum Cordes®         | 17A052           | 1       |
| Fagron   | Unguentum Cordes®         | 17a054           | 1       |
| Fagron   | Paraffin, liquid          | 17D28-B01        | 1       |
| Fagron   | Paraffin, white           | 17E02-T01-049359 | 1       |
| Fagron   | Paraffin, white           | 17E02-T01-062809 | 2       |
| Fagron   | Paraffin, white           | 17E02-T01-062810 | 2       |
| Fagron   | Hydrophilic ointment DAB  | 17E04-T07-044038 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 17E04-T08-044042 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 17E04-To7-044039 | 1       |
| Fagron   | Hydrophobic base gel DAC  | 17E29-T03-051638 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 17I11-T03-048188 | 3       |
| Fagron   | Hydrophilic ointment DAB  | 17I11-T05        | 1       |
| Fagron   | Hydrophobic base gel DAC  | 17J06-T19-044327 | 2       |
| Fagron   | Hydrophobic base gel DAC  | 17L22-T02-059833 | 2       |
| Fagron   | Paraffin, white           | 17L22-T05-056230 | 1       |
| Fagron   | Paraffin, white           | 17L22-T05-056478 | 6       |
| Fagron   | Paraffin, white           | 17L22-T05-056479 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 18001506         | 1       |
| Fagron   | Paraffin, white           | 18002117         | 2       |
| Fagron   | Paraffin, white           | 18003484         | 1       |
| Fagron   | Paraffin, white           | 18005001         | 1       |
| Fagron   | Paraffin, white           | 1808585/2        | 1       |
| Fagron   | Wool alcohol ointment DAB | 18132604         | 1       |
| Fagron   | Hydrophobic base gel DAC  | 18140603         | 1       |
| Fagron   | Paraffin, yellow          | 18191503         | 1       |
| Fagron   | Wool alcohol ointment DAB | 18250402         | 1       |
| Fagron   | Unguentum Cordes®         | 18A110           | 1       |
| Fagron   | Unguentum Cordes®         | 18A147           | 1       |
| Fagron   | Wool alcohol ointment DAB | 18B09-T12-0002   | 1       |
| Fagron   | Wool alcohol ointment DAB | 18B09-T12-058739 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 18F27-T05-057539 | 4       |
| Fagron   | Paraffin, liquid          | 18I13-B01-355278 | 1       |
| Fagron   | Hydrophobic base gel DAC  | 18K01-T05062018  | 1       |
| Fagron   | Hydrophobic base gel DAC  | 18k01-T05-064712 | 1       |
| Fagron   | Hydrophobic base gel DAC  | 18K01-t05-064712 | 1       |
| Fagron   | Paraffin, white           | 18K01-T06-065452 | 1       |
| Fagron   | Paraffin, white           | 18K01-T06-065453 | 1       |
| Fagron   | Paraffin, white           | 18K01-T06-065455 | 1       |
| Fagron   | Paraffin, yellow          | 18K06T050644710  | 1       |
| Fagron   | Hydrophilic ointment DAB  | 18K16            | 2       |
| Fagron   | Hydrophilic ointment DAB  | 18K16-T02-062150 | 2       |
| Fagron   | Hydrophilic ointment DAB  | 18K16-T03-062155 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 19/10-T11-072625 | 1       |
| Fagron   | Paraffin, yellow          | 19001803         | 1       |
| Fagron   | Paraffin, white           | 19004888         | 1       |
| Fagron   | Paraffin, white           | 1912688/1        | 1       |
| Fagron   | Paraffin, liquid          | 19271401         | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                 | Batch              | Spectra |
|----------|---------------------------|--------------------|---------|
| Fagron   | Hydrophilic ointment DAB  | 19B28-T05-064717   | 7       |
| Fagron   | Paraffin, white           | 19C12-T06-077770   | 1       |
| Fagron   | Hydrophobic base gel DAC  | 19D01T04064713     | 1       |
| Fagron   | Hydrophobic base gel DAC  | 19D01-T04-064713   | 4       |
| Fagron   | Hydrophilic ointment DAB  | 19D25-T11-066650   | 3       |
| Fagron   | Hydrophilic ointment DAB  | 19D25-T12-06664    | 1       |
| Fagron   | Hydrophilic ointment DAB  | 19D25-T12-066644   | 2       |
| Fagron   | Hydrophilic ointment DAB  | 19D25-T13          | 1       |
| Fagron   | Hydrophilic ointment DAB  | 19D25-T13-066657   | 2       |
| Fagron   | Hydrophilic ointment DAB  | 19D2-T11-066650    | 1       |
| Fagron   | Paraffin, yellow          | 19G24-T06-071048   | 1       |
| Fagron   | Paraffin, white           | 19H05-T01-074234   | 1       |
| Fagron   | Paraffin, white           | 19H05-T01-074340   | 2       |
| Fagron   | Paraffin, white           | 19H05-T01-079917   | 2       |
| Fagron   | Hydrophobic base gel DAC  | 19H05-T02-070213   | 1       |
| Fagron   | Hydrophobic base gel DAC  | 19H05-T02-070214   | 2       |
| Fagron   | Paraffin, liquid          | 19H09-T01-070897   | 4       |
| Fagron   | Paraffin, liquid          | 19H09-T01-070897   | 1       |
| Fagron   | Paraffin, liquid          | 19H09T01-070898    | 1       |
| Fagron   | Paraffin, liquid          | 19H09-T01-070898   | 7       |
| Fagron   | Wool alcohol ointment DAB | 19H30-T03-071439   | 2       |
| Fagron   | Paraffin, liquid          | 19H09-T01-070898   | 1       |
| Fagron   | Hydrophilic ointment DAB  | 19J10-T10-072622   | 4       |
| Fagron   | Hydrophilic ointment DAB  | 19J10-T11          | 1       |
| Fagron   | Hydrophilic ointment DAB  | 19j10t110003       | 1       |
| Fagron   | Hydrophilic ointment DAB  | 19J10-T11-07262225 | 1       |
| Fagron   | Hydrophilic ointment DAB  | 19J10-T11-072625   | 5       |
| Fagron   | Hydrophobic base gel DAC  | 19L06_T04_072588   | 1       |
| Fagron   | Hydrophobic base gel DAC  | 19L06-T04-072588   | 1       |
| Fagron   | Hydrophobic base gel DAC  | 19L06-T04-076555   | 2       |
| Fagron   | Paraffin, white           | 19L06-T13-081155   | 1       |
| Fagron   | Paraffin, white           | 19L06-T13-082630   | 2       |
| Fagron   | Hydrophobic base gel DAC  | 19L06To4072588     | 1       |
| Fagron   | Wool alcohol ointment DAB | 19L19-T11-073447   | 5       |
| Fagron   | Paraffin, white           | 1BK01-T06-063753   | 1       |
| Fagron   | Hydrophilic ointment DAB  | 1F27-T0-07539      | 1       |
| Fagron   | Unguentum Cordes®         | 20A0115            | 2       |
| Fagron   | Paraffin, liquid          | 20B10-T34_079916   | 1       |
| Fagron   | Paraffin, liquid          | 20B10-T34-078149   | 4       |
| Fagron   | Paraffin, liquid          | 20B10-T34-079916   | 11      |
| Fagron   | Paraffin, liquid          | 20B10-T34-081549   | 2       |
| Fagron   | Hydrophilic ointment DAB  | 20C16-T02-077382   | 2       |
| Fagron   | Hydrophilic ointment DAB  | 20c19-T02-077382   | 1       |
| Fagron   | Hydrophilic ointment DAB  | 20E03-T02-079923   | 3       |
| Fagron   | Hydrophilic ointment DAB  | 20E03-T03          | 1       |
| Fagron   | Hydrophilic ointment DAB  | 20E03-T03-079927   | 3       |
| Fagron   | Hydrophilic ointment DAB  | 20E03-T03-079928   | 1       |
| Fagron   | Hydrophilic ointment DAB  | 20J14-T12-083291   | 2       |
| Fagron   | Hydrophilic ointment DAB  | 21019-103067679    | 1       |
| Fagron   | Unguentum Cordes®         | 21A0188            | 1       |
| Fagron   | Hydrophobic base gel DAC  | 21B09_T02-082627   | 1       |
| Fagron   | Hydrophobic base gel DAC  | 21B09-T02          | 1       |
| Fagron   | Hydrophobic base gel DAC  | 21B09-T02-082627   | 1       |
| Fagron   | Hydrophobic base gel DAC  | 21Bo9-To2-o82627   | 1       |
| Fagron   | Hydrophobic base gel DAC  | 21D19-T01-089492   | 2       |
| Fagron   | Hydrophilic ointment DAB  | 21D19-T03          | 1       |
| Fagron   | Hydrophilic ointment DAB  | 21F16-T05-087690   | 2       |
| Fagron   | Wool alcohol ointment DAB | 23033310           | 1       |
| Fagron   | Paraffin, liquid          | 2618I-02050        | 1       |
| Fagron   | Paraffin, white           | 27930              | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                    | Batch            | Spectra |
|----------------------------|------------------------------|------------------|---------|
| Fagron                     | Wool alcohol ointment DAB    | 281690           | 1       |
| Fagron                     | Paraffin, white              | 290441           | 1       |
| Fagron                     | Paraffin, white              | 291318           | 2       |
| Fagron                     | Paraffin, liquid             | 20B10-T34-079916 | 1       |
| Fagron                     | Wool alcohol ointment DAB    | 305881           | 1       |
| Fagron                     | Paraffin, white              | 306019           | 2       |
| Fagron                     | Wool alcohol ointment SR/DAC | 308145           | 1       |
| Fagron                     | Paraffin, white              | 3395             | 1       |
| Fagron                     | Wool alcohol ointment DAB    | 40956810         | 1       |
| Fagron                     | Hydrophilic ointment DAB     | 4419M-02539      | 1       |
| Fagron                     | Wool alcohol ointment DAB    | 51946010         | 3       |
| Fagron                     | Wool alcohol ointment DAB    | 53437010         | 1       |
| Fagron                     | Wool alcohol ointment DAB    | 53457110         | 2       |
| Fagron                     | Wool alcohol ointment DAB    | 74017010         | 1       |
| Fagron                     | Eye paraffin                 | 760619-021159    | 1       |
| Fagron                     | Paraffin, white              | 790619-013771    | 2       |
| Fagron                     | Eye paraffin                 | 790619-021159    | 2       |
| Fagron                     | Hydrophilic ointment DAB     | 79927            | 1       |
| Fagron                     | Paraffin, liquid             | 8012-95-1        | 1       |
| Fagron                     | Hydrophilic ointment DAB     | 80719A           | 1       |
| Fagron                     | Wool alcohol ointment DAB    | 84132310         | 1       |
| Fagron                     | Wool alcohol ointment DAB    | 84232410         | 2       |
| Fagron                     | Wool alcohol ointment DAB    | 8576509          | 1       |
| Fagron                     | Hydrophobic base gel DAC     | 8K01-T05-064712  | 1       |
| Fagron                     | Unguentum Cordes®            | Ichthyol/Phoenix | 1       |
| Fagron                     | Paraffin, white              | probe            | 1       |
| Fagron                     | Hydrophilic ointment DAB     | T10-0726202      | 1       |
| Fagron                     | Hydrophilic ointment DAB     | T11-0003         | 1       |
| Fagron                     | Hydrophilic ointment DAB     | T11-0726205      | 1       |
| Fagron                     | Paraffin, liquid             | T34-0799106      | 1       |
| Fagron                     | Hydrophilic ointment DAB     | T05-0863509      | 1       |
| Fagron                     | Hydrophobic base gel DAC     | V00230           | 9       |
| Fargon                     | Paraffin, white              | 14J03-T03-020827 | 3       |
| Fargon                     | Hydrophilic ointment DAB     | 16G18-T04-035261 | 1       |
| Fargon                     | Wool alcohol ointment DAB    | 16H03-T01-035270 | 1       |
| FEJ                        | Unguentum Cordes®            | 18A193           | 1       |
| Fiebig 08.10.12 ek: 10,... | Hydrophilic ointment DAB     | 12055901         | 1       |
| Fiebig 22.02.13 ek:3,63EUR | Paraffin, white              | 12115107         | 1       |
| Fiebig/ Lamotte            | Hydrophilic ointment DAB     | 5860400          | 2       |
| Fiebig/Beiersdorf          | Wool alcohol ointment DAB    | 73035910         | 1       |
| Fiebig/Ichthyol Gesell.    | Unguentum Cordes®            | 18A051           | 1       |
| Fiebig/Ichthyol Gesell.    | Unguentum Cordes®            | 18A130           | 1       |
| Fiebig/Ichthyol            | Unguentum Cordes®            | 15A124           | 1       |
| Fiebig/Ichthyol            | Unguentum Cordes®            | 17A002           | 2       |
| Fiebig/Ichthyol            | Unguentum Cordes®            | 17A045           | 2       |
| Fiebig/Ichthyol            | Unguentum Cordes®            | 18A110           | 1       |
| Fiebig/Ichthyol            | Unguentum Cordes®            | 18A132           | 1       |
| Fiebig                     | Wool alcohol ointment DAB    | 13Dog-T04-007315 | 1       |
| Fiebig                     | Hydrophilic ointment DAB     | 14225002         | 1       |
| Fiebig                     | Paraffin, white              | 15060014         | 2       |
| Fiebig                     | Paraffin, white              | 15162507         | 1       |
| Fiebig                     | Unguentum Cordes®            | 15A036           | 1       |
| Fiebig                     | Unguentum Cordes®            | 15A164           | 1       |
| Fiebig                     | Hydrophilic ointment DAB     | 16166801         | 1       |
| Fiebig                     | Paraffin, white              | 16181903         | 1       |
| Fiebig                     | Paraffin, white              | 16181904         | 1       |
| Fiebig                     | Paraffin, white              | 1618904          | 1       |
| Fiebig                     | Paraffin, white              | 16227403         | 1       |
| Fiebig                     | Paraffin, white              | 16326702         | 4       |
| Fiebig                     | Unguentum Cordes®            | 16A013           | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                 | Batch            | Spectra |
|----------------------------|---------------------------|------------------|---------|
| Fiebig                     | Eye paraffin              | 17052001         | 2       |
| Fiebig                     | Eye paraffin              | 17052008         | 1       |
| Fiebig                     | Eye paraffin              | 17052012         | 3       |
| Fiebig                     | Paraffin, white           | 17106001         | 2       |
| Fiebig                     | Paraffin, white           | 17106002         | 1       |
| Fiebig                     | Hydrophilic ointment DAB  | 17185501         | 1       |
| Fiebig                     | Hydrophilic ointment DAB  | 17290703         | 1       |
| Fiebig                     | Eye paraffin              | 17342015         | 1       |
| Fiebig                     | Eye paraffin              | 17342016         | 1       |
| Fiebig                     | Paraffin, white           | 17347801         | 1       |
| Fiebig                     | Paraffin, white           | 17347802         | 1       |
| Fiebig                     | Paraffin, white           | 17347901         | 1       |
| Fiebig                     | Paraffin, white           | 17350017         | 1       |
| Fiebig                     | Paraffin, white           | 17350018         | 1       |
| Fiebig                     | Unguentum Cordes®         | 17A105           | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 18001096         | 1       |
| Fiebig                     | Paraffin, white           | 18005016         | 1       |
| Fiebig                     | Paraffin, white           | 18005023         | 2       |
| Fiebig                     | Wool alcohol ointment DAB | 18005547         | 1       |
| Fiebig                     | Paraffin, white           | 18006401         | 3       |
| Fiebig                     | Paraffin, white           | 18006404         | 1       |
| Fiebig                     | Paraffin, white           | 18006406         | 2       |
| Fiebig                     | Hydrophilic ointment DAB  | 18207602         | 1       |
| Fiebig                     | Unguentum Cordes®         | 18a052           | 1       |
| Fiebig                     | Hydrophilic ointment DAB  | 19000412001      | 2       |
| Fiebig                     | Hydrophilic ointment DAB  | 19025402         | 1       |
| Fiebig                     | Eye paraffin              | 192008003        | 2       |
| Fiebig                     | Paraffin, liquid          | 192559004        | 1       |
| Fiebig                     | Paraffin, white           | 20000510007      | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 20002128         | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 2831510          | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 3712310          | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 61149910         | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 81819410         | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 83241810         | 1       |
| Fiebig                     | Wool alcohol ointment DAB | 84132310         | 1       |
| Finteler Apotheke          | Eye paraffin              | 16271807         | 2       |
| FJG                        | Paraffin, white           | 14301804         | 1       |
| Förster/Phönix             | Unguentum Cordes®         | 158142           | 1       |
| förster                    | Unguentum Cordes®         | 17A113           | 1       |
| Fragon/Phoenix             | Paraffin, white           | 14J03-T03-020831 | 1       |
| fragon                     | Wool alcohol ointment DAB | 12345            | 1       |
| Galderma/Phönix            | Unguentum Cordes®         | 16A077           | 1       |
| Gatt-Koller                | Paraffin, white           | 1802870          | 1       |
| Gatt-Koller                | Paraffin, white           | 1803869          | 1       |
| Gatt-Koller                | Paraffin, white           | 1900832          | 1       |
| gebepharma                 | Unguentum Cordes®         | 913I-02532       | 1       |
| Gehe - Ichthyol            | Unguentum Cordes®         | 12A183           | 1       |
| Gehe - Ichthyol            | Unguentum Cordes®         | 13A136           | 1       |
| Gehe - Ichthyol            | Unguentum Cordes®         | 15A027           | 1       |
| Gehe / Beiersdorf          | Wool alcohol ointment DAB | 63052310         | 1       |
| Gehe / Ichthyol            | Unguentum Cordes®         | 20A0116          | 2       |
| Gehe / Ichthyol-Gesells... | Unguentum Cordes®         | 16A061           | 1       |
| Gehe 09.04.19              | Paraffin, yellow          | 18191503         | 1       |
| GEHE 17.06.2014            | Wool alcohol ointment DAB | 23033310         | 1       |
| Gehe 20.06.15/euro         | Paraffin, white           | 13380709         | 1       |
| Gehe 23.05.2014            | Hydrophobic base gel DAC  | 14044601         | 1       |
| gehe 26.11.13              | Paraffin, white           | 5489700          | 1       |
| Gehe am 03.02.2014         | Paraffin, white           | 5489700          | 1       |
| Gehe am 27.2.14            | Paraffin, white           | 12337706         | 1       |

continued on the next page

*continued from previous page*

| Supplier                   | Substance                     | Batch      | Spectra |
|----------------------------|-------------------------------|------------|---------|
| Gehe amax                  | Wool alcohol ointment DAB     | 17301001   | 1       |
| Gehe amax                  | Hydrophobic base gel DAC      | 192539004  | 1       |
| Gehe GmbH                  | Eye paraffin                  | 17342015   | 1       |
| Gehe Kassel                | Unguentum Cordes®             | 15A021     | 1       |
| Gehe Kassel                | Hydrophobic base gel DAC      | 271904     | 1       |
| GEHE Kassel                | Hydrophobic base gel DAC      | 289214     | 1       |
| Gehe NL                    | Paraffin, white               | 20003115   | 1       |
| Gehe,11.05.15/Cordes       | Unguentum Cordes®             | 15A040     | 1       |
| Gehe/ Ichthyol             | Unguentum Cordes®             | 17A067     | 1       |
| Gehe/ Beiersdorf AG        | Wool alcohol ointment DAB     | 41940610   | 1       |
| Gehe/ Beiersdorf AG        | Wool alcohol ointment DAB     | 94947710   | 1       |
| Gehe/ Ichthyol Gesellsc... | Unguentum Cordes®             | 18A232     | 1       |
| Gehe/ ichthyol             | Unguentum Cordes®             | 18A156     | 1       |
| Gehe/ Ichthyol             | Unguentum Cordes®             | 20A0030    | 1       |
| gehe/Apoident              | Eye ointment, emulsifying DAC | 11A011116  | 3       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 1710910    | 2       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 2831510    | 1       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 40726610   | 1       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 41930610   | 2       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 50414810   | 1       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 50444710   | 1       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 50815310   | 1       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 60429110   | 1       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 64342810   | 1       |
| Gehe/Beiersdorf            | Wool alcohol ointment DAB     | 94037210   | 1       |
| GEHE/Caesar & Loretz GmbH  | Wool alcohol ointment DAB     | 19041002   | 1       |
| Gehe/EuRho                 | Paraffin, yellow              | 1606029-01 | 1       |
| Gehe/Henry Lamotte         | Hydrophilic ointment DAB      | 6001368013 | 2       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 13A090     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 14A061     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 15A124     | 4       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 15A141     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 15A191     | 4       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 15A192     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 16A085     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 16A099     | 3       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 16A139     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 18A232     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 19A003     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 19A112     | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 20A0030    | 1       |
| Gehe/Ichthyol              | Unguentum Cordes®             | 21A0055    | 1       |
| Gehe/ichthyol              | Unguentum Cordes®             | 21A0102    | 1       |
| Gehe/medphano              | Wool alcohol ointment DAB     | 20000019   | 1       |
| Gehe                       | Eye ointment, emulsifying DAC | 10A010615  | 1       |
| Gehe                       | Paraffin, white               | 11315403   | 1       |
| Gehe                       | Wool alcohol ointment DAB     | 11335003   | 1       |
| Gehe                       | Hydrophobic base gel DAC      | 119219     | 1       |
| Gehe                       | Unguentum Cordes®             | 11A161     | 1       |
| Gehe                       | Unguentum Cordes®             | 11A223     | 2       |
| Gehe                       | Unguentum Cordes®             | 11A234     | 1       |
| Gehe                       | Paraffin, white               | 12032404   | 1       |
| Gehe                       | Paraffin, white               | 1205048-01 | 1       |
| Gehe                       | Paraffin, white               | 1210006-01 | 1       |
| GEHE                       | Paraffin, white               | 12115106   | 1       |
| Gehe                       | Hydrophilic ointment DAB      | 12205201   | 1       |
| Gehe                       | Paraffin, white               | 12311004   | 1       |
| Gehe                       | Unguentum Cordes®             | 12A054     | 1       |
| Gehe                       | Unguentum Cordes®             | 12A056     | 2       |
| Gehe                       | Unguentum Cordes®             | 12A075     | 1       |

*continued on the next page*



continued from previous page

| Supplier | Substance                     | Batch            | Spectra |
|----------|-------------------------------|------------------|---------|
| Gehe     | Unguentum Cordes <sup>®</sup> | 12A079           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 12A087           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 12A124           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 12a155           | 2       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 12A155           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 12A205           | 2       |
| Gehe     | Hydrophilic ointment DAB      | 13117301         | 2       |
| Gehe     | Wool alcohol ointment DAB     | 13126001         | 1       |
| Gehe     | Wool alcohol ointment DAB     | 13357910         | 1       |
| Gehe     | Paraffin, white               | 13380720         | 1       |
| Gehe     | Paraffin, white               | 13380721         | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A031           | 3       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A054           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A106           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A136           | 2       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A141           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A153           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A156           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 13A166           | 1       |
| Gehe     | Eye ointment, emulsifying DAC | 13B070817        | 1       |
| Gehe     | Wool alcohol ointment DAB     | 14047010         | 1       |
| Gehe     | Hydrophilic ointment DAB      | 14123101         | 1       |
| Gehe     | Eye paraffin                  | 14124706         | 2       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 14A179           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 14A213           | 1       |
| Gehe     | Hydrophilic ointment DAB      | 14G08-T08-013954 | 1       |
| Gehe     | Hydrophilic ointment DAB      | 15016601         | 2       |
| Gehe     | Hydrophilic ointment DAB      | 15016901         | 1       |
| Gehe     | Eye paraffin                  | 15050003         | 1       |
| Gehe     | Eye paraffin                  | 15050004         | 3       |
| Gehe     | Eye paraffin                  | 150550004        | 1       |
| Gehe     | Paraffin, white               | 15060005         | 1       |
| Gehe     | Paraffin, white               | 15060012         | 1       |
| Gehe     | Paraffin, white               | 1509019-01       | 1       |
| Gehe     | Hydrophobic base gel DAC      | 15149603         | 1       |
| Gehe     | Paraffin, white               | 15162519         | 1       |
| Gehe     | Paraffin, white               | 15204302         | 2       |
| Gehe     | Hydrophilic ointment DAB      | 15221701         | 1       |
| Gehe     | Eye paraffin                  | 15278804         | 1       |
| Gehe     | Eye paraffin                  | 15278808         | 2       |
| gehe     | Paraffin, white               | 15339806         | 1       |
| Gehe     | Paraffin, white               | 15339806         | 3       |
| Gehe     | Wool alcohol ointment DAB     | 15361801         | 1       |
| Gehe     | Wool alcohol ointment DAB     | 15362001         | 1       |
| Gehe     | Eye paraffin                  | 15441501         | 3       |
| Gehe     | Eye paraffin                  | 15441502         | 2       |
| Gehe     | Eye paraffin                  | 15441509         | 1       |
| Gehe     | Eye paraffin                  | 15441510         | 1       |
| Gehe     | Eye paraffin                  | 15441511         | 1       |
| Gehe     | Eye paraffin                  | 15441514         | 4       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A021           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A022           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A060           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A062           | 3       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A089           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A091           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A124           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A142           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A148           | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 15A150           | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Gehe     | Unguentum Cordes®               | 15A191     | 1       |
| Gehe     | Unguentum Cordes®               | 15A192     | 1       |
| Gehe     | Wool alcohol ointment DAB       | 16007201   | 2       |
| Gehe     | Hydrophilic ointment DAB        | 16009101   | 1       |
| Gehe     | Paraffin, yellow                | 16032602   | 1       |
| Gehe     | Paraffin, yellow                | 16096913   | 1       |
| Gehe     | Paraffin, white                 | 16138003   | 1       |
| Gehe     | Paraffin, white                 | 16138004   | 1       |
| Gehe     | Hydrophobic base gel DAC        | 16151105   | 1       |
| Gehe     | Hydrophilic ointment DAB        | 16166801   | 1       |
| Gehe     | Hydrophilic ointment DAB        | 16167001   | 1       |
| Gehe     | Wool alcohol ointment DAB       | 16198601   | 1       |
| Gehe     | Hydrophobic base gel DAC        | 16240104   | 1       |
| Gehe     | Paraffin, white                 | 16241105   | 1       |
| Gehe     | Eye paraffin                    | 16271807   | 1       |
| Gehe     | Paraffin, yellow                | 16281001   | 1       |
| Gehe     | Paraffin, white                 | 16326702   | 2       |
| GEHE     | Wool alcohol ointment DAB       | 1633170    | 1       |
| Gehe     | Unguentum Cordes®               | 16A046     | 1       |
| GEHE     | Unguentum Cordes®               | 16A099     | 1       |
| Gehe     | Unguentum Cordes®               | 16A101     | 1       |
| Gehe     | Unguentum Cordes®               | 16A123     | 1       |
| Gehe     | Unguentum Cordes®               | 16A141     | 1       |
| Gehe     | Unguentum Cordes®               | 16A143     | 1       |
| Gehe     | Unguentum Cordes®               | 16A184     | 1       |
| Gehe     | Eye ointment, emulsifying DAC   | 16C11117   | 1       |
| Gehe     | Wool alcohol ointment DAB       | 17001876   | 1       |
| Gehe     | Emulsifying hydrophobic base... | 17032303   | 1       |
| Gehe     | Hydrophobic base gel DAC        | 17043605   | 1       |
| Gehe     | Paraffin, white                 | 1705015-01 | 1       |
| Gehe     | Paraffin, white                 | 17052001   | 2       |
| Gehe     | Eye paraffin                    | 17052008   | 1       |
| Gehe     | Eye paraffin                    | 17052010   | 1       |
| GEHE     | Eye paraffin                    | 17052010   | 1       |
| Gehe     | Eye paraffin                    | 17052012   | 2       |
| Gehe     | Paraffin, white                 | 17106001   | 1       |
| Gehe     | Paraffin, white                 | 17106005   | 2       |
| Gehe     | Hydrophobic base gel DAC        | 17113702   | 1       |
| GEHE     | Wool alcohol ointment DAB       | 17141202   | 1       |
| GEHE     | Paraffin, yellow                | 17223102   | 2       |
| gehe     | Hydrophilic ointment DAB        | 17290603   | 1       |
| GEHE     | Paraffin, yellow                | 17303401   | 2       |
| Gehe     | Hydrophilic ointment DAB        | 17330301   | 1       |
| Gehe     | Hydrophilic ointment DAB        | 17330601   | 1       |
| Gehe     | Eye paraffin                    | 17342007   | 1       |
| Gehe     | Eye paraffin                    | 17342015   | 1       |
| Gehe     | Paraffin, white                 | 17347801   | 2       |
| Gehe     | Paraffin, white                 | 17347802   | 1       |
| GEHE     | Paraffin, white                 | 17350004   | 1       |
| Gehe     | Unguentum Cordes®               | 17A004     | 1       |
| Gehe     | Unguentum Cordes®               | 17A049     | 1       |
| GEHE     | Unguentum Cordes®               | 17A053     | 1       |
| Gehe     | Unguentum Cordes®               | 17A054     | 1       |
| Gehe     | Unguentum Cordes®               | 17A085     | 2       |
| gehe     | Unguentum Cordes®               | 17A112     | 1       |
| GEHE     | Unguentum Cordes®               | 17A113     | 1       |
| GEHE     | Unguentum Cordes®               | 17A127     | 2       |
| Gehe     | Wool alcohol ointment DAB       | 18004090   | 1       |
| Gehe     | Paraffin, white                 | 18005015   | 2       |
| Gehe     | Paraffin, white                 | 18005023   | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch       | Spectra |
|----------|-------------------------------|-------------|---------|
| Gehe     | Paraffin, white               | 18005025    | 2       |
| Gehe     | Paraffin, white               | 18005031    | 1       |
| Gehe     | Wool alcohol ointment DAB     | 18005546    | 1       |
| Gehe     | Paraffin, white               | 18006404    | 1       |
| Gehe     | Hydrophobic base gel DAC      | 18140606    | 1       |
| GEHE     | Paraffin, white               | 18174307    | 1       |
| Gehe     | Eye paraffin                  | 18174312    | 1       |
| Gehe     | Paraffin, white               | 18314803    | 1       |
| GEHE     | Paraffin, white               | 18314811    | 1       |
| Gehe     | Hydrophobic base gel DAC      | 18315801    | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A048      | 1       |
| GEHE     | Unguentum Cordes <sup>®</sup> | 18A048      | 2       |
| GEHE     | Unguentum Cordes <sup>®</sup> | 18A049      | 1       |
| GEHE     | Unguentum Cordes <sup>®</sup> | 18A050      | 2       |
| GEHE     | Unguentum Cordes <sup>®</sup> | 18A067      | 1       |
| GEHE     | Unguentum Cordes <sup>®</sup> | 18A107      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A110      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A111      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A112      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A113      | 1       |
| GEHE     | Unguentum Cordes <sup>®</sup> | 18A147      | 2       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A156      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A166      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A215      | 1       |
| GEHE     | Unguentum Cordes <sup>®</sup> | 18A215      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A224      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 18A232      | 1       |
| Gehe     | Hydrophilic ointment DAB      | 19000408001 | 1       |
| Gehe     | Hydrophilic ointment DAB      | 19000412001 | 2       |
| GEHE     | Paraffin, yellow              | 19001804    | 1       |
| Gehe     | Paraffin, white               | 19006208    | 1       |
| Gehe     | Paraffin, liquid              | 19010315    | 1       |
| GEHE     | Paraffin, liquid              | 1904026-1   | 1       |
| GEHE     | Hydrophobic base gel DAC      | 19123606    | 2       |
| Gehe     | Hydrophilic ointment DAB      | 19190601    | 1       |
| Gehe     | Hydrophobic base gel DAC      | 192539004   | 1       |
| Gehe     | Paraffin, liquid              | 192559004   | 1       |
| Gehe     | Paraffin, liquid              | 192559012   | 1       |
| Gehe     | Paraffin, white               | 192601009   | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 19A006      | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 19A0153     | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 19A0154     | 3       |
| Gehe     | Wool alcohol ointment SR/DAC  | 20000019    | 1       |
| Gehe     | Eye paraffin                  | 20000627005 | 1       |
| Gehe     | Paraffin, yellow              | 20001760002 | 1       |
| Gehe     | Paraffin, white               | 20001819    | 1       |
| Gehe     | Wool alcohol ointment DAB     | 20002128    | 1       |
| Gehe     | Paraffin, liquid              | 20004108011 | 3       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 20A0049     | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 20A0090     | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 20A0105     | 2       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 20A0152     | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 20A0172     | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 20A173      | 1       |
| Gehe     | Hydrophobic base gel DAC      | 21000169    | 1       |
| Gehe     | Hydrophobic base gel DAC      | 21001592002 | 1       |
| Gehe     | Wool alcohol ointment DAB     | 21241410    | 2       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 21A0114     | 1       |
| Gehe     | Unguentum Cordes <sup>®</sup> | 21A0163     | 1       |
| Gehe     | Wool alcohol ointment DAB     | 22412510    | 2       |

continued on the next page

continued from previous page

| Supplier      | Substance                       | Batch    | Spectra |
|---------------|---------------------------------|----------|---------|
| Gehe          | Wool alcohol ointment DAB       | 22532710 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 23033310 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 23753710 | 1       |
| Gehe          | Paraffin, white                 | 268099   | 1       |
| GEHE          | Paraffin, white                 | 270163   | 1       |
| GEHE          | Paraffin, white                 | 270834   | 1       |
| Gehe          | Wool alcohol ointment SR wit... | 276135   | 1       |
| Gehe          | Hydrophilic ointment DAB        | 276671   | 2       |
| Gehe          | Paraffin, white                 | 277059   | 2       |
| Gehe          | Paraffin, white                 | 277060   | 1       |
| Gehe          | Paraffin, white                 | 279161   | 1       |
| Gehe          | Paraffin, white                 | 279969   | 1       |
| Gehe          | Wool alcohol ointment DAB       | 280061   | 1       |
| Gehe          | Paraffin, white                 | 282966   | 1       |
| Gehe          | Paraffin, white                 | 286095   | 2       |
| Gehe          | Paraffin, white                 | 286096   | 1       |
| Gehe          | Paraffin, white                 | 288714   | 2       |
| Gehe          | Wool alcohol ointment DAB       | 289509   | 1       |
| Gehe          | Paraffin, white                 | 291318   | 1       |
| Gehe          | Paraffin, white                 | 293553   | 1       |
| Gehe          | Paraffin, white                 | 297282   | 1       |
| Gehe          | Unguentum Cordes®               | 20A0173  | 1       |
| GEHE          | Paraffin, white                 | 300119   | 1       |
| Gehe          | Paraffin, white                 | 306019   | 1       |
| Gehe          | Wool alcohol ointment DAB       | 30711310 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 30831410 | 2       |
| Gehe          | Wool alcohol ointment DAB       | 30851510 | 1       |
| Gehe          | Paraffin, white                 | 309564   | 1       |
| Gehe          | Paraffin, yellow                | 310191   | 1       |
| GEHE          | Wool alcohol ointment SR wit... | 310488   | 2       |
| Gehe          | Wool alcohol ointment DAB       | 31231810 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 31322010 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 32932210 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 33323210 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 33753710 | 3       |
| Gehe          | Paraffin, liquid                | 3A060420 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 41026910 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 41950710 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 43142910 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 45054410 | 1       |
| Gehe          | Eye ointment, emulsifying DAC   | 4B260418 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 50414810 | 2       |
| Gehe          | Wool alcohol ointment DAB       | 50444710 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 50815310 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 50925410 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 5095510  | 1       |
| Gehe          | Wool alcohol ointment DAB       | 53457110 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 54127710 | 1       |
| Gehe          | Paraffin, white                 | 60081104 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 60419110 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 60539210 | 1       |
| Gehe          | Wool alcohol ointment SR wit... | 6550115  | 1       |
| Gehe          | Wool alcohol ointment DAB       | 71124510 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 71214810 | 1       |
| Gehe          | Wool alcohol ointment DAB       | 74747510 | 2       |
| GEHE          | Wool alcohol ointment DAB       | 93556410 | 1       |
| Gehe-Ichthyol | Unguentum Cordes®               | 15A060   | 2       |
| Gehe-Ichthyol | Unguentum Cordes®               | 15A073   | 1       |
| Gehe-Ichthyol | Unguentum Cordes®               | 15A123   | 1       |
| Gehe-Ichthyol | Unguentum Cordes®               | 16A083   | 2       |

continued on the next page

continued from previous page

| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
| Geibo/Ichthyol 12.8.19      | Unguentum Cordes <sup>®</sup>   | 18A232      | 1       |
| Geibo/Ichthyol 22.7.19      | Unguentum Cordes <sup>®</sup>   | 18A111      | 1       |
| Geibo/Ichthyol 24.11.2020   | Unguentum Cordes <sup>®</sup>   | 20A0084     | 1       |
| Geibo/Ichthyol 8.12.21      | Unguentum Cordes <sup>®</sup>   | 21A0114     | 1       |
| Geibo/Ichthyol 9.6.2020     | Unguentum Cordes <sup>®</sup>   | 18A156      | 1       |
| Geibo/Ichthyol              | Unguentum Cordes <sup>®</sup>   | 17A084      | 1       |
| Geibo/Ichthyol-Gesellsc...  | Unguentum Cordes <sup>®</sup>   | 17A002      | 1       |
| Geibo/Ichthyol-Gesellsc...  | Unguentum Cordes <sup>®</sup>   | 17a045      | 1       |
| Geibo/Ichthyol-Gesellsc...  | Unguentum Cordes <sup>®</sup>   | 18A110      | 1       |
| Geibo/Ichthyol              | Unguentum Cordes <sup>®</sup>   | 18A110      | 1       |
| Geibo/Ichthyol-Gesellsch... | Unguentum Cordes <sup>®</sup>   | 17A067      | 1       |
| Geilenkirchen               | Hydrophobic base gel DAC        | 15064201    | 1       |
| gepepharm GmbH              | Eye paraffin                    | 15441504    | 1       |
| GUMO                        | Unguentum Cordes <sup>®</sup>   | 19A029      | 2       |
| GUMO                        | Unguentum Cordes <sup>®</sup>   | 20A0051     | 1       |
| GUMO                        | Unguentum Cordes <sup>®</sup>   | 20A0060     | 1       |
| GUMO                        | Unguentum Cordes <sup>®</sup>   | 20A0093     | 1       |
| GUMO                        | Unguentum Cordes <sup>®</sup>   | 20A0095     | 1       |
| GUMO                        | Unguentum Cordes <sup>®</sup>   | 20A0097     | 1       |
| GUMO                        | Unguentum Cordes <sup>®</sup>   | 20A0125     | 1       |
| GUMO                        | Hydrophilic ointment DAB        | 21000365001 | 1       |
| Gutenberg-Apotheke          | Paraffin, white                 | 13185502    | 1       |
| H.Lamotte/Anzag 04.07.17    | Hydrophilic ointment DAB        | 8002320009  | 6       |
| H.Lamotte/Anzag 06.11.18    | Hydrophilic ointment DAB        | 8004399001  | 4       |
| H.Lamotte/Anzag 12.05.20    | Hydrophilic ointment DAB        | 8005713006  | 3       |
| H.Lamotte/Jenne             | Paraffin, liquid                | 19004134    | 1       |
| H.Lamotte/Jenne             | Paraffin, liquid                | 20005329    | 2       |
| Hanpu Pharm                 | Paraffin, white                 | 4914987     | 1       |
| Hänseler                    | Paraffin, white                 |             | 3       |
| Hansen & Rosenthal          | Hydrophobic base gel DAC        | 1298590     | 1       |
| Hansen & Rosenthal          | Hydrophobic base gel DAC        | 1371621     | 1       |
| Hansen und Rosenthal KG     | Paraffin, white                 | 42027       | 20      |
| Hansen & Rosenthal/Phönix   | Paraffin, white                 | 1108046-01  | 1       |
| HansenRosenthalKG/Hansen    | Hydrophobic base gel DAC        | 1078667     | 1       |
| harn                        | Unguentum Cordes <sup>®</sup>   | 17A069      | 1       |
| Hedinger / Sanacorp         | Wool alcohol ointment DAB       | 17104902    | 1       |
| Hedinger/ Anzag             | Paraffin, yellow                | 307079      | 1       |
| Hedinger/ Gehe              | Hydrophobic base gel DAC        | 17043604    | 1       |
| Hedinger/Krieger            | Unguentum Cordes <sup>®</sup>   | 16A048      | 1       |
| Hedinger/Noweda             | Paraffin, white                 | 4-219072    | 1       |
| hedinger/Noweda             | Unguentum Cordes <sup>®</sup>   | khuhfhk     | 1       |
| Hedinger                    | Unguentum Cordes <sup>®</sup>   | 13A053      | 1       |
| Hedinger                    | Paraffin, white                 | 15060004    | 1       |
| Hedinger                    | Paraffin, white                 | 17106004    | 1       |
| Hedinger                    | Paraffin, yellow                | 17223103    | 2       |
| Heins                       | Hydrophobic base gel DAC        | 19253903    | 3       |
| Henry Lamotte Oils GmbH     | Paraffin, liquid                | 8003083001  | 1       |
| Henry Lamotte Oils GmbH     | Hydrophilic ointment DAB        | 5860400     | 1       |
| Henry Lamotte / Gehe        | Hydrophilic ointment DAB        | 8002320009  | 1       |
| Henry Lamotte /Noweda       | Hydrophilic ointment DAB        | 5860400     | 1       |
| Henry Lamotte GMBH/AHD      | Paraffin, white                 | 5691100     | 2       |
| Henry Lamotte Oels GmbH     | Wool alcohol ointment SR wit... | 7A111214    | 2       |
| Henry Lamotte Oil GmbH      | Paraffin, liquid                | 1000010844  | 1       |
| HENRY LAMOTTE OILS GMBH/... | Paraffin, liquid                | 1000016200  | 1       |
| Henry Lamotte Oils GmbH...  | Hydrophilic ointment DAB        | 8003325012  | 1       |
| Henry Lamotte Oils GmbH...  | Hydrophilic ointment DAB        | 6001368013  | 1       |
| Henry Lamotte Oils GmbH...  | Paraffin, white                 | 1705015-01  | 1       |
| Henry Lamotte Oils GmbH...  | Hydrophilic ointment DAB        | 8004399001  | 2       |
| Henry Lamotte Oils GmbH...  | Paraffin, liquid                | 1000014411  | 1       |
| HENRY LAMOTTE OILS GmbH     | Eye paraffin                    | 17052001    | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                 | Batch       | Spectra |
|----------------------------|---------------------------|-------------|---------|
| Henry Lamotte Oils GmbH    | Paraffin, white           | 5098800     | 2       |
| Henry Lamotte Oils GmbH    | Paraffin, white           | 5322600     | 1       |
| Henry Lamotte Oils GmbH    | Paraffin, white           | 5489700     | 3       |
| henry lamotte oils gmbh    | Paraffin, white           | 5538300     | 1       |
| Henry Lamotte Oils GmbH    | Paraffin, white           | 5538300     | 2       |
| Henry Lamotte Oils GmbH    | Paraffin, white           | 5691100     | 1       |
| Henry Lamotte Oils GmbH    | Hydrophilic ointment DAB  | 5860400     | 1       |
| Henry Lamotte Oils GmbH    | Wool alcohol ointment DAB | 5860600     | 1       |
| Henry Lamotte Oils GmbH    | Hydrophilic ointment DAB  | 5862400     | 1       |
| Henry Lamotte Oils GmbH    | Paraffin, white           | 6000083007  | 2       |
| Henry Lamotte Oils GmbH    | Hydrophilic ointment DAB  | 6001368013  | 2       |
| Henry Lamotte oils GmbH    | Hydrophilic ointment DAB  | 8002320009  | 5       |
| Henry Lamotte Oils GmbH    | Hydrophilic ointment DAB  | 8003325012  | 1       |
| Henry Lamotte Oils GmbH    | Hydrophilic ointment DAB  | 8004399001  | 1       |
| Henry Lamotte Oils GmbH    | Hydrophilic ointment DAB  | 8005713006  | 4       |
| Henry Lamotte Oils/Anzag   | Paraffin, white           | 8004538003  | 2       |
| Henry Lamotte Oils/GEHE    | Paraffin, liquid          | 1000010844  | 2       |
| Henry Lamotte Oils/Sana... | Paraffin, liquid          | 1000010844  | 1       |
| Henry Lamotte Oils         | Paraffin, white           | 16181904    | 1       |
| Henry Lamotte Oils         | Hydrophilic ointment DAB  | 5860400     | 2       |
| Henry Lamotte/ AHD         | Paraffin, white           | 6002062001  | 1       |
| Henry Lamotte/ Noweda      | Hydrophilic ointment DAB  | 6001368013  | 1       |
| Henry Lamotte/AHD          | Wool alcohol ointment DAB | 17141202    | 1       |
| Henry Lamotte/AHD          | Paraffin, white           | 8004538003  | 3       |
| Henry Lamotte/Anzag        | Hydrophilic ointment DAB  | 2215M-02539 | 1       |
| Henry Lamotte/Anzag        | Hydrophilic ointment DAB  | 5321400     | 1       |
| Henry Lamotte/Gehe         | Paraffin, liquid          | 1000010844  | 2       |
| Henry Lamotte/Gehe         | Hydrophilic ointment DAB  | 20004177    | 1       |
| Henry Lamotte/Gehe         | Hydrophilic ointment DAB  | 20005190    | 1       |
| Henry Lamotte/N/14.12.12   | Paraffin, white           | 5322600     | 1       |
| Henry Lamotte/Noweda       | Hydrophilic ointment DAB  | 6001368014  | 2       |
| Henry Lamotte/Noweda       | Hydrophilic ointment DAB  | 8002320009  | 1       |
| Henry Lamotte/Phoenix1     | Wool alcohol ointment DAB | 1695101     | 1       |
| Henry Lamotte/Phönix       | Paraffin, liquid          | 1000010844  | 3       |
| Henry Lamotte/Phönix       | Paraffin, liquid          | 8003083001  | 2       |
| Henry Lamotte              | Paraffin, white           | 1509019-01  | 1       |
| Henry Lamotte              | Unguentum Cordes®         | 16A102      | 1       |
| Henry Lamotte              | Eye paraffin              | 17052008    | 1       |
| Henry Lamotte              | Eye paraffin              | 17052012    | 1       |
| Henry Lamotte              | Hydrophilic ointment DAB  | 17330301    | 1       |
| Henry Lamotte              | Hydrophilic ointment DAB  | 5860500     | 3       |
| Henry Lamotte              | Hydrophilic ointment DAB  | 6001368014  | 2       |
| Henry Lamotte              | Hydrophilic ointment DAB  | 8002320009  | 2       |
| Henry Lamotte              | Paraffin, white           | 8002875007  | 1       |
| Henry Lamotte              | Paraffin, liquid          | 8003083001  | 3       |
| Henry Lamotte              | Hydrophilic ointment DAB  | 8005713007  | 1       |
| Henry Lamotte              | Hydrophilic ointment DAB  | 8005731006  | 1       |
| Henry LamotteAlliance H... | Hydrophilic ointment DAB  | 8005713007  | 3       |
| Henry                      | Hydrophilic ointment DAB  | 8002320009  | 1       |
| HenryLamotte               | Paraffin, white           | 6002062001  | 3       |
| Herbasinica                | Paraffin, white           | 13338712    | 1       |
| Hermanni & Co GmbH         | Unguentum Cordes®         | 18A10       | 2       |
| Hermanni                   | Unguentum Cordes®         | 20A0049     | 1       |
| HerryLamotte/AHD           | Paraffin, white           | 5098800     | 1       |
| Heyl                       | Unguentum Cordes®         | 17A008      | 1       |
| hjahf                      | Unguentum Cordes®         | 19A004      | 1       |
| Holdermann/Beiersdorf      | Wool alcohol ointment DAB | 22532710    | 1       |
| Ich.Cordes                 | Unguentum Cordes®         | 17A045      | 2       |
| Ich.Cordes                 | Unguentum Cordes®         | 17A084      | 1       |
| Ichhyol Gesellschaft       | Unguentum Cordes®         | 19A020      | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch      | Spectra |
|----------------------------|-------------------------------|------------|---------|
| Ichhyol                    | Unguentum Cordes <sup>®</sup> | 12A078     | 1       |
| Ichhyol                    | Unguentum Cordes <sup>®</sup> | 20A0028    | 1       |
| Ichhyol                    | Unguentum Cordes <sup>®</sup> | 20A0131    | 1       |
| Ichhyol-Gesellschaft/Ge... | Unguentum Cordes <sup>®</sup> | 20A0084    | 1       |
| Ichhyol-Gesellschaft       | Unguentum Cordes <sup>®</sup> | 19a0153    | 1       |
| Ichhyol-Gesellschaft       | Unguentum Cordes <sup>®</sup> | 20a0084    | 1       |
| Ichhyol-Gesellschaft       | Unguentum Cordes <sup>®</sup> | 20a0105    | 1       |
| Ichth/Noweda               | Unguentum Cordes <sup>®</sup> | 16A144     | 1       |
| Ichthiol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 17A202     | 1       |
| Ichthiol                   | Unguentum Cordes <sup>®</sup> | 13A110     | 1       |
| Ichthiol                   | Unguentum Cordes <sup>®</sup> | 2112212532 | 1       |
| Ichthol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 16A144     | 1       |
| Ichthol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A112     | 1       |
| Ichthol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A216     | 1       |
| Ichthol/ gehe 31.01.19     | Unguentum Cordes <sup>®</sup> | 18A105     | 1       |
| Ichthol/ Phönix            | Unguentum Cordes <sup>®</sup> | 10A070     | 1       |
| Ichthol/Anzag              | Unguentum Cordes <sup>®</sup> | 16A102     | 1       |
| Ichthol/Phönix             | Unguentum Cordes <sup>®</sup> | 19A006     | 1       |
| Ichtholan Gesellschaft     | Unguentum Cordes <sup>®</sup> | 16A061     | 1       |
| Ichthol-Gesellschaft/Sa... | Unguentum Cordes <sup>®</sup> | 15A037     | 1       |
| Ichthtyol                  | Unguentum Cordes <sup>®</sup> | 12a152     | 1       |
| Ichthtyol                  | Unguentum Cordes <sup>®</sup> | 12A185     | 1       |
| Ichthtyol                  | Unguentum Cordes <sup>®</sup> | 13A178     | 1       |
| Ichthtyol                  | Unguentum Cordes <sup>®</sup> | 15A089     | 1       |
| Ichthy/Ebert               | Unguentum Cordes <sup>®</sup> | 20A0172    | 1       |
| Ichthy                     | Unguentum Cordes <sup>®</sup> | 12A185     | 1       |
| Ichthyiol                  | Unguentum Cordes <sup>®</sup> | intern462  | 1       |
| Ichthyl / Phönix           | Unguentum Cordes <sup>®</sup> | 18A101     | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 19A0183    | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 20A0034    | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 20A0111    | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 20A0115    | 2       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 20A0152    | 2       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 20A0234    | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 21A0150    | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 21A0231    | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 21A0057    | 1       |
| Ichthyl Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 20A0098    | 2       |
| Ichthyl Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A142     | 1       |
| Ichthyl Phönix             | Unguentum Cordes <sup>®</sup> | 12A129     | 1       |
| Ichthyl Phönix             | Unguentum Cordes <sup>®</sup> | 13A053     | 1       |
| Ichthyl/Phönix             | Unguentum Cordes <sup>®</sup> | 18A112     | 2       |
| Ichthyl-Gesellschaft/Ph... | Unguentum Cordes <sup>®</sup> | 15A141     | 1       |
| Ichthylo Gesellschaft/N... | Unguentum Cordes <sup>®</sup> | 18A110     | 1       |
| ichthylo/Noweda            | Unguentum Cordes <sup>®</sup> | 20170920   | 1       |
| Ichthyo/Phoenix            | Unguentum Cordes <sup>®</sup> | 18A256     | 1       |
| Ichthyol /Gehe             | Unguentum Cordes <sup>®</sup> | 18A049     | 1       |
| Ichthyol / Gehe            | Unguentum Cordes <sup>®</sup> | 10A111     | 1       |
| Ichthyol / Gehe            | Unguentum Cordes <sup>®</sup> | 16A102     | 1       |
| Ichthyol / Gehe            | Unguentum Cordes <sup>®</sup> | 17A005     | 1       |
| Ichthyol - AHD             | Unguentum Cordes <sup>®</sup> | 18A166     | 1       |
| ichthyol Alliance          | Unguentum Cordes <sup>®</sup> | 19A112     | 1       |
| Ichthyol - Ges.            | Unguentum Cordes <sup>®</sup> | 20A0045    | 3       |
| ICHTHYOL - GESELLSCHAFT... | Unguentum Cordes <sup>®</sup> | 19A0181    | 1       |
| Ichthyol - Gesellschaft    | Unguentum Cordes <sup>®</sup> | 11A085     | 1       |
| ICHTHYOL - GESELLSCHAFT    | Unguentum Cordes <sup>®</sup> | 19A0256    | 1       |
| ICHTHYOL - GESELLSCHAFT    | Unguentum Cordes <sup>®</sup> | 20A0030    | 1       |
| Ichthyol Jenne             | Unguentum Cordes <sup>®</sup> | 12A211     | 1       |
| ICHTHYOL / 20              | Unguentum Cordes <sup>®</sup> | 17A106     | 1       |
| ICHTHYOL / 20              | Unguentum Cordes <sup>®</sup> | 18A166     | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance         | Batch       | Spectra |
|----------------------------|-------------------|-------------|---------|
| ICHTHYOL / 20              | Unguentum Cordes® | 19A0181     | 1       |
| ICHTHYOL / 20              | Unguentum Cordes® | 19A0182     | 1       |
| ICHTHYOL / 20              | Unguentum Cordes® | 19A111      | 1       |
| ICHTHYOL / 20              | Unguentum Cordes® | 20A0030     | 1       |
| ICHTHYOL / 20              | Unguentum Cordes® | 20A0098     | 2       |
| Ichthyol / AHD             | Unguentum Cordes® | 17A002      | 1       |
| Ichthyol / Alliance HC     | Unguentum Cordes® | 20A0036     | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 16A099      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 16A139      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 16A144      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 17A049      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 17A053      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 17A069      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 17A085      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 17A163      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 18A048      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 18A067      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 18A107      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 18A112      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 18A215      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 19A001      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 19A112      | 1       |
| Ichthyol / Alliance Hea... | Unguentum Cordes® | 19A128      | 1       |
| Ichthyol / Alliance        | Unguentum Cordes® | 18A107      | 1       |
| Ichthyol / Anzag           | Unguentum Cordes® | 1017Q-02532 | 1       |
| Ichthyol / Anzag           | Unguentum Cordes® | 12A079      | 1       |
| Ichthyol / Anzag           | Unguentum Cordes® | 18A110      | 1       |
| Ichthyol / Anzag           | Unguentum Cordes® | 2019U-02532 | 1       |
| Ichthyol / Anzag           | Unguentum Cordes® | 20A0084     | 1       |
| Ichthyol / Anzag           | Unguentum Cordes® | 3018E-02532 | 1       |
| Ichthyol / E               | Unguentum Cordes® | 14A079      | 1       |
| Ichthyol / Ebert           | Unguentum Cordes® | 17A067      | 1       |
| Ichthyol / Fiebig          | Unguentum Cordes® | 15A062      | 1       |
| Ichthyol / G               | Unguentum Cordes® | 15A020      | 1       |
| Ichthyol / G               | Unguentum Cordes® | 16A184      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 11A202      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 12A102      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 12A115      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 12A152      | 2       |
| Ichthyol / Gehe            | Unguentum Cordes® | 12A184      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A042      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A054      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A068      | 2       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A106      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A138      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A142      | 3       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A153      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A156      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A166      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 13A181      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 15A162      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 16A173      | 1       |
| Ichthyol / GEHE            | Unguentum Cordes® | 17A004      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 17A045      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 17A049      | 2       |
| Ichthyol / Gehe            | Unguentum Cordes® | 17A084      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 17A106      | 2       |
| Ichthyol / Gehe            | Unguentum Cordes® | 17A113      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 18A049      | 1       |
| Ichthyol / Gehe            | Unguentum Cordes® | 18A051      | 1       |

continued on the next page



continued from previous page

| Supplier                     | Substance                     | Batch   | Spectra |
|------------------------------|-------------------------------|---------|---------|
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 18A067  | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 18A166  | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 18A191  | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 19A006  | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 19A008  | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 19A0256 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 19A111  | 2       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 20A0002 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 20A0036 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 20A0049 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 20A0111 | 3       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 20A0149 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 20A0151 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 20A0152 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 21A0075 | 3       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 21A0102 | 1       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 21A0202 | 2       |
| Ichthyol / Gehe              | Unguentum Cordes <sup>®</sup> | 21A0144 | 1       |
| Ichthyol / Geibo             | Unguentum Cordes <sup>®</sup> | 16A140  | 1       |
| Ichthyol / Geibo             | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| Ichthyol / Geibo             | Unguentum Cordes <sup>®</sup> | 18A224  | 1       |
| Ichthyol / K                 | Unguentum Cordes <sup>®</sup> | 15A191  | 1       |
| Ichthyol / Krieger           | Unguentum Cordes <sup>®</sup> | 18A193  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 11A042  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 11A146  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 12A152  | 2       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 13A042  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 13A043  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 13A051  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 14A172  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 14A173  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 14A179  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 15A021  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 15A073  | 3       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 16A123  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 16A140  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 17A005  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 17A143  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 18A112  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 18A248  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 19A007  | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 19A0153 | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 19A0256 | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 19A0257 | 1       |
| Ichthyol / Noweda            | Unguentum Cordes <sup>®</sup> | 20A0034 | 1       |
| Ichthyol / Phoenix Leip. ... | Unguentum Cordes <sup>®</sup> | 12A118  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 15A123  | 2       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 15A125  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 16A099  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 16A139  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 17A069  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 17A084  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 17A106  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 18A130  | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 20A0030 | 2       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 20A0098 | 1       |
| Ichthyol / Phoenix           | Unguentum Cordes <sup>®</sup> | 20A0151 | 1       |

continued on the next page

continued from previous page

| Supplier                  | Substance                 | Batch      | Spectra |
|---------------------------|---------------------------|------------|---------|
| Ichthyol / Phoenix        | Unguentum Cordes®         | 20A0234    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 15A156     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 16A122     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 16A210     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A007     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A053     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A06      | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A067     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A098     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A113     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A127     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A142     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 17A164     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 18A051     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 18A223     | 3       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 18A256     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 19A0153    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 19A0206    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 19A021     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 19A0256    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 19A128     | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 20A0060    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 20A0084    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 20A0092    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 21A0086    | 1       |
| Ichthyol / Phönix         | Unguentum Cordes®         | 21A0163    | 1       |
| Ichthyol / Sanacorp 27... | Unguentum Cordes®         | 17A128     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 12A183     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 14A117     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 14A172     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 15A062     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 15A107     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 15A156     | 1       |
| Ichthyol / Sanacorp       | Wool alcohol ointment DAB | 17141203   | 3       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 18A111     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 18A156     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 18A192     | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 19A0153    | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 20A0151    | 1       |
| Ichthyol / Sanacorp       | Unguentum Cordes®         | 21A0075    | 1       |
| ichthyol /2               | Unguentum Cordes®         | 18A191     | 1       |
| ichthyol /2               | Unguentum Cordes®         | 19A128     | 1       |
| ichthyol /2               | Unguentum Cordes®         | 20A0036    | 1       |
| Ichthyol /AHD             | Unguentum Cordes®         | 15A155     | 1       |
| Ichthyol /Anzag           | Unguentum Cordes®         | 62(18A051) | 1       |
| Ichthyol /Anzag           | Unguentum Cordes®         | 63(18A107) | 1       |
| Ichthyol /Anzag           | Unguentum Cordes®         | 64(18A130) | 1       |
| Ichthyol /Anzag           | Unguentum Cordes®         | 65(18A166) | 1       |
| Ichthyol /Gehe            | Unguentum Cordes®         | 17A087     | 1       |
| Ichthyol /Gehe            | Unguentum Cordes®         | 18A112     | 1       |
| Ichthyol /Gehe            | Unguentum Cordes®         | 18A232     | 1       |
| Ichthyol /Jenne           | Unguentum Cordes®         | 66(18A248) | 1       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 117A003    | 1       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 12A118     | 1       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 12A152     | 1       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 13A067     | 1       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 13A090     | 2       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 13A181     | 1       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 15A060     | 1       |
| Ichthyol /Noweda          | Unguentum Cordes®         | 15a073     | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch   | Spectra |
|----------------------------|-------------------------------|---------|---------|
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 15A123  | 3       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 15A148  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 15A159  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 15A191  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 16A085  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 17A007  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 17A067  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 17A084  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 19A0154 | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 20A0049 | 1       |
| Ichthyol /Noweda           | Unguentum Cordes <sup>®</sup> | 20A0105 | 1       |
| Ichthyol /Sanacorp         | Unguentum Cordes <sup>®</sup> | 18A067  | 1       |
| Ichthyol /Sanacorp         | Unguentum Cordes <sup>®</sup> | 18A190  | 1       |
| Ichthyol /Sanacorp         | Unguentum Cordes <sup>®</sup> | 19A111  | 1       |
| Ichthyol 07.03.2013 Spa... | Unguentum Cordes <sup>®</sup> | 12A102  | 1       |
| Ichthyol AG / Alliance ... | Unguentum Cordes <sup>®</sup> | 17A002  | 1       |
| Ichthyol AG / Anzag        | Unguentum Cordes <sup>®</sup> | 16A085  | 2       |
| Ichthyol Anzag             | Unguentum Cordes <sup>®</sup> | 18A166  | 1       |
| Ichthyol Anzag             | Unguentum Cordes <sup>®</sup> | 18A216  | 1       |
| Ichthyol Anzag             | Unguentum Cordes <sup>®</sup> | 19A004  | 1       |
| Ichthyol cordes / Noweda   | Unguentum Cordes <sup>®</sup> | 14A079  | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 17A005  | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 17A045  | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 17A087  | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 19A0154 | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 20A0084 | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 20A0105 | 1       |
| Ichthyol Cordes/Gehe       | Unguentum Cordes <sup>®</sup> | 20A0153 | 1       |
| Ichthyol Cordes/Noweda ... | Unguentum Cordes <sup>®</sup> | 20A0131 | 1       |
| Ichthyol Cordes/Noweda2... | Unguentum Cordes <sup>®</sup> | 21A0055 | 1       |
| Ichthyol Cordes            | Unguentum Cordes <sup>®</sup> | 12A075  | 1       |
| Ichthyol G/Alliance        | Unguentum Cordes <sup>®</sup> | 18A051  | 1       |
| Ichthyol G/Alliance        | Unguentum Cordes <sup>®</sup> | 18A131  | 1       |
| Ichthyol G/Noweda          | Unguentum Cordes <sup>®</sup> | 17A053  | 1       |
| Ichthyol G/Noweda          | Unguentum Cordes <sup>®</sup> | 17A056  | 1       |
| Ichthyol GEHE              | Unguentum Cordes <sup>®</sup> | 17A054  | 1       |
| Ichthyol Gehe              | Unguentum Cordes <sup>®</sup> | 20A0051 | 1       |
| Ichthyol Ges. / Gehe       | Unguentum Cordes <sup>®</sup> | 17A069  | 1       |
| Ichthyol Ges. / Gehe       | Unguentum Cordes <sup>®</sup> | 18A224  | 1       |
| Ichthyol Ges./Sanac        | Unguentum Cordes <sup>®</sup> | 17A101  | 1       |
| Ichthyol Ges./Sanac        | Unguentum Cordes <sup>®</sup> | 18A048  | 1       |
| Ichthyol Ges./Sanac        | Unguentum Cordes <sup>®</sup> | 18A216  | 1       |
| Ichthyol Ges./Sanac        | Unguentum Cordes <sup>®</sup> | 19A006  | 1       |
| Ichthyol Ges./Sanac        | Unguentum Cordes <sup>®</sup> | 19A0183 | 1       |
| Ichthyol Ges./Sanac        | Unguentum Cordes <sup>®</sup> | 20A0030 | 1       |
| Ichthyol ges               | Unguentum Cordes <sup>®</sup> | 15A191  | 1       |
| Ichthyol ges               | Unguentum Cordes <sup>®</sup> | 16A083  | 1       |
| Ichthyol ges               | Unguentum Cordes <sup>®</sup> | 16A099  | 1       |
| Ichthyol ges               | Unguentum Cordes <sup>®</sup> | 16A101  | 2       |
| Ichthyol Gesellsch./Now... | Unguentum Cordes <sup>®</sup> | 20a0453 | 1       |
| Ichthyol Gesellsch./Pho... | Unguentum Cordes <sup>®</sup> | 15A123  | 1       |
| Ichthyol Gesellsch./Pho... | Unguentum Cordes <sup>®</sup> | 16A183  | 1       |
| Ichthyol Gesellsch.        | Unguentum Cordes <sup>®</sup> | 17A003  | 1       |
| Ichthyol Gesellsch.        | Unguentum Cordes <sup>®</sup> | 17A067  | 1       |
| Ichthyol Gesellsch.        | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| Ichthyol Gesellsch.        | Unguentum Cordes <sup>®</sup> | 19A0153 | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance         | Batch           | Spectra |
|----------------------------|-------------------|-----------------|---------|
| Ichthyol Gesellsch-/Phö... | Unguentum Cordes® | 15A042          | 1       |
| Ichthyol Gesellsch-/Phö... | Unguentum Cordes® | 15A159          | 1       |
| ICHTHYOL- Gesellschaft ... | Unguentum Cordes® | 19A0154         | 1       |
| Ichthyol Gesellschaft /... | Unguentum Cordes® |                 | 1       |
| Ichthyol Gesellschaft /... | Unguentum Cordes® | 15A125          | 1       |
| Ichthyol Gesellschaft /... | Unguentum Cordes® | 171107UC/17A109 | 1       |
| Ichthyol Gesellschaft /... | Unguentum Cordes® | 17A085          | 1       |
| Ichthyol Gesellschaft /... | Unguentum Cordes® | 18A156          | 2       |
| Ichthyol Gesellschaft /... | Unguentum Cordes® | 17A101          | 1       |
| ICHTHYOL Gesellschaft /... | Unguentum Cordes® | 15A020          | 1       |
| Ichthyol Gesellschaft /... | Unguentum Cordes® | 17A045          | 1       |
| ICHTHYOL GESELLSCHAFT /... | Unguentum Cordes® | 18A224          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 18A113          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 20A0045         | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 11A171          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 11A233          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A041          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A054          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A058          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A077          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A079          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A129          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A130          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A156          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A206          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 13A031          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 13A034          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 13A050          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 13A051          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 13A054          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 13A055          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 15A062          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 19A0153         | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 16A058          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 12A184          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A079          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 18A113          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 18A112          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 19A0149         | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 17A003          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 17A045          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® |                 | 1       |
| ichthyol- gesellschaft ... | Unguentum Cordes® | 11A202          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 13A166          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A056          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A060          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A062          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A063          | 2       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A079          | 3       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A095          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A113          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A116          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A130          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 14A168          | 1       |
| Ichthyol- Gesellschaft ... | Unguentum Cordes® | 14A172          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 15A021          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 15A027          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 15A038          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 15A060          | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes® | 15A061          | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch     | Spectra |
|----------------------------|-------------------------------|-----------|---------|
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A076    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A079    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A080    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A090    | 2       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A092    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A137    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A140    | 2       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A150    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A047    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16a099    | 2       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A099    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A121    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A140    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A184    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A003    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A004    | 2       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A007    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A045    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A085    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A087    | 1       |
| Ichthyol- Gesellschaft ... | Unguentum Cordes <sup>®</sup> | 17A142    | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A110    | 3       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 19A0257   | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0030   | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0150   | 1       |
| Ichthyol Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 21A0144   | 1       |
| Ichthyol Gesellschaft H... | Unguentum Cordes <sup>®</sup> | 18A223    | 1       |
| Ichthyol Gesellschaft- ... | Unguentum Cordes <sup>®</sup> | 15A192    | 1       |
| ICHTHYOL GESELLSCHAFT -... | Unguentum Cordes <sup>®</sup> | CHB17A087 | 1       |
| Ichthyol Gesellschaft- ... | Unguentum Cordes <sup>®</sup> | 16A099    | 1       |
| Ichthyol Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 18A111    | 2       |
| Ichthyol Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 18A223    | 2       |
| Ichthyol Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 18A224    | 2       |
| Ichthyol Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 20A0084   | 2       |
| Ichthyol Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 20A0105   | 4       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 15A087    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 18A110    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 21A0184   | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 14A047    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 17A084    | 2       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 18A224    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 18A248    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A008    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A020    | 1       |
| ichthyol gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 17a003    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A141    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 13A181    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 15A090    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A102    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A144    | 1       |
| ICHTHYOL- Gesellschaft/... | Unguentum Cordes <sup>®</sup> | 18A101    | 1       |
| ICHTHYOL- Gesellschaft/... | Unguentum Cordes <sup>®</sup> | 18A113    | 1       |
| Ichthyol Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 20A0153   | 1       |
| Ichthyol- Gesellschaft/... | Unguentum Cordes <sup>®</sup> | 19A0183   | 1       |
| Ichthyol- Gesellschaft/... | Unguentum Cordes <sup>®</sup> | 19A0184   | 1       |
| Ichthyol Gesellschaft/AHD  | Unguentum Cordes <sup>®</sup> | 13A180    | 1       |
| Ichthyol Gesellschaft/AHD  | Unguentum Cordes <sup>®</sup> | 17A054    | 1       |
| Ichthyol Gesellschaft/AHD  | Unguentum Cordes <sup>®</sup> | 19A0256   | 1       |
| Ichthyol Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 18A223    | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes <sup>®</sup> | 18A130    | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance         | Batch   | Spectra |
|----------------------------|-------------------|---------|---------|
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 20A0098 | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 17A113  | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 17A049  | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 18A067  | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 19A001  | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 19A0181 | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 19A0257 | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 20A0045 | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 20A0150 | 1       |
| Ichthyol Gesellschaft/C... | Unguentum Cordes® | 21A0055 | 1       |
| Ichthyol Gesellschaft/G... | Unguentum Cordes® | 13A089  | 1       |
| Ichthyol Gesellschaft/G... | Unguentum Cordes® | 16A141  | 1       |
| ICHTHYOL- GESELLSCHAFT/... | Unguentum Cordes® | 17A045  | 1       |
| Ichthyol Gesellschaft/G... | Unguentum Cordes® | 17A087  | 1       |
| Ichthyol Gesellschaft/G... | Unguentum Cordes® | 18A049  | 1       |
| ICHTHYOL- GESELLSCHAFT/... | Unguentum Cordes® | 18A156  | 1       |
| Ichthyol Gesellschaft/G... | Unguentum Cordes® | 19A008  | 1       |
| Ichthyol Gesellschaft/J... | Unguentum Cordes® | 19A008  | 1       |
| Ichthyol Gesellschaft/J... | Unguentum Cordes® | 20A0126 | 1       |
| Ichthyol- Gesellschaft/... | Unguentum Cordes® | 18A223  | 1       |
| Ichthyol- Gesellschaft/... | Unguentum Cordes® | 18A224  | 2       |
| Ichthyol Gesellschaft/K... | Unguentum Cordes® | 20A0002 | 1       |
| Ichthyol Gesellschaft/K... | Unguentum Cordes® | 18A110  | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 13A067  | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 16a011  | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 16A101  | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 17A142  | 1       |
| ICHTHYOL Gesellschaft/N... | Unguentum Cordes® | 18A156  | 2       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 18A190  | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 19A0153 | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 19A0183 | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 20A0034 | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 20A0036 | 1       |
| Ichthyol Gesellschaft/N... | Unguentum Cordes® | 20A0152 | 1       |
| Ichthyol Gesellschaft/P... | Unguentum Cordes® | 18A049  | 1       |
| Ichthyol Gesellschaft/P... | Unguentum Cordes® | 18A215  | 1       |
| Ichthyol Gesellschaft/P... | Unguentum Cordes® | 19A006  | 1       |
| Ichthyol Gesellschaft/P... | Unguentum Cordes® | 19A0184 | 1       |
| Ichthyol Gesellschaft/P... | Unguentum Cordes® | 19A112  | 1       |
| Ichthyol- Gesellschaft/... | Unguentum Cordes® | 14A095  | 1       |
| Ichthyol Gesellschaft/P... | Unguentum Cordes® | 16A184  | 1       |
| Ichthyol Gesellschaft/S... | Unguentum Cordes® | 15A060  | 2       |
| Ichthyol Gesellschaft/S... | Unguentum Cordes® | 18A105  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 11A202  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 11A234  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 12A058  | 1       |
| Ichthyol -Gesellschaft     | Unguentum Cordes® | 12A064  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 12A087  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 12A152  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 12A183  | 1       |
| ichthyol gesellschaft      | Unguentum Cordes® | 13A051  | 1       |
| ichthyol gesellschaft      | Unguentum Cordes® | 13A055  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 13A055  | 1       |
| Ichthyol -Gesellschaft     | Unguentum Cordes® | 13A091  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 13A135  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 13A156  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 13A159  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 13A170  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 13A171  | 1       |
| Ichthyol Gesellschaft      | Unguentum Cordes® | 13A172  | 1       |

continued on the next page

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| Supplier               | Substance                     | Batch  | Spectra |
|------------------------|-------------------------------|--------|---------|
| Ichthyol -Gesellschaft | Unguentum Cordes <sup>®</sup> | 13A181 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 14A061 | 2       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 14A140 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 14A143 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 14A173 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A011 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A020 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A022 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A022 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A036 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A041 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A041 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A074 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A076 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A106 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A107 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A124 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A137 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A142 | 1       |
| Ichthyol- Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A149 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A159 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 15A159 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A010 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A011 | 1       |
| Ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A044 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A061 | 1       |
| Ichthyol- Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A083 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A099 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A101 | 3       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A102 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A119 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A122 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A123 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A124 | 3       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A139 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A140 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A143 | 1       |
| Ichthyol- Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A155 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A173 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A176 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 16A184 | 2       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A003 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A004 | 1       |
| Ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A005 | 1       |
| ICHTHYOL GESELLSCHAFT  | Unguentum Cordes <sup>®</sup> | 17A005 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A007 | 2       |
| Ichthyol- Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A007 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A045 | 3       |
| Ichthyol- Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A045 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A049 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A051 | 3       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A054 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A057 | 1       |
| ichthyol gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A069 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A069 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A084 | 4       |
| Ichthyol- Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A084 | 1       |
| Ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A085 | 2       |
| ICHTHYOL GESELLSCHAFT  | Unguentum Cordes <sup>®</sup> | 17A085 | 2       |
| ichthyol Gesellschaft  | Unguentum Cordes <sup>®</sup> | 17A087 | 1       |

continued on the next page



continued from previous page

| Supplier                    | Substance                     | Batch   | Spectra |
|-----------------------------|-------------------------------|---------|---------|
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A087  | 2       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A104  | 1       |
| ichthyol gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A105  | 2       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A106  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A126  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A127  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A163  | 2       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A049  | 1       |
| ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A050  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A070  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A101  | 1       |
| ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A110  | 2       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A112  | 2       |
| Ichthyol- Gesellschaft      | Unguentum Cordes <sup>®</sup> | 18A112  | 1       |
| ICHTHYOL GESELLSCHAFT       | Unguentum Cordes <sup>®</sup> | 18A112  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18a113  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18a130  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A132  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A156  | 2       |
| ICHTHYOL GESELLSCHAFT       | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| Ichthyol- Gesellschaft      | Unguentum Cordes <sup>®</sup> | 18A223  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A232  | 2       |
| Ichthyol- Gesellschaft      | Unguentum Cordes <sup>®</sup> | 18A248  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A253  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 19A003  | 1       |
| ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 19A004  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 19A005  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 19A007  | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 19A0181 | 2       |
| Ichthyol- Gesellschaft      | Unguentum Cordes <sup>®</sup> | 19A0256 | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 19A112  | 2       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 20A0034 | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 20A0060 | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 20A0173 | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 20A0192 | 1       |
| Ichthyol- Gesellschaft      | Unguentum Cordes <sup>®</sup> | 21A0057 | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 21A0064 | 1       |
| Ichthyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 21A0102 | 1       |
| Ichthyol Gesellschaft-C...  | Unguentum Cordes <sup>®</sup> | 16A085  | 1       |
| Ichthyol Gesellschaft-C...  | Unguentum Cordes <sup>®</sup> | 17A084  | 2       |
| Ichthyol Gesellschast/...   | Unguentum Cordes <sup>®</sup> | 20A0173 | 1       |
| Ichthyol Gesellschaft/Ph... | Unguentum Cordes <sup>®</sup> | 19A0183 | 2       |
| Ichthyol Gesellschft        | Unguentum Cordes <sup>®</sup> | 17A056  | 1       |
| Ichthyol Gesellschft        | Unguentum Cordes <sup>®</sup> | 17A113  | 1       |
| Ichthyol Gesellschft        | Unguentum Cordes <sup>®</sup> | 18A001  | 1       |
| Ichthyol Gesellschft        | Unguentum Cordes <sup>®</sup> | 18A190  | 1       |
| Ichthyol Gesellschft        | Unguentum Cordes <sup>®</sup> | 19A008  | 1       |
| Ichthyol Gesellschaft Co... | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| Ichthyol Gesllschaft/Ph...  | Unguentum Cordes <sup>®</sup> | 18A048  | 1       |
| Ichthyol Gesllschaft        | Unguentum Cordes <sup>®</sup> | 15A093  | 1       |
| Ichthyol Gesllschaft        | Unguentum Cordes <sup>®</sup> | 16A045  | 1       |
| Ichthyol GmbH/ Jenne        | Unguentum Cordes <sup>®</sup> | 17A085  | 1       |
| Ichthyol GmbH/ Jenne        | Unguentum Cordes <sup>®</sup> | 18A113  | 2       |
| Ichthyol GmbH/Alliance      | Unguentum Cordes <sup>®</sup> | 15A124  | 1       |
| Ichthyol GmbH/Noweda        | Unguentum Cordes <sup>®</sup> | 16A061  | 2       |
| Ichthyol GmbH/Noweda        | Unguentum Cordes <sup>®</sup> | 17A002  | 1       |
| Ichthyol GmbH/Noweda        | Unguentum Cordes <sup>®</sup> | 17A003  | 1       |
| Ichthyol GmbH/Noweda        | Unguentum Cordes <sup>®</sup> | 19A0153 | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch            | Spectra |
|----------------------------|-------------------------------|------------------|---------|
| Ichthyol GmbH/Noweda       | Unguentum Cordes <sup>®</sup> | 20A0153          | 1       |
| Ichthyol gmbH/Phönix       | Unguentum Cordes <sup>®</sup> | 20A0090          | 1       |
| Ichthyol gmbH/Phönix       | Unguentum Cordes <sup>®</sup> | 20A0105          | 1       |
| Ichthyol gmbH/Phönix       | Unguentum Cordes <sup>®</sup> | 21A0163          | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 13A137           | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 15A041           | 1       |
| Ichthyol gmbH              | Unguentum Cordes <sup>®</sup> | 15A107           | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 16A045           | 1       |
| Ichthyol gmbH              | Unguentum Cordes <sup>®</sup> | 17a003           | 1       |
| Ichthyol gmbH              | Unguentum Cordes <sup>®</sup> | 18A111           | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 18A224           | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 18A232           | 1       |
| ichthyol gmbh              | Unguentum Cordes <sup>®</sup> | 19a0153          | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 19A111           | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 19A112           | 1       |
| Ichthyol GmBH              | Unguentum Cordes <sup>®</sup> | 21A0102          | 1       |
| ichthyol Hermann           | Unguentum Cordes <sup>®</sup> | 19A0154          | 1       |
| Ichthyol Noweda            | Unguentum Cordes <sup>®</sup> | 19A128           | 1       |
| Ichthyol PH                | Unguentum Cordes <sup>®</sup> | 17A126           | 1       |
| Ichthyol PH                | Unguentum Cordes <sup>®</sup> | 18A105           | 2       |
| Ichthyol PH                | Unguentum Cordes <sup>®</sup> | 19A003           | 1       |
| Ichthyol PH                | Unguentum Cordes <sup>®</sup> | 19A0181          | 1       |
| Ichthyol PH                | Unguentum Cordes <sup>®</sup> | 19A0256          | 1       |
| Ichthyol Pharma            | Unguentum Cordes <sup>®</sup> | 15A011           | 1       |
| Ichthyol Pharma            | Unguentum Cordes <sup>®</sup> | 15A042           | 1       |
| Ichthyol Pharma            | Unguentum Cordes <sup>®</sup> | 15A139           | 1       |
| Ichthyol Pharma            | Unguentum Cordes <sup>®</sup> | 15A141           | 1       |
| Ichthyol Pharma            | Unguentum Cordes <sup>®</sup> | 15A155           | 1       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 17A002           | 2       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 17A106           | 1       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 17A164           | 1       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 18A048           | 1       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 18A067           | 1       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 18A131           | 1       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 19A004           | 1       |
| Ichthyol Phönix            | Unguentum Cordes <sup>®</sup> | 19A0262          | 1       |
| ichthyol über Noweda 17... | Unguentum Cordes <sup>®</sup> | 19A029P-200320-3 | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 13A166           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 14A062           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 14A114           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 15A042           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 15A092           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 15A142           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 16A044           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 16A058           | 1       |
| Ichthyol über Phoenix      | Unguentum Cordes <sup>®</sup> | 16A119           | 1       |
| Ichthyol über Phönix       | Unguentum Cordes <sup>®</sup> | 19A006           | 1       |
| Ichthyol über Phönix       | Unguentum Cordes <sup>®</sup> | 19A0262          | 1       |
| Ichthyol über Phönix       | Unguentum Cordes <sup>®</sup> | 21A0056          | 1       |
| Ichthyol, Cordes/ Kehr,... | Unguentum Cordes <sup>®</sup> | 19A0184          | 1       |
| Ichthyol, Cordes/ Kehr,... | Unguentum Cordes <sup>®</sup> | 19A003           | 1       |
| Ichthyol, Noweda           | Unguentum Cordes <sup>®</sup> | 15A023           | 1       |
| Ichthyol, Sanacorp         | Unguentum Cordes <sup>®</sup> | 18A111           | 1       |
| Ichthyol, Sanacorp         | Unguentum Cordes <sup>®</sup> | 18A223           | 1       |
| Ichthyol, Sanacorp         | Unguentum Cordes <sup>®</sup> | 19A020           | 1       |
| Ichthyol, Sanacorp         | Unguentum Cordes <sup>®</sup> | 20A0028          | 1       |
| Ichthyol, Sanacorp         | Unguentum Cordes <sup>®</sup> | 20A0111          | 1       |
| ichthyol,Anzag             | Unguentum Cordes <sup>®</sup> | 12A124           | 1       |
| Ichthyol,Cordes/Kehr 30... | Unguentum Cordes <sup>®</sup> | 20A0030          | 1       |
| Ichthyol,Noweda            | Unguentum Cordes <sup>®</sup> | 12A142           | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance         | Batch   | Spectra |
|----------------------------|-------------------|---------|---------|
| Ichthyol,Noweda            | Unguentum Cordes® | 13a009  | 2       |
| Ichthyol/ AHD              | Unguentum Cordes® | 15A091  | 1       |
| Ichthyol/ AHD              | Unguentum Cordes® | 18A051  | 1       |
| Ichthyol/ Alliance Heal... | Unguentum Cordes® | 17A003  | 1       |
| Ichthyol/ Alliance         | Unguentum Cordes® | 17A084  | 1       |
| Ichthyol/ Alliance         | Unguentum Cordes® | 22A0025 | 2       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 15A139  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 15A141  | 2       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 15A155  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 16A046  | 2       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 16A119  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 16A141  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 16A155  | 2       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 17A005  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 17A049  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 17A126  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 18A048  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 18A067  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 18A105  | 3       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 18A113  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 18A130  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 18A131  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 18A166  | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 19A0183 | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 19A0184 | 2       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 19A0262 | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 20A0111 | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 20A0131 | 1       |
| Ichthyol/ Anzag            | Unguentum Cordes® | 21A0055 | 1       |
| Ichthyol/ Cordes           | Unguentum Cordes® | 12A139  | 1       |
| Ichthyol/ Cordes           | Unguentum Cordes® | 12A205  | 1       |
| Ichthyol/ E+J              | Unguentum Cordes® | 17A009  | 1       |
| Ichthyol/ E+J              | Unguentum Cordes® | 17A192  | 1       |
| Ichthyol/ E+J              | Unguentum Cordes® | 18A005  | 1       |
| Ichthyol/ Fiebig           | Unguentum Cordes® | 16A124  | 1       |
| Ichthyol/ Fiebig           | Unguentum Cordes® | 17A1050 | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 14A056  | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 15A020  | 2       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 16A139  | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 18A156  | 1       |
| Ichthyol/ GEHE             | Unguentum Cordes® | 18A223  | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 19A0154 | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 19A0154 | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 20A0084 | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 20A0105 | 1       |
| Ichthyol/ Gehe             | Unguentum Cordes® | 21A0164 | 1       |
| Ichthyol/ Geiki            | Unguentum Cordes® | 18A147  | 1       |
| Ichthyol/ Gotha            | Unguentum Cordes® | 16A176  | 1       |
| Ichthyol/ Gotha            | Unguentum Cordes® | 17A112  | 1       |
| Ichthyol/ Jenne            | Unguentum Cordes® | 19A026  | 1       |
| Ichthyol/ Krieger          | Unguentum Cordes® | 16A044  | 1       |
| Ichthyol/ Krieger          | Unguentum Cordes® | 16A139  | 1       |
| Ichthyol/ Krieger          | Unguentum Cordes® | 17A128  | 1       |
| Ichthyol/ Krieger          | Unguentum Cordes® | 17A163  | 1       |
| Ichthyol/ Krieger          | Unguentum Cordes® | 18A191  | 1       |
| Ichthyol/ Krieger          | Unguentum Cordes® | 18A215  | 1       |
| Ichthyol/ Krieger          | Unguentum Cordes® | 21A0075 | 1       |
| Ichthyol/ Now              | Unguentum Cordes® | 16A144  | 1       |
| Ichthyol/ Now              | Unguentum Cordes® | 16A210  | 1       |
| Ichthyol/ Now              | Unguentum Cordes® | 18A070  | 1       |

continued on the next page

continued from previous page

| Supplier           | Substance                     | Batch   | Spectra |
|--------------------|-------------------------------|---------|---------|
| Ichthyol/ Now      | Unguentum Cordes <sup>®</sup> | 18A223  | 1       |
| Ichthyol/ Now      | Unguentum Cordes <sup>®</sup> | 19A006  | 1       |
| Ichthyol/ Now      | Unguentum Cordes <sup>®</sup> | 19A256  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 12A053  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 12A183  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 13A034  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 13A043  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 13A067  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 14A099  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 14A172  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 15a021  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 15A040  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 15A091  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 15A108  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 15A148  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 16A061  | 2       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 16A099  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 16A137  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 16A184  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 17A0005 | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 17A002  | 2       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 17A004  | 2       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 17A053  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 17A056  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 17A069  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 17A126  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A002  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A006  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A049  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A067  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A110  | 3       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A111  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A131  | 2       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A223  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 18A224  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 19A005  | 1       |
| Ichthyol/ Noweda   | Unguentum Cordes <sup>®</sup> | 20A0084 | 1       |
| Ichthyol/ Phoenix  | Unguentum Cordes <sup>®</sup> | 16A155  | 1       |
| Ichthyol/ Phoenix  | Unguentum Cordes <sup>®</sup> | 17A069  | 1       |
| Ichthyol/ Phoenix  | Unguentum Cordes <sup>®</sup> | 17A126  | 1       |
| ICHTHYOL/ Phoenix  | Unguentum Cordes <sup>®</sup> | 20A0098 | 1       |
| ICHTHYOL/ Phoenix  | Unguentum Cordes <sup>®</sup> | 21A0056 | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 15A150  | 4       |
| ICHTHYOL/ Phönix   | Unguentum Cordes <sup>®</sup> | 16A083  | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 16A101  | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 17A005  | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 17A085  | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 18A101  | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 18A107  | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 18A223  | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 19A0153 | 1       |
| Ichthyol/ Phönix   | Unguentum Cordes <sup>®</sup> | 20A0089 | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 15A108  | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 15A150  | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 16A044  | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 16A046  | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 16A155  | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 17A101  | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 18A048  | 1       |
| Ichthyol/ Sanacorp | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |

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continued from previous page

| Supplier                   | Substance         | Batch     | Spectra |
|----------------------------|-------------------|-----------|---------|
| Ichthyol/ Sanacorp         | Unguentum Cordes® | 19A003    | 1       |
| Ichthyol/ Sanacorp         | Unguentum Cordes® | 19A0154   | 1       |
| Ichthyol/ Sanacorp         | Unguentum Cordes® | 19A026    | 1       |
| Ichthyol/ Sanacorp         | Unguentum Cordes® | 19A215    | 1       |
| Ichthyol/ Spangro          | Unguentum Cordes® | 16A142    | 1       |
| Ichthyol/ VDL              | Unguentum Cordes® | 18A051    | 1       |
| Ichthyol/ VDL              | Unguentum Cordes® | 18A132    | 1       |
| Ichthyol/ VDL              | Unguentum Cordes® | 19A0182   | 1       |
| Ichthyol/                  | Unguentum Cordes® | 17A0367   | 1       |
| Ichthyol/                  | Unguentum Cordes® | 18A166    | 1       |
| Ichthyol/                  | Unguentum Cordes® | 19A0182   | 1       |
| ICHTHYOL/1                 | Unguentum Cordes® | 19A020    | 1       |
| ICHTHYOL/11                | Unguentum Cordes® | 13A031    | 1       |
| Ichthyol/14.01.14/K        | Unguentum Cordes® | 13A026    | 1       |
| Ichthyol/15.11.19/Gehe     | Unguentum Cordes® | 18A111    | 1       |
| Ichthyol/25.09.19/Gehe     | Unguentum Cordes® | 10A111    | 1       |
| Ichthyol/25.09.19/Gehe     | Unguentum Cordes® | 18A156    | 3       |
| Ichthyol/AEP               | Unguentum Cordes® | 20A0172   | 1       |
| Ichthyol/AHC               | Unguentum Cordes® | 15A089    | 1       |
| Ichthyol/AHC               | Unguentum Cordes® | 17A084    | 1       |
| Ichthyol/AHC               | Unguentum Cordes® | 18A223    | 1       |
| Ichthyol/AHD 27.10.21      | Unguentum Cordes® | 20A0173   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 12A185    | 1       |
| ichthyol/AHD               | Unguentum Cordes® | 13A109    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 15A141    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 16A141    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 17A005    | 2       |
| Ichthyol/AHD               | Unguentum Cordes® | 17A067    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 17A084    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 18A049    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 18A101    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 18A113    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 18A224    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 19A0154   | 1       |
| ICHTHYOL/AHD               | Unguentum Cordes® | 19A01842  | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 19A112    | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0028   | 1       |
| ichthyol/AHD               | Unguentum Cordes® | 20a0034   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0034   | 2       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0049   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0084   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0105   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0115   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0152   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 20A0172   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 21A0096   | 1       |
| Ichthyol/AHD               | Unguentum Cordes® | 21A0207   | 2       |
| Ichthyol/AHD               | Unguentum Cordes® | 61(17A113 | 1       |
| Ichthyol/AHP               | Unguentum Cordes® | 154141    | 1       |
| Ichthyol/Alli. HC          | Unguentum Cordes® | 20A0090   | 1       |
| Ichthyol/Alliance healt... | Unguentum Cordes® | 13A047    | 1       |
| Ichthyol/Alliance Healt... | Unguentum Cordes® | 16A099    | 1       |
| Ichthyol/Alliance Healt... | Unguentum Cordes® | 17A003    | 2       |
| Ichthyol/Alliance Healt... | Unguentum Cordes® | 17A126    | 1       |
| Ichthyol/Alliance Healt... | Unguentum Cordes® | 17A127    | 1       |
| Ichthyol/Alliance Healt... | Unguentum Cordes® | 18A049    | 1       |
| Ichthyol/Alliance Healt... | Unguentum Cordes® | 18A147    | 2       |
| Ichthyol/Alliance Healt... | Unguentum Cordes® | 20A0093   | 1       |
| Ichthyol/Alliance          | Unguentum Cordes® | 16A083    | 2       |
| Ichthyol/Alliance          | Unguentum Cordes® | 16A143    | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance                     | Batch         | Spectra |
|----------------------------|-------------------------------|---------------|---------|
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 16A176        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 17A055        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 17A057        | 2       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 17A070        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 17A084        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 17A126        | 3       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 18A048        | 3       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 18A051        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 18A112        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 18A216        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 18A248        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A001        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A004        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A006        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A0183       | 2       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A0184       | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A0262       | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A112        | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 19A005        | 1       |
| ICHTHYOL/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0002       | 1       |
| ICHTHYOL/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0034       | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0035       | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0049       | 2       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0115       | 2       |
| ICHTHYOL/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0150       | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0172       | 2       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0234       | 1       |
| Ichthyol/Alliance          | Unguentum Cordes <sup>®</sup> | 20A0235       | 1       |
| ICHTHYOL/Alliance          | Unguentum Cordes <sup>®</sup> | 21A0057       | 1       |
| Ichthyol/AllianceHealth... | Unguentum Cordes <sup>®</sup> | 16A101        | 1       |
| Ichthyol/AllianceHealth... | Unguentum Cordes <sup>®</sup> | 16A183        | 1       |
| Ichthyol/AllianceHealth... | Unguentum Cordes <sup>®</sup> | 17A052        | 1       |
| Ichthyol/AllianceHealth... | Unguentum Cordes <sup>®</sup> | 17A113        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 11A187        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 12A055        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 12A124        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 12A130        | 1       |
| ichthyol/ANZAG             | Unguentum Cordes <sup>®</sup> | 13A047        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 13A049/13A050 | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 13A067        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 1415A-02532   | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 15A020        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 15A123        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 15A141        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 15A195        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 16A048        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 16A083        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 16A183        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 16A184        | 2       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 1713M-02532   | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 17A003        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 17A045        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 17A049        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 17A098        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 18A007        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 18A048        | 2       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 18A110        | 2       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 18A112        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 18A113        | 1       |
| Ichthyol/Anzag             | Unguentum Cordes <sup>®</sup> | 18A257        | 1       |

continued on the next page

continued from previous page

| Supplier                 | Substance                     | Batch       | Spectra |
|--------------------------|-------------------------------|-------------|---------|
| Ichthyol/Anzag           | Unguentum Cordes <sup>®</sup> | 19A0181     | 1       |
| Ichthyol/Anzag           | Unguentum Cordes <sup>®</sup> | 19A0206     | 1       |
| Ichthyol/Anzag           | Unguentum Cordes <sup>®</sup> | 2316I-02532 | 1       |
| Ichthyol/E&J             | Unguentum Cordes <sup>®</sup> | 17A008      | 1       |
| Ichthyol/E&J             | Unguentum Cordes <sup>®</sup> | 17A218      | 1       |
| Ichthyol/E&J             | Unguentum Cordes <sup>®</sup> | 18A004      | 1       |
| Ichthyol/ebert           | Unguentum Cordes <sup>®</sup> | 13A034      | 1       |
| Ichthyol/Ebert           | Unguentum Cordes <sup>®</sup> | 13A090      | 1       |
| Ichthyol/Ebert           | Unguentum Cordes <sup>®</sup> | 13A159      | 1       |
| Ichthyol/Ebert           | Unguentum Cordes <sup>®</sup> | 14A060      | 1       |
| Ichthyol/Fiebig 17.03... | Unguentum Cordes <sup>®</sup> | 21A0202     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 13A166      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 14A179      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 15A040      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 15A043      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 15A140      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 16A143      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 16A153      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 16A184      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 17A018      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 17A045      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 17A09       | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 18A110      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 18A156      | 1       |
| ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 19A008      | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 19A0153     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 19A0154     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 19A0184     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0049     | 2       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0051     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0084     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0090     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0094     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0105     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0111     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0151     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0172     | 2       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0173     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 20A0234     | 1       |
| Ichthyol/Fiebig          | Unguentum Cordes <sup>®</sup> | 21A0163     | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 11A043      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 12A060      | 2       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 12A079      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 12A156      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 12A190      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A006      | 1       |
| Ichthyol/GEHE            | Unguentum Cordes <sup>®</sup> | 13A034      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A051      | 1       |
| ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A091      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A106      | 1       |
| ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A109      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A109      | 1       |
| Ichthyol/gehe            | Unguentum Cordes <sup>®</sup> | 13A114      | 1       |
| Ichthyol/GEHE            | Unguentum Cordes <sup>®</sup> | 13a138      | 1       |
| Ichthyol/GEHE            | Unguentum Cordes <sup>®</sup> | 13A142      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A172      | 1       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A178      | 3       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A181      | 2       |
| Ichthyol/Gehe            | Unguentum Cordes <sup>®</sup> | 13A216      | 1       |
| Ichthyol/gehe            | Unguentum Cordes <sup>®</sup> | 14A005      | 1       |

continued on the next page



continued from previous page

| Supplier      | Substance                     | Batch  | Spectra |
|---------------|-------------------------------|--------|---------|
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A006 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A055 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A056 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A062 | 3       |
| Ichthyol/gehe | Unguentum Cordes <sup>®</sup> | 14A099 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A112 | 1       |
| Ichthyol/GEHE | Unguentum Cordes <sup>®</sup> | 14a113 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A117 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A130 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 14A172 | 2       |
| ICHTHYOL/GEHE | Unguentum Cordes <sup>®</sup> | 15A011 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A020 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A021 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A023 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A027 | 4       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A040 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A042 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A043 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A060 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A073 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A106 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A123 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A137 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A139 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A148 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 15A156 | 2       |
| Ichthyol/GEHE | Unguentum Cordes <sup>®</sup> | 15A061 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A051 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A058 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A061 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A070 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A083 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A099 | 1       |
| ICHTHYOL/Gehe | Unguentum Cordes <sup>®</sup> | 16A099 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A102 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A119 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A141 | 2       |
| Ichthyol/GEHE | Unguentum Cordes <sup>®</sup> | 16A143 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A183 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 16A210 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A002 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A004 | 1       |
| ichthyol/gehe | Unguentum Cordes <sup>®</sup> | 17A005 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A045 | 4       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A049 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A052 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A057 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A067 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A069 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A084 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A085 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A106 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A127 | 1       |
| Ichthyol/GEHE | Unguentum Cordes <sup>®</sup> | 17A127 | 1       |
| ICHTHYOL/Gehe | Unguentum Cordes <sup>®</sup> | 17A127 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A142 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 17A164 | 1       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 18A048 | 2       |
| Ichthyol/Gehe | Unguentum Cordes <sup>®</sup> | 18A049 | 2       |
| ICHTHYOL/Gehe | Unguentum Cordes <sup>®</sup> | 18A049 | 1       |

continued on the next page

continued from previous page

| Supplier               | Substance         | Batch       | Spectra |
|------------------------|-------------------|-------------|---------|
| Ichthyol/Gehe          | Unguentum Cordes® | 18A067      | 2       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A083      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A105      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A107      | 2       |
| ICHTHYOL/Gehe          | Unguentum Cordes® | 18A107      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A111      | 4       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A112      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A113      | 4       |
| Ichthyol/GEHE          | Unguentum Cordes® | 18A113      | 1       |
| ICHTHYOL/Gehe          | Unguentum Cordes® | 18A131      | 1       |
| ICHTHYOL/Gehe          | Unguentum Cordes® | 18A147      | 2       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A190      | 1       |
| ICHTHYOL/Gehe          | Unguentum Cordes® | 18A191      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A192      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A243      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 18A244      | 1       |
| ICHTHYOL/Gehe          | Unguentum Cordes® | 18A253      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A004      | 3       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A005      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A006      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A0153     | 3       |
| Ichthyol/GEHE          | Unguentum Cordes® | 19A0153     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A0183     | 1       |
| Ichthyol/GEHE          | Unguentum Cordes® | 19A0183     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A0184     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19a020      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A020      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A0256     | 1       |
| ICHTHYOL/Gehe          | Unguentum Cordes® | 19A026      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A112      | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 19A184      | 1       |
| Ichthyol/GEHE          | Unguentum Cordes® | 20A0028     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0034     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0036     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0045     | 1       |
| ichthyol/Gehe          | Unguentum Cordes® | 20A0049     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0049     | 6       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0060     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0084     | 2       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0094     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0098     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0124     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0150     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0151     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 20A0172     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 21A0100     | 2       |
| Ichthyol/Gehe          | Unguentum Cordes® | 21A0184     | 1       |
| Ichthyol/Gehe          | Unguentum Cordes® | 4913Q-02532 | 1       |
| Ichthyol/GeiBo         | Unguentum Cordes® | 19A0153     | 1       |
| Ichthyol/GeiBo         | Unguentum Cordes® | 20A0172     | 1       |
| Ichthyol/Geilenkircheb | Unguentum Cordes® | 17A056      | 1       |
| Ichthyol/Geilenkircheb | Unguentum Cordes® | 19A0183     | 1       |
| Ichthyol/Geilenkirchen | Unguentum Cordes® | 14A095      | 1       |
| Ichthyol/Geilenkirchen | Unguentum Cordes® | 17A085      | 2       |
| Ichthyol/Geilenkirchen | Unguentum Cordes® | 17A087      | 1       |
| Ichthyol/Geilenkirchen | Unguentum Cordes® | 18A110      | 2       |
| Ichthyol/Geilenkirchen | Unguentum Cordes® | 18A223      | 2       |
| Ichthyol/Geilenkirchen | Unguentum Cordes® | 20A0105     | 1       |
| Ichthyol/Holdermann    | Unguentum Cordes® | 17A085      | 1       |
| Ichthyol/Holdermann    | Unguentum Cordes® | 20A0173     | 1       |

continued on the next page

continued from previous page

| Supplier                  | Substance                     | Batch   | Spectra |
|---------------------------|-------------------------------|---------|---------|
| Ichthyol/Jenne            | Unguentum Cordes <sup>®</sup> | 17A142  | 1       |
| ichthyol/Jenne            | Unguentum Cordes <sup>®</sup> | 18A248  | 1       |
| Ichthyol/Jenne            | Unguentum Cordes <sup>®</sup> | 20A0049 | 1       |
| Ichthyol/Jenne            | Unguentum Cordes <sup>®</sup> | 20A0172 | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 17A113  | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 17A142  | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 18A166  | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 18A191  | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 18A223  | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 18A232  | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 19A0149 | 1       |
| Ichthyol/Kehr             | Unguentum Cordes <sup>®</sup> | 19A0153 | 1       |
| ICHTHYOL/Kehr             | Unguentum Cordes <sup>®</sup> | 20A0030 | 1       |
| Ichthyol/Krieger/23.05... | Unguentum Cordes <sup>®</sup> | 13A209  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 11A146  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 11A202  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 12A102  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 12A184  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 16A121  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 16A123  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 17A005  | 2       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 17A049  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 17A054  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 18A070  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 18A215  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 18A216  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 19A001  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 19A005  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 19A008  | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 19A0154 | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 19A0181 | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 19A0182 | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 20A0030 | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 20A0035 | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 20A0045 | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 20A0090 | 1       |
| Ichthyol/Krieger          | Unguentum Cordes <sup>®</sup> | 20A0172 | 1       |
| Ichthyol/N/14.02.13       | Unguentum Cordes <sup>®</sup> | 12A131  | 1       |
| ichthyol/N/PZN:01062983   | Unguentum Cordes <sup>®</sup> | 13A050  | 1       |
| Ichthyol/N                | Unguentum Cordes <sup>®</sup> | 16A046  | 1       |
| Ichthyol/Noveda           | Unguentum Cordes <sup>®</sup> | 17A002  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 12A064  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A042  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A043  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A055  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A089  | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A090  | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A106  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A158  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 13A172  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 14A009  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 14A047  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 15A023  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 15A060  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 15A079  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 15A089  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 15A123  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 15A124  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 15A192  | 2       |

continued on the next page

continued from previous page

| Supplier        | Substance         | Batch          | Spectra |
|-----------------|-------------------|----------------|---------|
| Ichthyol/Noweda | Unguentum Cordes® | 16A045         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A085         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A099         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A101         | 3       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A111         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A123         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A139         | 3       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A142         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A143         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A153         | 3       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A155         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A15501062983 | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A176         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 16A210         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A002         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A003         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A004         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A007         | 3       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A045         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A049         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A050         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A052         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A053         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A054         | 3       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A057         | 3       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A069         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A084         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A0852mal250g | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A105         | 4       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A106         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A112         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A127         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 17A164         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A049         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A051         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A052         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A070         | 1       |
| ichthyol/Noweda | Unguentum Cordes® | 18A073         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A073         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A105         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A107         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A110         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A112         | 3       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A113         | 2       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A130         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A132         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A166         | 1       |
| ICHTHYOL/Noweda | Unguentum Cordes® | 18A190         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A191         | 1       |
| ICHTHYOL/Noweda | Unguentum Cordes® | 18A215         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A223         | 1       |
| ICHTHYOL/Noweda | Unguentum Cordes® | 18A223         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 18A224         | 1       |
| ICHTHYOL/Noweda | Unguentum Cordes® | 19A001         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 19A003         | 2       |
| ICHTHYOL/Noweda | Unguentum Cordes® | 19A003         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 19A004         | 1       |
| ICHTHYOL/Noweda | Unguentum Cordes® | 19A004         | 1       |
| Ichthyol/Noweda | Unguentum Cordes® | 19A005         | 1       |
| ICHTHYOL/Noweda | Unguentum Cordes® | 19A006         | 1       |

continued on the next page

continued from previous page

| Supplier                  | Substance                     | Batch   | Spectra |
|---------------------------|-------------------------------|---------|---------|
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A007  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A008  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0149 | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0153 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0154 | 1       |
| ICHTHYOL/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0181 | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0182 | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0183 | 1       |
| ICHTHYOL/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0183 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0184 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A020  | 3       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0204 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0256 | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A0262 | 3       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A111  | 3       |
| ICHTHYOL/Noweda           | Unguentum Cordes <sup>®</sup> | 19A111  | 3       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A128  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 19A181  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 1A048   | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 1SA111  | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0028 | 1       |
| ICHTHYOL/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0028 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0035 | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0045 | 1       |
| ICHTHYOL/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0045 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0049 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0084 | 4       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0090 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0111 | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0131 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0149 | 3       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0150 | 2       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0151 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0153 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0173 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 20A0234 | 3       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | 21A0102 | 1       |
| Ichthyol/Noweda           | Unguentum Cordes <sup>®</sup> | A00902  | 1       |
| Ichthyol/O.G.             | Unguentum Cordes <sup>®</sup> | 16A140  | 1       |
| Ichthyol/O.G.             | Unguentum Cordes <sup>®</sup> | 16A153  | 1       |
| Ichthyol/O.G.             | Unguentum Cordes <sup>®</sup> | 16A210  | 1       |
| Ichthyol/O.G.             | Unguentum Cordes <sup>®</sup> | 20A0131 | 1       |
| Ichthyol/OG               | Unguentum Cordes <sup>®</sup> | 17A003  | 2       |
| Ichthyol/OG               | Unguentum Cordes <sup>®</sup> | 17A067  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> |         | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 12A020  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 12A130  | 2       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 12A130  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 13A055  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 13A136  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 13A159  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 14A113  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 15A010  | 1       |
| Ichthyol/Otto             | Unguentum Cordes <sup>®</sup> | 15A107  | 1       |
| Ichthyol/P                | Unguentum Cordes <sup>®</sup> | 17A069  | 1       |
| Ichthyol/P                | Unguentum Cordes <sup>®</sup> | 19A001  | 1       |
| Ichthyol/P                | Unguentum Cordes <sup>®</sup> | 19A004  | 1       |
| Ichthyol/Phö              | Unguentum Cordes <sup>®</sup> | 17AQ084 | 1       |
| Ichthyol/Phoenix WE:02... | Unguentum Cordes <sup>®</sup> | 15A137  | 1       |
| Ichthyol/Phoenix          | Unguentum Cordes <sup>®</sup> | 13A049  | 1       |

continued on the next page



continued from previous page

| Supplier         | Substance         | Batch   | Spectra |
|------------------|-------------------|---------|---------|
| Ichthyol/Phoenix | Unguentum Cordes® | 13A054  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 13A135  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 13A166  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 14A079  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 14A095  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 14A172  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A011  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A020  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A022  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A042  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A044  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A061  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A090  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A106  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A107  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A141  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A149  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A156  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A191  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 15A023  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A046  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A047  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A048  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A102  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A121  | 4       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A137  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A140  | 3       |
| ICHTHYOL/Phoenix | Unguentum Cordes® | 16A140  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A142  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 16A047  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A003  | 2       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A045  | 1       |
| ICHTHYOL/Phoenix | Unguentum Cordes® | 17A045  | 3       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A054  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A067  | 1       |
| ICHTHYOL/Phoenix | Unguentum Cordes® | 17A067  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A087  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A101  | 2       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A104  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A105  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A142  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A163  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 17A067  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A049  | 2       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A050  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A051  | 3       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A052  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A107  | 2       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A111  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A112  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A113  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A130  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A147  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A156  | 2       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A166  | 3       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A191  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A215  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 18A223  | 1       |
| Ichthyol/Phoenix | Unguentum Cordes® | 19A001  | 1       |
| ichthyol/phoenix | Unguentum Cordes® | 19A0154 | 1       |

continued on the next page

continued from previous page

| Supplier               | Substance                     | Batch    | Spectra |
|------------------------|-------------------------------|----------|---------|
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 19A0182  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 19A0183  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 19A0256  | 1       |
| Ichthyol/phoenix       | Unguentum Cordes <sup>®</sup> | 20A0049  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 20A0049  | 1       |
| Ichthyol/phoenix       | Unguentum Cordes <sup>®</sup> | 20A0084  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 20A0084  | 2       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 20A0115  | 1       |
| ICHTHYOL/Phoenix       | Unguentum Cordes <sup>®</sup> | 20A0115  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 20A0151  | 1       |
| ichthyol/phoenix       | Unguentum Cordes <sup>®</sup> | 20A0153  | 1       |
| Ichthyol/phoenix       | Unguentum Cordes <sup>®</sup> | 20A0153  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 20A0173  | 2       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 20A0234  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 21A0055  | 1       |
| ICHTHYOL/Phoenix       | Unguentum Cordes <sup>®</sup> | 21A0114  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 21A0163  | 1       |
| Ichthyol/Phoenix       | Unguentum Cordes <sup>®</sup> | 21A0201  | 1       |
| Ichthyol/Phön.         | Unguentum Cordes <sup>®</sup> | 18A156   | 1       |
| Ichthyol/Phönix/Phönix | Unguentum Cordes <sup>®</sup> | 20A0152  | 1       |
| ICHTHYOL/Phönix        | Unguentum Cordes <sup>®</sup> | 10A070   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 12A184   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 13A010   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 13A030   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 13A033   | 1       |
| Ichthyol/phönix        | Unguentum Cordes <sup>®</sup> | 13A034   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 13A089   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 13A140   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 13A166   | 3       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 13A054   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 14A057   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 14A062   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 14A095   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 14A116   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 14A172   | 2       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 14A179   | 1       |
| Ichthyol/phönix        | Unguentum Cordes <sup>®</sup> | 15A020   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A020   | 2       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A023   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A042   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A061   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A062   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A073   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A092   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A108   | 3       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A123   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A124   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A125   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A142   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A150   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 15A162   | 1       |
| Ichthyol/Phönix        | Paraffin, white               | 16138003 | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16A023   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16a044   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16A045   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16A048   | 2       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16A101   | 2       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16A102   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16A119   | 1       |
| Ichthyol/Phönix        | Unguentum Cordes <sup>®</sup> | 16A141   | 1       |

continued on the next page



continued from previous page

| Supplier        | Substance         | Batch   | Spectra |
|-----------------|-------------------|---------|---------|
| Ichthyol/Phönix | Unguentum Cordes® | 16A142  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 16A155  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 16A184  | 1       |
| ICHTHYOL/Phönix | Unguentum Cordes® | 16A184  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A002  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A003  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A004  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A005  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A0058 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A007  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A049  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A054  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A056  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A057  | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A067  | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A069  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A084  | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A085  | 4       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A101  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A104  | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A112  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A126  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A127  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 17A164  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A002  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A048  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A049  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A050  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A051  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A052  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A084  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A105  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A107  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A111  | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A113  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A13   | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A130  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A156  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A166  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A190  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A191  | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 18A216  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A003  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A004  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A006  | 2       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A-006 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A0149 | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A0153 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A0154 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A0181 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A0184 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A020  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A0257 | 3       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A111  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 19A112  | 2       |
| ichthyol/Phönix | Unguentum Cordes® | 19A128  | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 20A0002 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 20A0034 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 20A0035 | 1       |
| Ichthyol/Phönix | Unguentum Cordes® | 20A0093 | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch   | Spectra |
|----------------------------|-------------------------------|---------|---------|
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0115 | 2       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0150 | 1       |
| ICHTHYOL/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0151 | 1       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0152 | 1       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0173 | 1       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0192 | 1       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0211 | 1       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 20A0234 | 2       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 21A0055 | 1       |
| Ichthyol/Phönix            | Unguentum Cordes <sup>®</sup> | 21A0058 | 2       |
| Ichthyol/Px                | Unguentum Cordes <sup>®</sup> | 15A137  | 1       |
| Ichthyol/Sana              | Unguentum Cordes <sup>®</sup> | 17a045  | 1       |
| Ichthyol/Sana              | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| Ichthyol/Sana              | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| Ichthyol/Sana              | Unguentum Cordes <sup>®</sup> | 20A0153 | 2       |
| Ichthyol/Sana              | Unguentum Cordes <sup>®</sup> | 21A0057 | 1       |
| Ichthyol/Sanac             | Unguentum Cordes <sup>®</sup> | 18A101  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 18A052  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 18A105  | 2       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 18A132  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 18A248  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 19A004  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 19A0257 | 1       |
| Ichthyol/Sanacorp 25.06... | Unguentum Cordes <sup>®</sup> | 21A0056 | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 12A006  | 1       |
| ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 12A183  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 12A211  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A010  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A048  | 1       |
| ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A090  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A106  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A108  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A140  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A142  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 13A214  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 14A055  | 2       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 14A060  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 14A079  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 14A098  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 14A171  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 14A179  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A010  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A037  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A061  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A074  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A093  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A106  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A123  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A149  | 2       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A164  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 15A191  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 16A026  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 16A044  | 1       |
| Ichthyol/sanacorp          | Unguentum Cordes <sup>®</sup> | 16A083  | 1       |
| Ichthyol/sanacorp          | Unguentum Cordes <sup>®</sup> | 16A101  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 16A142  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 16A176  | 2       |
| Ichthyol/sanacorp          | Unguentum Cordes <sup>®</sup> | 16A183  | 1       |
| Ichthyol/sanacorp          | Unguentum Cordes <sup>®</sup> | 16A184  | 1       |
| Ichthyol/Sanacorp          | Unguentum Cordes <sup>®</sup> | 16A184  | 2       |

continued on the next page

continued from previous page

| Supplier               | Substance         | Batch       | Spectra |
|------------------------|-------------------|-------------|---------|
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A002      | 2       |
| ichthyol/Sanacorp      | Unguentum Cordes® | 17A003      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A005      | 3       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A007      | 3       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A045      | 2       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A056      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A067      | 1       |
| ichthyol/Sanacorp      | Unguentum Cordes® | 17A084      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A084      | 1       |
| ICHTHYOL/Sanacorp      | Unguentum Cordes® | 17A085      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A101      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A104      | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 17A106      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A106      | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 17A113      | 2       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A127      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A142      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 17A163      | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 18A052      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A052      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A070      | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 18A105      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A107      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A11       | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A111      | 4       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 18A112      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18a112      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A112      | 4       |
| ICHTHYOL/Sanacorp      | Unguentum Cordes® | 18A112      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A113      | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 18A131      | 2       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A147      | 1       |
| ichthyol/Sanacorp      | Unguentum Cordes® | 18A156      | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 18A156      | 3       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A156      | 2       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 18A216      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A216      | 2       |
| ichthyol/Sanacorp      | Unguentum Cordes® | 18A223      | 2       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A223      | 3       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A224      | 3       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 18A2323     | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 19A001      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 19A003      | 1       |
| ICHTHYOL/Sanacorp      | Unguentum Cordes® | 19A003      | 1       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 19A005      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 19A0149     | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 19A0154     | 3       |
| Ichthyol/sanacorp      | Unguentum Cordes® | 19A0181     | 2       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 19A0256     | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 19A026      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 19A128      | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 20A0002     | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 20A0084     | 4       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 20A0090     | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 20A01503    | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | 20A0151     | 1       |
| Ichthyol/Sanacorp      | Unguentum Cordes® | AP210622-03 | 1       |
| Ichthyol/Sanova Pharma | Unguentum Cordes® | 15A041      | 1       |
| Ichthyol/Sanova Pharma | Unguentum Cordes® | 15A156      | 1       |
| Ichthyol/Sanova Pharma | Unguentum Cordes® | 17A003      | 1       |

continued on the next page

continued from previous page

| Supplier                | Substance                     | Batch     | Spectra |
|-------------------------|-------------------------------|-----------|---------|
| Ichthyol/Spangro        | Unguentum Cordes <sup>®</sup> | 16A085    | 1       |
| Ichthyol/Spangro        | Unguentum Cordes <sup>®</sup> | 16A099    | 1       |
| Ichthyol/Spangro        | Unguentum Cordes <sup>®</sup> | 16A101    | 1       |
| Ichthyol/Spangro        | Unguentum Cordes <sup>®</sup> | 17A004    | 1       |
| Ichthyol/Spangro        | Unguentum Cordes <sup>®</sup> | 17A106    | 1       |
| Ichthyol/Spangro        | Unguentum Cordes <sup>®</sup> | 17A113    | 1       |
| Ichthyol/Spangro22.4.21 | Unguentum Cordes <sup>®</sup> | 20A0105   | 1       |
| Ichthyol/VDL            | Unguentum Cordes <sup>®</sup> | 13A136    | 1       |
| ichthyol                | Unguentum Cordes <sup>®</sup> |           | 1       |
| ICHTHYOL                | Unguentum Cordes <sup>®</sup> | 10A216    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 11A085    | 3       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 11A120    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 11A150    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 11A153    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 11A233    | 1       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A060    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A064    | 1       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A102    | 1       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A115    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A115    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A120    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A121    | 3       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A129    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A131    | 2       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A139    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A139    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12a145    | 1       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A152    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A152    | 3       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A157    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A160    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A185    | 1       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A190    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A190    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A205    | 3       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 12A206    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 12A211    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13012015B | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13041504  | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13092013D | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A003    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A005    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A006    | 1       |
| Ichthyol                | Paraffin, white               | 13A010    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A015    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A029    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A030    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A031    | 2       |
| ichthyol                | Unguentum Cordes <sup>®</sup> | 13A032    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A032    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A034    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A042    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A043    | 4       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A047    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A048    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A050    | 5       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A052    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A053    | 1       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A055    | 2       |
| Ichthyol                | Unguentum Cordes <sup>®</sup> | 13A067    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance         | Batch       | Spectra |
|----------|-------------------|-------------|---------|
| Ichthyol | Unguentum Cordes® | 13A068      | 1       |
| Ichthyol | Unguentum Cordes® | 13A089      | 2       |
| ichthyol | Unguentum Cordes® | 13A090      | 1       |
| Ichthyol | Unguentum Cordes® | 13A090      | 3       |
| ichthyol | Unguentum Cordes® | 13A1008     | 1       |
| Ichthyol | Unguentum Cordes® | 13A106      | 2       |
| Ichthyol | Unguentum Cordes® | 13A107      | 1       |
| Ichthyol | Unguentum Cordes® | 13A109      | 1       |
| Ichthyol | Unguentum Cordes® | 13A111      | 1       |
| Ichthyol | Unguentum Cordes® | 13A112      | 2       |
| ICHTHYOL | Unguentum Cordes® | 13A135      | 1       |
| Ichthyol | Unguentum Cordes® | 13A136      | 1       |
| Ichthyol | Unguentum Cordes® | 13A138      | 3       |
| Ichthyol | Unguentum Cordes® | 13A140      | 1       |
| Ichthyol | Unguentum Cordes® | 13A141      | 1       |
| Ichthyol | Unguentum Cordes® | 13A142      | 1       |
| Ichthyol | Unguentum Cordes® | 13A153      | 1       |
| Ichthyol | Unguentum Cordes® | 13A159      | 2       |
| Ichthyol | Unguentum Cordes® | 13A166      | 2       |
| Ichthyol | Unguentum Cordes® | 13A171      | 1       |
| Ichthyol | Unguentum Cordes® | 13A172      | 3       |
| Ichthyol | Unguentum Cordes® | 13A178      | 2       |
| Ichthyol | Unguentum Cordes® | 13A180      | 1       |
| Ichthyol | Unguentum Cordes® | 14031409    | 1       |
| Ichthyol | Unguentum Cordes® | 14121203    | 1       |
| ichthyol | Unguentum Cordes® | 1413M-02532 | 1       |
| Ichthyol | Unguentum Cordes® | 14A005      | 1       |
| Ichthyol | Unguentum Cordes® | 14A009      | 1       |
| Ichthyol | Unguentum Cordes® | 14A057      | 3       |
| Ichthyol | Unguentum Cordes® | 14A060      | 1       |
| Ichthyol | Unguentum Cordes® | 14A061      | 1       |
| Ichthyol | Unguentum Cordes® | 14A063      | 1       |
| Ichthyol | Unguentum Cordes® | 14A079      | 1       |
| Ichthyol | Unguentum Cordes® | 14A095      | 2       |
| Ichthyol | Unguentum Cordes® | 14A098      | 1       |
| ichthyol | Unguentum Cordes® | 14a113      | 1       |
| Ichthyol | Unguentum Cordes® | 14A113      | 1       |
| Ichthyol | Unguentum Cordes® | 14A114      | 1       |
| ICHTHYOL | Unguentum Cordes® | 14A114      | 1       |
| Ichthyol | Unguentum Cordes® | 14A116      | 1       |
| Ichthyol | Unguentum Cordes® | 14A117      | 1       |
| ICHTHYOL | Unguentum Cordes® | 14A117      | 1       |
| Ichthyol | Unguentum Cordes® | 14A132      | 1       |
| Ichthyol | Unguentum Cordes® | 14A171      | 2       |
| ICHTHYOL | Unguentum Cordes® | 14A171      | 1       |
| ichthyol | Unguentum Cordes® | 14A172      | 1       |
| Ichthyol | Unguentum Cordes® | 14A172      | 3       |
| Ichthyol | Unguentum Cordes® | 14A173      | 2       |
| Ichthyol | Unguentum Cordes® | 14A179      | 1       |
| ICHTHYOL | Unguentum Cordes® | 15A011      | 1       |
| Ichthyol | Unguentum Cordes® | 15A020      | 1       |
| Ichthyol | Unguentum Cordes® | 15A021      | 2       |
| Ichthyol | Unguentum Cordes® | 15A023      | 1       |
| Ichthyol | Unguentum Cordes® | 15A038      | 1       |
| Ichthyol | Unguentum Cordes® | 15A040      | 1       |
| Ichthyol | Unguentum Cordes® | 15A042      | 3       |
| Ichthyol | Unguentum Cordes® | 15A-042     | 1       |
| Ichthyol | Unguentum Cordes® | 15A060      | 2       |
| ichthyol | Unguentum Cordes® | 15A061      | 1       |
| Ichthyol | Unguentum Cordes® | 15A061      | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch  | Spectra |
|----------|-------------------------------|--------|---------|
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A062 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A073 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A074 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A075 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A076 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A079 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A089 | 2       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 15a089 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A091 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A092 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A093 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A106 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A107 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A108 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A123 | 2       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 15A124 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A124 | 2       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 15A125 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A137 | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 15A139 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A140 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A142 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A148 | 5       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A150 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A155 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A156 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15a159 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A159 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A191 | 7       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A192 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 15A087 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A011 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A022 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A023 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A045 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A047 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A048 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A058 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A061 | 4       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A077 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A082 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A083 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A085 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A099 | 5       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 16A101 | 4       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A101 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A102 | 3       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 16A119 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A119 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A121 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A122 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A123 | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A124 | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 16A140 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A140 | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A142 | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 16A143 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A155 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A16  | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 16A173 | 3       |

continued on the next page



continued from previous page

| Supplier | Substance         | Batch      | Spectra |
|----------|-------------------|------------|---------|
| ichthyol | Unguentum Cordes® | 16A176     | 1       |
| Ichthyol | Unguentum Cordes® | 16a176     | 1       |
| Ichthyol | Unguentum Cordes® | 16A176     | 3       |
| Ichthyol | Unguentum Cordes® | 16A178     | 1       |
| Ichthyol | Unguentum Cordes® | 16A183     | 8       |
| Ichthyol | Unguentum Cordes® | 16a184     | 1       |
| Ichthyol | Unguentum Cordes® | 16A184     | 6       |
| ICHTHYOL | Unguentum Cordes® | 16A184     | 1       |
| Ichthyol | Unguentum Cordes® | 16A210     | 3       |
| ICHTHYOL | Unguentum Cordes® | 170A002    | 1       |
| Ichthyol | Unguentum Cordes® | 174A053    | 1       |
| Ichthyol | Unguentum Cordes® | 17A002     | 2       |
| ichthyol | Unguentum Cordes® | 17a003     | 1       |
| ichthyol | Unguentum Cordes® | 17A003     | 1       |
| Ichthyol | Unguentum Cordes® | 17A003     | 4       |
| Ichthyol | Unguentum Cordes® | 17A004     | 6       |
| Ichthyol | Unguentum Cordes® | 17a005     | 2       |
| Ichthyol | Unguentum Cordes® | 17A005     | 7       |
| Ichthyol | Unguentum Cordes® | 17A007     | 6       |
| ichthyol | Unguentum Cordes® | 17A0075535 | 1       |
| Ichthyol | Unguentum Cordes® | 17A019     | 1       |
| Ichthyol | Unguentum Cordes® | 17A045     | 3       |
| Ichthyol | Unguentum Cordes® | 17A049     | 1       |
| ichthyol | Unguentum Cordes® | 17A051     | 1       |
| Ichthyol | Unguentum Cordes® | 17A051     | 2       |
| ICHTHYOL | Unguentum Cordes® | 17A051     | 1       |
| Ichthyol | Unguentum Cordes® | 17A053     | 2       |
| Ichthyol | Unguentum Cordes® | 17A055     | 1       |
| Ichthyol | Unguentum Cordes® | 17A056     | 2       |
| ICHTHYOL | Unguentum Cordes® | 17A057     | 2       |
| Ichthyol | Unguentum Cordes® | 17A067     | 2       |
| Ichthyol | Unguentum Cordes® | 17A069     | 2       |
| Ichthyol | Unguentum Cordes® | 17A084     | 8       |
| ICHTHYOL | Unguentum Cordes® | 17A084     | 1       |
| Ichthyol | Unguentum Cordes® | 17A085     | 5       |
| Ichthyol | Unguentum Cordes® | 17A087     | 2       |
| Ichthyol | Unguentum Cordes® | 17A098     | 1       |
| Ichthyol | Unguentum Cordes® | 17A101     | 1       |
| Ichthyol | Unguentum Cordes® | 17A105     | 3       |
| Ichthyol | Unguentum Cordes® | 17A106     | 2       |
| Ichthyol | Unguentum Cordes® | 17A107     | 1       |
| Ichthyol | Unguentum Cordes® | 17A112     | 2       |
| Ichthyol | Unguentum Cordes® | 17A113     | 3       |
| Ichthyol | Unguentum Cordes® | 17A126     | 1       |
| Ichthyol | Unguentum Cordes® | 17A127     | 3       |
| Ichthyol | Unguentum Cordes® | 17A142     | 1       |
| ichthyol | Unguentum Cordes® | 17A163     | 2       |
| Ichthyol | Unguentum Cordes® | 17A164     | 4       |
| Ichthyol | Unguentum Cordes® | 17A174     | 1       |
| Ichthyol | Unguentum Cordes® | 17A216     | 2       |
| Ichthyol | Unguentum Cordes® | 17A217     | 1       |
| Ichthyol | Unguentum Cordes® | 17A218     | 1       |
| Ichthyol | Unguentum Cordes® | 17A052     | 1       |
| ICHTHYOL | Paraffin, white   | 18006401   | 3       |
| ichthyol | Unguentum Cordes® | 18A001     | 1       |
| ichthyol | Unguentum Cordes® | 18A003     | 1       |
| Ichthyol | Unguentum Cordes® | 18A006     | 2       |
| Ichthyol | Unguentum Cordes® | 18A007     | 1       |
| Ichthyol | Unguentum Cordes® | 18A049     | 2       |
| Ichthyol | Unguentum Cordes® | 18A051     | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                     | Batch           | Spectra |
|----------|-------------------------------|-----------------|---------|
| ichthyol | Unguentum Cordes <sup>®</sup> | 18A065          | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 18A084          | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A084          | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A087          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A101          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A105          | 2       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 18A11           | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A110          | 4       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 18a111          | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 18A111          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A112          | 9       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 18A112          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A113          | 4       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A114          | 1       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 18A130          | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 18A132          | 1       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 18A132          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A156          | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A166          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A2003         | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A215          | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A216          | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 18a223          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A223          | 6       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18a224          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A224          | 3       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A243          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A244          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A248          | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A252          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A253          | 2       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 18A256          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 18A258          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A001          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A005          | 1       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 19A005          | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 19A006          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A006          | 1       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 19A006          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A006/P-291021 | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A008          | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0149         | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0153         | 8       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0154         | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0181         | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0183         | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0184         | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A020          | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0204         | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A021          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0256         | 1       |
| ICHTHYOL | Unguentum Cordes <sup>®</sup> | 19A0257         | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 19A026          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19a026          | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A026          | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 19a0262         | 1       |
| ichthyol | Unguentum Cordes <sup>®</sup> | 19A0262         | 1       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A0262         | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A029          | 2       |
| Ichthyol | Unguentum Cordes <sup>®</sup> | 19A111          | 1       |

continued on the next page

continued from previous page

| Supplier                 | Substance         | Batch      | Spectra |
|--------------------------|-------------------|------------|---------|
| ichthyol                 | Unguentum Cordes® | 20201112-1 | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0002    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0028    | 1       |
| ICHTHYOL                 | Unguentum Cordes® | 20A0028    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0035    | 2       |
| Ichthyol                 | Unguentum Cordes® | 20A0045    | 1       |
| ichthyol                 | Unguentum Cordes® | 20a0049    | 1       |
| ichthyol                 | Unguentum Cordes® | 20A0049    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0049    | 4       |
| ichthyol                 | Unguentum Cordes® | 20A0060    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0060    | 1       |
| ichthyol                 | Unguentum Cordes® | 20A0061    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0084    | 2       |
| Ichthyol                 | Unguentum Cordes® | 20A0090    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0093    | 1       |
| ichthyol                 | Unguentum Cordes® | 20A0094    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0095    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0105    | 3       |
| Ichthyol                 | Unguentum Cordes® | 20A0111    | 2       |
| Ichthyol                 | Unguentum Cordes® | 20A0115    | 2       |
| Ichthyol                 | Unguentum Cordes® | 20A0116    | 1       |
| ichthyol                 | Unguentum Cordes® | 20A0124    | 1       |
| ICHTHYOL                 | Unguentum Cordes® | 20A0124    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0131    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0149    | 2       |
| Ichthyol                 | Unguentum Cordes® | 20A0150    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0151    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0172    | 3       |
| Ichthyol                 | Unguentum Cordes® | 20A0173    | 2       |
| Ichthyol                 | Unguentum Cordes® | 20A0211    | 1       |
| ICHTHYOL                 | Unguentum Cordes® | 20A0211    | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0211    | 1       |
| Ichthyol                 | Unguentum Cordes® | 21A0055    | 2       |
| Ichthyol                 | Unguentum Cordes® | 21A0056    | 1       |
| Ichthyol                 | Unguentum Cordes® | 21A0057    | 2       |
| Ichthyol                 | Unguentum Cordes® | 21A0058    | 2       |
| Ichthyol                 | Unguentum Cordes® | 21A0064    | 1       |
| Ichthyol                 | Unguentum Cordes® | 21A0086    | 1       |
| Ichthyol                 | Unguentum Cordes® | 21A0100    | 1       |
| Ichthyol                 | Unguentum Cordes® | 21A0144    | 2       |
| Ichthyol                 | Unguentum Cordes® | 21A0150    | 2       |
| Ichthyol                 | Unguentum Cordes® | 21A0163    | 2       |
| Ichthyol                 | Unguentum Cordes® | 21A0184    | 2       |
| Ichthyol                 | Unguentum Cordes® | 21A0201    | 1       |
| Ichthyol                 | Unguentum Cordes® | 24022014B  | 1       |
| Ichthyol                 | Unguentum Cordes® | 26101201   | 1       |
| Ichthyol                 | Unguentum Cordes® | 20A0105    | 1       |
| Ichthyol                 | Unguentum Cordes® | 30092014C  | 1       |
| Ichthyol                 | Unguentum Cordes® | 4091516    | 1       |
| Ichthyol                 | Unguentum Cordes® | 414022-2-P | 1       |
| Ichthyol                 | Unguentum Cordes® | 5052014B   | 1       |
| Ichthyol                 | Unguentum Cordes® | 7011501    | 1       |
| Ichthyol                 | Unguentum Cordes® | Ungt5/16   | 1       |
| ICHTHYOL_GESELLSCHAFFT   | Unguentum Cordes® | 18A190     | 1       |
| ICHTHYOL_GESELLSCHAFFT   | Unguentum Cordes® | 18A248     | 1       |
| ICHTHYOL_GESELLSCHAFFT   | Unguentum Cordes® | 19A0181    | 1       |
| ichthyolAllia            | Unguentum Cordes® | 19A111     | 1       |
| IchthyolAnzag 10.05.2012 | Unguentum Cordes® | 11A234     | 1       |
| Ichthyol-G. / Sanacorp   | Unguentum Cordes® | 18A223     | 1       |
| Ichthyol-G./AHD          | Unguentum Cordes® | 18A223     | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch   | Spectra |
|----------------------------|-------------------------------|---------|---------|
| ICHTHYOL-G./Noweda         | Unguentum Cordes <sup>®</sup> | 16A155  | 1       |
| Ichthyol-G./Noweda         | Unguentum Cordes <sup>®</sup> | 17A005  | 2       |
| Ichthyol-G./Noweda         | Unguentum Cordes <sup>®</sup> | 17A085  | 1       |
| ICHTHYOL-G./Noweda         | Unguentum Cordes <sup>®</sup> | 17A098  | 1       |
| ICHTHYOL-G./Noweda         | Unguentum Cordes <sup>®</sup> | 17A-126 | 1       |
| ICHTHYOL-G./Noweda         | Unguentum Cordes <sup>®</sup> | 18A050  | 1       |
| Ichthyol-G./Noweda         | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| ICHTHYOL-G./Noweda         | Unguentum Cordes <sup>®</sup> | 20A0105 | 1       |
| ICHTHYOL-G./Noweda         | Unguentum Cordes <sup>®</sup> | 20A0151 | 2       |
| ICHTHYOL-G./Noweda         | Unguentum Cordes <sup>®</sup> | 20A0172 | 1       |
| ichthyol-G.                | Unguentum Cordes <sup>®</sup> | 16A099  | 1       |
| Ichthyol-Ges./Gehe         | Unguentum Cordes <sup>®</sup> | 19A020  | 1       |
| Ichthyol-Ges./Gehe         | Unguentum Cordes <sup>®</sup> | 20A0034 | 1       |
| IchthyolGes./Noweda        | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| IchthyolGes./Noweda        | Unguentum Cordes <sup>®</sup> | 18A223  | 1       |
| IchthyolGes./Noweda        | Unguentum Cordes <sup>®</sup> | 20A0084 | 1       |
| IchthyolGes./Noweda        | Unguentum Cordes <sup>®</sup> | 20A0105 | 1       |
| Ichthyol-Ges./Noweda       | Unguentum Cordes <sup>®</sup> | 21A0055 | 1       |
| ICHTHYOL-GES/GEHE          | Unguentum Cordes <sup>®</sup> | 10A016  | 1       |
| ICHTHYOL-GES/GEHE          | Unguentum Cordes <sup>®</sup> | 11A040  | 1       |
| ICHTHYOL-GES/GEHE          | Unguentum Cordes <sup>®</sup> | 12A152  | 1       |
| Ichthyol-Ges/Noweda        | Unguentum Cordes <sup>®</sup> | 17A018  | 1       |
| Ichthyol-Ges               | Unguentum Cordes <sup>®</sup> | 12A184  | 1       |
| Ichthyol-Gesell./Anzag ... | Unguentum Cordes <sup>®</sup> | 17A085  | 1       |
| Ichthyol-Gesell./Anzag ... | Unguentum Cordes <sup>®</sup> | 17A087  | 1       |
| Ichthyol-Gesellsch. Cor... | Unguentum Cordes <sup>®</sup> | 17A045  | 2       |
| Ichthyol-Gesellsch. Cor... | Unguentum Cordes <sup>®</sup> | 17A142  | 1       |
| Ichthyol-Gesellsch. Cor... | Unguentum Cordes <sup>®</sup> | 18A111  | 1       |
| ICHTHYOL-Gesellsch. Cor... | Unguentum Cordes <sup>®</sup> | 18A131  | 1       |
| ICHTHYOL-Gesellsch. Cor... | Unguentum Cordes <sup>®</sup> | 19A004  | 1       |
| ICHTHYOL-Gesellsch. Cor... | Unguentum Cordes <sup>®</sup> | 19A111  | 1       |
| ICHTHYOL-Gesellsch. Cor... | Unguentum Cordes <sup>®</sup> | 20A0028 | 1       |
| Ichthyol-Gesellsch./GEHE   | Unguentum Cordes <sup>®</sup> | 18A051  | 2       |
| Ichthyol-Gesellsch./GEHE   | Unguentum Cordes <sup>®</sup> | 18A216  | 1       |
| Ichthyol-Gesellsch.        | Unguentum Cordes <sup>®</sup> | 18A232  | 1       |
| Ichthyol-Gesellsch.        | Unguentum Cordes <sup>®</sup> | 19A0153 | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes <sup>®</sup> | 17A126  | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes <sup>®</sup> | 18A131  | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes <sup>®</sup> | 19A0149 | 1       |
| Ichthyol-Gesellschaftt ... | Unguentum Cordes <sup>®</sup> | 18A048  | 1       |
| Ichthyol-Gesellschaftt ... | Unguentum Cordes <sup>®</sup> | 18A070  | 1       |
| ICHTHYOL-GESELLSCHAFT ...  | Unguentum Cordes <sup>®</sup> | 17A174  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 18A111  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 17A007  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 17A087  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 20A0049 | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 20A0153 | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 20A0173 | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 17A163  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 18A050  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 21A0231 | 1       |
| Ichthyol-Gesellschaft / E  | Unguentum Cordes <sup>®</sup> | 12A152  | 1       |
| Ichthyol-Gesellschaft / G  | Unguentum Cordes <sup>®</sup> | 12A064  | 1       |
| Ichthyol-Gesellschaft / G  | Unguentum Cordes <sup>®</sup> | 12A118  | 2       |
| Ichthyol-Gesellschaft / G  | Unguentum Cordes <sup>®</sup> | 12A123  | 1       |
| Ichthyol-Gesellschaft / G  | Unguentum Cordes <sup>®</sup> | 13A042  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 15A140  | 1       |
| Ichthyolgesellschaft / ... | Unguentum Cordes <sup>®</sup> | 17A019  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes <sup>®</sup> | 18A190  | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                | Batch               | Spectra |
|----------------------------|--------------------------|---------------------|---------|
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 19A003              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 19A005              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 20A0Q28             | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 19A0149             | 1       |
| Ichthyol-Gesellschaft / K  | Unguentum Cordes®        | 11A202              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 15A061              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 18A156              | 2       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 19A020              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 20A0150             | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 21A0056             | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 15A020              | 2       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 16A085              | 2       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 16A099              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 18A101              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 18A113              | 1       |
| ICHTHYOL-GESELLSCHAFT /... | Unguentum Cordes®        | 18A216              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 21A0163             | 1       |
| ICHTHYOL-GESELLSCHAFT /... | Unguentum Cordes®        | 18A112              | 1       |
| ICHTHYOL-GESELLSCHAFT /... | Unguentum Cordes®        | 19A004              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 17A005              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 17A112              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 19A008              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 15A023              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 15A124              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 17A004              | 2       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 20A0192             | 1       |
| Ichthyol-Gesellschaft /    | Unguentum Cordes®        | 18A223              | 1       |
| Ichthyol-Gesellschaft /    | Unguentum Cordes®        | 18A232              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 18A111              | 1       |
| Ichthyol-Gesellschaft /... | Unguentum Cordes®        | 18A113              | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes®        | 10A026              | 1       |
| Ichthyol-Gesellschaft      | Hydrophilic ointment DAB | 11212101            | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 19A0181             | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 16A061              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 18A112              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 18A156              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 19A008              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 19A0153             | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 15A108              | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 16A121              | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 16A124              | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 16A143              | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 16A173              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 19A112              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 17A085              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 18A105              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 18A110              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 18A147              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 18A166              | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 18A215              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 19A003              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 20A0192             | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 13A089              | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 15A123              | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 15A124              | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes®        | 16A083              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 17A084-U20181115Ma4 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 17A004              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 17A101              | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes®        | 20A0153             | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch     | Spectra |
|----------------------------|-------------------------------|-----------|---------|
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 16A111    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 18A113    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0028   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0150   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 12A184    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A223    | 1       |
| ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A004    | 1       |
| ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A045    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A085    | 1       |
| ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A110    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A223    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 19A0153   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 19A0154   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 19A0154   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 13A138    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 13A180    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 14A063    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A043    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A046    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A047    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 19A0153   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A202    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A045    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A216    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A005    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A110    | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A156    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 19A0153   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A112    | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A112    | 1       |
| ICHTHYOL-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A045    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 20A0153   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0172   | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 11A187    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 12A185    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A223    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A176    | 2       |
| ICHTHYOL-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A110    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 17A004    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 21A0184   | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 18A110    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 18A112    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 18A113    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 18A224    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 19A054    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A023    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A062    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A099    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A007    | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A085    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A087    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A113    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 190560306 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 16A083    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 17A003    | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes <sup>®</sup> | 15A060    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 15A140    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 19A008    | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0028   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 13A172    | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance         | Batch    | Spectra |
|----------------------------|-------------------|----------|---------|
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 12A115   | 3       |
| IchthyolGesellschaft Co... | Unguentum Cordes® | 12A152   | 1       |
| IchthyolGesellschaft Co... | Unguentum Cordes® | 12A183   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 12A183   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 12A184   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 13A171   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 15A061   | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes® | 15A073   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 15A123   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 15A124   | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 16A083   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 16A099   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 16A102   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 16A143   | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 16A155   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 16A210   | 1       |
| Ichthyol-Gesellschaft C... | Paraffin, white   | 17204201 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A004   | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A005   | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A007   | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A045   | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A067   | 4       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A084   | 4       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A085   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A087   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A101   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A104   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A113   | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 17A127   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A048   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A051   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A107   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A110   | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A112   | 5       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A113   | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A132   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A156   | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A190   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A223   | 6       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A224   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 18A232   | 4       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A001   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A003   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A004   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A0153  | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A0154  | 1       |
| ICHTHYOL-GESELLSCHAFT C... | Unguentum Cordes® | 19A0154  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A0181  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A0182  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19A128   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 19AD154  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0002  | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A002   | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0028  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0045  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0049  | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0084  | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0090  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0105  | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes® | 20A0111  | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch   | Spectra |
|----------------------------|-------------------------------|---------|---------|
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0115 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0116 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0131 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0149 | 3       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0152 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0153 | 2       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 20A0172 | 1       |
| Ichthyol-Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 21A0114 | 1       |
| Ichthyolgesellschaft Gehe  | Unguentum Cordes <sup>®</sup> | 17A005  | 1       |
| Ichthyolgesellschaft I ... | Unguentum Cordes <sup>®</sup> | 19A0149 | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 11A122  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 11A162  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 13A034  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 13A050  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 15A191  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 16A123  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 16A160  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 17A057  | 1       |
| Ichthyol-Gesellschaft, ... | Unguentum Cordes <sup>®</sup> | 18A050  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 20A0092 | 1       |
| Ichthyolgesellschaft/ A... | Unguentum Cordes <sup>®</sup> | 20A0089 | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 17A049  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 17A067  | 1       |
| Ichthyol-gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 10A216  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 14A005  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A013  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 18A130  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 20A0028 | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A143  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A004  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 20A0152 | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A061  | 2       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 17A106  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 18A131  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A044  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 16A141  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 17A056  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 18A107  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A003  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A006  | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A0182 | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A0184 | 1       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 19A111  | 2       |
| Ichthyol-Gesellschaft/ ... | Unguentum Cordes <sup>®</sup> | 20A0111 | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 20A0153 | 1       |
| Ichthyol-Gesellschaft/AHD  | Unguentum Cordes <sup>®</sup> | 17A056  | 1       |
| Ichthyol-Gesellschaft/AHD  | Unguentum Cordes <sup>®</sup> | 17A112  | 1       |
| Ichthyol-Gesellschaft/AHD  | Unguentum Cordes <sup>®</sup> | 17A142  | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 15A139  | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 17A049  | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 19A020  | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 19A0262 | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 20A0045 | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 19A0149 | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 19A0154 | 2       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 19A0154 | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 20A0084 | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 20A0115 | 1       |
| Ichthyol-Gesellschaft/A... | Unguentum Cordes <sup>®</sup> | 20A0152 | 2       |

continued on the next page



continued from previous page

| Supplier                   | Substance         | Batch   | Spectra |
|----------------------------|-------------------|---------|---------|
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 15A020  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 15A073  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 15A125  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 16A085  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 17A007  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 17A053  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 18A051  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 18A110  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 18A216  | 1       |
| IchthyolGesellschaft/Gehe  | Unguentum Cordes® | 19A0149 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 19A0149 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 19A0256 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 19A0257 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 19A0257 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 19A128  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 20A0002 | 1       |
| ICHTHYOL-Gesellschaft/G... | Unguentum Cordes® | 20A0090 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 20A0105 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 20A0234 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 21A0201 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 20A0131 | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 16A083  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 16A183  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 16A184  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 17A003  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 17A005  | 2       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 17A087  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 17A142  | 1       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 18A112  | 3       |
| Ichthyol-Gesellschaft/G... | Unguentum Cordes® | 18A223  | 1       |
| Ichthyolgesellschaft/Je... | Unguentum Cordes® | 20A0150 | 1       |
| Ichthyol-Gesellschaft/K... | Unguentum Cordes® | 16A101  | 1       |
| Ichthyol-Gesellschaft/K... | Unguentum Cordes® | 16A184  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 17A051  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 17A105  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 17A106  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 18A049  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 18A051  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 18A244  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 18A248  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 19A004  | 1       |
| ICHTHYOL-GESELLSCHAFT/N... | Unguentum Cordes® | 19A0149 | 4       |
| Ichthyol-gesellschaft/N... | Unguentum Cordes® | 19A111  | 1       |
| Ichthyol-Gesellschaft/N... | Unguentum Cordes® | 20A0028 | 2       |
| ICHTHYOL-GESELLSCHAFT/N... | Unguentum Cordes® | 20A0090 | 1       |
| Ichthyolgesellschaft/PH    | Unguentum Cordes® | 19A112  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 13A053  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 14a114  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 16A013  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 16A083  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes® | 16A140  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes® | 16A173  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 16A210  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 17A007  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 17A105  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 18A048  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 18A050  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 18A051  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 18A070  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes® | 19A004  | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch   | Spectra |
|----------------------------|-------------------------------|---------|---------|
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 19A0154 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 19A0181 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 19A111  | 2       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 20A0049 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 20A0084 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 20A0098 | 2       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 20A0105 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 21A0114 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 14A095  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 14A179  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 15A124  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 15A148  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 16A121  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 16A144  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 16A183  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 16A184  | 2       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 16A210  | 2       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 17A004  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 17A049  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 17A084  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 17A105  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 17A126  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 18A048  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 18A051  | 1       |
| IchthyolGesellschaft/Ph... | Unguentum Cordes <sup>®</sup> | 18A110  | 3       |
| ICHTHYOL-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 18A110  | 1       |
| IchthyolGesellschaft/Ph... | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| ICHTHYOL-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 18A113  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 18A130  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 18A156  | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Unguentum Cordes <sup>®</sup> | 18A166  | 1       |
| ICHTHYOL-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 18A224  | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 19A0149 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 19A0153 | 1       |
| IchthyolGesellschaft/Ph... | Unguentum Cordes <sup>®</sup> | 19A0154 | 1       |
| ICHTHYOL-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 19A0154 | 2       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 19A0257 | 1       |
| IchthyolGesellschaft/Ph... | Unguentum Cordes <sup>®</sup> | 20A0090 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 20A0090 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 20A0105 | 1       |
| Ichthyol-Gesellschaft/P... | Unguentum Cordes <sup>®</sup> | 20A0151 | 2       |
| IchthyolGesellschaft/Ph... | Unguentum Cordes <sup>®</sup> | 20A0172 | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 16A153  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 17A069  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 18A048  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 10A131  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 17A007  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 17A085  | 2       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 17A101  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 18A101  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 18A190  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 19A004  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 19A0149 | 2       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 20A0105 | 1       |
| ichthyol-gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 20A0150 | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 17A101  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 17A106  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 17A164  | 1       |
| Ichthyol-Gesellschaft/S... | Unguentum Cordes <sup>®</sup> | 19A020  | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance         | Batch    | Spectra |
|----------------------------|-------------------|----------|---------|
| Ichthyol-Gesellschaft/S... | Unguentum Cordes® | 69A0153  | 1       |
| Ichthyol-Gesellschaft/V... | Unguentum Cordes® | 12A183   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 11A085   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 11A177   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 11A202   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12051805 | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 120A0049 | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A053   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A102   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A115   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A123   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A130   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 12A155   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A183   | 1       |
| ICHTHYOL-Gesellschaft      | Unguentum Cordes® | 12A184   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 12A184   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A205   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 12A206   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 13101802 | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 13A034   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 13A043   | 3       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 13A055   | 1       |
| ichthyol-gesellschaft      | Unguentum Cordes® | 13A068   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 13A142   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 13A172   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 13A180   | 3       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A056   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A057   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A063   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A079   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A095   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A112   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A114   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A115   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A117   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A172   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A179   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 14A179   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 14A213   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A021   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A040   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A041   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A042   | 2       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 15A042   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A043   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 15A043   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A062   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A089   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A090   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A091   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 15A091   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A092   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A093   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A106   | 2       |
| ICHTHYOL-GESELLSCHAFT      | Unguentum Cordes® | 15A12    | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A124   | 4       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A139   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A140   | 2       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15A141   | 1       |
| Ichthyol-Gesellschaft      | Unguentum Cordes® | 15a142   | 1       |

continued on the next page

continued from previous page

| Supplier              | Substance                     | Batch           | Spectra |
|-----------------------|-------------------------------|-----------------|---------|
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A142          | 4       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A148          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A149          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A150          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A156          | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 15A156          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A191          | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 15A191          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 15A060          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 160726UC        | 1       |
| Ichthyol-Gesellschaft | Paraffin, white               | 160829VA        | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A022          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A022/170117UC | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A044          | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A045          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A046          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A047          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A048          | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 16a048          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A058          | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A061          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A073          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A083          | 4       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A085          | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A099          | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A101          | 4       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A102          | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 16A102          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A119          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A121          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A122          | 5       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 16A123          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A124          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A137          | 4       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16a139          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A139          | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A140          | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A141          | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 16a141          | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 16A141          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A142          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A143          | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A144          | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A153          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A155          | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16a173          | 1       |
| ICHTHYOL-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A173          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A183          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A184          | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 16A210          | 3       |
| Ichthyol-Gesellschaft | Eye paraffin                  | 17052010        | 1       |
| Ichthyol-Gesellschaft | Paraffin, white               | 17347903        | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 17A002          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A003          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A004          | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A005          | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A007          | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A009          | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 17A045          | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 17A045          | 1       |

continued on the next page

continued from previous page

| Supplier              | Substance         | Batch      | Spectra |
|-----------------------|-------------------|------------|---------|
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A049     | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A049     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A051     | 4       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A052     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A053     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A053     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A054     | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A055     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A056     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A056     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A057     | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A057     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A067     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A069     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A070     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A084     | 5       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A085     | 5       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A085     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A087     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A104     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A104     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A105     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A106     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A112     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A113     | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A113     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A126     | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A127     | 3       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A127     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A142     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A163     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 17A163     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A164     | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 17A218     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 181221-E02 | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A006     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A048     | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 18A048     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A049     | 3       |
| Ichthyol-gesellschaft | Unguentum Cordes® | 18A050     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A051     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 18A051     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18a067     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A067     | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A070     | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A105     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A107     | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A110     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 18A110     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18a111     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A111     | 4       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A112     | 4       |
| ICHTHYOL-Gesellschaft | Unguentum Cordes® | 18A112     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 18A113     | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes® | 18A130     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A147     | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A156     | 1       |
| ICHTHYOL-Gesellschaft | Unguentum Cordes® | 18A156     | 2       |
| Ichthyol-gesellschaft | Unguentum Cordes® | 18A166     | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes® | 18A166     | 1       |

continued on the next page



continued from previous page

| Supplier              | Substance                     | Batch    | Spectra |
|-----------------------|-------------------------------|----------|---------|
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 18A166   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 18A190   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 18A215   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 18A216   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 18A223   | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 18A223   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 18A248   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 18A257   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A001   | 1       |
| Ichthyol-gesellschaft | Unguentum Cordes <sup>®</sup> | 19A003   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A003   | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A004   | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 19A004   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A006   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A008   | 5       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 19A0149  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A015   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0153  | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0154  | 2       |
| Ichthyolgesellschaft  | Unguentum Cordes <sup>®</sup> | 19A0181  | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 19A0181  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0182  | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 19A0182  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0183  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19a0184  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0184  | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A020   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0256  | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0257  | 2       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 19A0257  | 1       |
| Ichthyolgesellschaft  | Unguentum Cordes <sup>®</sup> | 19A0262  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A0262  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A112   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 19A128   | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0002  | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0034  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0035  | 1       |
| Ichthyol-gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0049  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0049  | 2       |
| ICHTHYOL-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0049  | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0084  | 4       |
| Ichthyol-gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0090  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0098  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0105  | 2       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0111  | 3       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20a0115  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0116  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0126  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0150  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0172  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 20A0105  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21071806 | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21A0057  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21a0058  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21A0058  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21A0064  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21A0075  | 1       |
| ICHTHYOL-GESELLSCHAFT | Unguentum Cordes <sup>®</sup> | 21A0075  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21A0114  | 1       |
| Ichthyol-Gesellschaft | Unguentum Cordes <sup>®</sup> | 21A0150  | 1       |

continued on the next page

continued from previous page

| Supplier                    | Substance         | Batch     | Spectra |
|-----------------------------|-------------------|-----------|---------|
| IchthyolGesellschaft        | Unguentum Cordes® | 21A0184   | 1       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 21A0201   | 1       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 21A0202   | 3       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 22A0025   | 1       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 23071802  | 1       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 23121702  | 1       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 31072015A | 1       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 5052015A  | 1       |
| Ichthyol-Gesellschaft       | Unguentum Cordes® | 6071714   | 1       |
| ichthyol-GesellschaftCo...  | Unguentum Cordes® | 18A113    | 1       |
| ichthyol-GesellschaftCo...  | Unguentum Cordes® | 18A223    | 1       |
| Ichthyol-Gesellschaft/Eb... | Unguentum Cordes® | 17A084    | 1       |
| Ichthyol-Gesellschaft / ... | Unguentum Cordes® | 18A223    | 1       |
| Ichthyol-Gesellschaft / ... | Unguentum Cordes® | 20A0084   | 1       |
| Ichthyol-Gesellschaft/AHD   | Unguentum Cordes® | 18A112    | 1       |
| Ichthyol-Gesellschaft/AHD   | Unguentum Cordes® | 18A215    | 1       |
| Ichthyol-Gesellschaft/AHD   | Unguentum Cordes® | 19A006    | 1       |
| Ichthyol-Gesellschaft/AHD   | Unguentum Cordes® | 19A0256   | 1       |
| Ichthyol-Gesellschaft/AHD   | Unguentum Cordes® | 19A112    | 1       |
| Ichthyol-Gesellschaft/Ph... | Unguentum Cordes® | 18A147    | 1       |
| Ichthyol-Gesellschaft/GEHE  | Unguentum Cordes® | 17A007    | 1       |
| Ichthyol-Gesellschaft/Ph... | Unguentum Cordes® | 18A110    | 1       |
| Ichthyol-Noweda             | Unguentum Cordes® | 17A105    | 1       |
| IchthyolNoweda              | Unguentum Cordes® | 21A0163   | 2       |
| IchthyolSanacorp            | Unguentum Cordes® | 13A025    | 1       |
| IchthyolSanacorp            | Unguentum Cordes® | 13A110    | 1       |
| IchthyolSanacorp            | Unguentum Cordes® | 15A076    | 1       |
| Ichtiol Gesellschaft/Ph...  | Unguentum Cordes® | 16A083    | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 19A0181   | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 19A0184   | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 19A0256   | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 19A111    | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 20A0002   | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 20A0049   | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 20A0105   | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 20A0149   | 1       |
| Ichtiol Gesellschaft/All... | Unguentum Cordes® | 20A0211   | 1       |
| Ichtiol-Gesellschaft,Cor... | Unguentum Cordes® | 16A144    | 1       |
| Ichtiol-Gesellschaft,Cor... | Unguentum Cordes® | 17A126    | 1       |
| Ichtiol-Gesellschaft        | Unguentum Cordes® | 18A111    | 1       |
| Ichththyl / Noweda          | Unguentum Cordes® | 20A0049   | 2       |
| Ichththyl / Noweda          | Unguentum Cordes® | 20A0084   | 1       |
| ichtxol-Gesellschaft/ G...  | Unguentum Cordes® | 17A126    | 1       |
| ichtxol-Gesellschaft/ G...  | Unguentum Cordes® | 17A127    | 1       |
| ichtxol-Gesellschaft/ G...  | Unguentum Cordes® | 18A048    | 1       |
| ichtxol-Gesellschaft/ G...  | Unguentum Cordes® | 18A070    | 1       |
| ichtxol-Gesellschaft/ G...  | Unguentum Cordes® | 18A107    | 1       |
| ichtxol-Gesellschaft/ G...  | Unguentum Cordes® | 18A191    | 2       |
| Ichtyhol Gesellschaft//...  | Unguentum Cordes® | 17A052    | 1       |
| Ichtyhol Gesellschaft       | Unguentum Cordes® | 16a045    | 1       |
| Ichtyhol Gesellschaft       | Unguentum Cordes® | 16A140    | 1       |
| Ichtyhol Gesellschaft       | Unguentum Cordes® | 16A142    | 1       |
| Ichtyhol Gesellschaft       | Unguentum Cordes® | 16A183    | 1       |
| ichthyhol gmbh/Alliance ... | Unguentum Cordes® | 16A183    | 1       |
| ICHTYHOL/ Fiebig            | Unguentum Cordes® | 17A098    | 1       |
| ICHTYHOL/ Fiebig            | Unguentum Cordes® | 18A050    | 1       |
| ICHTYHOL/ Fiebig            | Unguentum Cordes® | 18A166    | 2       |
| Ichtyhol/AHD                | Unguentum Cordes® | 18A111    | 1       |
| Ichtyhol/Phönix             | Unguentum Cordes® | 18A224    | 1       |
| Ichtyhol                    | Unguentum Cordes® | 16A137    | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance                     | Batch    | Spectra |
|----------------------------|-------------------------------|----------|---------|
| Ichtyol - Gehe             | Unguentum Cordes <sup>®</sup> | 14A1115  | 1       |
| Ichtyol - Gesellschaft     | Unguentum Cordes <sup>®</sup> | 15A108   | 1       |
| Ichtyol / Alliance Heal... | Unguentum Cordes <sup>®</sup> | 17A098   | 1       |
| Ichtyol / Alliance Heal... | Unguentum Cordes <sup>®</sup> | 17A104   | 1       |
| Ichtyol / Gehe             | Unguentum Cordes <sup>®</sup> | 17A045   | 1       |
| Ichtyol / Gehe             | Unguentum Cordes <sup>®</sup> | 18A156   | 1       |
| Ichtyol / Noweda           | Unguentum Cordes <sup>®</sup> | 17A084   | 1       |
| Ichtyol / Noweda           | Wool alcohol ointment DAB     | 82721410 | 1       |
| Ichtyol / Phönix           | Unguentum Cordes <sup>®</sup> | 16A123   | 2       |
| Ichtyol / Phönix           | Unguentum Cordes <sup>®</sup> | 18A049   | 1       |
| Ichtyol / Phönix           | Unguentum Cordes <sup>®</sup> | 18A191   | 1       |
| Ichtyol / Phönix           | Unguentum Cordes <sup>®</sup> | 19A112   | 1       |
| Ichtyol / Phönix           | Unguentum Cordes <sup>®</sup> | 21A0058  | 1       |
| Ichtyol 004                | Unguentum Cordes <sup>®</sup> | 12A059   | 1       |
| Ichtyol Gesells./AHD       | Unguentum Cordes <sup>®</sup> | 17A005   | 1       |
| Ichtyol Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 20A0084  | 1       |
| Ichtyol Gesellschaft /B... | Unguentum Cordes <sup>®</sup> | 19A0153  | 1       |
| Ichtyol Gesellschaft /N... | Unguentum Cordes <sup>®</sup> | 20A0153  | 1       |
| Ichtyol Gesellschaft /N... | Unguentum Cordes <sup>®</sup> | 20A0172  | 1       |
| Ichtyol- Gesellschaft C... | Unguentum Cordes <sup>®</sup> | 18A111   | 1       |
| Ichtyol Gesellschaft co... | Unguentum Cordes <sup>®</sup> | 19A0153  | 1       |
| Ichtyol Gesellschaft co... | Unguentum Cordes <sup>®</sup> | 20A0084  | 1       |
| Ichtyol Gesellschaft co... | Unguentum Cordes <sup>®</sup> | 20A0153  | 1       |
| Ichtyol Gesellschaft Co... | Unguentum Cordes <sup>®</sup> | 16A085   | 1       |
| Ichtyol Gesellschaft Co... | Unguentum Cordes <sup>®</sup> | 16A1010  | 1       |
| Ichtyol Gesellschaft Co... | Unguentum Cordes <sup>®</sup> | 17A084   | 2       |
| Ichtyol gesellschaft GmbH  | Unguentum Cordes <sup>®</sup> | 16A085   | 1       |
| Ichtyol Gesellschaft/ N... | Unguentum Cordes <sup>®</sup> | 18A048   | 1       |
| Ichtyol Gesellschaft/Gehe  | Unguentum Cordes <sup>®</sup> | 20A0131  | 3       |
| Ichtyol Gesellschaft/Gehe  | Unguentum Cordes <sup>®</sup> | 20A0211  | 1       |
| Ichtyol Gesellschaft/Ot... | Unguentum Cordes <sup>®</sup> | 21a0189  | 1       |
| Ichtyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 15A027   | 1       |
| Ichtyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 15A060   | 1       |
| Ichtyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 16A099   | 1       |
| Ichtyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A002   | 1       |
| Ichtyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A007   | 1       |
| Ichtyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 17A084   | 1       |
| Ichtyol- Gesellschaft      | Unguentum Cordes <sup>®</sup> | 17A084   | 1       |
| Ichtyol- Gesellschaft      | Unguentum Cordes <sup>®</sup> | 18A101   | 2       |
| ichtyol gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A156   | 1       |
| Ichtyol Gesellschaft       | Unguentum Cordes <sup>®</sup> | 18A156   | 1       |
| ICHTYOL GESELLSCHAFT       | Unguentum Cordes <sup>®</sup> | 19A005   | 1       |
| ICHTYOL GESELLSCHAFT       | Unguentum Cordes <sup>®</sup> | 19A0256  | 1       |
| ICHTYOL GESELLSCHAFT       | Unguentum Cordes <sup>®</sup> | 19A128   | 1       |
| Ichtyol Gesllschaft        | Unguentum Cordes <sup>®</sup> | 16A048   | 1       |
| Ichtyol Gesllschaft        | Unguentum Cordes <sup>®</sup> | 17A098   | 1       |
| Ichtyol Pharma /Max Jenne  | Unguentum Cordes <sup>®</sup> | 20A0172  | 2       |
| Ichtyol, Noweda            | Unguentum Cordes <sup>®</sup> | 12A147   | 1       |
| Ichtyol,Noweda             | Unguentum Cordes <sup>®</sup> | 12A139   | 1       |
| Ichtyol,Noweda             | Unguentum Cordes <sup>®</sup> | 13A047   | 1       |
| Ichtyol/ Anzag             | Unguentum Cordes <sup>®</sup> | 19A0154  | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 18A107   | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 18A131   | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 18A248   | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 19A006   | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 19A0183  | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 19A111   | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 19A0262  | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 20A0034  | 1       |
| Ichtyol/ Gehe              | Unguentum Cordes <sup>®</sup> | 20A0035  | 1       |

continued on the next page

continued from previous page

| Supplier                      | Substance                     | Batch       | Spectra |
|-------------------------------|-------------------------------|-------------|---------|
| Ichtyol/ Krieger              | Unguentum Cordes <sup>®</sup> | 19A0256     | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 15A141      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 17A101      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 18A070      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 19A001      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 13A135      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 16A121      | 2       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 17A056      | 1       |
| Ichtyol/ Krieger              | Unguentum Cordes <sup>®</sup> | 19A0181     | 1       |
| Ichtyol/ AHD                  | Unguentum Cordes <sup>®</sup> | 16A184      | 1       |
| Ichtyol/ AHD                  | Unguentum Cordes <sup>®</sup> | 18A130      | 1       |
| Ichtyol/ AHD                  | Unguentum Cordes <sup>®</sup> | 19A0149     | 1       |
| Ichtyol/ AHD                  | Unguentum Cordes <sup>®</sup> | 19A0153     | 1       |
| Ichtyol/ AHD                  | Unguentum Cordes <sup>®</sup> | 20A0002     | 1       |
| Ichtyol/ Anzag                | Unguentum Cordes <sup>®</sup> | 15A074      | 1       |
| Ichtyol/ Anzag                | Unguentum Cordes <sup>®</sup> | 17A004      | 1       |
| Ichtyol/ Gehe                 | Unguentum Cordes <sup>®</sup> | 13A184      | 1       |
| Ichtyol/ Gehe                 | Unguentum Cordes <sup>®</sup> | 15A150      | 2       |
| Ichtyol/ Gehe                 | Unguentum Cordes <sup>®</sup> | 15A78       | 1       |
| Ichtyol/ Gehe                 | Unguentum Cordes <sup>®</sup> | 17A087      | 1       |
| Ichtyol/ Gehe                 | Unguentum Cordes <sup>®</sup> | 17A142      | 1       |
| Ichtyol/ Gehe                 | Unguentum Cordes <sup>®</sup> | 18A003      | 1       |
| Ichtyol/ Geilenkirchen        | Unguentum Cordes <sup>®</sup> | 18A112      | 1       |
| Ichtyol/ Geilenkirchen        | Unguentum Cordes <sup>®</sup> | 18A223      | 1       |
| Ichtyol/ Geilenkirchen        | Unguentum Cordes <sup>®</sup> | 20A0049     | 1       |
| Ichtyol/ Geilenkirchen        | Unguentum Cordes <sup>®</sup> | 20A0172     | 1       |
| Ichtyol/ Kehr                 | Unguentum Cordes <sup>®</sup> | 16A101      | 1       |
| Ichtyol/ Krieger              | Unguentum Cordes <sup>®</sup> | 18A070      | 1       |
| Ichtyol/ Krieger              | Unguentum Cordes <sup>®</sup> | 18A166      | 1       |
| Ichtyol/ Noweda 31.01.2017    | Unguentum Cordes <sup>®</sup> | 16A140      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 13A042      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 13A053      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 15A124      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 16A099      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 16A119      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 16A176      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 17A004      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 17A005      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 17A007      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 17A049      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 18A113      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 18A156      | 1       |
| Ichtyol/ Noweda               | Unguentum Cordes <sup>®</sup> | 19A0181     | 1       |
| Ichtyol/ Phoenix              | Unguentum Cordes <sup>®</sup> | 15A137      | 1       |
| Ichtyol/ Phoenix              | Unguentum Cordes <sup>®</sup> | 17A007      | 1       |
| Ichtyol/ Phoenix              | Unguentum Cordes <sup>®</sup> | 17A045      | 1       |
| Ichtyol/ Phoenix              | Unguentum Cordes <sup>®</sup> | 17A105      | 1       |
| Ichtyol/ Phoenix              | Unguentum Cordes <sup>®</sup> | 18A190      | 1       |
| Ichtyol/ Phoenix              | Unguentum Cordes <sup>®</sup> | 19A0181     | 1       |
| Ichtyol/ Phoenix              | Unguentum Cordes <sup>®</sup> | 20A0149     | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 15A029      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 15A140      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 16A048      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 17A084      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 17A105      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 18A111      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 18A113      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 18A191      | 1       |
| Ichtyol/ Phönix               | Unguentum Cordes <sup>®</sup> | 4113Q-02532 | 1       |
| Ichtyol/ sana EK: EUR 13,5... | Unguentum Cordes <sup>®</sup> | 18A110      | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch           | Spectra |
|----------------------------|-------------------------------|-----------------|---------|
| Ichtyol/Sanacorp           | Unguentum Cordes <sup>®</sup> | 14A097          | 1       |
| Ichtyol/Sanacorp           | Unguentum Cordes <sup>®</sup> | 17A007          | 1       |
| Ichtyol/Sanacorp           | Unguentum Cordes <sup>®</sup> | 18A111          | 2       |
| Ichtyol/Sanacorp           | Unguentum Cordes <sup>®</sup> | 18A112          | 1       |
| Ichtyol/Sanacorp           | Unguentum Cordes <sup>®</sup> | 18A223          | 1       |
| Ichtyol/Sanacorp           | Unguentum Cordes <sup>®</sup> | 19A001          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 11A038          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 12A106          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 12A157          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 13A029          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 13A067          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 13A106          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 13A111          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 13A137          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 13A054          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A021          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A040          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A042          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A077          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A125          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A142          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A156          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 15A192          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 15a195          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 16A058          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 16A122          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 16A137          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 16A181          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 16A184          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 16A210          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 17A003          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 17A007          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 17A069          | 1       |
| ichtyol                    | Unguentum Cordes <sup>®</sup> | 18A130          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 18A223          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 19A0153         | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 19A0154         | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 19a0184         | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 19A020          | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 19a0256         | 2       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 20A0045         | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 20A0084         | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 20A0173         | 1       |
| Ichtyol                    | Unguentum Cordes <sup>®</sup> | 300316-250-1314 | 1       |
| Ichtyolan/Noweda           | Unguentum Cordes <sup>®</sup> | 16A139          | 1       |
| ichtyol-anzag              | Unguentum Cordes <sup>®</sup> | 18A111          | 1       |
| Ichtyol-Ges HH/Kehr        | Unguentum Cordes <sup>®</sup> | 17A007          | 1       |
| Ichtyol-Ges HH/Sanacorp    | Unguentum Cordes <sup>®</sup> | 17A142          | 1       |
| ICHTYOL-Gesellsch./Sana... | Unguentum Cordes <sup>®</sup> | 17A004          | 1       |
| Ichtyol-Gesellschaft / G   | Unguentum Cordes <sup>®</sup> | 18A112          | 1       |
| Ichtyol-Gesellschaft / Ph  | Unguentum Cordes <sup>®</sup> | 17A105          | 1       |
| Ichtyol-Gesellschaft / Ph  | Unguentum Cordes <sup>®</sup> | 18A110          | 1       |
| Ichtyol-Gesellschaft / Ph  | Unguentum Cordes <sup>®</sup> | 18A166          | 1       |
| Ichtyol-Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 17A112          | 2       |
| Ichtyol-Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 17A126          | 1       |
| Ichtyol-Gesellschaft / ... | Unguentum Cordes <sup>®</sup> | 18A191          | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes <sup>®</sup> | 16A085          | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes <sup>®</sup> | 17A005          | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes <sup>®</sup> | 17A045          | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes <sup>®</sup> | 18A050          | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance         | Batch   | Spectra |
|----------------------------|-------------------|---------|---------|
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 18A190  | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 19A003  | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 16A085  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 16A101  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 16A183  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 16A184  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 17A002  | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 17A007  | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 17A045  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 17A085  | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 17A085  | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 17A142  | 2       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 18A110  | 2       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 18A110  | 2       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 18A111  | 4       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 18A112  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 18A113  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 18A223  | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 18A223  | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 18A223  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 19A0153 | 2       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 19A0154 | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 19A111  | 1       |
| Ichtyolgesellschaft Cor... | Unguentum Cordes® | 20A0049 | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 20A0049 | 2       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 20A0084 | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 20A0084 | 2       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 20A0105 | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 20A0153 | 2       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 20A0172 | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 20A0173 | 1       |
| ICHTYOL-GESELLSCHAFT Co... | Unguentum Cordes® | 20A0173 | 1       |
| Ichtyol-Gesellschaft Co... | Unguentum Cordes® | 21A0163 | 1       |
| Ichtyol-Gesellschaft, C... | Unguentum Cordes® | 18A113  | 1       |
| Ichtyol-Gesellschaft/ P... | Unguentum Cordes® | 17A112  | 1       |
| Ichtyol-Gesellschaft/Ph... | Unguentum Cordes® | 18A233  | 1       |
| Ichtyol-Gesellschaft/Ph... | Unguentum Cordes® | 12A058  | 1       |
| Ichtyol-Gesellschaft/Ph... | Unguentum Cordes® | 14A095  | 1       |
| Ichtyol-Gesellschaft/Ph... | Unguentum Cordes® | 18A193  | 1       |
| Ichtyol-Gesellschaft/Sa... | Unguentum Cordes® | 18A244  | 1       |
| Ichtyol-Gesellschaft/Sa... | Unguentum Cordes® | 20A0111 | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 12A184  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 13A053  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 13A178  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 14A079  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A020  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A043  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A061  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A062  | 2       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A107  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A137  | 1       |
| ichtyol-gesellschaft       | Unguentum Cordes® | 15A191  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A191  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 15A192  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 164A101 | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 16A051  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 16A085  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 16A099  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 16A153  | 1       |
| Ichtyol-Gesellschaft       | Unguentum Cordes® | 16A183  | 1       |

continued on the next page

continued from previous page

| Supplier                    | Substance                     | Batch        | Spectra |
|-----------------------------|-------------------------------|--------------|---------|
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 17A002       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 17A005       | 2       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 17A045       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 17A049       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 17A055       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 17A101       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 17A126       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 18A049       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 18A131       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 18A132       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 18A215       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 19A001       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 19A020       | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 21A0102      | 1       |
| Ichtyol-Gesellschaft        | Unguentum Cordes <sup>®</sup> | 21A0202      | 1       |
| Ichtyol-Gesellschaft/Now... | Unguentum Cordes <sup>®</sup> | 20A0049      | 1       |
| Ichtyol-Gruppe              | Unguentum Cordes <sup>®</sup> | 15A155       | 1       |
| Ichtyol                     | Unguentum Cordes <sup>®</sup> | 20A0105      | 1       |
| Infectopharm / Noweda       | Hydrophilic ointment DAB      | 17040201     | 1       |
| Infectopharm / Noweda       | Hydrophobic base gel DAC      | 17320409     | 1       |
| Infectopharm / Sanacorp     | Wool alcohol ointment DAB     | 50334610     | 1       |
| InfectoPharm                | Unguentum Cordes <sup>®</sup> | 16A085       | 1       |
| Jenne / Beiersdorf          | Wool alcohol ointment DAB     | 94037210     | 1       |
| Jenne/Beiersdorf            | Wool alcohol ointment DAB     | 2711410      | 1       |
| Jenne                       | Unguentum Cordes <sup>®</sup> | 13A049       | 1       |
| Jenne                       | Unguentum Cordes <sup>®</sup> | 16A183       | 1       |
| JENNE                       | Hydrophobic base gel DAC      | 18140607     | 1       |
| Jenne                       | Wool alcohol ointment DAB     | 2851610      | 1       |
| JENNE                       | Wool alcohol ointment DAB     | 82721410     | 1       |
| Jenne                       | Wool alcohol ointment DAB     | 93456310     | 2       |
| Jenne                       | Wool alcohol ointment DAB     | 94947710     | 1       |
| Kehr / Ichthyol-Geselsch... | Unguentum Cordes <sup>®</sup> | 17A126       | 1       |
| Kehr,11.3.19                | Unguentum Cordes <sup>®</sup> | 18A105       | 1       |
| Kehr/Beiersdorf             | Wool alcohol ointment DAB     | 71114510     | 1       |
| Kehr/Beiersdorf             | Wool alcohol ointment DAB     | 93456310     | 1       |
| Kehr/Ichthyol               | Unguentum Cordes <sup>®</sup> | 17A005       | 1       |
| Kehr/Ichthyol               | Unguentum Cordes <sup>®</sup> | 17A087       | 1       |
| Kehr/Ichthyol               | Unguentum Cordes <sup>®</sup> | 17A142       | 1       |
| Kehr/ICHTHYOL-GESELLSCH...  | Unguentum Cordes <sup>®</sup> | 17A067       | 1       |
| Kehr/ICHTHYOL-GESELLSCH...  | Unguentum Cordes <sup>®</sup> | 17A084       | 2       |
| Kehr/ICHTHYOL-GESELLSCH...  | Unguentum Cordes <sup>®</sup> | 17A085       | 3       |
| Kehr/ICHTHYOL-GESELLSCH...  | Unguentum Cordes <sup>®</sup> | 18A105       | 1       |
| Kehr                        | Paraffin, white               | 17038202     | 1       |
| Kehr                        | Eye paraffin                  | 17052010     | 2       |
| Kehr                        | Hydrophobic base gel DAC      | 17196704     | 1       |
| Kehr                        | Unguentum Cordes <sup>®</sup> | 17A002       | 1       |
| Kehr                        | Unguentum Cordes <sup>®</sup> | 17A003       | 1       |
| Kehr                        | Unguentum Cordes <sup>®</sup> | 17A004       | 1       |
| Kehr                        | Unguentum Cordes <sup>®</sup> | 17A007       | 1       |
| Kehr                        | Wool alcohol ointment DAB     | 18002496     | 1       |
| Kehr                        | Wool alcohol ointment DAB     | 307775       | 1       |
| Kehr                        | Wool alcohol ointment DAB     | 311387       | 1       |
| Klenk                       | Eye paraffin                  | 15441514     | 2       |
| Klenk                       | Hydrophilic ointment DAB      | 1783002      | 1       |
| Klosterring                 | Wool alcohol ointment DAB     | 18250801     | 1       |
| Kögl                        | Paraffin, white               | 16402170817  | 1       |
| Kögl                        | Paraffin, white               | 16402171117  | 1       |
| Kögl                        | Paraffin, white               | 166205172017 | 1       |
| Kögl                        | Paraffin, white               | 1700060      | 1       |
| Kögl                        | Paraffin, white               | 1700443      | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                     | Batch               | Spectra |
|----------------------------|-------------------------------|---------------------|---------|
| Kögl                       | Paraffin, white               | 1700760             | 1       |
| Kögl                       | Paraffin, white               | 1701037             | 1       |
| Kögl                       | Paraffin, white               | 1701633             | 1       |
| Kögl                       | Paraffin, white               | 1800323             | 1       |
| Kögl                       | Paraffin, white               | 1802638             | 2       |
| Kögl                       | Paraffin, white               | 218806172717        | 1       |
| Kögl                       | Paraffin, white               | 305109163916        | 1       |
| Kögl                       | Paraffin, white               | 396911160317        | 2       |
| Kögl                       | Paraffin, white               | 400111165016        | 1       |
| Kögl                       | Paraffin, white               | 63403171917         | 1       |
| Krieger am 20.07.2018      | Eye paraffin                  | 17052010            | 1       |
| Krieger/ Ichthyol          | Unguentum Cordes®             | 16A153              | 1       |
| Krieger/ Ichthyol          | Unguentum Cordes®             | 18A050              | 1       |
| Krieger                    | Hydrophilic ointment DAB      | 12311401            | 1       |
| Krieger                    | Hydrophilic ointment DAB      | 16282801            | 1       |
| Krieger                    | Unguentum Cordes®             | 18A004              | 1       |
| Krieger                    | Unguentum Cordes®             | 18A111              | 1       |
| krieger                    | Hydrophilic ointment DAB      | 19190701            | 1       |
| krieger                    | Unguentum Cordes®             | 19A001              | 1       |
| krieger                    | Unguentum Cordes®             | 19A0181             | 1       |
| Krieger                    | Unguentum Cordes®             | 21A0114             | 1       |
| L10/Cordes                 | Unguentum Cordes®             | 18A112              | 1       |
| L10                        | Unguentum Cordes®             | 17A087              | 2       |
| L10                        | Wool alcohol ointment DAB     | 70314010            | 1       |
| L12/Beiersdorf             | Wool alcohol ointment DAB     | 62041710            | 1       |
| L12/Beiersdorf             | Wool alcohol ointment DAB     | 62932210            | 2       |
| L12/Beiersdorf             | Wool alcohol ointment DAB     | 71124510            | 1       |
| L12/Ichthyol- Gesellsch... | Unguentum Cordes®             | 17A067              | 1       |
| L12/Ichthyol               | Unguentum Cordes®             | 16A085              | 2       |
| L12                        | Eye ointment, emulsifying DAC | 14A091017           | 1       |
| L12                        | Hydrophobic base gel DAC      | 16151105            | 1       |
| L12                        | Hydrophilic ointment DAB      | 16167001            | 1       |
| L12                        | Paraffin, white               | 16227406            | 1       |
| L12                        | Paraffin, white               | 16272003            | 3       |
| L12                        | Unguentum Cordes®             | 16A101              | 1       |
| L12                        | Paraffin, yellow              | 17052401            | 5       |
| L12                        | Wool alcohol ointment DAB     | 17105401            | 1       |
| L12                        | Paraffin, yellow              | 17303501            | 1       |
| L12                        | Hydrophobic base gel DAC      | 17320409            | 1       |
| L12                        | Unguentum Cordes®             | 17A002              | 1       |
| L12                        | Unguentum Cordes®             | 17A004              | 3       |
| L12                        | Unguentum Cordes®             | 17A045              | 2       |
| L12                        | Wool alcohol ointment DAB     | 181232501           | 1       |
| L12                        | Wool alcohol ointment DAB     | 64713510            | 2       |
| L12                        | Wool alcohol ointment DAB     | 72915810            | 1       |
| Labor Defektur Nasensal... | Paraffin, white               | 3717A-07061         | 1       |
| Labor Defektur Nasensal... | Paraffin, white               | 5217M-07002         | 1       |
| Labor                      | Paraffin, white               | 1917M-07061Nasensal | 1       |
| Labor                      | Paraffin, white               | 3117M-07002         | 1       |
| Lamotta/Anzag              | Hydrophilic ointment DAB      | 6001368014          | 1       |
| Lamotte / AHC              | Hydrophilic ointment DAB      | 8005713006          | 6       |
| Lamotte / Anzag            | Hydrophilic ointment DAB      | 1017Q-02539         | 1       |
| Lamotte / Anzag            | Wool alcohol ointment DAB     | 18005546            | 2       |
| Lamotte / Noweda           | Hydrophilic ointment DAB      | 8004399001          | 4       |
| Lamotte 001                | Paraffin, white               | 5691100             | 1       |
| Lamotte Oils/AHD           | Paraffin, liquid              | 1000010844          | 1       |
| Lamotte, Noweda 26.08.19   | Hydrophilic ointment DAB      | 8003325012          | 2       |
| Lamotte/ Anzag             | Paraffin, white               | 5538300             | 1       |
| Lamotte//AHD               | Hydrophilic ointment DAB      | 5860500             | 1       |
| Lamotte/AHC                | Hydrophilic ointment DAB      | 6001368014          | 1       |

continued on the next page



continued from previous page

| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
| Lamotte/AHD                 | Hydrophilic ointment DAB        | 8002320009  | 1       |
| Lamotte/Alliance            | Hydrophilic ointment DAB        | 5517900     | 1       |
| Lamotte/Alliance            | Hydrophilic ointment DAB        | 5651600     | 1       |
| Lamotte/Alliance            | Hydrophilic ointment DAB        | 6001368014  | 1       |
| Lamotte/Anzag               | Hydrophilic ointment DAB        | 1616Q-02539 | 1       |
| Lamotte/Anzag               | Hydrophilic ointment DAB        | 2019U-02539 | 1       |
| Lamotte/Anzag               | Hydrophilic ointment DAB        | 3018E-02539 | 1       |
| Lamotte/Anzag               | Hydrophilic ointment DAB        | 5112A-02539 | 1       |
| Lamotte/ANZAG               | Hydrophilic ointment DAB        | 5860400     | 1       |
| Lamotte/Fiebig              | Paraffin, liquid                | 1000010844  | 1       |
| Lamotte/Gehe NL             | Paraffin, liquid                | 1000010844  | 1       |
| Lamotte/Jenne               | Paraffin, liquid                | 1000010844  | 1       |
| Lamotte/Kehr                | Paraffin, white                 |             | 1       |
| Lamotte/Noweda              | Paraffin, liquid                | 1000014411  | 1       |
| Lamotte/Phoenix             | Paraffin, liquid                | 1000010844  | 1       |
| Lamotte/Phoenix             | Paraffin, liquid                | 8003083001  | 1       |
| Lamotte                     | Paraffin, liquid                | 1000010844  | 1       |
| Lamotte                     | Paraffin, liquid                | 1000014411  | 1       |
| Lamotte                     | Hydrophilic ointment DAB        | 14123301    | 1       |
| Lamotte                     | Hydrophilic ointment DAB        | 518400      | 1       |
| Lamotte                     | Paraffin, white                 | 5215200     | 1       |
| Lamotte                     | Hydrophilic ointment DAB        | 5321400     | 1       |
| Lamotte                     | Paraffin, white                 | 5322600     | 1       |
| lamotte                     | Hydrophilic ointment DAB        | 5448000     | 1       |
| lamotte                     | Hydrophilic ointment DAB        | 5517900     | 1       |
| Lamotte                     | Hydrophilic ointment DAB        | 5651600     | 2       |
| Lamotte                     | Paraffin, white                 | 6000083007  | 1       |
| Lamotte                     | Paraffin, white                 | 6002062001  | 2       |
| lamotte                     | Hydrophilic ointment DAB        | 8002320009  | 4       |
| Lamotte                     | Paraffin, white                 | 8002875007  | 1       |
| Lamotte                     | Hydrophilic ointment DAB        | 8003325012  | 2       |
| Lamotte                     | Hydrophilic ointment DAB        | 8005713007  | 1       |
| Markt Apotheke              | Paraffin, white                 | 4618I-07061 | 1       |
| Marktapotheke               | Paraffin, white                 | 260916      | 1       |
| Marktapotheke               | Paraffin, white                 | 3716I-07061 | 2       |
| Marktapotheke               | Paraffin, white                 | 3717A-07002 | 1       |
| Marktapotheke               | Paraffin, white                 | 817E-07002  | 1       |
| medphano AM GmbH            | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano Arzneimittel /...  | Wool alcohol ointment SR/DAC    | 20000019    | 1       |
| Medphano / Jenne            | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphano AN GmbH            | Wool alcohol ointment SR/DAC    | 20000019    | 1       |
| Medphano Arzneimittel Gm... | Wool alcohol ointment SR wit... | 6550118     | 1       |
| Medphano Arzneimittel /...  | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano Arzneimittel G...  | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano Arzneimittel G...  | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphano Arzneimittel G...  | Wool alcohol ointment SR/DAC    | 20000019    | 2       |
| medphano Arzneimittel G...  | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphano Arzneimittel G...  | Wool alcohol ointment SR/DAC    | 20000019    | 1       |
| Medphano Arzneimittel G...  | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano Arzneimittel G...  | Wool alcohol ointment SR wit... | 6550118     | 7       |
| medphano Arzneimittel /...  | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphano Arzneimittel/S...  | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano Arzneimittel/S...  | Wool alcohol ointment SR/DAC    | 6550118     | 1       |
| medphano Arzneimittel       | Wool alcohol ointment SR/DAC    | 6550115     | 1       |
| medphano Arzneimittel       | Wool alcohol ointment SR wit... | 6550118     | 1       |
| Medphano/ Noweda            | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphano/AHD                | Wool alcohol ointment SR/DAC    | 6550115     | 1       |
| Medphano/Anzag              | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano/Anzag              | Wool alcohol ointment SR wit... | 6550118     | 1       |
| Medphano/Anzag              | Wool alcohol ointment SR wit... | 6550118     | 1       |

continued on the next page



continued from previous page

| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
| medphano/Fiebig             | Wool alcohol ointment SR wit... | 6550118     | 4       |
| medphano/Gehe               | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano/Phoenix            | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano/phönix             | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphano/Phönix             | Wool alcohol ointment SR wit... | 6550118     | 1       |
| Medphano/Phönix             | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphano/Sanacorp           | Wool alcohol ointment SR/DAC    | 6550118     | 1       |
| Medphano/Sanacorp           | Wool alcohol ointment SR wit... | 6550118     | 1       |
| Medphano/VdL                | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano                    | Wool alcohol ointment SR wit... | 6550115     | 1       |
| medphano                    | Wool alcohol ointment SR wit... | 6550118     | 1       |
| Medphano                    | Wool alcohol ointment SR wit... | 6550118     | 1       |
| medphanoArzneimittel Gm...  | Wool alcohol ointment SR wit... | 20000019    | 1       |
| Medpharno/Noweda            | Wool alcohol ointment SR/DAC    | 20000019    | 2       |
| medpharno/Sanacorp          | Wool alcohol ointment DAB       | 6550115     | 1       |
| Midas                       | Paraffin, white                 | 17038204    | 1       |
| Midas                       | Wool alcohol ointment DAB       | 17141401    | 2       |
| Midas                       | Paraffin, white                 | 17204201    | 1       |
| Midas                       | Paraffin, white                 | 17204209    | 2       |
| Midas                       | Wool alcohol ointment DAB       | 17206001    | 1       |
| Midas                       | Wool alcohol ointment DAB       | 17300902    | 1       |
| Midas                       | Wool alcohol ointment DAB       | 17301011    | 1       |
| Midas                       | Paraffin, white                 | 17350004    | 1       |
| Midas                       | Paraffin, white                 | 18003484    | 1       |
| Midas                       | Paraffin, white                 | 18174301    | 1       |
| Midas                       | Paraffin, white                 | 18174304    | 1       |
| Midas                       | Wool alcohol ointment DAB       | 71114510    | 1       |
| Nachprüfung                 | Unguentum Cordes®               | 12a124      | 1       |
| Nachprüfung                 | Paraffin, yellow                | 1607E02551  | 1       |
| Nasensalbe Dr.Quade         | Paraffin, white                 | 1919A-02549 | 1       |
| Nasensalbe Dr.Quade         | Paraffin, white                 | 319I-07061  | 1       |
| Nasensalbe mit Lavendel...  | Paraffin, white                 | 117A-07002  | 1       |
| Noweda / Beiersdorf AG      | Wool alcohol ointment DAB       | 34424610    | 1       |
| Noweda / Beiersdorf AG      | Wool alcohol ointment DAB       | 41930610    | 1       |
| Noweda / Beiersdorf AG      | Wool alcohol ointment DAB       | 45054410    | 1       |
| Noweda / Beiersdorf AG      | Wool alcohol ointment DAB       | 50815310    | 1       |
| Noweda / Beiersdorf         | Wool alcohol ointment DAB       | 82721410    | 1       |
| Noweda / Beiersdorf         | Wool alcohol ointment DAB       | 84232410    | 1       |
| Noweda / Ichthyol Gesell... | Unguentum Cordes®               | 15A060      | 1       |
| Noweda / Ichthyol           | Unguentum Cordes®               | 16A101      | 1       |
| Noweda / Ichthyol           | Unguentum Cordes®               | 16A102      | 1       |
| Noweda / Ichthyol-Gesell... | Unguentum Cordes®               | 17A004      | 1       |
| Noweda / Ichthyol-Gesell... | Unguentum Cordes®               | 17A007      | 1       |
| Noweda 06.04.2016           | Hydrophilic ointment DAB        | 15221601    | 1       |
| noweda ichthyol 07.02.18    | Unguentum Cordes®               | 17A005      | 1       |
| Noweda Sanova               | Unguentum Cordes®               | 18A223      | 1       |
| Noweda/ Bombatus            | Paraffin, white                 | 18003484    | 1       |
| Noweda/ Ichthyol-Gesell...  | Unguentum Cordes®               | 18A252      | 1       |
| Noweda/ Ichthyol Gesells... | Unguentum Cordes®               | 18A051      | 1       |
| Noweda/ Ichthyol Gesells... | Unguentum Cordes®               | 18A216      | 1       |
| Noweda/ Ichthyol            | Unguentum Cordes®               | 12A124      | 1       |
| Noweda/ PKH Halle           | Eye ointment, emulsifying DAC   | 16A061212   | 1       |
| noweda/anzag                | Emulsifying hydrophobic base... | 19101801    | 1       |
| Noweda/Beiersdorf           | Wool alcohol ointment DAB       | 50324610    | 1       |
| Noweda/Beiersdorf           | Wool alcohol ointment DAB       | 60539210    | 1       |
| Noweda/Beiersdorf           | Wool alcohol ointment DAB       | 71214810    | 1       |
| Noweda/Beiersdorf           | Wool alcohol ointment DAB       | 74747510    | 1       |
| Noweda/Beiersdorf           | Wool alcohol ointment DAB       | 74757510    | 1       |
| Noweda/beiersdorf           | Wool alcohol ointment DAB       | 829110      | 1       |
| Noweda/beiersdorf           | Wool alcohol ointment DAB       | 84132310    | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Noweda/Cordes              | Unguentum Cordes <sup>®</sup>   | 18A252      | 1       |
| Noweda/Eurho               | Wool alcohol ointment DAB       | 19000471001 | 1       |
| Noweda/Eurho               | Paraffin, white                 | 2003054-01  | 2       |
| Noweda/Ichthyol -Gesell... | Unguentum Cordes <sup>®</sup>   | 17A085      | 1       |
| Noweda/Ichthyol Gesells... | Unguentum Cordes <sup>®</sup>   | 20A0173     | 2       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 13A106      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 14A113      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 14A173      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 15A020      | 2       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 15A123      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 15A125      | 3       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 15A191      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 16A099      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 16A102      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 17A003      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 17A127      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A067      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A084      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A105      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A131      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A156      | 2       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A190      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A192      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A243      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A248      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A252      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 19A020      | 1       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 19A021      | 1       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 19A0257     | 2       |
| noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 19A026      | 2       |
| Noweda/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 20A0051     | 1       |
| Noweda/Ichthyol-Gesells... | Unguentum Cordes <sup>®</sup>   | 15A123      | 1       |
| Noweda/Ichthyol-Gesells... | Unguentum Cordes <sup>®</sup>   | 20A0034     | 1       |
| Noweda/Ichthyol-Geselsc... | Unguentum Cordes <sup>®</sup>   | 18A248      | 1       |
| Noweda/Ichthyol-Geselsc... | Unguentum Cordes <sup>®</sup>   | 19A0182     | 1       |
| Noweda/Ichthyol-Geselsc... | Unguentum Cordes <sup>®</sup>   | 19A0257     | 1       |
| noweda/Ichtyol             | Unguentum Cordes <sup>®</sup>   | 13A043      | 1       |
| Noweda/Ichtyol             | Unguentum Cordes <sup>®</sup>   | 16A047      | 1       |
| Noweda/Ichtyol             | Unguentum Cordes <sup>®</sup>   | 16A124      | 1       |
| Noweda/Ichtyol             | Unguentum Cordes <sup>®</sup>   | 16A184      | 1       |
| Noweda/Ichtyol             | Unguentum Cordes <sup>®</sup>   | 17A127      | 1       |
| Noweda/Lamotte EK 5,40 ... | Paraffin, liquid                | 10000014411 | 1       |
| Noweda                     | Paraffin, liquid                | 1000010844  | 1       |
| Noweda                     | Hydrophilic ointment DAB        | 11133501    | 1       |
| Noweda                     | Wool alcohol ointment DAB       | 11333210    | 1       |
| Noweda                     | Wool alcohol ointment DAB       | 1141203     | 1       |
| Noweda                     | Unguentum Cordes <sup>®</sup>   | 11a199      | 1       |
| Noweda                     | Wool alcohol ointment SR wit... | 12078201    | 1       |
| Noweda                     | Wool alcohol ointment SR wit... | 12078301    | 1       |
| Noweda                     | Wool alcohol ointment DAB       | 12151901    | 1       |
| Noweda                     | Emulsifying hydrophobic base... | 12160201    | 1       |
| Noweda                     | Hydrophilic ointment DAB        | 12205201    | 1       |
| Noweda                     | Paraffin, white                 | 12209203    | 1       |
| Noweda                     | Wool alcohol ointment SR wit... | 12244302    | 1       |
| Noweda                     | Hydrophilic ointment DAB        | 12311801    | 1       |
| Noweda                     | Paraffin, white                 | 12337707    | 1       |
| Noweda                     | Unguentum Cordes <sup>®</sup>   | 12A123      | 1       |
| Noweda                     | Unguentum Cordes <sup>®</sup>   | 12A183      | 2       |
| Noweda                     | Unguentum Cordes <sup>®</sup>   | 12A184      | 1       |
| Noweda                     | Paraffin, white                 | 13268421    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                         | Batch      | Spectra |
|----------|-----------------------------------|------------|---------|
| Noweda   | Paraffin, white                   | 13337706   | 1       |
| Noweda   | Emulsifying hydrophobic base. . . | 13361004   | 1       |
| Noweda   | Paraffin, white                   | 13380721   | 1       |
| Noweda   | Unguentum Cordes®                 | 13A091     | 1       |
| Noweda   | Eye ointment, emulsifying DAC     | 14C161019  | 1       |
| Noweda   | Hydrophobic base gel DAC          | 15055705   | 1       |
| Noweda   | Hydrophobic base gel DAC          | 15149604   | 1       |
| Noweda   | Hydrophobic base gel DAC          | 15240805   | 2       |
| Noweda   | Paraffin, yellow                  | 15330402   | 1       |
| Noweda   | Hydrophobic base gel DAC          | 15331102   | 1       |
| Noweda   | Paraffin, white                   | 15339806   | 1       |
| Noweda   | Wool alcohol ointment DAB         | 15361801   | 1       |
| Noweda   | Wool alcohol ointment DAB         | 15362002   | 1       |
| Noweda   | Eye paraffin                      | 15441510   | 2       |
| Noweda   | Unguentum Cordes®                 | 15A029     | 1       |
| Noweda   | Eye ointment, emulsifying DAC     | 15A051119  | 1       |
| Noweda   | Unguentum Cordes®                 | 15A060     | 1       |
| Noweda   | Unguentum Cordes®                 | 15A062     | 1       |
| Noweda   | Unguentum Cordes®                 | 15A123     | 1       |
| Noweda   | Unguentum Cordes®                 | 15A191     | 1       |
| Noweda   | Unguentum Cordes®                 | 15A192     | 1       |
| Noweda   | Paraffin, yellow                  | 16032502   | 1       |
| Noweda   | Paraffin, white                   | 16138004   | 1       |
| Noweda   | Paraffin, white                   | 16181901   | 1       |
| Noweda   | Wool alcohol ointment DAB         | 16198502   | 1       |
| Noweda   | Eye paraffin                      | 16271807   | 1       |
| Noweda   | Paraffin, white                   | 16272018   | 1       |
| Noweda   | Paraffin, white                   | 16326702   | 1       |
| Noweda   | Unguentum Cordes®                 | 16A022     | 1       |
| Noweda   | Unguentum Cordes®                 | 16A023     | 1       |
| Noweda   | Unguentum Cordes®                 | 16A047     | 1       |
| Noweda   | Unguentum Cordes®                 | 16A085     | 1       |
| Noweda   | Unguentum Cordes®                 | 16A101     | 1       |
| Noweda   | Unguentum Cordes®                 | 16A144     | 1       |
| Noweda   | Unguentum Cordes®                 | 16A153     | 1       |
| Noweda   | Wool alcohol ointment DAB         | 17001877   | 3       |
| Noweda   | Emulsifying hydrophobic base. . . | 17032303   | 1       |
| Noweda   | Paraffin, white                   | 17038213   | 1       |
| Noweda   | Paraffin, white                   | 17052003   | 2       |
| Noweda   | Eye paraffin                      | 17052012   | 3       |
| Noweda   | Paraffin, yellow                  | 17052401   | 1       |
| Noweda   | Wool alcohol ointment DAB         | 17104902   | 1       |
| Noweda   | Paraffin, white                   | 17106005   | 1       |
| Noweda   | Wool alcohol ointment DAB         | 1710910    | 1       |
| Noweda   | Emulsifying hydrophobic base. . . | 17113703   | 1       |
| Noweda   | Paraffin, white                   | 1712008-01 | 1       |
| Noweda   | Wool alcohol ointment DAB         | 17141401   | 1       |
| Noweda   | Paraffin, white                   | 17204207   | 1       |
| Noweda   | Hydrophilic ointment DAB          | 17290702   | 2       |
| Noweda   | Hydrophilic ointment DAB          | 17290703   | 1       |
| Noweda   | Hydrophilic ointment DAB          | 17330303   | 1       |
| Noweda   | Hydrophilic ointment DAB          | 17330402   | 3       |
| Noweda   | Eye paraffin                      | 17342006   | 1       |
| Noweda   | Eye paraffin                      | 17342016   | 2       |
| Noweda   | Paraffin, white                   | 17347802   | 2       |
| Noweda   | Paraffin, white                   | 17350005   | 1       |
| Noweda   | Unguentum Cordes®                 | 17A004     | 1       |
| Noweda   | Unguentum Cordes®                 | 17A005     | 1       |
| Noweda   | Unguentum Cordes®                 | 17A007     | 2       |
| Noweda   | Unguentum Cordes®                 | 17A018     | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A045           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A067           | 3       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A084           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A085           | 2       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A098           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A101           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A104           | 2       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 17A126           | 1       |
| Noweda   | Paraffin, yellow                | 18000669         | 1       |
| Noweda   | Wool alcohol ointment DAB       | 18002498         | 1       |
| Noweda   | Hydrophobic base gel DAC        | 18003235         | 5       |
| Noweda   | Paraffin, white                 | 18005033         | 1       |
| Noweda   | Paraffin, white                 | 18006404         | 1       |
| Noweda   | Hydrophobic base gel DAC        | 18075803         | 1       |
| Noweda   | Paraffin, white                 | 18174303         | 1       |
| Noweda   | Paraffin, white                 | 18174314         | 1       |
| Noweda   | Eye paraffin                    | 181797002        | 1       |
| Noweda   | Paraffin, white                 | 18179704         | 1       |
| Noweda   | Hydrophobic base gel DAC        | 18228301         | 2       |
| Noweda   | Hydrophobic base gel DAC        | 18240307         | 3       |
| Noweda   | Wool alcohol ointment DAB       | 18251001         | 2       |
| Noweda   | Wool alcohol ointment DAB       | 1841110          | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A006           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A070           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A073           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A084           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A087           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A110           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A112           | 2       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A113           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A131           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A156           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A166           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A215           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A256           | 1       |
| Noweda   | Unguentum Cordes <sup>®</sup>   | 18A258           | 2       |
| Noweda   | Wool alcohol ointment DAB       | 18B09-T12-058739 | 2       |
| Noweda   | Hydrophilic ointment DAB        | 18F27-T05-057539 | 1       |
| Noweda   | Hydrophilic ointment DAB        | 19000412001      | 1       |
| Noweda   | Wool alcohol ointment DAB       | 19000468001      | 1       |
| Noweda   | Wool alcohol ointment DAB       | 19000469001      | 1       |
| Noweda   | Wool alcohol ointment DAB       | 19000471001      | 1       |
| Noweda   | Hydrophobic base gel DAC        | 19003315         | 2       |
| Noweda   | Wool alcohol ointment DAB       | 19007102         | 2       |
| Noweda   | Paraffin, liquid                | 19010307         | 1       |
| Noweda   | Hydrophilic ointment DAB        | 19025402         | 2       |
| Noweda   | Hydrophilic ointment DAB        | 19025801         | 1       |
| Noweda   | Paraffin, liquid                | 1904026          | 1       |
| Noweda   | Paraffin, white                 | 1904028-01       | 1       |
| Noweda   | Paraffin, liquid                | 1909010-01       | 1       |
| Noweda   | Emulsifying hydrophobic base... | 19101801         | 1       |
| Noweda   | Paraffin, white                 | 19135408         | 1       |
| Noweda   | Paraffin, yellow                | 19165701         | 2       |
| Noweda   | Wool alcohol ointment DAB       | 19182301         | 1       |
| Noweda   | Hydrophilic ointment DAB        | 19190601         | 1       |
| Noweda   | Eye paraffin                    | 192008003        | 1       |
| Noweda   | Paraffin, white                 | 192540001        | 2       |
| Noweda   | Paraffin, liquid                | 192559004        | 1       |
| Noweda   | Paraffin, liquid                | 192559012        | 1       |
| Noweda   | Paraffin, white                 | 19260102         | 1       |

continued on the next page

continued from previous page

| Supplier                 | Substance                 | Batch        | Spectra |
|--------------------------|---------------------------|--------------|---------|
| Noweda                   | Paraffin, liquid          | 19271401     | 2       |
| Noweda                   | Unguentum Cordes®         | 19A004       | 1       |
| Noweda                   | Unguentum Cordes®         | 19A0182      | 2       |
| Noweda                   | Unguentum Cordes®         | 19A020       | 1       |
| Noweda                   | Unguentum Cordes®         | 19A0204      | 1       |
| noweda                   | Unguentum Cordes®         | 19A0256      | 1       |
| Noweda                   | Unguentum Cordes®         | 19A0256      | 1       |
| Noweda                   | Unguentum Cordes®         | 19A0262      | 2       |
| Noweda                   | Unguentum Cordes®         | 19A0181      | 1       |
| Noweda                   | Paraffin, yellow          | 20000003003  | 1       |
| Noweda                   | Hydrophobic base gel DAC  | 20000051     | 1       |
| Noweda                   | Paraffin, white           | 20000510009  | 1       |
| Noweda                   | Paraffin, white           | 20000510013  | 1       |
| Noweda                   | Paraffin, white           | 2000051014   | 1       |
| Noweda                   | Eye paraffin              | 20000627002  | 1       |
| Noweda                   | Hydrophobic base gel DAC  | 20001559003  | 1       |
| Noweda                   | Paraffin, yellow          | 20001760002  | 1       |
| Noweda                   | Hydrophilic ointment DAB  | 20002047001  | 2       |
| Noweda                   | Hydrophilic ointment DAB  | 20002047002  | 1       |
| Noweda                   | Paraffin, liquid          | 20004108001  | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0034      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0045      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0049      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0060      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0094      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0095      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0097      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0131      | 1       |
| Noweda                   | Unguentum Cordes®         | 20A0152      | 1       |
| Noweda                   | Hydrophilic ointment DAB  | 210001473002 | 1       |
| Noweda                   | Hydrophilic ointment DAB  | 21000365001  | 1       |
| Noweda                   | Paraffin, yellow          | 21000380002  | 1       |
| Noweda                   | Paraffin, white           | 21003553     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 22532710     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 23223410     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 24635410     | 1       |
| Noweda                   | Paraffin, white           | 255510       | 1       |
| Noweda                   | Paraffin, white           | 263762       | 1       |
| Noweda                   | Paraffin, white           | 270163       | 3       |
| Noweda                   | Wool alcohol ointment DAB | 270642       | 2       |
| Noweda                   | Paraffin, white           | 271261       | 1       |
| Noweda                   | Wool alcohol ointment DAB | 287013       | 1       |
| Noweda                   | Paraffin, white           | 307661       | 1       |
| Noweda                   | Paraffin, white           | 311259       | 2       |
| Noweda                   | Wool alcohol ointment DAB | 34414610     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 34554710     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 50845210     | 2       |
| Noweda                   | Wool alcohol ointment DAB | 62031710     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 74737410     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 82541010     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 84122310     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 84132310     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 93456310     | 1       |
| Noweda                   | Wool alcohol ointment DAB | 94037210     | 2       |
| Noweda-Ichthyol          | Unguentum Cordes®         | 17A054       | 1       |
| Occasio/ Ichthyol        | Unguentum Cordes®         | 18A105       | 1       |
| OQEMA                    | Paraffin, white           | 11907        | 8       |
| P.W. Beyvers GmbH/Phönix | Wool alcohol ointment DAB | 15225501     | 3       |
| Pala                     | Eye paraffin              | 15441511     | 1       |
| Pala                     | Eye paraffin              | 18179717     | 1       |

continued on the next page

continued from previous page

| Supplier                    | Substance                       | Batch            | Spectra |
|-----------------------------|---------------------------------|------------------|---------|
| Ph/Beiersdorf               | Wool alcohol ointment DAB       | 94957610         | 1       |
| Phagron                     | Paraffin, white                 |                  | 1       |
| Pharmachem GmbH & Co KG     | Paraffin, yellow                | 18191503         | 1       |
| Pharmachem GmbH/Pharmac...  | Wool alcohol ointment SR/DAC    | 220517           | 1       |
| Pharmachem GmbH             | Paraffin, white                 | 1038202          | 1       |
| Pharmachem/ Phönix          | Wool alcohol ointment SR/DAC    | 220517           | 1       |
| Pharmachem/Phönix           | Wool alcohol ointment DAB       | 90812            | 1       |
| Pharmachem                  | Paraffin, yellow                | 150303-01        | 1       |
| Pharmachem                  | Wool alcohol ointment DAB       | 18005546         | 1       |
| Pharmachem                  | Wool alcohol ointment SR/DAC    | 220517           | 1       |
| Pharmachem                  | Wool alcohol ointment SR wit... | 250116           | 2       |
| Pharmchem                   | Hydrophobic base gel DAC        | 18140606         | 1       |
| phoenix Ichthyol            | Unguentum Cordes <sup>®</sup>   | 15A106           | 1       |
| phoenix / ichthyol          | Unguentum Cordes <sup>®</sup>   | 15A108           | 1       |
| Phoenix 02.05.2014          | Emulsifying hydrophobic base... | 282094           | 1       |
| PHOENIX 03.03.2014          | Eye ointment, emulsifying DAC   | 16B111113        | 1       |
| Phoenix 06.03.2017 13,14EUR | Unguentum Cordes <sup>®</sup>   | 16A102           | 1       |
| Phoenix 07.11.2017          | Unguentum Cordes <sup>®</sup>   | 17A003           | 1       |
| Phoenix 18.03.2014          | Paraffin, white                 | 12337709         | 1       |
| Phoenix 18.09.2017          | Hydrophilic ointment DAB        | 16K09-T02-038560 | 1       |
| Phoenix 24.01.2019          | Paraffin, white                 | 17L22-T05-056478 | 3       |
| Phoenix 25.4.2014           | Paraffin, white                 | 13185514         | 1       |
| Phoenix 26.11.12            | Unguentum Cordes <sup>®</sup>   | 12A185           | 1       |
| Phoenix 27.11.14 EK 6,08    | Wool alcohol ointment SR wit... | 288688           | 1       |
| Phoenix 29.05.2018 13,...   | Unguentum Cordes <sup>®</sup>   | 17A045           | 1       |
| Phoenix am 10.03.2014       | Paraffin, white                 | 13338703         | 1       |
| Phoenix am 22.04.2014       | Paraffin, white                 | 270981           | 1       |
| Phoenix Goettin             | Eye paraffin                    | 14124704         | 1       |
| Phoenix/ Bombatus-Werke...  | Hydrophobic base gel DAC        | 302145           | 1       |
| Phoenix/ Caesar & Loret...  | Eye paraffin                    | 18179717         | 3       |
| Phoenix/Beiersdorf          | Wool alcohol ointment DAB       | 74017010         | 1       |
| Phoenix/Cealo               | Eye paraffin                    | 15441504         | 1       |
| Phoenix/Cealo               | Hydrophobic base gel DAC        | 17196704         | 1       |
| Phoenix/Cealo               | Unguentum Cordes <sup>®</sup>   | 17A007           | 1       |
| Phoenix/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 13A055           | 1       |
| Phoenix/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 13A140           | 1       |
| Phoenix/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 17A055           | 1       |
| Phoenix/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 17A084           | 2       |
| Phoenix/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A223           | 1       |
| Phoenix/Ichthyol-Gesell...  | Unguentum Cordes <sup>®</sup>   | 17A055           | 1       |
| Phoenix/Ichthyol-Gesell...  | Unguentum Cordes <sup>®</sup>   | 18A130           | 2       |
| Phoenix/Ichthyol-Gesell...  | Unguentum Cordes <sup>®</sup>   | 20A0002          | 1       |
| Phoenix                     | Paraffin, white                 |                  | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 12A056           | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 12A087           | 1       |
| Phoenix                     | Paraffin, white                 | 13084906         | 1       |
| Phoenix                     | Paraffin, white                 | 13268423         | 1       |
| Phoenix                     | Eye paraffin                    | 13338713         | 2       |
| Phoenix                     | Emulsifying hydrophobic base... | 14087502         | 1       |
| Phoenix                     | Wool alcohol ointment DAB       | 14153101         | 1       |
| Phoenix                     | Paraffin, white                 | 15349706         | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 15A027           | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 15A149           | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 15ao93           | 1       |
| Phoenix                     | Paraffin, white                 | 16029210         | 1       |
| Phoenix                     | Paraffin, white                 | 16272010         | 1       |
| Phoenix                     | Paraffin, white                 | 16326706         | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 16A045           | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 16A046           | 1       |
| Phoenix                     | Unguentum Cordes <sup>®</sup>   | 16A102           | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Phoenix  | Unguentum Cordes®               | 16A121           | 1       |
| Phoenix  | Unguentum Cordes®               | 16A153           | 1       |
| Phoenix  | Wool alcohol ointment DAB       | 16H03-T01-035269 | 1       |
| Phoenix  | Hydrophobic base gel DAC        | 17001132         | 3       |
| Phoenix  | Wool alcohol ointment DAB       | 17001876         | 1       |
| Phoenix  | Hydrophobic base gel DAC        | 17043605         | 1       |
| Phoenix  | Hydrophilic ointment DAB        | 17083103         | 1       |
| Phoenix  | Wool alcohol ointment DAB       | 17105401         | 1       |
| Phoenix  | Paraffin, white                 | 17106001         | 1       |
| Phoenix  | Wool alcohol ointment DAB       | 17149002         | 1       |
| Phoenix  | Hydrophobic base gel DAC        | 17196703         | 1       |
| Phoenix  | Hydrophobic base gel DAC        | 17196705         | 1       |
| Phoenix  | Hydrophobic base gel DAC        | 17320409         | 1       |
| Phoenix  | Eye paraffin                    | 17342008         | 3       |
| Phoenix  | Unguentum Cordes®               | 17A005           | 1       |
| Phoenix  | Unguentum Cordes®               | 17A045           | 1       |
| Phoenix  | Unguentum Cordes®               | 17A084           | 1       |
| Phoenix  | Unguentum Cordes®               | 17A085           | 2       |
| Phoenix  | Unguentum Cordes®               | 17A104           | 1       |
| Phoenix  | Unguentum Cordes®               | 17A112           | 1       |
| Phoenix  | Unguentum Cordes®               | 17A113           | 1       |
| Phoenix  | Unguentum Cordes®               | 17A218           | 1       |
| Phoenix  | Hydrophilic ointment DAB        | 18001504         | 1       |
| Phoenix  | Wool alcohol ointment DAB       | 18002497         | 1       |
| Phoenix  | Paraffin, white                 | 18003484         | 1       |
| Phoenix  | Hydrophilic ointment DAB        | 18004573         | 1       |
| Phoenix  | Hydrophilic ointment DAB        | 18004578         | 1       |
| PHOENIX  | Hydrophobic base gel DAC        | 18005370         | 1       |
| Phoenix  | Wool alcohol ointment DAB       | 18132501         | 1       |
| Phoenix  | Paraffin, white                 | 18174303         | 1       |
| Phoenix  | Paraffin, white                 | 18174312         | 1       |
| Phoenix  | Eye paraffin                    | 18179703         | 1       |
| Phoenix  | Eye paraffin                    | 18179716         | 2       |
| Phoenix  | Eye paraffin                    | 18179717         | 1       |
| Phoenix  | Hydrophobic base gel DAC        | 18240307         | 1       |
| Phoenix  | Unguentum Cordes®               | 18A111           | 1       |
| Phoenix  | Unguentum Cordes®               | 18A113           | 2       |
| PHOENIX  | Paraffin, white                 | 18K01-T06-063753 | 1       |
| Phoenix  | Hydrophilic ointment DAB        | 19000413001      | 1       |
| Phoenix  | Hydrophobic base gel DAC        | 19001129         | 7       |
| Phoenix  | Hydrophobic base gel DAC        | 19002599         | 3       |
| Phoenix  | Wool alcohol ointment DAB       | 19003801         | 3       |
| Phoenix  | Paraffin, white                 | 19004888         | 1       |
| Phoenix  | Wool alcohol ointment DAB       | 19007102         | 1       |
| Phoenix  | Paraffin, white                 | 19135408         | 1       |
| Phoenix  | Hydrophilic ointment DAB        | 19190601         | 1       |
| Phoenix  | Hydrophilic ointment DAB        | 19190703         | 1       |
| Phoenix  | Emulsifying hydrophobic base... | 19244203         | 2       |
| Phoenix  | Paraffin, liquid                | 192559012        | 1       |
| Phoenix  | Paraffin, liquid                | 196310-0004      | 1       |
| Phoenix  | Unguentum Cordes®               | 19A001           | 1       |
| Phoenix  | Unguentum Cordes®               | 19A0154          | 1       |
| Phoenix  | Wool alcohol ointment DAB       | 20000380         | 1       |
| Phoenix  | Paraffin, white                 | 20000510007      | 1       |
| Phoenix  | Paraffin, white                 | 20000627010      | 3       |
| Phoenix  | Paraffin, white                 | 20002327003      | 1       |
| Phoenix  | Paraffin, liquid                | 200029903        | 1       |
| Phoenix  | Paraffin, white                 | 20003237001      | 1       |
| Phoenix  | Paraffin, liquid                | 2000418006       | 1       |
| Phoenix  | Paraffin, white                 | 200500506        | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Phoenix                    | Unguentum Cordes <sup>®</sup>   | 20A0049     | 1       |
| Phoenix                    | Unguentum Cordes <sup>®</sup>   | 20A0090     | 1       |
| Phoenix                    | Unguentum Cordes <sup>®</sup>   | 20A0234     | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 21000376    | 2       |
| Phoenix                    | Wool alcohol ointment DAB       | 21003022    | 2       |
| Phoenix                    | Unguentum Cordes <sup>®</sup>   | 21A0055     | 1       |
| Phoenix                    | Unguentum Cordes <sup>®</sup>   | 21a0064     | 1       |
| Phoenix                    | Unguentum Cordes <sup>®</sup>   | 21A0064     | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 22532710    | 1       |
| Phoenix                    | Paraffin, white                 | 270491      | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 283619      | 1       |
| Phoenix                    | Paraffin, white                 | 3024        | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 305880      | 1       |
| Phoenix                    | Hydrophilic ointment DAB        | 307091      | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 30831410    | 1       |
| Phoenix                    | Hydrophilic ointment DAB        | 308898      | 3       |
| Phoenix                    | Wool alcohol ointment DAB       | 3126        | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 32344210    | 1       |
| Phoenix                    | Paraffin, white                 | 3393        | 1       |
| Phoenix                    | Unguentum Cordes <sup>®</sup>   | 3422        | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 41940610    | 1       |
| Phoenix                    | Paraffin, yellow                | 57/AKD7     | 1       |
| Phoenix                    | Wool alcohol ointment DAB       | 80848610    | 1       |
| Phoenix                    | Paraffin, white                 | T13-0811505 | 1       |
| PhoenixWE:7.02.2017 E...   | Unguentum Cordes <sup>®</sup>   | 16A141      | 1       |
| Phönix / Ichthyol          | Unguentum Cordes <sup>®</sup>   | 16A176      | 1       |
| Phönix 08.04.2013          | Paraffin, white                 | 12/17-T01   | 1       |
| Phönix 15.10.2019          | Paraffin, white                 | 18314809    | 1       |
| Phönix 16.10.12            | Paraffin, white                 | 12D16-T01   | 1       |
| Phönix Gotha               | Eye ointment, emulsifying DAC   | 10C030818   | 1       |
| Phönix Gotha               | Paraffin, white                 | 12032413    | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 12152001    | 2       |
| Phönix Gotha               | Hydrophilic ointment DAB        | 12G18-T10   | 1       |
| Phönix Gotha               | Unguentum Cordes <sup>®</sup>   | 13A032      | 1       |
| Phönix Gotha               | Paraffin, white                 | 14087402    | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 14282801    | 1       |
| Phönix Gotha               | Paraffin, white                 | 15060012    | 1       |
| Phönix Gotha               | Emulsifying hydrophobic base... | 15064101    | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 15225601    | 1       |
| Phönix Gotha               | Eye ointment, emulsifying DAC   | 15C031218   | 1       |
| Phönix Gotha               | Eye ointment, emulsifying DAC   | 16B061212   | 1       |
| Phönix Gotha               | Paraffin, yellow                | 18000670    | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 18001094    | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 19003801    | 1       |
| Phönix Gotha               | Paraffin, white                 | 270633      | 1       |
| Phönix Gotha               | Paraffin, white                 | 270634      | 1       |
| Phönix Gotha               | Wool alcohol ointment SR wit... | 284381      | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 286884      | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 288688      | 1       |
| Phönix Gotha               | Paraffin, white                 | 289344      | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 295206      | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 31231810    | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 34554710    | 1       |
| Phönix Gotha               | Eye ointment, emulsifying DAC   | 3B070319    | 1       |
| Phönix Gotha               | Wool alcohol ointment DAB       | 41930610    | 1       |
| Phönix Gotha               | Eye ointment, emulsifying DAC   | 5B220413    | 1       |
| Phönix Gotha               | Eye ointment, emulsifying DAC   | 7C140519    | 1       |
| Phönix Ichthyol Gesells... | Unguentum Cordes <sup>®</sup>   | 20A0153     | 1       |
| phönix Pharmochem          | Hydrophilic ointment DAB        | 17040301    | 2       |
| Phönix W.E:09.03.18 E...   | Unguentum Cordes <sup>®</sup>   | 17A098      | 1       |

continued on the next page

continued from previous page

| Supplier                     | Substance                 | Batch      | Spectra |
|------------------------------|---------------------------|------------|---------|
| Phönix/ Beiersdorf Werke     | Wool alcohol ointment DAB | 64833610   | 1       |
| Phönix/ Cordes               | Unguentum Cordes®         | 19A128     | 1       |
| Phönix/Beiersdorf            | Wool alcohol ointment DAB | 71124510   | 1       |
| Phönix/Beiersdorf            | Wool alcohol ointment DAB | 81348810   | 1       |
| Phönix/Beiersdorf            | Wool alcohol ointment DAB | 82721410   | 1       |
| Phönix/beiersdorf            | Wool alcohol ointment DAB | 84222410   | 1       |
| Phönix/Beiersdorf            | Wool alcohol ointment DAB | 94037210   | 2       |
| Phönix/Bionorica             | Hydrophilic ointment DAB  | 17083002   | 3       |
| Phönix/Caesar & Loretz ...   | Paraffin, white           | 18174305   | 1       |
| Phönix/Cordes                | Unguentum Cordes®         | 17A104     | 1       |
| Phönix/Cordes                | Unguentum Cordes®         | 18A215     | 3       |
| Phönix/Fagon                 | Wool alcohol ointment DAB | 16007202   | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 12A139     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 15A123     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 17A005     | 2       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 17A007     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 17A052     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 17A069     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 17A084     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 17A113     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 18A050     | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 20A0097    | 1       |
| Phönix/Ichthyol              | Unguentum Cordes®         | 21A0114    | 1       |
| Phönix/ICHTHYOL-Gesells. ... | Unguentum Cordes®         | 18A111     | 1       |
| Phönix/ICHTHYOL-Gesells. ... | Unguentum Cordes®         | 18A113     | 1       |
| Phönix/Ichthyol-Gesells. ... | Unguentum Cordes®         | 19A006     | 1       |
| phönix                       | Wool alcohol ointment DAB |            | 1       |
| Phönix                       | Paraffin, white           | 12032413   | 1       |
| Phönix                       | Paraffin, white           | 12115107   | 1       |
| Phönix                       | Paraffin, white           | 12209210   | 1       |
| Phönix                       | Hydrophilic ointment DAB  | 12311301   | 1       |
| Phönix                       | Unguentum Cordes®         | 12A049     | 1       |
| Phönix                       | Unguentum Cordes®         | 12A129     | 1       |
| Phönix                       | Unguentum Cordes®         | 12A131     | 1       |
| Phönix                       | Wool alcohol ointment DAB | 13114103   | 1       |
| Phönix                       | Paraffin, white           | 13268410   | 1       |
| Phönix                       | Paraffin, white           | 13341604   | 1       |
| Phönix                       | Unguentum Cordes®         | 13A034     | 1       |
| phönix                       | Unguentum Cordes®         | 13A051     | 1       |
| Phönix                       | Hydrophilic ointment DAB  | 14024701   | 1       |
| Phönix                       | Wool alcohol ointment DAB | 14067001   | 1       |
| Phönix                       | Paraffin, yellow          | 14324301   | 1       |
| phönix                       | Unguentum Cordes®         | 14A116     | 1       |
| Phönix                       | Wool alcohol ointment DAB | 153620001  | 1       |
| phönix                       | Eye paraffin              | 15441514   | 1       |
| Phönix                       | Paraffin, white           | 15441514   | 2       |
| phönix                       | Hydrophilic ointment DAB  | 16008701   | 1       |
| Phönix                       | Hydrophilic ointment DAB  | 16009301   | 1       |
| Phönix                       | Paraffin, yellow          | 16032602   | 1       |
| Phönix                       | Paraffin, white           | 1612007-01 | 1       |
| phönix                       | Paraffin, white           | 16138003   | 1       |
| phönix                       | Hydrophilic ointment DAB  | 16166801   | 1       |
| Phönix                       | Hydrophilic ointment DAB  | 16166801   | 1       |
| Phönix                       | Hydrophilic ointment DAB  | 16166901   | 1       |
| phönix                       | Wool alcohol ointment DAB | 16198501   | 1       |
| PHÖNIX                       | Paraffin, white           | 16227402   | 1       |
| Phönix                       | Paraffin, white           | 16227406   | 1       |
| Phönix                       | Hydrophobic base gel DAC  | 16240105   | 1       |
| Phönix                       | Hydrophobic base gel DAC  | 16240113   | 1       |
| Phönix                       | Eye paraffin              | 16271810   | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Phönix   | Paraffin, yellow                | 16281001         | 1       |
| phönix   | Hydrophilic ointment DAB        | 16282401         | 1       |
| Phönix   | Hydrophilic ointment DAB        | 16282702         | 1       |
| phönix   | Wool alcohol ointment DAB       | 16331701         | 2       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 16A048           | 1       |
| PHÖNIX   | Unguentum Cordes <sup>®</sup>   | 16A124           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 16A141           | 1       |
| Phönix   | Hydrophilic ointment DAB        | 17/11-T03-048188 | 2       |
| Phönix   | Hydrophobic base gel DAC        | 17001133         | 1       |
| Phönix   | Paraffin, white                 | 17038215         | 1       |
| phönix   | Hydrophilic ointment DAB        | 17040301         | 1       |
| Phönix   | Hydrophobic base gel DAC        | 17043606         | 1       |
| Phönix   | Eye paraffin                    | 17052010         | 4       |
| Phönix   | Wool alcohol ointment DAB       | 17104901         | 2       |
| Phönix   | Emulsifying hydrophobic base... | 17113703         | 1       |
| Phönix   | Wool alcohol ointment DAB       | 17141203         | 2       |
| PHÖNIX   | Paraffin, white                 | 17204204         | 1       |
| Phönix   | Paraffin, white                 | 17204209         | 1       |
| Phönix   | Hydrophilic ointment DAB        | 17290801         | 2       |
| Phönix   | Paraffin, yellow                | 17303501         | 2       |
| Phönix   | Hydrophilic ointment DAB        | 17330601         | 2       |
| Phönix   | Eye paraffin                    | 17342001         | 1       |
| Phönix   | Eye paraffin                    | 17342014         | 1       |
| Phönix   | Paraffin, white                 | 17347902         | 1       |
| PHÖNIX   | Paraffin, white                 | 17350007         | 1       |
| Phönix   | Paraffin, white                 | 17350013         | 1       |
| Phönix   | Paraffin, white                 | 17350017         | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A007           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A045           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A052           | 1       |
| PHÖNIX   | Unguentum Cordes <sup>®</sup>   | 17A056           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A057           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A069           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A084           | 2       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A098           | 1       |
| PHÖNIX   | Unguentum Cordes <sup>®</sup>   | 17A098           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A101           | 1       |
| PHÖNIX   | Unguentum Cordes <sup>®</sup>   | 17A105           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A126           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A127           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A142           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 17A163           | 1       |
| Phönix   | Hydrophobic base gel DAC        | 18004042         | 1       |
| Phönix   | Paraffin, white                 | 18005015         | 3       |
| Phönix   | Paraffin, white                 | 18005033         | 2       |
| Phönix   | Hydrophobic base gel DAC        | 18005369         | 2       |
| Phönix   | Wool alcohol ointment DAB       | 18005545         | 1       |
| PHÖNIX   | Paraffin, white                 | 1811025-01       | 1       |
| Phönix   | Paraffin, white                 | 18174302         | 1       |
| Phönix   | Paraffin, white                 | 18174312         | 1       |
| Phönix   | Eye paraffin                    | 181797002        | 1       |
| Phönix   | Hydrophilic ointment DAB        | 18207501         | 1       |
| Phönix   | Hydrophobic base gel DAC        | 18240307         | 1       |
| Phönix   | Paraffin, white                 | 18314809         | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 18A049           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 18A067           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 18A105           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 18A110           | 1       |
| Phönix   | Unguentum Cordes <sup>®</sup>   | 18a111           | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Phönix   | Unguentum Cordes®               | 18A131       | 1       |
| Phönix   | Unguentum Cordes®               | 18A190       | 1       |
| Phönix   | Unguentum Cordes®               | 18A216       | 1       |
| Phönix   | Unguentum Cordes®               | 18A223       | 1       |
| Phönix   | Unguentum Cordes®               | 18A224       | 2       |
| Phönix   | Unguentum Cordes®               | 18A253       | 1       |
| PHÖNIX   | Wool alcohol ointment DAB       | 190000470001 | 1       |
| Phönix   | Wool alcohol ointment DAB       | 19005078     | 1       |
| Phönix   | Wool alcohol ointment DAB       | 19007001     | 1       |
| Phönix   | Hydrophilic ointment DAB        | 19025402     | 1       |
| Phönix   | Paraffin, liquid                | 190901001    | 1       |
| Phönix   | Paraffin, white                 | 19135405     | 1       |
| Phönix   | Paraffin, yellow                | 19165803     | 1       |
| Phönix   | Wool alcohol ointment DAB       | 19181902     | 2       |
| Phönix   | Paraffin, white                 | 192540001    | 1       |
| PHÖNIX   | Paraffin, liquid                | 192559004    | 1       |
| PHÖNIX   | Paraffin, white                 | 20000122001  | 1       |
| Phönix   | Paraffin, white                 | 20000510007  | 1       |
| Phönix   | Paraffin, white                 | 20000510013  | 1       |
| Phönix   | Paraffin, white                 | 20000510014  | 1       |
| Phönix   | Eye paraffin                    | 20000627005  | 1       |
| Phönix   | Wool alcohol ointment DAB       | 20001901001  | 1       |
| Phönix   | Emulsifying hydrophobic base... | 2000220002   | 2       |
| PHÖNIX   | Wool alcohol ointment DAB       | 20003085004  | 1       |
| Phönix   | Wool alcohol ointment DAB       | 20003916     | 1       |
| PHÖNIX   | Paraffin, liquid                | 20004108008  | 1       |
| PHÖNIX   | Unguentum Cordes®               | 20A0036      | 1       |
| PHÖNIX   | Unguentum Cordes®               | 20A0045      | 1       |
| Phönix   | Unguentum Cordes®               | 20A0090      | 1       |
| Phönix   | Unguentum Cordes®               | 20A0093      | 1       |
| Phönix   | Unguentum Cordes®               | 20A0098      | 1       |
| Phönix   | Paraffin, white                 | 21000297007  | 1       |
| Phönix   | Wool alcohol ointment DAB       | 21000376     | 2       |
| Phönix   | Wool alcohol ointment DAB       | 21000941001  | 1       |
| Phönix   | Wool alcohol ointment DAB       | 21001946002  | 1       |
| Phönix   | Hydrophobic base gel DAC        | 21002113001  | 1       |
| Phönix   | Paraffin, white                 | 21002861002  | 2       |
| Phönix   | Wool alcohol ointment DAB       | 21003591002  | 1       |
| PHÖNIX   | Unguentum Cordes®               | 21A0064      | 1       |
| Phönix   | Unguentum Cordes®               | 21A0184      | 1       |
| Phönix   | Wool alcohol ointment DAB       | 23733710     | 1       |
| Phönix   | Wool alcohol ointment SR wit... | 270781       | 1       |
| Phönix   | Wool alcohol ointment DAB       | 275999       | 1       |
| Phönix   | Paraffin, white                 | 277986       | 1       |
| Phönix   | Paraffin, white                 | 277987       | 1       |
| Phönix   | Paraffin, white                 | 280451       | 1       |
| Phönix   | Paraffin, white                 | 281291       | 1       |
| Phönix   | Paraffin, white                 | 304124       | 1       |
| Phönix   | Paraffin, white                 | 306020       | 1       |
| Phönix   | Wool alcohol ointment DAB       | 30821610     | 1       |
| Phönix   | Wool alcohol ointment DAB       | 31322010     | 1       |
| Phönix   | Unguentum Cordes®               | 3147         | 1       |
| Phönix   | Paraffin, white                 | 3156         | 1       |
| Phönix   | Unguentum Cordes®               | 3158         | 1       |
| Phönix   | Hydrophobic base gel DAC        | 3174         | 1       |
| Phönix   | Wool alcohol ointment DAB       | 4012410      | 1       |
| Phönix   | Hydrophilic ointment DAB        | 5321400      | 1       |
| Phönix   | Paraffin, white                 | 5489700      | 1       |
| Phönix   | Wool alcohol ointment DAB       | 60429110     | 1       |

continued on the next page

continued from previous page

| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
| Phönix                      | Wool alcohol ointment DAB       | 60539210    | 1       |
| Phönix                      | Wool alcohol ointment DAB       | 61149910    | 1       |
| PHÖNIX                      | Wool alcohol ointment DAB       | 63052310    | 1       |
| Phönix                      | Wool alcohol ointment DAB       | 64833610    | 1       |
| Phönix                      | Wool alcohol ointment DAB       | 71274810    | 1       |
| PHÖNIX                      | Wool alcohol ointment DAB       | 74017010    | 1       |
| Phönix                      | Wool alcohol ointment DAB       | 81819410    | 2       |
| PhönixWE:2.02.2017 EK...    | Hydrophilic ointment DAB        | 16166801    | 1       |
| PhR Neidhardt               | Eye ointment, emulsifying DAC   | 20A011215   | 1       |
| PKH GmbH Halle              | Eye ointment, emulsifying DAC   | 1C080114    | 1       |
| PKH GmbH/ Phönix            | Eye ointment, emulsifying DAC   | 12C300813   | 1       |
| PKH GmbH/AHD                | Eye ointment, emulsifying DAC   | 11B030818   | 1       |
| PKH GmbH/Phönix             | Eye ointment, emulsifying DAC   | 7B210513    | 1       |
| PKH GmbH                    | Eye ointment, emulsifying DAC   | 13A011019   | 1       |
| PKH GmbH                    | Paraffin, liquid                | 7A260219    | 1       |
| PKH Halle / Noweda          | Eye ointment, emulsifying DAC   | 7D210513    | 1       |
| PKH Halle / Noweda          | Eye ointment, emulsifying DAC   | 9C250612    | 1       |
| PKH Halle / Phönix          | Eye ointment, emulsifying DAC   | 3B020320    | 1       |
| PKH Halle/ Phoenix          | Eye ointment, emulsifying DAC   | 11D170713   | 1       |
| PKH Halle/ Phoenix          | Eye ointment, emulsifying DAC   | 3A180213    | 1       |
| PKH Halle/Kehr              | Eye ointment, emulsifying DAC   | 6B040520    | 1       |
| PKH Halle                   | Eye ointment, emulsifying DAC   | 4D010419    | 1       |
| PKH/ Noweda                 | Eye ointment, emulsifying DAC   | 12E010814   | 1       |
| PKH/Gehe                    | Eye ointment, emulsifying DAC   | 10C170613   | 1       |
| PKH/Gehe                    | Eye ointment, emulsifying DAC   | 3B180213    | 1       |
| PKH                         | Eye ointment, emulsifying DAC   | 11B011116   | 2       |
| PKH                         | Eye ointment, emulsifying DAC   | 18B231117   | 1       |
| Röntgen                     | Hydrophilic ointment DAB        | 17330302    | 2       |
| Röntgen                     | Paraffin, white                 | 18002117    | 1       |
| Röntgen                     | Hydrophilic ointment DAB        | 18004579    | 1       |
| Röntgen                     | Eye paraffin                    | 20000627100 | 1       |
| Röntgen                     | Paraffin, white                 | 21002101018 | 1       |
| Sana 13.11.14 EK 8,96       | Wool alcohol ointment DAB       | 14153101    | 1       |
| Sana 21.03.16 EK 4,96       | Paraffin, white                 | 15336810    | 1       |
| Sana 29.11.Ek.6,95          | Paraffin, yellow                | 15063904    | 1       |
| sana/ Ichthyol              | Unguentum Cordes <sup>®</sup>   | 20A0084     | 1       |
| Sana/Ichthyol               | Unguentum Cordes <sup>®</sup>   | 21A0150     | 1       |
| sana                        | Unguentum Cordes <sup>®</sup>   | 21A0163     | 1       |
| Sanacop/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 17A007      | 1       |
| Sanacop/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 18A113      | 1       |
| Sanacop                     | Wool alcohol ointment SR wit... | 288688      | 1       |
| Sanacopr                    | Paraffin, liquid                | 19271401    | 1       |
| sanacorb                    | Hydrophilic ointment DAB        | 17040201    | 1       |
| sanacorb                    | Paraffin, yellow                | 17162904    | 2       |
| sanacorb                    | Paraffin, yellow                | 17162906    | 1       |
| sanacorb                    | Hydrophilic ointment DAB        | 17330302    | 2       |
| sanacorb                    | Unguentum Cordes <sup>®</sup>   | 17A007      | 1       |
| Sanacorb                    | Unguentum Cordes <sup>®</sup>   | 18A112      | 1       |
| sanacorb                    | Wool alcohol ointment DAB       | 54147810    | 3       |
| Sanacoro W.E:22.02.18 ...   | Wool alcohol ointment DAB       | 17104902    | 1       |
| Sanacorp 31.10.15           | Wool alcohol ointment DAB       | 15228202    | 2       |
| Sanacorp E.K:5,64 -100...   | Paraffin, white                 | 309564      | 1       |
| Sanacorp / Ichthyol         | Unguentum Cordes <sup>®</sup>   | 12A206      | 1       |
| Sanacorp / Ichthyol         | Unguentum Cordes <sup>®</sup>   | 18A083      | 1       |
| Sanacorp 05.07.14 EK: 6...  | Paraffin, white                 | 13365104    | 2       |
| Sanacorp 06.05.19 Ek: 5...  | Unguentum Cordes <sup>®</sup>   | 18a101      | 1       |
| Sanacorp 06.07.2019 5,68EUR | Paraffin, white                 | 18006514    | 1       |
| Sanacorp 18.03.17 Ek:11...  | Hydrophilic ointment DAB        | 16167001    | 1       |
| Sanacorp 37.03.2017 ek:...  | Paraffin, white                 | 16272002    | 1       |
| Sanacorp ichthyol 06.01...  | Unguentum Cordes <sup>®</sup>   | 18a111      | 1       |

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| Supplier                    | Substance                       | Batch      | Spectra |
|-----------------------------|---------------------------------|------------|---------|
| Sanacorp, 15.08.2016, 3...  | Unguentum Cordes <sup>®</sup>   | 16A048     | 1       |
| Sanacorp, 21.07.2016        | Paraffin, white                 | 1605019-01 | 2       |
| sanacorp, 6,08EUR, 29.08... | Paraffin, white                 | 16138003   | 1       |
| Sanacorp, 04.04.17, 6,08EUR | Paraffin, white                 | 16181904   | 1       |
| Sanacorp/ Beiersdorf        | Wool alcohol ointment DAB       | 33723610   | 1       |
| Sanacorp/ Henry Lamotte     | Paraffin, liquid                | 1000010844 | 1       |
| Sanacorp/ Henry Lamotte     | Paraffin, liquid                | 1000014411 | 2       |
| Sanacorp/ Henry Lamotte     | Paraffin, liquid                | 100010844  | 1       |
| Sanacorp/ Ichthyol          | Unguentum Cordes <sup>®</sup>   | 10A215     | 1       |
| SANACORP/ Ichthyol          | Unguentum Cordes <sup>®</sup>   | 18A107     | 1       |
| Sanacorp/ Ichthyol          | Unguentum Cordes <sup>®</sup>   | 18A215     | 1       |
| Sanacorp/ Ichthyol          | Unguentum Cordes <sup>®</sup>   | 19A0181    | 1       |
| SANACORP/ Ichthyol          | Unguentum Cordes <sup>®</sup>   | 20A0098    | 1       |
| Sanacorp/ ICHTHYOL-Gese...  | Unguentum Cordes <sup>®</sup>   | 17A106     | 1       |
| Sanacorp/ ICHTHYOL-Gese...  | Unguentum Cordes <sup>®</sup>   | 17A113     | 1       |
| Sanacorp/ ICHTHYOL-Gese...  | Unguentum Cordes <sup>®</sup>   | 18A049     | 1       |
| Sanacorp/ Sanova            | Unguentum Cordes <sup>®</sup>   | 11A187     | 1       |
| Sanacorp/Beiersdorf         | Wool alcohol ointment DAB       | 71124510   | 2       |
| Sanacorp/Beiersdorf         | Wool alcohol ointment DAB       | 94037210   | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 14A061     | 2       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 14A117     | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 15A022     | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 15A042     | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 15A044     | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 15A108     | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 15A156     | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 16A121     | 1       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 16A139     | 2       |
| sanacorp/ichthyol           | Unguentum Cordes <sup>®</sup>   | 16A142     | 1       |
| Sanacorp/Ichthyol           | Unguentum Cordes <sup>®</sup>   | 17A005     | 2       |
| Sanacorp/Ichthyol           | Unguentum Cordes <sup>®</sup>   | 17A007     | 1       |
| Sanacorp/Ichthyol           | Unguentum Cordes <sup>®</sup>   | 17A084     | 2       |
| Sanacorp/Ichthyol-Gesel...  | Unguentum Cordes <sup>®</sup>   | 15A062     | 1       |
| Sanacorp/ICHTHYOL-Gesel...  | Unguentum Cordes <sup>®</sup>   | 16A143     | 1       |
| Sanacorp/ICHTHYOL-Gesel...  | Unguentum Cordes <sup>®</sup>   | 17A164     | 1       |
| Sanacorp                    | Paraffin, white                 |            | 5       |
| Sanacorp                    | Paraffin, white                 | 102/AKD1   | 1       |
| Sanacorp                    | Unguentum Cordes <sup>®</sup>   | 103/AKD1   | 1       |
| Sanacorp                    | Paraffin, white                 | 106/AKD4   | 1       |
| Sanacorp                    | Paraffin, white                 | 107/AKD6   | 1       |
| Sanacorp                    | Paraffin, white                 | 12031506   | 1       |
| Sanacorp                    | Paraffin, white                 | 1205317    | 1       |
| Sanacorp                    | Paraffin, white                 | 12115107   | 1       |
| Sanacorp                    | Paraffin, white                 | 1215107    | 1       |
| Sanacorp                    | Wool alcohol ointment DAB       | 12151801   | 1       |
| Sanacorp                    | Paraffin, white                 | 12190401   | 1       |
| Sanacorp                    | Hydrophilic ointment DAB        | 12205001   | 1       |
| Sanacorp                    | Paraffin, white                 | 12311010   | 1       |
| Sanacorp                    | Paraffin, white                 | 12337704   | 2       |
| Sanacorp                    | Paraffin, white                 | 12337708   | 1       |
| Sanacorp                    | Paraffin, white                 | 12374502   | 1       |
| Sanacorp                    | Unguentum Cordes <sup>®</sup>   | 12A129     | 1       |
| Sanacorp                    | Unguentum Cordes <sup>®</sup>   | 12A160     | 1       |
| Sanacorp                    | Unguentum Cordes <sup>®</sup>   | 12a184     | 1       |
| Sanacorp                    | Paraffin, white                 | 13084906   | 2       |
| Sanacorp                    | Hydrophilic ointment DAB        | 13117102   | 3       |
| Sanacorp                    | Paraffin, white                 | 13130909   | 2       |
| Sanacorp                    | Hydrophobic base gel DAC        | 13165201   | 1       |
| Sanacorp                    | Emulsifying hydrophobic base... | 13177601   | 1       |
| Sanacorp                    | Wool alcohol ointment DAB       | 13255001   | 1       |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Sanacorp | Paraffin, white                 | 13268420         | 1       |
| Sanacorp | Paraffin, white                 | 13338712         | 1       |
| Sanacorp | Paraffin, white                 | 13380707         | 1       |
| Sanacorp | Paraffin, white                 | 13380709         | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 13A042           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 13A068           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 13A136           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 13A159           | 1       |
| Sanacorp | Paraffin, white                 | 14087410         | 1       |
| Sanacorp | Eye paraffin                    | 14124704         | 1       |
| Sanacorp | Eye paraffin                    | 14124705         | 1       |
| Sanacorp | Eye paraffin                    | 14124707         | 1       |
| sanacorp | Unguentum Cordes <sup>®</sup>   | 14A060           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 14A172           | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 14G08-T08-013954 | 1       |
| Sanacorp | Paraffin, white                 | 15204301         | 1       |
| Sanacorp | Paraffin, yellow                | 15330401         | 1       |
| Sanacorp | Paraffin, white                 | 15339808         | 1       |
| Sanacorp | Paraffin, white                 | 15441504         | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 15A043           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 15A060           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 15A137           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 15A191           | 1       |
| sanacorp | Hydrophilic ointment DAB        | 15F09-T02023370  | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 16008701         | 1       |
| Sanacorp | Paraffin, yellow                | 16096904         | 1       |
| Sanacorp | Paraffin, white                 | 16181907         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 16198401         | 1       |
| Sanacorp | Paraffin, white                 | 16227412         | 1       |
| Sanacorp | Eye paraffin                    | 16271807         | 3       |
| Sanacorp | Eye paraffin                    | 16271810         | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 16A048           | 2       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 16A085           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 16a184           | 2       |
| Sanacorp | Paraffin, white                 | 16AKD2           | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 17001876         | 1       |
| Sanacorp | Emulsifying hydrophobic base... | 17032303         | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 17040301         | 1       |
| Sanacorp | Eye paraffin                    | 17052001         | 1       |
| Sanacorp | Eye paraffin                    | 17052003         | 2       |
| Sanacorp | Eye paraffin                    | 17052010         | 2       |
| Sanacorp | Paraffin, yellow                | 17052401         | 1       |
| Sanacorp | Paraffin, white                 | 17106001         | 1       |
| Sanacorp | Paraffin, white                 | 17106002         | 2       |
| Sanacorp | Wool alcohol ointment DAB       | 17141401         | 1       |
| Sanacorp | Paraffin, white                 | 17204201         | 2       |
| Sanacorp | Paraffin, white                 | 17204209         | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 17290702         | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 17290801         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 17301001         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 17301101         | 2       |
| Sanacorp | Paraffin, yellow                | 17303401         | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 17330301         | 4       |
| Sanacorp | Eye paraffin                    | 17342005         | 1       |
| sanacorp | Eye paraffin                    | 17342006         | 1       |
| Sanacorp | Eye paraffin                    | 17342015         | 1       |
| Sanacorp | Paraffin, white                 | 17347802         | 1       |
| Sanacorp | Paraffin, white                 | 17347803         | 1       |
| Sanacorp | Paraffin, white                 | 17350007         | 1       |
| Sanacorp | Paraffin, white                 | 17350016         | 1       |

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continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 17A045           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 17A069           | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 18002497         | 1       |
| Sanacorp | Paraffin, white                 | 18005016         | 1       |
| Sanacorp | Paraffin, white                 | 18005023         | 1       |
| Sanacorp | Paraffin, white                 | 18005039         | 1       |
| Sanacorp | Paraffin, white                 | 18006406         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 18132501         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 181362604        | 1       |
| Sanacorp | Hydrophobic base gel DAC        | 18140606         | 1       |
| Sanacorp | Paraffin, white                 | 18174301         | 1       |
| Sanacorp | Paraffin, white                 | 18174304         | 1       |
| Sanacorp | Paraffin, white                 | 18174312         | 1       |
| Sanacorp | Eye paraffin                    | 18179717         | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 18207502         | 1       |
| Sanacorp | Hydrophobic base gel DAC        | 18240302         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 18250901         | 1       |
| Sanacorp | Paraffin, yellow                | 18296802         | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 18A001           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 18A007           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 18A087           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 18A110           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 18A112           | 3       |
| SANACORP | Unguentum Cordes <sup>®</sup>   | 18A190           | 1       |
| sanacorp | Unguentum Cordes <sup>®</sup>   | 18A223           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 18A253           | 1       |
| Sanacorp | Eye paraffin                    | 19/AKD4          | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 19000472002      | 2       |
| Sanacorp | Wool alcohol ointment SR wit... | 19000657002      | 1       |
| Sanacorp | Paraffin, yellow                | 19001803         | 1       |
| sanacorp | Hydrophobic base gel DAC        | 19003315         | 1       |
| Sanacorp | Hydrophilic ointment DAB        | 19025402         | 1       |
| Sanacorp | Paraffin, white                 | 190402801        | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 19041101         | 1       |
| Sanacorp | Paraffin, white                 | 19135402         | 1       |
| Sanacorp | Paraffin, yellow                | 19165701         | 1       |
| Sanacorp | Hydrophobic base gel DAC        | 19253903         | 1       |
| Sanacorp | Paraffin, white                 | 192540001        | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 19A003           | 1       |
| SANACORP | Unguentum Cordes <sup>®</sup>   | 19A004           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 19A006           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 19A0153          | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 19A026           | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 19A182           | 3       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 2/AKD2           | 1       |
| Sanacorp | Hydrophobic base gel DAC        | 20001105         | 1       |
| Sanacorp | Hydrophobic base gel DAC        | 20004214         | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 20A0002          | 2       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 20a0149          | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 20C23-T26-081551 | 1       |
| Sanacorp | Hydrophobic base gel DAC        | 21000169         | 2       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 21a0075          | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 21A0102          | 1       |
| Sanacorp | Unguentum Cordes <sup>®</sup>   | 21A0201          | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 24254010         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 274283           | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 277190           | 2       |
| Sanacorp | Wool alcohol ointment DAB       | 279927           | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 28/AKD12         | 1       |
| Sanacorp | Wool alcohol ointment DAB       | 289509           | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch                  | Spectra |
|----------------------------|---------------------------------|------------------------|---------|
| Sanacorp                   | Hydrophobic base gel DAC        | 308440                 | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 30851510               | 1       |
| Sanacorp                   | Paraffin, white                 | 309563                 | 1       |
| Sanacorp                   | Paraffin, yellow                | 310192                 | 2       |
| Sanacorp                   | Wool alcohol ointment DAB       | 41047010               | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 43112910               | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 44/AKD10               | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 5414781                | 1       |
| Sanacorp                   | Paraffin, yellow                | 57/AKD4                | 1       |
| Sanacorp                   | Paraffin, yellow                | 58/AKD12               | 1       |
| Sanacorp                   | Hydrophilic ointment DAB        | 6/AKD7                 | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 62031710               | 1       |
| Sanacorp                   | Wool alcohol ointment SR wit... | 6550118                | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 73035910               | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 74017010               | 2       |
| Sanacorp                   | Wool alcohol ointment DAB       | 74747510               | 1       |
| Sanacorp                   | Paraffin, liquid                | 8003083001             | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 82541010               | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 829110                 | 1       |
| SANACORP                   | Wool alcohol ointment DAB       | 84232410               | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 93456310               | 1       |
| Sanacorp                   | Wool alcohol ointment DAB       | 94037210               | 1       |
| Sanacorp                   | Hydrophobic base gel DAC        | AKD18                  | 1       |
| Sanacorp                   | Hydrophilic ointment DAB        | AKD32                  | 1       |
| Sanova Pharma GesmbH       | Unguentum Cordes <sup>®</sup>   | 18A223                 | 2       |
| Sanova Pharma/Alliance ... | Unguentum Cordes <sup>®</sup>   | 20A0034                | 1       |
| Sanova Pharma/Gehe         | Unguentum Cordes <sup>®</sup>   | 16A102                 | 2       |
| Sanova Pharma              | Unguentum Cordes <sup>®</sup>   | 13A166                 | 1       |
| Sanova Pharma              | Unguentum Cordes <sup>®</sup>   | 17A142                 | 1       |
| Sanova/ Phönix             | Unguentum Cordes <sup>®</sup>   | 10A111                 | 1       |
| Sanova                     | Unguentum Cordes <sup>®</sup>   | 11A040                 | 1       |
| Sanova                     | Unguentum Cordes <sup>®</sup>   | 12A130                 | 1       |
| SANOVA                     | Unguentum Cordes <sup>®</sup>   | 15A044                 | 1       |
| SANOVA                     | Unguentum Cordes <sup>®</sup>   | 16A045                 | 1       |
| Sanova                     | Unguentum Cordes <sup>®</sup>   | 17A002                 | 1       |
| sanova                     | Unguentum Cordes <sup>®</sup>   | 20A0172                | 1       |
| Schärer & Schläpfer AG/... | Wool alcohol ointment DAB       | 50955510               | 1       |
| siehe Protokoll Lennartz   | Paraffin, liquid                | sieheProtokollLennartz | 1       |
| Sigma-Aldrich              | Paraffin, white                 | STBJ4032               | 1       |
| Sonnen-Apotheke Wefensl... | Wool alcohol ointment DAB       | 1/16                   | 1       |
| Sonnen-Apotheke Wefensl... | Wool alcohol ointment DAB       | 9/17                   | 1       |
| Spangro 26.2.2014          | Paraffin, white                 | 13338702               | 1       |
| Spangro                    | Wool alcohol ointment DAB       | 17411203               | 1       |
| Spangropharm               | Unguentum Cordes <sup>®</sup>   | 12A185                 | 1       |
| Spangropharm               | Unguentum Cordes <sup>®</sup>   | 13A042                 | 1       |
| Spangropharm               | Unguentum Cordes <sup>®</sup>   | 13A171                 | 1       |
| Spangropharm               | Unguentum Cordes <sup>®</sup>   | 18A105                 | 1       |
| Spangropharm               | Unguentum Cordes <sup>®</sup>   | 19A020                 | 1       |
| Spangropharm               | Hydrophobic base gel DAC        | 2001559002             | 1       |
| Spangropharm               | Unguentum Cordes <sup>®</sup>   | 20A0036                | 1       |
| Spangropharm               | Wool alcohol ointment DAB       | 2721410                | 1       |
| Spangropharm               | Wool alcohol ointment DAB       | 93927110               | 2       |
| Stumpf/Beiersdorf Ag       | Wool alcohol ointment DAB       | 33323210               | 1       |
| Stumpf/Beiersdorf Ag       | Wool alcohol ointment DAB       | 33343310               | 1       |
| Stumpf/Beiersdorf Ag       | Wool alcohol ointment DAB       | 40956810               | 1       |
| Stumpf/Beiersdorf Ag       | Wool alcohol ointment DAB       | 41910710               | 1       |
| Stumpf/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 12A115                 | 1       |
| Stumpf/Ichthyol            | Unguentum Cordes <sup>®</sup>   | 12A190                 | 1       |
| Stumpf/Ichthyol-Gesells... | Unguentum Cordes <sup>®</sup>   | 15A089                 | 1       |
| Stumpf/Ichtyol             | Unguentum Cordes <sup>®</sup>   | 13A051                 | 1       |

continued on the next page

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| Supplier                  | Substance                       | Batch    | Spectra |
|---------------------------|---------------------------------|----------|---------|
| Stumpf/Ichtyol            | Unguentum Cordes®               | 13A142   | 1       |
| Stumpf/Ichtyol            | Unguentum Cordes®               | 13A166   | 1       |
| Stumpf/Ichtyol            | Unguentum Cordes®               | 14A057   | 1       |
| Stumpf/Ichtyol            | Unguentum Cordes®               | 14A063   | 1       |
| Stumpf                    | Wool alcohol ointment DAB       | 23223410 | 1       |
| Stumpf                    | Hydrophilic ointment DAB        | 269539   | 1       |
| Stumpf                    | Hydrophilic ointment DAB        | 274004   | 1       |
| Stumpf                    | Wool alcohol ointment DAB       | 30851510 | 1       |
| Taoasis                   | Emulsifying hydrophobic base... | 17113703 | 1       |
| Th. Geyer                 | Emulsifying hydrophobic base... | 16172301 | 1       |
| THC Rezeptur-Set          | Hydrophilic ointment DAB        | 307095   | 1       |
| Unguentum cordes          | Unguentum Cordes®               | 19A0153  | 1       |
| UNISAN                    | Wool alcohol ointment DAB       | 289509   | 1       |
| Vaselinumm album          | Paraffin, white                 | 18006401 | 1       |
| vdl                       | Paraffin, white                 | 11265710 | 1       |
| VDL                       | Unguentum Cordes®               | 15A140   | 1       |
| VDL                       | Paraffin, yellow                | 18092208 | 1       |
| VDL;13.06.14              | Paraffin, white                 | 13268421 | 1       |
| WE:Phönix 02.09.2016 E... | Paraffin, white                 | 302037   | 2       |
| WE:Sanacorp 05.09.2016... | Paraffin, yellow                | 15330601 | 2       |
| Wepa/ Phoenix             | Hydrophilic ointment DAB        | 17040301 | 1       |
| wollff/AHD                | Paraffin, white                 | 5538300  | 1       |
| ychthyol                  | Unguentum Cordes®               | 16A184   | 1       |
| Ychtyol/Phönix            | Unguentum Cordes®               | 16A045   | 1       |

- 261 480 spectra from 1293 *Apo-Ident* customers from a total of 47 754 batches from a further 332 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Paraffin classification* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Paraffin classification* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 4610          | 0              | 62 549        |
| <b>Type B</b> | 0              | 7261          | 0              | 99 952        |
| <b>Type C</b> | 0              | 27 115        | 114            | 257 876       |

The substance/substance group *Paraffin classification* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9803 %) | 100.0000 % (> 99.8698 %) |
| <b>Type B</b> | 100.0000 % (> 99.9674 %) | 100.0000 % (> 99.9174 %) |
| <b>Type C</b> | 100.0000 % (> 99.6845 %) | 99.5813 % (> 99.5703 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several

new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Paraffin classification* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Wool fat                                  | 10.00                     | —                                 |
| Squalane                                  | 12.16                     | —                                 |
| Softisan <sup>®</sup> 378                 | 17.37                     | —                                 |
| Softisan <sup>®</sup> 649                 | 19.23                     | —                                 |
| Decyl oleate                              | 19.76                     | —                                 |
| Macrogol 8 stearate type I                | 20.05                     | —                                 |
| Shea butter, refined                      | 21.55                     | —                                 |
| Triglycerides, medium-chain               | 22.20                     | —                                 |
| Olive oil, native                         | 24.03                     | —                                 |
| Pasta Cordes <sup>®</sup>                 | 24.13                     | —                                 |
| 2-ethylhexyl laurate                      | 24.85                     | —                                 |
| Apricot kernel oil, refined               | 24.97                     | —                                 |
| Peanut oil, refined                       | 25.79                     | —                                 |
| Avocado oil, refined                      | 27.09                     | —                                 |
| Laurel oil                                | 29.94                     | —                                 |
| Jojoba Oil, native                        | 31.10                     | —                                 |
| Oleyl oleate (stabilised)                 | 31.95                     | —                                 |
| Triglycerol diisostearate                 | 33.26                     | —                                 |
| Camphor ointment                          | 33.38                     | —                                 |
| Permethrin 25% solution                   | 33.76                     | —                                 |
| Sorbitan trioleate                        | 35.94                     | —                                 |
| Metronidazole 25% in white petrolatum     | 36.89                     | —                                 |
| Isopropyl palmitate                       | 38.33                     | —                                 |
| Almond oil, refined                       | 38.73                     | —                                 |
| Sesame oil, refined                       | 39.62                     | —                                 |
| Rapeseed oil, refined                     | 41.37                     | —                                 |
| Lauromacrogol 400                         | 42.50                     | —                                 |
| Macrogolglycerol hydroxystearate 40       | 43.66                     | —                                 |
| Guaiazulene 25%, water-soluble            | 44.68                     | —                                 |
| Polysorbate 60                            | 45.75                     | —                                 |
| Salicylic acid concentrate 5%, white p... | 50.28                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Paraffin classification* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30932     | 30932               | 0.00                         | 17.37                           |
| 30933     | 30933               | 0.00                         | 16.27                           |
| 31009     | 31941               | 3.41                         | 25.33                           |
| 31010     | 31940               | 3.89                         | 26.13                           |
| 31168     | 31446               | 2.90                         | 26.34                           |
| 31174     | 31174               | 0.00                         | 29.51                           |
| 31228     | 31228               | 0.00                         | 32.32                           |
| 31272     | 31272               | 0.00                         | 33.65                           |
| 31437     | 31916               | 1.88                         | 26.85                           |
| 31441     | 32017               | 7.17                         | 30.94                           |
| 31445     | 31610               | 3.33                         | 27.99                           |
| 31446     | 31446               | 0.00                         | 25.38                           |
| 31456     | 31456               | 0.00                         | 39.08                           |
| 31468     | 31916               | 3.55                         | 25.93                           |
| 31473     | 31473               | 0.00                         | 21.11                           |
| 31522     | 31522               | 0.00                         | 26.81                           |
| 31541     | 31736               | 9.34                         | 28.27                           |
| 31567     | 31909               | 7.33                         | 39.42                           |
| 31570     | 31570               | 0.00                         | 20.68                           |
| 31586     | 31736               | 9.93                         | 28.88                           |
| 31590     | 31736               | 8.44                         | 29.10                           |
| 31601     | 32495               | 3.16                         | 24.66                           |
| 31602     | 31602               | 0.00                         | 32.86                           |
| 31610     | 31610               | 0.00                         | 28.72                           |
| 31611     | 31909               | 5.33                         | 40.19                           |
| 31612     | 31456               | 5.83                         | 40.09                           |
| 31736     | 31736               | 0.00                         | 25.90                           |
| 31744     | 31744               | 0.00                         | 26.75                           |
| 31807     | 31602               | 4.30                         | 33.80                           |
| 31909     | 31909               | 0.00                         | 39.64                           |
| 31910     | 31910               | 0.00                         | 40.54                           |
| 31916     | 31916               | 0.00                         | 25.30                           |
| 31917     | 31917               | 0.00                         | 26.76                           |
| 31918     | 31918               | 0.00                         | 26.76                           |
| 31920     | 31920               | 0.00                         | 17.64                           |
| 31921     | 31921               | 0.00                         | 33.99                           |
| 31940     | 31940               | 0.00                         | 22.76                           |
| 31941     | 31941               | 0.00                         | 22.88                           |
| 31949     | 31744               | 1.48                         | 25.64                           |
| 31954     | 31602               | 2.42                         | 32.50                           |
| 31999     | 31999               | 0.00                         | 26.45                           |
| 32017     | 32017               | 0.00                         | 32.88                           |
| 32495     | 32495               | 0.00                         | 31.32                           |
| 32517     | 32517               | 0.00                         | 30.32                           |
| 32518     | 32518               | 0.00                         | 27.12                           |
| 32519     | 32519               | 0.00                         | 26.48                           |
| 32777     | 32777               | 0.00                         | 26.70                           |
| 32900     | 32900               | 0.00                         | 27.49                           |
| 32946     | 31174               | 6.55                         | 26.82                           |
| 32947     | 31999               | 8.97                         | 24.24                           |
| 33124     | 33124               | 0.00                         | 27.97                           |
| 33132     | 33132               | 0.00                         | 26.26                           |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 33133            | 33133                      | 0.00                                | 25.38                                  |
| 33396            | 33396                      | 0.00                                | 17.54                                  |
| 33398            | 33398                      | 0.00                                | 18.37                                  |
| 33399            | 33399                      | 0.00                                | 18.01                                  |
| 33545            | 33545                      | 0.00                                | 23.73                                  |
| 33614            | 34799                      | 5.20                                | 34.47                                  |
| 34160            | 34160                      | 0.00                                | 18.70                                  |
| 34433            | 31736                      | 12.89                               | 30.36                                  |
| 34498            | 34498                      | 0.00                                | 32.05                                  |
| 34509            | 31917                      | 4.15                                | 33.55                                  |
| 34510            | 34498                      | 8.93                                | 31.88                                  |
| 34511            | 31744                      | 3.70                                | 28.62                                  |
| 34542            | 34542                      | 0.00                                | 35.26                                  |
| 34545            | 34545                      | 0.00                                | 23.57                                  |
| 34550            | 34550                      | 0.00                                | 22.00                                  |
| 34551            | 34552                      | 2.98                                | 26.06                                  |
| 34552            | 34552                      | 0.00                                | 24.13                                  |
| 34553            | 34553                      | 0.00                                | 17.12                                  |
| 34555            | 34555                      | 0.00                                | 21.52                                  |
| 34559            | 34552                      | 3.72                                | 23.44                                  |
| 34675            | 35986                      | 6.06                                | 42.50                                  |
| 34678            | 32017                      | 8.55                                | 28.57                                  |
| 34679            | 34498                      | 5.07                                | 31.70                                  |
| 34799            | 34799                      | 0.00                                | 37.79                                  |
| 34813            | 34813                      | 0.00                                | 32.89                                  |
| 34838            | 32517                      | 4.24                                | 28.67                                  |
| 34844            | 32517                      | 4.71                                | 28.09                                  |
| 34858            | 34859                      | 4.67                                | 23.90                                  |
| 34859            | 34859                      | 0.00                                | 25.01                                  |
| 34860            | 34860                      | 0.00                                | 28.62                                  |
| 34861            | 34861                      | 0.00                                | 27.32                                  |
| 34865            | 34865                      | 0.00                                | 27.22                                  |
| 34867            | 34861                      | 4.05                                | 26.56                                  |
| 34980            | 34980                      | 0.00                                | 19.89                                  |
| 35103            | 31918                      | 4.51                                | 34.23                                  |
| 35324            | 35324                      | 0.00                                | 29.83                                  |
| 35362            | 35362                      | 0.00                                | 34.99                                  |
| 35378            | 35378                      | 0.00                                | 19.48                                  |
| 35518            | 35518                      | 0.00                                | 18.08                                  |
| 35607            | 35607                      | 0.00                                | 17.96                                  |
| 35848            | 31174                      | 8.49                                | 27.48                                  |
| 35986            | 35986                      | 0.00                                | 43.78                                  |
| 36140            | 36140                      | 0.00                                | 22.87                                  |
| 36155            | 36155                      | 0.00                                | 32.84                                  |
| 36199            | 31228                      | 4.17                                | 28.99                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical

variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Pasta Cordes®**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30633-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Pasta Cordes®

### Special notes

When selecting the *Pasta Cordes®* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Pasta Cordes®             | 6      | 3      | 44     |

## Second-stage model

For differentiation of the substance/substance group *Pasta Cordes*<sup>®</sup> the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Pasta Cordes*<sup>®</sup>:

| Supplier | Substance                 | Batch   | Sample ID | Spectra | Certificate |
|----------|---------------------------|---------|-----------|---------|-------------|
| Ichthyol | Pasta Cordes <sup>®</sup> | 12A008  | 30633     | 40      | 20121017    |
| Ichthyol | Pasta Cordes <sup>®</sup> | 13A056  | 31084     | 40      | 1406053     |
| Ichthyol | Pasta Cordes <sup>®</sup> | 13A056  | 31673     | 60      | 20130411    |
| Ichthyol | Pasta Cordes <sup>®</sup> | 16A063  | 33285     | 40      | 20160427    |
| Ichthyol | Pasta Cordes <sup>®</sup> | 18A129  | 34484     | 40      | 20180816    |
| Ichthyol | Pasta Cordes <sup>®</sup> | 20A0187 | 35104     | 40      | 20200925    |
| Ichthyol | Pasta Cordes <sup>®</sup> | 20A0050 | 35105     | 40      | 20200313    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 300 spectra of 7 reference samples from the substance/substance group *Pasta Cordes*<sup>®</sup>. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 859 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Pasta Cordes*<sup>®</sup>.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                 | Batch   | Sample ID | Spectra |
|----------|---------------------------|---------|-----------|---------|
| Ichthyol | Pasta Cordes <sup>®</sup> | 17A173  | 34046     | 40      |
| Ichthyol | Pasta Cordes <sup>®</sup> | 17A021  | 34321     | 40      |
| Ichthyol | Pasta Cordes <sup>®</sup> | 19A0101 | 34841     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 606 spectra from 203 *Apo-Ident* customers from 53 batches from the substance/substance group *Pasta Cordes<sup>®</sup>*.
- Among them are spectra of independent samples from 44 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance                 | Batch    | Spectra |
|---------------------|---------------------------|----------|---------|
| AEP                 | Pasta Cordes <sup>®</sup> | 19A0101  | 1       |
| AHL                 | Pasta Cordes <sup>®</sup> | 17A021   | 1       |
| Alliance/ICHTHYOL   | Pasta Cordes <sup>®</sup> | 17A173   | 1       |
| Anzag/Ichthyol      | Pasta Cordes <sup>®</sup> | 17A173   | 2       |
| Caelo               | Pasta Cordes <sup>®</sup> | 11A206   | 2       |
| Caelo               | Pasta Cordes <sup>®</sup> | 12A182   | 2       |
| Caelo               | Pasta Cordes <sup>®</sup> | 12AD43   | 1       |
| Caelo               | Pasta Cordes <sup>®</sup> | 13A056   | 1       |
| Caelo               | Pasta Cordes <sup>®</sup> | 15A173   | 1       |
| Caelo               | Pasta Cordes <sup>®</sup> | 15A173   | 5       |
| Caelo               | Pasta Cordes <sup>®</sup> | 160822PC | 2       |
| Caelo               | Pasta Cordes <sup>®</sup> | 16A063   | 3       |
| Caelo               | Pasta Cordes <sup>®</sup> | 16A098   | 4       |
| Caelo               | Pasta Cordes <sup>®</sup> | 17A021   | 6       |
| Caelo               | Pasta Cordes <sup>®</sup> | 17A058   | 5       |
| Caelo               | Pasta Cordes <sup>®</sup> | 17A172   | 1       |
| Cordes / Phönix     | Pasta Cordes <sup>®</sup> | 15A173   | 1       |
| cordes hermann & co | Pasta Cordes <sup>®</sup> | 18A129   | 1       |
| Cordes Noweda       | Pasta Cordes <sup>®</sup> | 17A021   | 2       |
| Cordes/AHD          | Pasta Cordes <sup>®</sup> | 13A056   | 1       |
| Cordes/Gehe         | Pasta Cordes <sup>®</sup> | 14A025   | 1       |
| Cordes/GEHE         | Pasta Cordes <sup>®</sup> | 15A173   | 1       |
| Cordes/Gehe         | Pasta Cordes <sup>®</sup> | 17A021   | 1       |
| cordes/noweda       | Pasta Cordes <sup>®</sup> | 20A0047  | 2       |
| Cordes              | Pasta Cordes <sup>®</sup> | 17A021   | 1       |
| Cordes              | Pasta Cordes <sup>®</sup> | 17A021   | 1       |
| Ebert & Jacobi      | Pasta Cordes <sup>®</sup> | 17A172   | 1       |
| Ebert & Jacobi      | Pasta Cordes <sup>®</sup> | 19A0101  | 1       |
| Euro OTC            | Pasta Cordes <sup>®</sup> | 15A173   | 1       |
| Euro OTC            | Pasta Cordes <sup>®</sup> | 16A098   | 1       |
| Euro OTC            | Pasta Cordes <sup>®</sup> | 17A172   | 1       |
| Fagron              | Pasta Cordes <sup>®</sup> | 17A021   | 1       |
| Fischer/Gehe        | Pasta Cordes <sup>®</sup> | 14A142   | 3       |
| Gehe/Ichthyol       | Pasta Cordes <sup>®</sup> | 15A173   | 1       |
| Gehe/Ichthyol       | Pasta Cordes <sup>®</sup> | 19A0101  | 2       |

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| <b>Supplier</b>                | <b>Substance</b> | <b>Batch</b>    | <b>Spectra</b> |
|--------------------------------|------------------|-----------------|----------------|
| Gehe/Phönix                    | Pasta Cordes®    | 17A173          | 1              |
| GEHE                           | Pasta Cordes®    | 17A173          | 1              |
| Geibo/Ichthyol-Gesellsch. . .  | Pasta Cordes®    | 17A058          | 1              |
| Geibo11.06.19                  | Pasta Cordes®    | 17A173          | 1              |
| Hermann                        | Pasta Cordes®    | 20A0050         | 3              |
| Ichthol/ Noweda                | Pasta Cordes®    | 16A098          | 1              |
| Ichthy/Ebert                   | Pasta Cordes®    | 20A0047         | 1              |
| Ichthy/Sanacorp                | Pasta Cordes®    | 18A181          | 1              |
| Ichthyol-Gesellschaft          | Pasta Cordes®    | 20A0050         | 1              |
| Ichthyol / AHD                 | Pasta Cordes®    | 14A142          | 1              |
| Ichthyol / AHD                 | Pasta Cordes®    | 19A115          | 1              |
| Ichthyol / Gehe                | Pasta Cordes®    | 12A182          | 1              |
| Ichthyol / Gehe                | Pasta Cordes®    | 18A129          | 1              |
| Ichthyol / Noweda              | Pasta Cordes®    | 14A142          | 1              |
| Ichthyol / Noweda              | Pasta Cordes®    | 18A129          | 2              |
| Ichthyol / Phönix 20.07. . .   | Pasta Cordes®    | 17A173          | 1              |
| ichthyol /AHD                  | Pasta Cordes®    | 17A0215744      | 1              |
| Ichthyol /Gehe                 | Pasta Cordes®    | 12A182          | 1              |
| Ichthyol /Noweda               | Pasta Cordes®    | 12A182          | 1              |
| Ichthyol /Noweda               | Pasta Cordes®    | 13A056          | 3              |
| Ichthyol /Noweda               | Pasta Cordes®    | 17A173          | 2              |
| Ichthyol Cordes/Phoenix        | Pasta Cordes®    | 15A173          | 3              |
| Ichthyol- G.                   | Pasta Cordes®    | 19A0101         | 1              |
| Ichthyol ges                   | Pasta Cordes®    | 14A199          | 1              |
| Ichthyol Gesellschaft / . . .  | Pasta Cordes®    | 17A173          | 1              |
| Ichthyol Gesellschaft / . . .  | Pasta Cordes®    | 180308PC/16A064 | 1              |
| Ichthyol Gesellschaft C . . .  | Pasta Cordes®    | 16A098          | 1              |
| Ichthyol Gesellschaft C . . .  | Pasta Cordes®    | 14A124          | 1              |
| Ichthyol Gesellschaft C . . .  | Pasta Cordes®    | 17A058          | 1              |
| Ichthyol Gesellschaft C . . .  | Pasta Cordes®    | 19A0101         | 1              |
| Ichthyol Gesellschaft C . . .  | Pasta Cordes®    | 20A0050         | 1              |
| Ichthyol Gesellschaft/ . . .   | Pasta Cordes®    | 19A1152x        | 1              |
| Ichthyol Gesellschaft/ . . .   | Pasta Cordes®    | 16A098          | 1              |
| ichthyol gesellschaft/A . . .  | Pasta Cordes®    | 20A0050         | 1              |
| Ichthyol Gesellschaft/C . . .  | Pasta Cordes®    | 18A129          | 1              |
| Ichthyol Gesellschaft/G . . .  | Pasta Cordes®    | 16A063          | 1              |
| Ichthyol Gesellschaft/G . . .  | Pasta Cordes®    | 17A021          | 1              |
| Ichthyol Gesellschaft/K . . .  | Pasta Cordes®    | 15A121          | 1              |
| Ichthyol Gesellschaft/N . . .  | Pasta Cordes®    | 17A173          | 1              |
| ICHTHYOL Gesellschaft/N . . .  | Pasta Cordes®    | 18A129          | 4              |
| Ichthyol Gesellschaft/P . . .  | Pasta Cordes®    | 19A115          | 1              |
| Ichthyol Gesellschaft/P . . .  | Pasta Cordes®    | 17A058          | 1              |
| Ichthyol Gesellschaft/P . . .  | Pasta Cordes®    | 20A0050         | 1              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 13A056          | 2              |
| ichthyol gesellschaft          | Pasta Cordes®    | 13A098          | 1              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 15A121          | 2              |
| Ichthyol- Gesellschaft         | Pasta Cordes®    | 15A173          | 2              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 16A063          | 2              |
| Ichthyol- Gesellschaft         | Pasta Cordes®    | 16A098          | 2              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 17A021          | 1              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 17A173          | 1              |
| ichthyol gesellschaft          | Pasta Cordes®    | 18A129          | 1              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 18A129          | 3              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 19A115          | 1              |
| ichthyol gesellschaft          | Pasta Cordes®    | 20A0187         | 1              |
| Ichthyol Gesellschaft          | Pasta Cordes®    | 17A173          | 1              |
| Ichthyol Gesellschaft Co . . . | Pasta Cordes®    | 14A142          | 1              |
| Ichthyol Gesellschaft Co . . . | Pasta Cordes®    | 19A115          | 1              |
| Ichthyol gmbH/Phönix           | Pasta Cordes®    | 20A0050         | 1              |
| Ichthyol GmbH                  | Pasta Cordes®    | 16A098          | 1              |

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| Supplier                   | Substance                 | Batch   | Spectra |
|----------------------------|---------------------------|---------|---------|
| Ichthyol gmbH              | Pasta Cordes <sup>®</sup> | 18A129  | 1       |
| Ichthyol/ AHD              | Pasta Cordes <sup>®</sup> | 17A173  | 3       |
| Ichthyol/ Gehe             | Pasta Cordes <sup>®</sup> | 19A115  | 1       |
| Ichthyol/ Krieger          | Pasta Cordes <sup>®</sup> | 15A173  | 1       |
| Ichthyol/ Krieger          | Pasta Cordes <sup>®</sup> | 17A021  | 1       |
| Ichthyol/ Krieger          | Pasta Cordes <sup>®</sup> | 18A129  | 2       |
| Ichthyol/ Noweda           | Pasta Cordes <sup>®</sup> | 14A025  | 1       |
| Ichthyol/ Noweda           | Pasta Cordes <sup>®</sup> | 18A129  | 1       |
| Ichthyol/ Phönix           | Pasta Cordes <sup>®</sup> | 14A142  | 1       |
| Ichthyol/AHD               | Pasta Cordes <sup>®</sup> | 16A063  | 1       |
| Ichthyol/AHD               | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| Ichthyol/AHD               | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| Ichthyol/Allia             | Pasta Cordes <sup>®</sup> | 20A0050 | 1       |
| Ichthyol/Alliance Healt... | Pasta Cordes <sup>®</sup> | 17A058  | 1       |
| Ichthyol/Alliance          | Pasta Cordes <sup>®</sup> | 16A063  | 2       |
| Ichthyol/Alliance          | Pasta Cordes <sup>®</sup> | 19A115  | 5       |
| Ichthyol/E&J               | Pasta Cordes <sup>®</sup> | 17A021  | 1       |
| Ichthyol/Ebert             | Pasta Cordes <sup>®</sup> | 13A098  | 1       |
| Ichthyol/Fiebig 30.04...   | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 13A056  | 1       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 14A124  | 2       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 14A142  | 2       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 16A098  | 1       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 17A021  | 2       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 17A173  | 2       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 18A129  | 2       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 19A0101 | 3       |
| Ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 19A115  | 1       |
| ichthyol/Fiebig            | Pasta Cordes <sup>®</sup> | 20A0187 | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 11A206  | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 12A043  | 2       |
| ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 12A182  | 2       |
| ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 13A098  | 3       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 13A098  | 1       |
| ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 13A146  | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 14A025  | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 14A124  | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 14A199  | 14      |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 16A064  | 21      |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 17A021  | 2       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 17A058  | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 18A129  | 2       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| Ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 20A0050 | 1       |
| ichthyol/Gehe              | Pasta Cordes <sup>®</sup> | 20A0187 | 3       |
| Ichthyol/Krieger           | Pasta Cordes <sup>®</sup> | 17A172  | 1       |
| Ichthyol/Krieger           | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| Ichthyol/Krieger           | Pasta Cordes <sup>®</sup> | 19A115  | 1       |
| Ichthyol/Krieger           | Pasta Cordes <sup>®</sup> | 20A0050 | 2       |
| Ichthyol/Noedea            | Pasta Cordes <sup>®</sup> | 17A021  | 1       |
| Ichthyol/Now               | Pasta Cordes <sup>®</sup> | 17A021  | 1       |
| Ichthyol/Now               | Pasta Cordes <sup>®</sup> | 18A129  | 1       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 14A025  | 1       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 15A173  | 1       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 16A098  | 1       |
| ICHTHYOL/Noweda            | Pasta Cordes <sup>®</sup> | 16A098  | 2       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 17A021  | 5       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 17A058  | 1       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 17A172  | 1       |

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| Supplier                   | Substance                 | Batch   | Spectra |
|----------------------------|---------------------------|---------|---------|
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 17A173  | 4       |
| ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 18A129  | 1       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 18A129  | 3       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 18A181  | 4       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 19A115  | 2       |
| Ichthyol/Noweda            | Pasta Cordes <sup>®</sup> | 20A0050 | 2       |
| ICHTHYOL/Noweda            | Pasta Cordes <sup>®</sup> | 20A0050 | 1       |
| Ichthyol/OG                | Pasta Cordes <sup>®</sup> | 15A173  | 1       |
| Ichthyol/P                 | Pasta Cordes <sup>®</sup> | 17A058  | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 12A182  | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 13A056  | 3       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 14A025  | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 14A124  | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 15A121  | 5       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 16A063  | 4       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 16A064  | 3       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 16A098  | 3       |
| ichthyol/phoenix           | Pasta Cordes <sup>®</sup> | 17A021  | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 17A021  | 2       |
| ichthyol/phoenix           | Pasta Cordes <sup>®</sup> | 17A058  | 1       |
| Ichthyol/phoenix           | Pasta Cordes <sup>®</sup> | 17A058  | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 17A058  | 4       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 18A129  | 3       |
| ichthyol/phoenix           | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 20A0187 | 1       |
| Ichthyol/Phoenix           | Pasta Cordes <sup>®</sup> | 3A172   | 1       |
| Ichthyol/Phönix WE:2804. . | Pasta Cordes <sup>®</sup> | 15A121  | 1       |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 14A025  | 1       |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 14A124  | 1       |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 14A142  | 10      |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 16A063  | 1       |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 17A173  | 7       |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 19A0101 | 5       |
| IchThyol/Phönix            | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 19A115  | 4       |
| Ichthyol/Phönix            | Pasta Cordes <sup>®</sup> | 20A0187 | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 12A138  | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 12A182  | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 14A142  | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 15A121  | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 15A173  | 3       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 16A098  | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 17A058  | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| Ichthyol/Sanacorp          | Pasta Cordes <sup>®</sup> | 19A115  | 1       |
| Ichthyol/Virchow           | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| ICHTHYOL                   | Pasta Cordes <sup>®</sup> | 10A187  | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 12A008  | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 12A182  | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 13A056  | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 13A098  | 5       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 14A025  | 3       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 14A124  | 6       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 14A12A  | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 14A142  | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 14A199  | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 15A121  | 3       |

continued on the next page



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| Supplier                   | Substance                 | Batch      | Spectra |
|----------------------------|---------------------------|------------|---------|
| ICHTHYOL                   | Pasta Cordes <sup>®</sup> | 15A121     | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 15A173     | 3       |
| ichthyol                   | Pasta Cordes <sup>®</sup> | 15A1735338 | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 16A063     | 4       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 16A064     | 1       |
| ICHTHYOL                   | Pasta Cordes <sup>®</sup> | 16A064     | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 16A098     | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 17A021     | 5       |
| ichthyol                   | Pasta Cordes <sup>®</sup> | 17A0215503 | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 17A172     | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 17A173     | 10      |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 18A129     | 6       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 18A181     | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 19A0101    | 3       |
| ichthyol                   | Pasta Cordes <sup>®</sup> | 19A115     | 1       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 19A115     | 6       |
| Ichthyol                   | Pasta Cordes <sup>®</sup> | 20A0050    | 1       |
| ICHTHYOL GESELLSCHAFT      | Pasta Cordes <sup>®</sup> | 20A0050    | 1       |
| Ichthyol-Alliance          | Pasta Cordes <sup>®</sup> | 17A058     | 1       |
| ICHTHYOL-G./Noweda         | Pasta Cordes <sup>®</sup> | 19A115     | 1       |
| Ichthyol-Ges./Noweda       | Pasta Cordes <sup>®</sup> | 18A129     | 1       |
| Ichthyol-Ges./Noweda       | Pasta Cordes <sup>®</sup> | 19A0101    | 1       |
| Ichthyol-Ges./Noweda       | Pasta Cordes <sup>®</sup> | 20A0050    | 1       |
| Ichthyol-Ges./Phönix       | Pasta Cordes <sup>®</sup> | 17A173     | 1       |
| Ichthyol-Ges./Phönix       | Pasta Cordes <sup>®</sup> | 19A0101    | 1       |
| Ichthyol-Ges./Sanac.       | Pasta Cordes <sup>®</sup> | 16A063     | 1       |
| Ichthyol-Ges./Sanac.       | Pasta Cordes <sup>®</sup> | 17A173     | 2       |
| Ichthyol-Gesellschaft      | Pasta Cordes <sup>®</sup> | 19A0101    | 1       |
| ICHTHYOL-GESELLSCHAFT      | Pasta Cordes <sup>®</sup> | 15A121     | 1       |
| Ichthyol-Gesellschaft /... | Pasta Cordes <sup>®</sup> | 17A173     | 1       |
| Ichthyol-Gesellschaft /... | Pasta Cordes <sup>®</sup> | 17A173     | 1       |
| ICHTHYOL-Gesellschaft /... | Pasta Cordes <sup>®</sup> | 17A173     | 1       |
| IchthyolGesellschaft Co... | Pasta Cordes <sup>®</sup> | 19A0101    | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 14A124     | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 20A0187    | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 13A098     | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 13A146     | 3       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 14A025     | 2       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 14a124     | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 14A124     | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 14A199     | 4       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 15A173     | 2       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 16A064     | 2       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 17A021     | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 20A0050    | 2       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 18A129     | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 20A0050    | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 17A173     | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 18A129     | 2       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 19A0101    | 1       |
| Ichthyol-Gesellschaft C... | Pasta Cordes <sup>®</sup> | 19A115     | 1       |
| Ichthyolgesellschaft/ K... | Pasta Cordes <sup>®</sup> | 19A115     | 4       |
| ICHTHYOL-GESELLSCHAFT/P... | Pasta Cordes <sup>®</sup> | 17A173     | 1       |
| ICHTHYOL-Gesellschaft/P... | Pasta Cordes <sup>®</sup> | 18A129     | 2       |
| ICHTHYOL-Gesellschaft/P... | Pasta Cordes <sup>®</sup> | 20A0050    | 1       |
| Ichthyol-Gesellschaft/s... | Pasta Cordes <sup>®</sup> | 16A063     | 5       |
| Ichthyol-Gesellschaft/S... | Pasta Cordes <sup>®</sup> | 16A098     | 1       |
| Ichthyol-Gesellschaft/S... | Pasta Cordes <sup>®</sup> | 17A021     | 2       |
| Ichthyol-Gesellschaft      | Pasta Cordes <sup>®</sup> | 130819B    | 1       |
| Ichthyol-Gesellschaft      | Pasta Cordes <sup>®</sup> | 13A056     | 1       |

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| Supplier                    | Substance     | Batch           | Spectra |
|-----------------------------|---------------|-----------------|---------|
| Ichthyol-Gesellschaft       | Pasta Cordes® | 14A025          | 1       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 14A124          | 1       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 15A121          | 1       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 15A173          | 1       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 16A063          | 1       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 170102PC/15A173 | 1       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 17A021          | 2       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 17A058          | 1       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 17A173          | 2       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 18A129          | 7       |
| ICHTHYOL-GESELLSCHAFT       | Pasta Cordes® | 19A115          | 2       |
| Ichthyol-Gesellschaft       | Pasta Cordes® | 19A129          | 1       |
| Ichthyol-Gesellschaft/AHD   | Pasta Cordes® | 17A058          | 1       |
| Ichthyol-Gesellschaft/Ph... | Pasta Cordes® | 17A173          | 1       |
| Ichthyol Gesellschaft       | Pasta Cordes® | 14A142          | 1       |
| Ichthyol Gesellschaft       | Pasta Cordes® | 16A063          | 1       |
| Ichthyol/AHD                | Pasta Cordes® | 15A173          | 1       |
| Ichthyol/Phoenix            | Pasta Cordes® | 19A115          | 2       |
| ICHTYOL GESELLSCHAFT Co...  | Pasta Cordes® | 15A121          | 1       |
| Ichtyol- Gesellschaft C...  | Pasta Cordes® | 17A021          | 1       |
| Ichtyol Gesellschaft/ N...  | Pasta Cordes® | 17A173          | 4       |
| Ichtyol Gesellschaft/ N...  | Pasta Cordes® | 19A115          | 1       |
| Ichtyol Noweda              | Pasta Cordes® | 19A0101         | 1       |
| Ichtyol/Gehe                | Pasta Cordes® | 17A173          | 2       |
| Ichtyol/Gehe                | Pasta Cordes® | 19A115          | 1       |
| Ichtyol/Noweda              | Pasta Cordes® | 16A063          | 1       |
| Ichtyol/Noweda              | Pasta Cordes® | 19A0101         | 1       |
| Ichtyol/Phoenix             | Pasta Cordes® | 15A173          | 1       |
| Ichtyol/Phoenix             | Pasta Cordes® | 17A021          | 4       |
| Ichtyol/Phoenix             | Pasta Cordes® | 19A115          | 2       |
| Ichtyol/Phönix              | Pasta Cordes® | 18A129          | 1       |
| Ichtyol/Sanacorp            | Pasta Cordes® | 18A129          | 1       |
| Ichtyol                     | Pasta Cordes® | 15A121          | 1       |
| ichtyol-gesellschaft co...  | Pasta Cordes® | 17A021          | 3       |
| Ichtyol-Gesellschaft        | Pasta Cordes® | 14A124          | 1       |
| Ichtyol-Gesellschaft        | Pasta Cordes® | 14A142          | 1       |
| Ichtyol-Gesellschaft        | Pasta Cordes® | 16A063          | 1       |
| Ichtyol-Gesellschaft        | Pasta Cordes® | 17A021          | 2       |
| Ichtyol-Gesellschaft        | Pasta Cordes® | 17A172          | 1       |
| Ichtyol-Gesellschaft        | Pasta Cordes® | 17A173          | 5       |
| jchthyol / Ahd              | Pasta Cordes® | 17A0215656      | 1       |
| Noweda/Ichthyol             | Pasta Cordes® | 20A0050         | 1       |
| Noweda/Ichthyol             | Pasta Cordes® | 17A021          | 2       |
| Noweda/Ichthyol             | Pasta Cordes® | 15A173          | 1       |
| Noweda/Ichthyol             | Pasta Cordes® | 17A058          | 1       |
| Noweda/Ichthyol             | Pasta Cordes® | 20A0050         | 1       |
| Noweda                      | Pasta Cordes® | 13A056          | 1       |
| Noweda                      | Pasta Cordes® | 17A021          | 1       |
| Noweda                      | Pasta Cordes® | 17A173          | 2       |
| Noweda                      | Pasta Cordes® | 18A129          | 1       |
| Noweda                      | Pasta Cordes® | 19A115          | 2       |
| Noweda-Ichthyol             | Pasta Cordes® | 15A121          | 1       |
| Ph/Cordes                   | Pasta Cordes® | 16A129          | 1       |
| Ph/Ichthyol                 | Pasta Cordes® | 17A021          | 1       |
| Phoenix                     | Pasta Cordes® | 12A043          | 1       |
| Phoenix                     | Pasta Cordes® | 3386            | 1       |
| phönix/ Ichthyol            | Pasta Cordes® | 15A129          | 1       |
| Phönix/Ichthyol             | Pasta Cordes® | 15A121          | 2       |
| Phönix/Ichthyol             | Pasta Cordes® | 15A173          | 1       |
| Phönix/Ichthyol             | Pasta Cordes® | 16A098          | 1       |

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| Supplier                   | Substance                 | Batch   | Spectra |
|----------------------------|---------------------------|---------|---------|
| Phönix/Ichthyol            | Pasta Cordes <sup>®</sup> | 17A021  | 2       |
| Phönix/Ichthyol            | Pasta Cordes <sup>®</sup> | 17A058  | 2       |
| Phönix/Ichthyol            | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| Phönix/Ichthyol            | Pasta Cordes <sup>®</sup> | 1817129 | 1       |
| Phönix                     | Pasta Cordes <sup>®</sup> | 12A182  | 1       |
| Phönix                     | Pasta Cordes <sup>®</sup> | 17A021  | 1       |
| Phönix                     | Pasta Cordes <sup>®</sup> | 17A173  | 1       |
| Phönix                     | Pasta Cordes <sup>®</sup> | 3146    | 1       |
| Römerapo.                  | Pasta Cordes <sup>®</sup> | 14A124  | 4       |
| Sanacorp / Ichthyolges...  | Pasta Cordes <sup>®</sup> | 14A124  | 1       |
| Sanacorp/Ichthyol          | Pasta Cordes <sup>®</sup> | 9A1151  | 1       |
| Sanacorp                   | Pasta Cordes <sup>®</sup> | 16A063  | 1       |
| Sanacorp                   | Pasta Cordes <sup>®</sup> | 19A0101 | 1       |
| WE 28.11.16 Cordes/Phoe... | Pasta Cordes <sup>®</sup> | 15A173  | 1       |

- 288 103 spectra from 1294 *Apo-Ident* customers from a total of 51 836 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Pasta Cordes*<sup>®</sup> can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Pasta Cordes*<sup>®</sup> and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 300           | 0              | 66 859        |
| <b>Type B</b> | 0              | 120           | 0              | 107 215       |
| <b>Type C</b> | 0              | 593           | 13             | 287 725       |

The substance/substance group *Pasta Cordes*<sup>®</sup> can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6831 %) | 97.8548 % (> 97.3597 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Pasta Cordes*<sup>®</sup> in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                      | Distance in<br>main model | Distance in<br>second-stage model |
|--------------------------------|---------------------------|-----------------------------------|
| Guaiazulene 25%, water-soluble | 29.39                     | —                                 |
| Macrogol 8 stearate type I     | 39.29                     | —                                 |
| Shea butter, refined           | 42.76                     | —                                 |
| Softisan <sup>®</sup> 649      | 44.29                     | —                                 |
| Permethrin 25% solution        | 49.11                     | —                                 |
| Polysorbate 60                 | 56.40                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Pasta Cordes*<sup>®</sup> is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30633     | 31084                  | 4.46                            | 34.38                              |
| 31084     | 31084                  | 0.00                            | 35.42                              |
| 31673     | 31084                  | 6.88                            | 36.19                              |
| 33285     | 31084                  | 4.88                            | 34.84                              |
| 34484     | 31084                  | 4.85                            | 36.93                              |
| 35104     | 31084                  | 10.96                           | 39.45                              |
| 35105     | 31084                  | 8.44                            | 39.18                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Permethrin 25% solution</b>                                   |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 31177-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Permethrin 25% solution

### Special notes

When selecting the *Permethrin 25% solution* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Permethrin 25% solution   | 6      | 2      | 91     |

## Second-stage model

For differentiation of the substance/substance group *Permethrin 25% solution* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Permethrin 25% solution*:

| Supplier     | Substance           | Batch     | Sample ID | Spectra | Certificate |
|--------------|---------------------|-----------|-----------|---------|-------------|
| Infectopharm | Permethrin 25% s... | S031301.1 | 31177     | 40      | 1405128     |
| Infectopharm | Permethrin 25% s... | S061401.1 | 31563     | 60      | 1508108     |
| Infectopharm | Permethrin 25% s... | S021601.1 | 32262     | 40      | 20160310    |
| Infectopharm | Permethrin 25% s... | S021601.1 | 32263     | 40      | 20160310    |
| Infectopharm | Permethrin 25% s... | S071602.1 | 33246     | 40      | 20160728    |
| Infectopharm | Permethrin 25% s... | S071602.1 | 33247     | 40      | 20160728    |
| Infectopharm | Permethrin 25% s... | S071602.1 | 33301     | 40      | 20160728    |
| Infectopharm | Permethrin 25% s... | S071602.1 | 33302     | 40      | 20160728    |
| Infectopharm | Permethrin 25% s... | S071602.1 | 33328     | 40      | 20160728    |
| Infectopharm | Permethrin 25% s... | S021801.1 | 34120     | 40      | 20180301    |
| Infectopharm | Permethrin 25% s... | S021801.1 | 34121     | 40      | 20180301    |
| Infectopharm | Permethrin 25% s... | S041901.1 | 34692     | 40      | 20190426    |
| Infectopharm | Permethrin 25% s... | S041901.1 | 34693     | 40      | 20190426    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 540 spectra of 13 reference samples from the substance/substance group *Permethrin 25% solution*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 619 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Permethrin 25% solution*.

- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier     | Substance               | Batch     | Sample ID | Spectra |
|--------------|-------------------------|-----------|-----------|---------|
| Infectopharm | Permethrin 25% solution | S041701.2 | 33940     | 40      |
| Infectopharm | Permethrin 25% solution | S122001.1 | 35454     | 40      |
| Infectopharm | Permethrin 25% solution | S041701.2 | 33941     | 40      |
| Infectopharm | Permethrin 25% solution | S122001.1 | 35455     | 40      |

- 107 203 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 684 spectra from 222 *Apo-Ident* customers from 110 batches from the substance/substance group *Permethrin 25% solution*.
- Among them are spectra of independent samples from 49 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance               | Batch    | Spectra |
|----------------------------|-------------------------|----------|---------|
|                            | Permethrin 25% solution |          | 1       |
| AHD / Infectopharm         | Permethrin 25% solution |          | 1       |
| AHD / Infectopharm         | Permethrin 25% solution | S0216011 | 1       |
| Anzag (Hersteller: Infe... | Permethrin 25% solution |          | 1       |
| Anzag                      | Permethrin 25% solution |          | 1       |
| apomix                     | Permethrin 25% solution |          | 2       |
| biomo / Noweda             | Permethrin 25% solution | 160202   | 1       |
| biomo / Noweda             | Permethrin 25% solution | 171201   | 1       |
| Biomo /Noweda              | Permethrin 25% solution | 170504   | 1       |
| Biomo /Noweda              | Permethrin 25% solution | 171201   | 3       |
| Biomo /Noweda              | Permethrin 25% solution | 190602   | 1       |
| biomo pharma GmbH          | Permethrin 25% solution | 160202   | 1       |
| Biomo Pharma GmbH          | Permethrin 25% solution | 160202   | 1       |
| Biomo Pharma GmbH          | Permethrin 25% solution | 170503   | 1       |
| Biomo Pharma/ Noweda       | Permethrin 25% solution | 200404   | 1       |
| biomo pharma/Phönix        | Permethrin 25% solution | 170504   | 1       |
| Biomo pharma/Phönix        | Permethrin 25% solution | 190602   | 2       |
| biomo pharma               | Permethrin 25% solution | 171201   | 1       |
| biomo pharma               | Permethrin 25% solution | 1906002  | 1       |
| Biomo/AHD                  | Permethrin 25% solution | 171201   | 2       |
| Biomo/Fiebig               | Permethrin 25% solution | 190602   | 1       |
| Biomo/Fiebig               | Permethrin 25% solution | 200404   | 1       |
| Biomo/Geibo                | Permethrin 25% solution | 160202   | 1       |
| Biomo/Noweda               | Permethrin 25% solution | 150901   | 1       |
| Biomo/Noweda               | Permethrin 25% solution | 160202   | 2       |
| Biomo/Phönix               | Permethrin 25% solution | 171201   | 1       |
| Biomo                      | Permethrin 25% solution | 170503   | 2       |
| Biomo                      | Permethrin 25% solution | 170504   | 1       |
| biomo                      | Permethrin 25% solution | 171201   | 1       |

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| Supplier                   | Substance               | Batch    | Spectra |
|----------------------------|-------------------------|----------|---------|
| Biomo                      | Permethrin 25% solution | 190602   | 2       |
| Biomo                      | Permethrin 25% solution | 190603   | 1       |
| Biomo                      | Permethrin 25% solution | 200404   | 1       |
| Bombastus                  | Permethrin 25% solution |          | 3       |
| Caelo                      | Permethrin 25% solution |          | 18      |
| Caelo                      | Permethrin 25% solution | 12091811 | 1       |
| Caelo                      | Permethrin 25% solution | 3279     | 1       |
| Caelo                      | Permethrin 25% solution | S0216011 | 1       |
| Caelo                      | Permethrin 25% solution | S071802  | 1       |
| Caesar & Loretz GmbH       | Permethrin 25% solution |          | 1       |
| Dermapharm                 | Permethrin 25% solution |          | 2       |
| Euro OTC                   | Permethrin 25% solution |          | 1       |
| Fagron                     | Permethrin 25% solution |          | 12      |
| Gehe Infectopharma         | Permethrin 25% solution |          | 1       |
| Gehe/Infectopharm          | Permethrin 25% solution |          | 1       |
| gehe                       | Permethrin 25% solution |          | 1       |
| Gehe                       | Permethrin 25% solution |          | 8       |
| GEHE                       | Permethrin 25% solution |          | 3       |
| Ichthyol/Phönix            | Permethrin 25% solution |          | 2       |
| Infec. Ph./Alli. HC        | Permethrin 25% solution |          | 1       |
| InfecoPharm/Anzag          | Permethrin 25% solution |          | 8       |
| Infect Pharm               | Permethrin 25% solution |          | 2       |
| Infecto Pharm / Noweda     | Permethrin 25% solution |          | 10      |
| Infecto Pharm / Phönix     | Permethrin 25% solution | S072018  | 1       |
| infecto pharm Fiebig       | Permethrin 25% solution |          | 1       |
| Infecto Pharm              | Permethrin 25% solution |          | 3       |
| infecto pharm              | Permethrin 25% solution | s121402  | 1       |
| Infecto Pharma/ Noweda     | Permethrin 25% solution |          | 1       |
| infecto Pharma             | Permethrin 25% solution |          | 4       |
| Infecto/Ebert              | Permethrin 25% solution |          | 1       |
| Infecto/Phönix             | Permethrin 25% solution |          | 1       |
| InfectomPharm              | Permethrin 25% solution |          | 1       |
| Infectopahrm/Phoenix       | Permethrin 25% solution |          | 2       |
| Infectoph./                | Permethrin 25% solution |          | 1       |
| Infectoph./Gehe            | Permethrin 25% solution | S0313011 | 1       |
| Infectoph./Sanac.          | Permethrin 25% solution | 170504   | 1       |
| infectopharm ADH           | Permethrin 25% solution |          | 1       |
| Infectopharm / 20          | Permethrin 25% solution |          | 1       |
| Infectopharm / Alliance... | Permethrin 25% solution |          | 1       |
| InfectoPharm / Anzag       | Permethrin 25% solution |          | 1       |
| Infectopharm / Gehe        | Permethrin 25% solution |          | 3       |
| InfectoPharm / Gehe        | Permethrin 25% solution |          | 27      |
| Infectopharm / Jenne       | Permethrin 25% solution |          | 1       |
| Infectopharm / Noweda      | Permethrin 25% solution |          | 5       |
| InfectoPharm / Phönix      | Permethrin 25% solution |          | 2       |
| Infectopharm / Sanacorb    | Permethrin 25% solution |          | 1       |
| infectopharm / Sanacorp    | Permethrin 25% solution |          | 1       |
| InfectoPharm / Sanacorp    | Permethrin 25% solution |          | 4       |
| Infectopharm AM / Allia... | Permethrin 25% solution |          | 2       |
| Infectopharm Arzneimittel  | Permethrin 25% solution |          | 6       |
| Infectopharm Arzneimittel  | Permethrin 25% solution | S0216011 | 1       |
| Infectopharm Heppenheim    | Permethrin 25% solution |          | 1       |
| Infectopharm Sanacorp      | Permethrin 25% solution |          | 3       |
| InfectoPharm, Heppenheim   | Permethrin 25% solution |          | 6       |
| Infectopharm, von Humbo... | Permethrin 25% solution |          | 3       |
| infectopharm„Kehr/ 19...   | Permethrin 25% solution |          | 1       |
| InfectoPharm/ AHD/ 12.0... | Permethrin 25% solution |          | 1       |
| InfectoPharm/ Alliance ... | Permethrin 25% solution |          | 1       |
| Infectopharm/ Alliance     | Permethrin 25% solution |          | 2       |
| InfectoPharm/ Anzag        | Permethrin 25% solution |          | 3       |

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| Supplier                   | Substance               | Batch        | Spectra |
|----------------------------|-------------------------|--------------|---------|
| InfectoPharm/ G            | Permethrin 25% solution |              | 1       |
| Infectopharm/ Gehe         | Permethrin 25% solution |              | 2       |
| Infectopharm/ Gotha        | Permethrin 25% solution |              | 1       |
| Infectopharm/ Now          | Permethrin 25% solution |              | 1       |
| Infectopharm/ Noweda       | Permethrin 25% solution |              | 14      |
| InfectoPharm/ Phoenix/ ... | Permethrin 25% solution |              | 6       |
| InfectoPharm/ Phoenix/ ... | Permethrin 25% solution |              | 1       |
| InfectoPharm/ Phoenix      | Permethrin 25% solution |              | 1       |
| Infectopharm/ Phönix       | Permethrin 25% solution |              | 2       |
| InfectoPharm/ Phönix       | Permethrin 25% solution |              | 4       |
| Infectopharm/ Sanacorp     | Permethrin 25% solution |              | 2       |
| Infectopharm/              | Permethrin 25% solution |              | 1       |
| INFECTOPHARM/1             | Permethrin 25% solution |              | 2       |
| Infectopharm/AHD           | Permethrin 25% solution |              | 12      |
| InfectoPharm/AHD           | Permethrin 25% solution |              | 6       |
| Infectopharm/Alliance      | Permethrin 25% solution |              | 3       |
| InfectoPharm/Alliance      | Permethrin 25% solution |              | 1       |
| Infectopharm/Allianz       | Permethrin 25% solution |              | 10      |
| Infectopharm/Anzag         | Permethrin 25% solution |              | 4       |
| InfectoPharm/Anzag         | Permethrin 25% solution |              | 2       |
| Infectopharm/APEG          | Permethrin 25% solution |              | 1       |
| Infectopharm/Ebert         | Permethrin 25% solution |              | 4       |
| InfectoPharm/Ebert         | Permethrin 25% solution |              | 1       |
| Infectopharm/Fiebig        | Permethrin 25% solution |              | 25      |
| INFECTOPHARM/GEHE 20.06... | Permethrin 25% solution | s071602-1    | 2       |
| INFECTOPHARM/GEHE 22.09... | Permethrin 25% solution |              | 1       |
| Infectopharm/gehe/28,20    | Permethrin 25% solution |              | 1       |
| Infectopharm/Gehe          | Permethrin 25% solution |              | 11      |
| InfectoPharm/gehe          | Permethrin 25% solution |              | 2       |
| InfectoPharm/Gehe          | Permethrin 25% solution |              | 16      |
| Infectopharm/Gehe          | Permethrin 25% solution | Infectopharm | 1       |
| Infectopharm/Gehe          | Permethrin 25% solution | S0313011     | 1       |
| infectopharm/Jenne         | Permethrin 25% solution |              | 1       |
| Infectopharm/Jenne         | Permethrin 25% solution |              | 4       |
| Infectopharm/Kehr 10.07... | Permethrin 25% solution |              | 1       |
| Infectopharm/Kehr          | Permethrin 25% solution |              | 1       |
| InfectoPharm/Kehr          | Permethrin 25% solution |              | 1       |
| InfectoPharm/Kehr          | Permethrin 25% solution | S0417012     | 4       |
| INFECTOPHARM/NOWEDA 11...  | Permethrin 25% solution |              | 1       |
| Infectopharm/noweda        | Permethrin 25% solution |              | 1       |
| Infectopharm/Noweda        | Permethrin 25% solution |              | 20      |
| InfectoPharm/Noweda        | Permethrin 25% solution |              | 1       |
| InfectoPharm/Ohönix        | Permethrin 25% solution |              | 1       |
| Infectopharm/Phoenix       | Permethrin 25% solution |              | 28      |
| InfectoPharm/Phoenix       | Permethrin 25% solution |              | 2       |
| Infectopharm/Phönix (19... | Permethrin 25% solution |              | 1       |
| infectopharm/phönix        | Permethrin 25% solution |              | 1       |
| infectopharm/Phönix        | Permethrin 25% solution |              | 2       |
| Infectopharm/Phönix        | Permethrin 25% solution |              | 28      |
| InfectoPharm/Phönix        | Permethrin 25% solution |              | 7       |
| Infectopharm/Phönix        | Permethrin 25% solution | S0313o11     | 1       |
| Infectopharm/Sana          | Permethrin 25% solution |              | 3       |
| Infectopharm/Sanacor       | Permethrin 25% solution |              | 1       |
| Infectopharm/Sanacorp      | Permethrin 25% solution |              | 10      |
| INFECTOPHARM/Sanacorp      | Permethrin 25% solution |              | 1       |
| infectopharm               | Permethrin 25% solution |              | 7       |
| Infectopharm               | Permethrin 25% solution |              | 87      |
| InfectoPharm               | Permethrin 25% solution |              | 27      |
| INFECTOPHARM               | Permethrin 25% solution |              | 4       |
| InfectoPharm               | Permethrin 25% solution | 1072015A     | 1       |

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| Supplier                   | Substance               | Batch         | Spectra |
|----------------------------|-------------------------|---------------|---------|
| InfectoPharm               | Permethrin 25% solution | 11061302      | 1       |
| InfectoPharm               | Permethrin 25% solution | 11091403      | 1       |
| InfectoPharm               | Permethrin 25% solution | 14041401      | 1       |
| InfectoPharm               | Permethrin 25% solution | 17121403      | 1       |
| InfectoPharm               | Permethrin 25% solution | 20081401      | 1       |
| InfectoPharm               | Permethrin 25% solution | 2091402       | 1       |
| InfectoPharm               | Permethrin 25% solution | 21121202      | 1       |
| InfectoPharm               | Permethrin 25% solution | 23021717      | 1       |
| infectopharm               | Permethrin 25% solution | 23071414      | 1       |
| InfectoPharm               | Permethrin 25% solution | 23111205      | 1       |
| InfectoPharm               | Permethrin 25% solution | 25021307      | 1       |
| InfectoPharm               | Permethrin 25% solution | 2510210212011 | 1       |
| InfectoPharm               | Permethrin 25% solution | 25111401      | 1       |
| InfectoPharm               | Permethrin 25% solution | 28011504      | 1       |
| InfectoPharm               | Permethrin 25% solution | 28041708      | 1       |
| InfectoPharm               | Permethrin 25% solution | 31071402      | 1       |
| InfectoPharm               | Permethrin 25% solution | 4071506       | 1       |
| InfectoPharm               | Permethrin 25% solution | 5011501       | 1       |
| InfectoPharm               | Permethrin 25% solution | 6011407       | 1       |
| InfectoPharm               | Permethrin 25% solution | 8011424       | 1       |
| InfectoPharm               | Permethrin 25% solution | 9101406       | 1       |
| InfectoPharm               | Permethrin 25% solution | S021601       | 1       |
| InfectoPharm               | Permethrin 25% solution | S0216011      | 1       |
| Infectopharm               | Permethrin 25% solution | S0218011      | 1       |
| Infectopharm               | Permethrin 25% solution | S0313011      | 1       |
| Infectopharm               | Permethrin 25% solution | S0614011      | 1       |
| Infectopharm               | Permethrin 25% solution | S081202       | 1       |
| Infectopharm               | Permethrin 25% solution | S1214021      | 1       |
| Infectopharm               | Permethrin 25% solution | S1220011      | 1       |
| InfectoPharma/Phönix       | Permethrin 25% solution |               | 1       |
| Infectopharm-Gehe          | Permethrin 25% solution |               | 1       |
| Inflectopharm/Fiebig       | Permethrin 25% solution |               | 2       |
| Jenne / Infectopharm       | Permethrin 25% solution |               | 2       |
| Jenne                      | Permethrin 25% solution |               | 1       |
| JENNE                      | Permethrin 25% solution |               | 1       |
| Kehr /Infecto Pharm        | Permethrin 25% solution |               | 2       |
| Krieger                    | Permethrin 25% solution |               | 2       |
| Löwen City-Apotheke Bar... | Permethrin 25% solution |               | 1       |
| Noweda/ Infectopharm       | Permethrin 25% solution |               | 1       |
| Noweda/Infecto Pharma      | Permethrin 25% solution |               | 1       |
| Noweda/Infectopharm        | Permethrin 25% solution |               | 1       |
| Noweda/InfectoPharm        | Permethrin 25% solution |               | 1       |
| Noweda                     | Permethrin 25% solution |               | 1       |
| Phoenix/InfectoPharm       | Permethrin 25% solution |               | 5       |
| Phoenix                    | Permethrin 25% solution |               | 4       |
| Phoenix                    | Permethrin 25% solution | 170504        | 1       |
| Phoenix                    | Permethrin 25% solution | So4701        | 1       |
| Phönix / Infectopharm      | Permethrin 25% solution |               | 1       |
| Phönix /Infectopharm       | Permethrin 25% solution |               | 8       |
| Phönix/Infectopharm        | Permethrin 25% solution |               | 3       |
| Phönix                     | Permethrin 25% solution |               | 1       |
| Sanacorp / Infectopharm    | Permethrin 25% solution |               | 1       |
| Sanacorp                   | Permethrin 25% solution |               | 4       |
| sanacorp                   | Permethrin 25% solution | 171201        | 1       |
| SANACORP                   | Permethrin 25% solution | 171201        | 1       |
| Sanacorp                   | Permethrin 25% solution | S0216011      | 2       |

- 288 025 spectra from 1294 *Apo-Ident* customers from a total of 51 783 batches from a further

343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Permethrin 25% solution* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Permethrin 25% solution* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 538           | 2              | 66 619        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 683           | 1              | 288 025       |

The substance/substance group *Permethrin 25% solution* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 99.6296 % (> 99.0741 %)  |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.8538 % (> 99.4152 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Permethrin 25% solution* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                             | Distance in main model | Distance in second-stage model |
|---------------------------------------|------------------------|--------------------------------|
| Metronidazole 25% in white petrolatum | 54.65                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Permethrin 25% solution* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested

reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31177     | 31177               | 0.00                         | 88.27                           |
| 31563     | 31563               | 0.00                         | 75.46                           |
| 32262     | 31563               | 6.23                         | 99.74                           |
| 32263     | 31563               | 3.95                         | 93.54                           |
| 33246     | 31563               | 16.72                        | 105.19                          |
| 33247     | 31177               | 8.47                         | 90.55                           |
| 33301     | 31177               | 18.97                        | 88.87                           |
| 33302     | 31177               | 16.78                        | 93.85                           |
| 33328     | 31563               | 9.51                         | 100.69                          |
| 34120     | 31177               | 20.14                        | 96.48                           |
| 34121     | 31177               | 14.20                        | 99.82                           |
| 34692     | 31563               | 4.40                         | 90.63                           |
| 34693     | 31177               | 17.83                        | 93.80                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Petroleum ether DAB**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30899-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Petroleum ether DAB; Benzinum DAB

### Special notes

When selecting the *Petroleum ether DAB* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Petroleum ether DAB       | 5      | 3      | 412    |

## Second-stage model

For differentiation of the substance/substance group *Petroleum ether DAB* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Petroleum ether DAB*:

| Supplier     | Substance           | Batch       | Sample ID | Spectra | Certificate |
|--------------|---------------------|-------------|-----------|---------|-------------|
| Caelo        | Petroleum ether ... | 12279604    | 30899     | 60      | 1503677     |
| Caelo        | Petroleum ether ... | 13141304    | 31283     | 40      | 1412255     |
| Caelo        | Petroleum ether ... | 21000499001 | 35820     | 50      | 20210211    |
| Otto Fischar | Petroleum ether ... | 6323042     | 31253     | 40      | 1505436     |
| Otto Fischar | Petroleum ether ... | 6321081     | 35855     | 50      | 20210805    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 240 spectra of 5 reference samples from the substance/substance group *Petroleum ether DAB*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 919 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Petroleum ether DAB*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.



| Supplier | Substance           | Batch   | Sample ID | Spectra |
|----------|---------------------|---------|-----------|---------|
| Caelo    | Petroleum ether DAB | 171715  | 33329     | 40      |
| Hedinger | Petroleum ether DAB | 028175B | 32955     | 40      |
| Hedinger | Petroleum ether DAB | 028186B | 35260     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 2152 spectra from 631 *Apo-Ident* customers from 421 batches from the substance/substance group *Petroleum ether DAB*.
- Among them are spectra of independent samples from 409 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance           | Batch      | Spectra |
|----------------------------|---------------------|------------|---------|
|                            | Petroleum ether DAB |            | 1       |
| A. Hedinger / Noweda       | Petroleum ether DAB | 281728     | 1       |
| A.H.Hedinger vdL           | Petroleum ether DAB | 28172B     | 1       |
| A.Hedinger / Kehr          | Petroleum ether DAB | 281708     | 1       |
| Aallianc. Healthc. /Fis... | Petroleum ether DAB | 6327105    | 1       |
| ACM                        | Petroleum ether DAB | KNC0833J15 | 1       |
| AEP/ Fischar               | Petroleum ether DAB | 6325105    | 1       |
| AEP/Fischar                | Petroleum ether DAB | 6326092    | 1       |
| AEP/Otto Fischar           | Petroleum ether DAB | 6320074    | 1       |
| AHC/Fischar                | Petroleum ether DAB | 6328064    | 1       |
| AHD/Fischar                | Petroleum ether DAB | 6329091    | 1       |
| AHD/Hedinger               | Petroleum ether DAB | 28181B     | 1       |
| AHD                        | Petroleum ether DAB | 28176B     | 1       |
| AHD                        | Petroleum ether DAB | 28178B     | 1       |
| ALH/Hedinger               | Petroleum ether DAB | 28177B     | 1       |
| Alliance Healthcare/Fis... | Petroleum ether DAB | 6324025    | 1       |
| Alliance Healthcare/Ott... | Petroleum ether DAB | 6328122    | 1       |
| Alliance Healthcare        | Petroleum ether DAB | 28180B     | 1       |
| Alliance Healthcare        | Petroleum ether DAB | 28181B     | 1       |
| Alliance Healthcare        | Petroleum ether DAB | 28183B     | 1       |
| Alliance/Hedinger          | Petroleum ether DAB | 281808     | 1       |
| Alliance                   | Petroleum ether DAB | 6326027    | 1       |
| Alliance                   | Petroleum ether DAB | 6328016    | 1       |
| AllianceHealthcare         | Petroleum ether DAB | 28172b     | 1       |
| Anzag / Fischar            | Petroleum ether DAB | 6328015    | 1       |
| Anzag / Fischar            | Petroleum ether DAB | 6328112    | 1       |
| Anzag / Fischer            | Petroleum ether DAB | 6320032    | 1       |
| Anzag / Fischer            | Petroleum ether DAB | 6320075    | 1       |
| Anzag / Fischer            | Petroleum ether DAB | 6320105    | 1       |
| Anzag / Fischer            | Petroleum ether DAB | 6329091    | 1       |
| anzag 15.11.12             | Petroleum ether DAB | 28167B     | 1       |
| Anzag 16.10.14             | Petroleum ether DAB | 28171B     | 1       |
| Anzag/Fischar              | Petroleum ether DAB | 6323017    | 1       |
| Anzag/Fischar              | Petroleum ether DAB | 6324064    | 1       |
| Anzag/Hedinger             | Petroleum ether DAB | 28167B     | 2       |

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| <b>Supplier</b>        | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|------------------------|---------------------|--------------|----------------|
| Anzag/Hedinger         | Petroleum ether DAB | 28172B       | 1              |
| Anzag                  | Petroleum ether DAB | 28188B       | 1              |
| anzag                  | Petroleum ether DAB | 6324063      | 1              |
| Anzag                  | Petroleum ether DAB | 6324092      | 1              |
| Anzag                  | Petroleum ether DAB | 6329023      | 1              |
| apomix                 | Petroleum ether DAB | 6324082      | 1              |
| Apoth. Dr. P. Hünenbei | Petroleum ether DAB | 28176B       | 1              |
| Aug. Hedinger gmbH     | Petroleum ether DAB | 28184B       | 1              |
| AUG.HEDINGER GMBH      | Petroleum ether DAB | 28180B       | 1              |
| Aug.Hedinger/Noweda    | Petroleum ether DAB | 28184B       | 1              |
| Aug.Hedinger/Phoenix   | Petroleum ether DAB | 281738       | 2              |
| Aug.Hedinger           | Petroleum ether DAB | 28179B       | 1              |
| Aug.Hedinger           | Petroleum ether DAB | 28180B       | 1              |
| August Hedinger        | Petroleum ether DAB | 28178B       | 2              |
| August Hedinger        | Petroleum ether DAB | 28179B       | 1              |
| August Hedinger        | Petroleum ether DAB | 281818       | 1              |
| Bären Apotheke         | Petroleum ether DAB | 6327018      | 1              |
| Bären Apotheke         | Petroleum ether DAB | 6327019      | 1              |
| Barthel                | Petroleum ether DAB | 28171B       | 2              |
| Bionorica/Krieger      | Petroleum ether DAB | 6329023      | 1              |
| Bombastus              | Petroleum ether DAB | 28177B       | 1              |
| Bombastus              | Petroleum ether DAB | 6326063      | 1              |
| Caelo                  | Petroleum ether DAB | 1110516      | 1              |
| Caelo                  | Petroleum ether DAB | 11357104     | 1              |
| Caelo                  | Petroleum ether DAB | 13141302     | 1              |
| Caelo                  | Petroleum ether DAB | 16111002     | 2              |
| Caelo                  | Petroleum ether DAB | 16111005     | 1              |
| Caelo                  | Petroleum ether DAB | 16111007     | 2              |
| Caelo                  | Petroleum ether DAB | 16111008     | 1              |
| Caelo                  | Petroleum ether DAB | 1611106      | 1              |
| Caelo                  | Petroleum ether DAB | 171715002    | 1              |
| Caelo                  | Petroleum ether DAB | 171715004    | 1              |
| Caelo                  | Petroleum ether DAB | 17171505     | 1              |
| Caelo                  | Petroleum ether DAB | 17171506     | 1              |
| Caelo                  | Petroleum ether DAB | 281668       | 3              |
| Caelo                  | Petroleum ether DAB | 28167B       | 4              |
| Caelo                  | Petroleum ether DAB | 28168B       | 4              |
| Caelo                  | Petroleum ether DAB | 281698       | 1              |
| Caelo                  | Petroleum ether DAB | 28169B       | 6              |
| Caelo                  | Petroleum ether DAB | 2816B        | 1              |
| Caelo                  | Petroleum ether DAB | 28170B       | 1              |
| Caelo                  | Petroleum ether DAB | 28171B       | 4              |
| Caelo                  | Petroleum ether DAB | 281728       | 1              |
| Caelo                  | Petroleum ether DAB | 28172B       | 4              |
| Caelo                  | Petroleum ether DAB | 28173B       | 5              |
| Caelo                  | Petroleum ether DAB | 281748       | 1              |
| Caelo                  | Petroleum ether DAB | 28174B       | 5              |
| Caelo                  | Petroleum ether DAB | 28175B       | 8              |
| Caelo                  | Petroleum ether DAB | 28176B       | 8              |
| Caelo                  | Petroleum ether DAB | 281778       | 1              |
| Caelo                  | Petroleum ether DAB | 28177b       | 2              |
| Caelo                  | Petroleum ether DAB | 28177B       | 2              |
| Caelo                  | Petroleum ether DAB | 28178B       | 6              |
| Caelo                  | Petroleum ether DAB | 28179B       | 3              |
| Caelo                  | Petroleum ether DAB | 28180B       | 3              |
| Caelo                  | Petroleum ether DAB | 28183B       | 1              |
| Caelo                  | Petroleum ether DAB | 28184B       | 2              |
| Caelo                  | Petroleum ether DAB | 4031404      | 1              |
| Caelo                  | Petroleum ether DAB | 5013J-01170  | 1              |
| Caelo                  | Petroleum ether DAB | 6322097      | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Caelo                      | Petroleum ether DAB | 6323033      | 2              |
| Caelo                      | Petroleum ether DAB | 6323095      | 1              |
| Caelo                      | Petroleum ether DAB | 6324018      | 1              |
| Caelo                      | Petroleum ether DAB | 6324025      | 1              |
| Caelo                      | Petroleum ether DAB | 6324044      | 1              |
| Caelo                      | Petroleum ether DAB | 6324082      | 2              |
| Caelo                      | Petroleum ether DAB | 6324113      | 1              |
| Caelo                      | Petroleum ether DAB | 6325021      | 1              |
| Caelo                      | Petroleum ether DAB | 6325055      | 2              |
| Caelo                      | Petroleum ether DAB | 6325109      | 1              |
| Caelo                      | Petroleum ether DAB | 6325111      | 2              |
| Caelo                      | Petroleum ether DAB | 6325119      | 1              |
| Caelo                      | Petroleum ether DAB | 6326014      | 1              |
| Caelo                      | Petroleum ether DAB | 6326015      | 1              |
| Caelo                      | Petroleum ether DAB | 6326027      | 1              |
| Caelo                      | Petroleum ether DAB | 6326031      | 3              |
| Caelo                      | Petroleum ether DAB | 6326055      | 1              |
| Caelo                      | Petroleum ether DAB | 6326061      | 1              |
| Caelo                      | Petroleum ether DAB | 6326063      | 1              |
| Caelo                      | Petroleum ether DAB | 6326104      | 1              |
| Caelo                      | Petroleum ether DAB | 6327013      | 1              |
| Caelo                      | Petroleum ether DAB | 6327016      | 1              |
| Caelo                      | Petroleum ether DAB | 6327054      | 2              |
| Caelo                      | Petroleum ether DAB | 6327072      | 3              |
| Caelo                      | Petroleum ether DAB | 6327114      | 2              |
| Caelo                      | Petroleum ether DAB | 6327115      | 1              |
| Caelo                      | Petroleum ether DAB | 632711A      | 1              |
| Caelo                      | Petroleum ether DAB | 6328075      | 1              |
| Caelo                      | Petroleum ether DAB | 6328103      | 1              |
| Caelo                      | Petroleum ether DAB | 6328104      | 1              |
| Caelo                      | Petroleum ether DAB | 6328111      | 1              |
| Caelo                      | Petroleum ether DAB | 6328112      | 1              |
| Caelo                      | Petroleum ether DAB | 6328113      | 3              |
| Caelo                      | Petroleum ether DAB | 6329053      | 3              |
| Caelo                      | Petroleum ether DAB | 64/AKD53     | 1              |
| Caesar & Loretz GmbH / ... | Petroleum ether DAB | 6320043      | 1              |
| Caesar & Loretz GmbH       | Petroleum ether DAB | 171715002    | 1              |
| Caesar & Loretz GmbH       | Petroleum ether DAB | 17171507     | 1              |
| Caesar & Loretz GmbH       | Petroleum ether DAB | 18174317     | 1              |
| Caesar & Loretz GmbH       | Petroleum ether DAB | 28179B       | 1              |
| Calo/AHD                   | Petroleum ether DAB | 28175B       | 1              |
| DAB 1999                   | Petroleum ether DAB | 28176B       | 1              |
| Delta                      | Petroleum ether DAB | 28176B       | 2              |
| Dr. Seeger/ Phönix         | Petroleum ether DAB | 28169B       | 1              |
| Ebert/Fischar              | Petroleum ether DAB | 6323093      | 1              |
| Euro OTC                   | Petroleum ether DAB | 23o4123      | 1              |
| Euro OTC                   | Petroleum ether DAB | 28174B       | 1              |
| Euro OTC                   | Petroleum ether DAB | 6325087      | 1              |
| Euro OTC                   | Petroleum ether DAB | 6326104      | 1              |
| Euro OTC                   | Petroleum ether DAB | 6327019      | 3              |
| Euro OTC                   | Petroleum ether DAB | 6328104      | 1              |
| FA.Hedinger                | Petroleum ether DAB | 28174B       | 3              |
| Fagron                     | Petroleum ether DAB | 28178B       | 2              |
| Fagron                     | Petroleum ether DAB | 6324114      | 1              |
| Fagron                     | Petroleum ether DAB | 6326024      | 2              |
| Fiebig/Fischer             | Petroleum ether DAB | 6328014      | 1              |
| Fiebig/Hedinger            | Petroleum ether DAB | 28177B       | 2              |
| Fiebig/Hedinger            | Petroleum ether DAB | 28180B       | 1              |
| Fiebig/Hedinger            | Petroleum ether DAB | 281818       | 1              |
| Fiebig/Hedinger            | Petroleum ether DAB | 28186B       | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Fiebig                     | Petroleum ether DAB | 28175B       | 1              |
| Fiebig                     | Petroleum ether DAB | 28177B       | 1              |
| Fiebig                     | Petroleum ether DAB | 28178B       | 2              |
| Fiebig                     | Petroleum ether DAB | 28179B       | 1              |
| Fiebig                     | Petroleum ether DAB | 28180B       | 1              |
| Fiebig                     | Petroleum ether DAB | 28184B       | 1              |
| Fiebig                     | Petroleum ether DAB | 6324123      | 1              |
| Fiebig                     | Petroleum ether DAB | 6327017      | 2              |
| Fiebig                     | Petroleum ether DAB | 6327116      | 1              |
| Fiebig                     | Petroleum ether DAB | 6328105      | 1              |
| Fiebig-Hedinger            | Petroleum ether DAB | 28176B       | 1              |
| Fischar / Alliance Heal... | Petroleum ether DAB | 6326033      | 1              |
| Fischar / Anzag            | Petroleum ether DAB | 6322095      | 1              |
| Fischar / Anzag            | Petroleum ether DAB | 6328016      | 1              |
| Fischar / Anzag            | Petroleum ether DAB | 6328051      | 1              |
| Fischar / GEHE             | Petroleum ether DAB | 6320014      | 1              |
| Fischar / GEHE             | Petroleum ether DAB | 6320043      | 1              |
| Fischar / Gehe             | Petroleum ether DAB | 6325055      | 1              |
| Fischar / Gehe             | Petroleum ether DAB | 6326014      | 1              |
| Fischar / Gehe             | Petroleum ether DAB | 6326061      | 1              |
| Fischar / Gehe             | Petroleum ether DAB | 6326075      | 1              |
| Fischar / Gehe             | Petroleum ether DAB | 6327021      | 1              |
| Fischar / Gehe             | Petroleum ether DAB | 6327033      | 1              |
| Fischar / GEHE             | Petroleum ether DAB | 6327074      | 1              |
| Fischar / Gehe             | Petroleum ether DAB | 6327114      | 1              |
| fischar / Gehe             | Petroleum ether DAB | 6327115      | 1              |
| Fischar / GEHE             | Petroleum ether DAB | 6327115      | 1              |
| fischar / Gehe             | Petroleum ether DAB | 6328035      | 1              |
| Fischar / GEHE             | Petroleum ether DAB | 6328123      | 1              |
| Fischar / Krieger          | Petroleum ether DAB | 6325105      | 1              |
| Fischar / Noweda           | Petroleum ether DAB | 6322112      | 1              |
| Fischar / Noweda           | Petroleum ether DAB | 6323069      | 1              |
| Fischar / Noweda           | Petroleum ether DAB | 6326105      | 1              |
| Fischar / Noweda           | Petroleum ether DAB | 6329094      | 1              |
| Fischar / Phönix           | Petroleum ether DAB | 3412I-01170  | 1              |
| Fischar / Phönix           | Petroleum ether DAB | 3413J-01170  | 1              |
| Fischar / Phönix           | Petroleum ether DAB | 6320032      | 1              |
| Fischar / Phönix           | Petroleum ether DAB | 6329034      | 1              |
| Fischar / Sanacorp         | Petroleum ether DAB | 6323062      | 1              |
| Fischar /VDL               | Petroleum ether DAB | 6328032      | 1              |
| Fischar /VDL               | Petroleum ether DAB | 6329101      | 1              |
| Fischar AHD 05.09.17 Ek... | Petroleum ether DAB | 6327023      | 1              |
| Fischar Anzag              | Petroleum ether DAB | 6327102      | 1              |
| Fischar GmbH & Co.KG ...   | Petroleum ether DAB | 6320043      | 1              |
| Fischar GmbH/Krieger       | Petroleum ether DAB | 6327024      | 1              |
| Fischar GmbH/Krieger       | Petroleum ether DAB | 6327101      | 1              |
| Fischar GmbH/Krieger       | Petroleum ether DAB | 6328014      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6321011      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6323066      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6325044      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6325119      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6328035      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6328122      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6328124      | 1              |
| Fischar GmbH               | Petroleum ether DAB | 6329014      | 1              |
| Fischar Otto / Fischar ... | Petroleum ether DAB | 6325117      | 1              |
| Fischar Otto / Fischar ... | Petroleum ether DAB | 6326052      | 1              |
| Fischar Otto / Fischar ... | Petroleum ether DAB | 6326113      | 1              |
| Fischar Otto / Fischar ... | Petroleum ether DAB | 6327051      | 1              |
| Fischar Phönix             | Petroleum ether DAB | 6323094      | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Fischar Phönix             | Petroleum ether DAB | 6323112      | 1              |
| Fischar Phönix             | Petroleum ether DAB | 6324018      | 1              |
| Fischar Phönix             | Petroleum ether DAB | 6328014      | 1              |
| Fischar Phönix             | Petroleum ether DAB | 6328064      | 1              |
| Fischar/ AHD               | Petroleum ether DAB | 6327093      | 1              |
| Fischar/ Alliance          | Petroleum ether DAB | 632801A      | 1              |
| Fischar/ anzag             | Petroleum ether DAB | 6329014      | 1              |
| Fischar/ anzag             | Petroleum ether DAB | 6329124      | 1              |
| Fischar/ Fiebig            | Petroleum ether DAB | 6321082      | 1              |
| Fischar/ Krieger           | Petroleum ether DAB | 6327034      | 1              |
| Fischar/ Krieger           | Petroleum ether DAB | 6327091      | 1              |
| Fischar/ Krieger           | Petroleum ether DAB | 6328014      | 1              |
| Fischar/ Krieger           | Petroleum ether DAB | 6328091      | 1              |
| Fischar/ Krieger           | Petroleum ether DAB | 6328111      | 1              |
| Fischar/ Krieger           | Petroleum ether DAB | 6329034      | 2              |
| Fischar/ Krieger           | Petroleum ether DAB | 6329102      | 1              |
| Fischar/ Now               | Petroleum ether DAB | 6323064      | 1              |
| Fischar/ Now               | Petroleum ether DAB | 6328123      | 1              |
| Fischar/ Now               | Petroleum ether DAB | 6329033      | 1              |
| Fischar/ Now               | Petroleum ether DAB | 6329051      | 1              |
| Fischar/ Noweda            | Petroleum ether DAB | 6320074      | 1              |
| Fischar/ Noweda            | Petroleum ether DAB | 6321041      | 1              |
| Fischar/ Noweda            | Petroleum ether DAB | 6324104      | 1              |
| fischar/ Noweda            | Petroleum ether DAB | 6326101      | 1              |
| Fischar/ Noweda            | Petroleum ether DAB | 632704       | 1              |
| Fischar/ Noweda            | Petroleum ether DAB | 6328091      | 1              |
| Fischar/ Noweda            | Petroleum ether DAB | 6328112      | 1              |
| Fischar/ Noweda            | Petroleum ether DAB | 6329073      | 1              |
| Fischar/ Phoenix           | Petroleum ether DAB | 6328122      | 1              |
| Fischar/ Phoenix           | Petroleum ether DAB | 6329093      | 1              |
| Fischar/ Phönix            | Petroleum ether DAB | 630024       | 1              |
| Fischar/ Phönix            | Petroleum ether DAB | 6325106      | 1              |
| Fischar/ Phönix            | Petroleum ether DAB | 6326093      | 1              |
| Fischar/ Sanacorp          | Petroleum ether DAB | 6325108      | 1              |
| Fischar/ Sanacorp          | Petroleum ether DAB | 6327102      | 2              |
| Fischar/AEP                | Petroleum ether DAB | 6320074      | 1              |
| Fischar/AEP                | Petroleum ether DAB | 6329051      | 1              |
| Fischar/AHD                | Petroleum ether DAB | 6326085      | 1              |
| Fischar/AHD                | Petroleum ether DAB | 6329013      | 1              |
| Fischar/Allia              | Petroleum ether DAB | 6328051      | 1              |
| Fischar/Allia              | Petroleum ether DAB | 6329103      | 1              |
| Fischar/Alliance H.        | Petroleum ether DAB | 6325104      | 1              |
| Fischar/Alliance Health... | Petroleum ether DAB | 6326027      | 2              |
| Fischar/Alliance Health... | Petroleum ether DAB | 6328064      | 1              |
| Fischar/Alliance Heathc... | Petroleum ether DAB | 6324064      | 1              |
| Fischar/Alliance           | Petroleum ether DAB | 6320103      | 1              |
| Fischar/Alliance           | Petroleum ether DAB | 6328016      | 1              |
| Fischar/Alliance           | Petroleum ether DAB | 6329091      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6323016      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6323024      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6323062      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6323095      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6323099      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6324063      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6325053      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6326073      | 1              |
| Fischar/Anzag              | Petroleum ether DAB | 6328104      | 3              |
| Fischar/Anzag              | Petroleum ether DAB | 6329034      | 1              |
| Fischar/E&J                | Petroleum ether DAB | 6328064      | 1              |
| Fischar/Fiebig             | Petroleum ether DAB | 6325065      | 1              |

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| <b>Supplier</b> | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------|--------------|----------------|
| Fischar/Fiebig  | Petroleum ether DAB | 6325109      | 2              |
| Fischar/Gehe    | Petroleum ether DAB | 3623111      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6320032      | 1              |
| Fischar/GEHE    | Petroleum ether DAB | 6320043      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6320064      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6320065      | 1              |
| Fischar/GEHE    | Petroleum ether DAB | 63209034     | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6321095      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6322053      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6322061      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6322117      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6323093      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 632309A      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6323113      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6324062      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6325089      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6326092      | 1              |
| fischar/gehe    | Petroleum ether DAB | 6327053      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 632711A      | 2              |
| Fischar/Gehe    | Petroleum ether DAB | 632801A      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6328123      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6329014      | 1              |
| Fischar/Gehe    | Petroleum ether DAB | 6329103      | 1              |
| Fischar/Gerx    | Petroleum ether DAB | 6327053      | 1              |
| Fischar/Jenne   | Petroleum ether DAB | 6320042      | 1              |
| Fischar/Jenne   | Petroleum ether DAB | 6327114      | 1              |
| Fischar/Kehr    | Petroleum ether DAB | 6320033      | 1              |
| Fischar/Kehr    | Petroleum ether DAB | 6328122      | 1              |
| Fischar/Novatis | Petroleum ether DAB | 6320052      | 1              |
| Fischar/Novatis | Petroleum ether DAB | 6321043      | 1              |
| Fischar/Novatis | Petroleum ether DAB | 6328064      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6320065      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6321031      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6323017      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6323065      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6323069      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6326011      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6326012      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6326049      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6326081      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6326095      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6326105      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6326112      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6327072      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6327115      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 632711A      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6328014      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6328035      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6328051      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6328073      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6328093      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6328111      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6328123      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6329015      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6329023      | 1              |
| Fischar/Noweda  | Petroleum ether DAB | 6329073      | 2              |
| Fischar/Noweda  | Petroleum ether DAB | 6329123      | 1              |
| Fischar/Nowenda | Petroleum ether DAB | 6323112      | 1              |
| Fischar/Pala    | Petroleum ether DAB | 6324101      | 2              |
| Fischar/Phoen   | Petroleum ether DAB | 6328045      | 1              |

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| <b>Supplier</b>  | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|------------------|---------------------|--------------|----------------|
| Fischar/Phoen    | Petroleum ether DAB | 6328074      | 1              |
| Fischar/Phoen    | Petroleum ether DAB | 6328113      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6320053      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6320054      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6320105      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6321011      | 1              |
| fischar/phoenix  | Petroleum ether DAB | 6323064      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6323069      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6324018      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6324103      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6325051      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6325108      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6326047      | 1              |
| Fischar/phoenix  | Petroleum ether DAB | 6326061      | 5              |
| Fischar/Phoenix  | Petroleum ether DAB | 6326071      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6326085      | 1              |
| Fischar/phoenix  | Petroleum ether DAB | 6326095      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6328044      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6328051      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6328074      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6328075      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6328105      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6328112      | 1              |
| Fischar/Phoenix  | Petroleum ether DAB | 6329015      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6320015      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6320032      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6320063      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6320074      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6320115      | 2              |
| Fischar/Phönix   | Petroleum ether DAB | 6321041      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6323063      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6324105      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6324123      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6325081      | 3              |
| Fischar/Phönix   | Petroleum ether DAB | 6325086      | 2              |
| Fischar/Phönix   | Petroleum ether DAB | 6325105      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6326011      | 2              |
| Fischar/Phönix   | Petroleum ether DAB | 6326083      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6326092      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6327024      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6327093      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6327102      | 2              |
| Fischar/Phönix   | Petroleum ether DAB | 6328014      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6328063      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6328074      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6328104      | 2              |
| Fischar/Phönix   | Petroleum ether DAB | 6328105      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6328112      | 1              |
| Fischar/Phönix   | Petroleum ether DAB | 6329023      | 2              |
| Fischar/Phönix   | Petroleum ether DAB | 6329025      | 1              |
| Fischar/PX       | Petroleum ether DAB | 6328075      | 1              |
| Fischar/PX       | Petroleum ether DAB | 6329123      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6321022      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6322116      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6324033      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6324065      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6324103      | 1              |
| fischar/Sanacorp | Petroleum ether DAB | 6325021      | 1              |
| fischar/Sanacorp | Petroleum ether DAB | 6326026      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6326047      | 1              |

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| <b>Supplier</b>  | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|------------------|---------------------|--------------|----------------|
| Fischar/Sanacorp | Petroleum ether DAB | 6326081      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6327013      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6327018      | 2              |
| Fischar/Sanacorp | Petroleum ether DAB | 6327072      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6327102      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6328013      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6328045      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6328051      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6328065      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6328104      | 1              |
| Fischar/Sanacorp | Petroleum ether DAB | 6329024      | 2              |
| Fischar/Spangro  | Petroleum ether DAB | 6326026      | 1              |
| Fischar/Spangro  | Petroleum ether DAB | 6326095      | 1              |
| Fischar/Spangro  | Petroleum ether DAB | 6327012      | 1              |
| Fischar/Spangro  | Petroleum ether DAB | 6327034      | 1              |
| Fischar/Spangro  | Petroleum ether DAB | 632711A      | 1              |
| Fischar/Spangro  | Petroleum ether DAB | 6329012      | 1              |
| fischar/vdl      | Petroleum ether DAB | 6323097      | 1              |
| Fischar          | Petroleum ether DAB | 24061501     | 1              |
| fischar          | Petroleum ether DAB | 28181B       | 1              |
| Fischar          | Petroleum ether DAB | 412062-2-P   | 1              |
| Fischar          | Petroleum ether DAB | 55780        | 1              |
| fischar          | Petroleum ether DAB | 616331022    | 1              |
| Fischar          | Petroleum ether DAB | 6239123      | 1              |
| Fischar          | Petroleum ether DAB | 6320011      | 1              |
| Fischar          | Petroleum ether DAB | 6320012      | 2              |
| Fischar          | Petroleum ether DAB | 6320014      | 1              |
| Fischar          | Petroleum ether DAB | 6320032      | 1              |
| Fischar          | Petroleum ether DAB | 6320041      | 2              |
| Fischar          | Petroleum ether DAB | 6320054      | 3              |
| Fischar          | Petroleum ether DAB | 6320115      | 1              |
| Fischar          | Petroleum ether DAB | 6321032      | 1              |
| Fischar          | Petroleum ether DAB | 6321111      | 1              |
| Fischar          | Petroleum ether DAB | 6322051      | 1              |
| Fischar          | Petroleum ether DAB | 6322061      | 1              |
| Fischar          | Petroleum ether DAB | 6322073      | 1              |
| Fischar          | Petroleum ether DAB | 6322074      | 2              |
| Fischar          | Petroleum ether DAB | 6322076      | 1              |
| Fischar          | Petroleum ether DAB | 6322079      | 1              |
| Fischar          | Petroleum ether DAB | 632207A      | 1              |
| Fischar          | Petroleum ether DAB | 6322113      | 1              |
| Fischar          | Petroleum ether DAB | 6322114      | 1              |
| Fischar          | Petroleum ether DAB | 6322119      | 1              |
| Fischar          | Petroleum ether DAB | 6323015      | 1              |
| Fischar          | Petroleum ether DAB | 6323016      | 1              |
| Fischar          | Petroleum ether DAB | 6323017      | 1              |
| Fischar          | Petroleum ether DAB | 6323033      | 1              |
| Fischar          | Petroleum ether DAB | 6323063      | 3              |
| Fischar          | Petroleum ether DAB | 6323066      | 1              |
| Fischar          | Petroleum ether DAB | 6323068      | 1              |
| Fischar          | Petroleum ether DAB | 6323097      | 1              |
| Fischar          | Petroleum ether DAB | 6323099      | 1              |
| Fischar          | Petroleum ether DAB | 6323111      | 1              |
| Fischar          | Petroleum ether DAB | 6324013      | 1              |
| Fischar          | Petroleum ether DAB | 6324016      | 1              |
| Fischar          | Petroleum ether DAB | 632401A      | 1              |
| Fischar          | Petroleum ether DAB | 6324034      | 2              |
| fischar          | Petroleum ether DAB | 6324035      | 1              |
| Fischar          | Petroleum ether DAB | 6324041      | 3              |
| Fischar          | Petroleum ether DAB | 6324055      | 1              |

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| <b>Supplier</b> | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------|--------------|----------------|
| Fischar         | Petroleum ether DAB | 6324064      | 1              |
| fischar         | Petroleum ether DAB | 6324065      | 1              |
| Fischar         | Petroleum ether DAB | 6324072      | 2              |
| Fischar         | Petroleum ether DAB | 6324074      | 1              |
| Fischar         | Petroleum ether DAB | 6324075      | 1              |
| Fischar         | Petroleum ether DAB | 6324082      | 15             |
| Fischar         | Petroleum ether DAB | 6324083      | 1              |
| Fischar         | Petroleum ether DAB | 6324091      | 1              |
| Fischar         | Petroleum ether DAB | 6324092      | 1              |
| Fischar         | Petroleum ether DAB | 6324103      | 2              |
| Fischar         | Petroleum ether DAB | 6324105      | 4              |
| Fischar         | Petroleum ether DAB | 6324114      | 2              |
| Fischar         | Petroleum ether DAB | 6324115      | 1              |
| Fischar         | Petroleum ether DAB | 6324123      | 1              |
| Fischar         | Petroleum ether DAB | 6325012      | 3              |
| Fischar         | Petroleum ether DAB | 6325022      | 2              |
| fischar         | Petroleum ether DAB | 6325023      | 1              |
| Fischar         | Petroleum ether DAB | 6325023      | 3              |
| fischar         | Petroleum ether DAB | 6325024      | 1              |
| Fischar         | Petroleum ether DAB | 6325024      | 2              |
| Fischar         | Petroleum ether DAB | 6325025      | 1              |
| Fischar         | Petroleum ether DAB | 6325034      | 1              |
| Fischar         | Petroleum ether DAB | 6325042      | 1              |
| Fischar         | Petroleum ether DAB | 6325051      | 2              |
| Fischar         | Petroleum ether DAB | 6325052      | 3              |
| Fischar         | Petroleum ether DAB | 6325063      | 3              |
| Fischar         | Petroleum ether DAB | 6325065      | 1              |
| Fischar         | Petroleum ether DAB | 6325081      | 3              |
| Fischar         | Petroleum ether DAB | 6325101      | 2              |
| Fischar         | Petroleum ether DAB | 6325106      | 1              |
| fischar         | Petroleum ether DAB | 6325109      | 1              |
| Fischar         | Petroleum ether DAB | 6325109      | 2              |
| Fischar         | Petroleum ether DAB | 6325119      | 1              |
| Fischar         | Petroleum ether DAB | 6326011      | 4              |
| Fischar         | Petroleum ether DAB | 6326012      | 1              |
| fischar         | Petroleum ether DAB | 6326021      | 2              |
| Fischar         | Petroleum ether DAB | 6326026      | 1              |
| Fischar         | Petroleum ether DAB | 6326027      | 1              |
| Fischar         | Petroleum ether DAB | 6326031      | 2              |
| Fischar         | Petroleum ether DAB | 6326032      | 1              |
| Fischar         | Petroleum ether DAB | 6326047      | 2              |
| Fischar         | Petroleum ether DAB | 6326049      | 1              |
| Fischar         | Petroleum ether DAB | 6326061      | 2              |
| Fischar         | Petroleum ether DAB | 6326071      | 3              |
| Fischar         | Petroleum ether DAB | 6326072      | 1              |
| Fischar         | Petroleum ether DAB | 6326075      | 1              |
| Fischar         | Petroleum ether DAB | 6326084      | 2              |
| Fischar         | Petroleum ether DAB | 6326092      | 1              |
| Fischar         | Petroleum ether DAB | 6326095      | 1              |
| Fischar         | Petroleum ether DAB | 632701       | 1              |
| Fischar         | Petroleum ether DAB | 6327013      | 1              |
| Fischar         | Petroleum ether DAB | 6327017      | 3              |
| Fischar         | Petroleum ether DAB | 6327019      | 2              |
| Fischar         | Petroleum ether DAB | 6327024      | 1              |
| Fischar         | Petroleum ether DAB | 6327034      | 3              |
| Fischar         | Petroleum ether DAB | 6327053      | 1              |
| Fischar         | Petroleum ether DAB | 6327054      | 2              |
| fischar         | Petroleum ether DAB | 6327055      | 1              |
| Fischar         | Petroleum ether DAB | 6327062      | 2              |
| Fischar         | Petroleum ether DAB | 6327072      | 1              |

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| <b>Supplier</b>          | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|--------------------------|---------------------|--------------|----------------|
| Fischar                  | Petroleum ether DAB | 6327074      | 2              |
| Fischar                  | Petroleum ether DAB | 6327091      | 1              |
| Fischar                  | Petroleum ether DAB | 6327101      | 1              |
| Fischar                  | Petroleum ether DAB | 6327102      | 2              |
| Fischar                  | Petroleum ether DAB | 6327105      | 2              |
| Fischar                  | Petroleum ether DAB | 6327112      | 1              |
| Fischar                  | Petroleum ether DAB | 6327114      | 1              |
| Fischar                  | Petroleum ether DAB | 6327115      | 1              |
| Fischar                  | Petroleum ether DAB | 6328014      | 1              |
| Fischar                  | Petroleum ether DAB | 6328016      | 1              |
| Fischar                  | Petroleum ether DAB | 6328017      | 1              |
| Fischar                  | Petroleum ether DAB | 6328019      | 3              |
| Fischar                  | Petroleum ether DAB | 632801A      | 1              |
| Fischar                  | Petroleum ether DAB | 6328035      | 1              |
| fischar                  | Petroleum ether DAB | 6328041      | 1              |
| Fischar                  | Petroleum ether DAB | 6328072      | 2              |
| Fischar                  | Petroleum ether DAB | 6328095      | 4              |
| Fischar                  | Petroleum ether DAB | 6328105      | 1              |
| Fischar                  | Petroleum ether DAB | 6328112      | 2              |
| Fischar                  | Petroleum ether DAB | 6328113      | 1              |
| Fischar                  | Petroleum ether DAB | 6328122      | 2              |
| Fischar                  | Petroleum ether DAB | 6329012      | 5              |
| Fischar                  | Petroleum ether DAB | 6329014      | 2              |
| Fischar                  | Petroleum ether DAB | 6329015      | 2              |
| Fischar                  | Petroleum ether DAB | 6329033      | 2              |
| Fischar                  | Petroleum ether DAB | 6329035      | 1              |
| Fischar                  | Petroleum ether DAB | 6329045      | 6              |
| Fischar                  | Petroleum ether DAB | 6329051      | 4              |
| Fischar                  | Petroleum ether DAB | 6329053      | 2              |
| Fischar                  | Petroleum ether DAB | 6329074      | 2              |
| Fischar                  | Petroleum ether DAB | 6329075      | 1              |
| Fischar                  | Petroleum ether DAB | 6329095      | 1              |
| fischar                  | Petroleum ether DAB | 6329101      | 1              |
| Fischar                  | Petroleum ether DAB | 6329101      | 1              |
| Fischar                  | Petroleum ether DAB | 6329103      | 1              |
| Fischar                  | Petroleum ether DAB | 6329122      | 4              |
| Fischar                  | Petroleum ether DAB | 7031588      | 1              |
| Fischar                  | Petroleum ether DAB | 9658104      | 1              |
| Fischbar                 | Petroleum ether DAB | 6324103      | 1              |
| Fischbar                 | Petroleum ether DAB | 6326112      | 1              |
| Fischer / Anzag          | Petroleum ether DAB | 6328035      | 1              |
| FISCHER GMBH / GEHE      | Petroleum ether DAB | 6323094      | 1              |
| FISCHER GMBH / GEHE      | Petroleum ether DAB | 6324091      | 1              |
| FISCHER GMBH / GEHE      | Petroleum ether DAB | 6324104      | 1              |
| Fischer GmbH/Phönix      | Petroleum ether DAB | 6328035      | 1              |
| Fischer Saarbrücken/GEHE | Petroleum ether DAB | 6322041      | 1              |
| Fischer Saarbrücken/GEHE | Petroleum ether DAB | 6323043      | 1              |
| Fischer/AHD              | Petroleum ether DAB | 6327115      | 1              |
| fischer/Alkun            | Petroleum ether DAB | 6327094      | 1              |
| Fischer/Ebert&Jacobi     | Petroleum ether DAB | 6324022      | 1              |
| Fischer/Fiebig           | Petroleum ether DAB | 6320064      | 1              |
| Fischer/Gehe             | Petroleum ether DAB | 6323111      | 1              |
| Fischer/Gehe             | Petroleum ether DAB | 6324103      | 1              |
| Fischer/Gehe             | Petroleum ether DAB | 6325024      | 1              |
| Fischer/Gehe             | Petroleum ether DAB | 6325052      | 1              |
| Fischer/Gehe             | Petroleum ether DAB | 6325053      | 1              |
| Fischer/Gehe             | Petroleum ether DAB | 6326084      | 1              |
| Fischer/Gehe             | Petroleum ether DAB | 6328122      | 1              |
| Fischer/Noweda           | Petroleum ether DAB | 6320054      | 1              |
| Fischer/Noweda           | Petroleum ether DAB | 6321001      | 1              |

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| <b>Supplier</b>        | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|------------------------|---------------------|--------------|----------------|
| Fischer/Noweda         | Petroleum ether DAB | 6321085      | 1              |
| Fischer/Noweda         | Petroleum ether DAB | 6328013      | 1              |
| Fischer/Noweda         | Petroleum ether DAB | 6328112      | 1              |
| Fischer/Noweda         | Petroleum ether DAB | 6329072      | 1              |
| Fischer/Phönix         | Petroleum ether DAB | 6325014      | 1              |
| Fischer/Phönix         | Petroleum ether DAB | 6325034      | 3              |
| Fischer/Phönix         | Petroleum ether DAB | 6326027      | 1              |
| Fischer/Phönix         | Petroleum ether DAB | 6327018      | 1              |
| Fischer/Phönix         | Petroleum ether DAB | 6327034      | 2              |
| Fischer/Phönix         | Petroleum ether DAB | 6327061      | 1              |
| Fischer/Phönix         | Petroleum ether DAB | 6327102      | 1              |
| Fischer/Phönix         | Petroleum ether DAB | 6329063      | 1              |
| Fischer/Sanacorp       | Petroleum ether DAB | 6323099      | 1              |
| Fischer/Sanacorp       | Petroleum ether DAB | 6325105      | 1              |
| Fischer/Sanacorp       | Petroleum ether DAB | 637013       | 1              |
| Fischer                | Petroleum ether DAB | 6233033      | 1              |
| Fischer                | Petroleum ether DAB | 6320024      | 1              |
| fischer                | Petroleum ether DAB | 6320043      | 1              |
| Fischer                | Petroleum ether DAB | 6320074      | 1              |
| Fischer                | Petroleum ether DAB | 6321011      | 1              |
| Fischer                | Petroleum ether DAB | 6321083      | 1              |
| Fischer                | Petroleum ether DAB | 6323064      | 1              |
| Fischer                | Petroleum ether DAB | 6323066      | 1              |
| Fischer                | Petroleum ether DAB | 6324062      | 1              |
| Fischer                | Petroleum ether DAB | 6324095      | 1              |
| Fischer                | Petroleum ether DAB | 6324102      | 1              |
| Fischer                | Petroleum ether DAB | 6324103      | 1              |
| Fischer                | Petroleum ether DAB | 6325081      | 1              |
| fischer                | Petroleum ether DAB | 6325087      | 1              |
| Fischer                | Petroleum ether DAB | 6325105      | 1              |
| Fischer                | Petroleum ether DAB | 6325107      | 1              |
| Fischer                | Petroleum ether DAB | 6326092      | 1              |
| Fischer                | Petroleum ether DAB | 6327024      | 1              |
| Fischer                | Petroleum ether DAB | 6328074      | 1              |
| Fischer                | Petroleum ether DAB | 6328093      | 1              |
| Fischer                | Petroleum ether DAB | 6329053      | 1              |
| fischer                | Petroleum ether DAB | 6329091      | 2              |
| Fishar/Jenne           | Petroleum ether DAB | 6320024      | 1              |
| fishar/Noweda          | Petroleum ether DAB | 6326113      | 1              |
| fishar/noweda          | Petroleum ether DAB | 6328122      | 1              |
| Fishar                 | Petroleum ether DAB | 6328105      | 1              |
| Frau Brinn-Holtz       | Petroleum ether DAB | 6325109      | 1              |
| Gehe - Hedinger        | Petroleum ether DAB | 28171B       | 1              |
| gehe / Fischer GmbH    | Petroleum ether DAB | 6320032      | 1              |
| Gehe/ Hedinger         | Petroleum ether DAB | 28167B       | 1              |
| GEHE/ Hedinger         | Petroleum ether DAB | 28180B       | 1              |
| Gehe/Fischar           | Petroleum ether DAB | 13373701     | 1              |
| Gehe/Fischar           | Petroleum ether DAB | 6327062      | 3              |
| Gehe/Fischar           | Petroleum ether DAB | 6328075      | 1              |
| Gehe/Hedinger          | Petroleum ether DAB | 28175B       | 1              |
| Gehe/Hedinger          | Petroleum ether DAB | 28176B       | 1              |
| Gehe/Hedinger          | Petroleum ether DAB | 28177B       | 1              |
| Gehe/Hedinger          | Petroleum ether DAB | 28181B       | 1              |
| Gehe/Otto Fischer GmbH | Petroleum ether DAB | 632711A      | 1              |
| Gehe/Otto Fischer GmbH | Petroleum ether DAB | 6329072      | 1              |
| Gehe                   | Petroleum ether DAB | 28166B       | 1              |
| Gehe                   | Petroleum ether DAB | 28170B       | 1              |
| Gehe                   | Petroleum ether DAB | 28172B       | 1              |
| Gehe                   | Petroleum ether DAB | 28173b       | 1              |
| Gehe                   | Petroleum ether DAB | 28175B       | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Gehe                       | Petroleum ether DAB | 28176B       | 2              |
| GEHE                       | Petroleum ether DAB | 28176B       | 1              |
| Gehe                       | Petroleum ether DAB | 28177B       | 2              |
| Gehe                       | Petroleum ether DAB | 28178B       | 1              |
| Gehe                       | Petroleum ether DAB | 28179B       | 2              |
| Gehe                       | Petroleum ether DAB | 28181B       | 1              |
| Gehe                       | Petroleum ether DAB | 28184B       | 1              |
| Gehe                       | Petroleum ether DAB | 28185B       | 1              |
| Gehe                       | Petroleum ether DAB | 6322061      | 1              |
| Gehe                       | Petroleum ether DAB | 6322095      | 1              |
| GEHE                       | Petroleum ether DAB | 6322119      | 1              |
| Gehe                       | Petroleum ether DAB | 6325024      | 1              |
| Gehe                       | Petroleum ether DAB | 6325044      | 1              |
| Gehe                       | Petroleum ether DAB | 6325051      | 1              |
| Gehe                       | Petroleum ether DAB | 6325065      | 1              |
| Gehe                       | Petroleum ether DAB | 6325109      | 1              |
| Gehe                       | Petroleum ether DAB | 6326027      | 1              |
| Gehe                       | Petroleum ether DAB | 6326055      | 1              |
| Gehe                       | Petroleum ether DAB | 6326063      | 1              |
| Gehe                       | Petroleum ether DAB | 6326092      | 1              |
| Gehe                       | Petroleum ether DAB | 6326093      | 1              |
| Gehe                       | Petroleum ether DAB | 6327017      | 1              |
| Gehe                       | Petroleum ether DAB | 6327034      | 1              |
| Gehe                       | Petroleum ether DAB | 6327114      | 1              |
| GEHE                       | Petroleum ether DAB | 6328044      | 1              |
| Gehe                       | Petroleum ether DAB | 6328064      | 1              |
| Gehe                       | Petroleum ether DAB | 6328104      | 1              |
| Gehe                       | Petroleum ether DAB | 6328112      | 1              |
| Gehe                       | Petroleum ether DAB | 6329072      | 1              |
| Gehe                       | Petroleum ether DAB | 6329105      | 1              |
| Gehe-Hedinger              | Petroleum ether DAB | 28167B       | 1              |
| Gehe-Hedinger              | Petroleum ether DAB | 28172B       | 1              |
| Geibo/Hedinger 06.05.2020  | Petroleum ether DAB | 28182B       | 1              |
| H4dinger/AHD               | Petroleum ether DAB | 28188B       | 2              |
| Haerdinger/Sanacorp        | Petroleum ether DAB | 281778       | 1              |
| Hediger/Phönix             | Petroleum ether DAB | 28179B       | 1              |
| Hediger/Phönix             | Petroleum ether DAB | 28186B       | 1              |
| Hediner/Noweda             | Petroleum ether DAB | 28177B       | 2              |
| Hedinger vdL               | Petroleum ether DAB | 28171B       | 2              |
| Hedinger , Stuttgart       | Petroleum ether DAB | 28170B       | 1              |
| HEDINGER / 20              | Petroleum ether DAB | 28168B       | 1              |
| HEDINGER / 20              | Petroleum ether DAB | 28170B       | 1              |
| HEDINGER / 30              | Petroleum ether DAB | 28172B       | 2              |
| Hedinger / 41              | Petroleum ether DAB | 28182B       | 1              |
| Hedinger / AHD 01.08.2017  | Petroleum ether DAB | 28176B       | 1              |
| Hedinger / AHD 08.03.2017  | Petroleum ether DAB | 28175B       | 1              |
| Hedinger / AHD 23.08.2018  | Petroleum ether DAB | 28177B       | 1              |
| Hedinger / Alliance HC     | Petroleum ether DAB | 28171B       | 1              |
| Hedinger / Alliance Hea... | Petroleum ether DAB | 28174B       | 1              |
| Hedinger / Alliance Hea... | Petroleum ether DAB | 28175B       | 1              |
| Hedinger / Alliance Hea... | Petroleum ether DAB | 28179B       | 1              |
| Hedinger / Alliance Hea... | Petroleum ether DAB | 28186B       | 1              |
| Hedinger / Anzag           | Petroleum ether DAB | 28163B       | 1              |
| Hedinger / Anzag           | Petroleum ether DAB | 28168B       | 1              |
| Hedinger / Anzag           | Petroleum ether DAB | 28176B       | 1              |
| Hedinger / Anzag           | Petroleum ether DAB | 28177B       | 1              |
| Hedinger / Anzag           | Petroleum ether DAB | 28178B       | 1              |
| Hedinger / Anzag           | Petroleum ether DAB | 28181B       | 1              |
| Hedinger / Gehe            | Petroleum ether DAB | 1301401      | 1              |
| Hedinger / Gehe            | Petroleum ether DAB | 28167B       | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Hedinger / Gehe            | Petroleum ether DAB | 28169B       | 6              |
| Hedinger / Gehe            | Petroleum ether DAB | 28170B       | 5              |
| Hedinger / Gehe            | Petroleum ether DAB | 28171B       | 1              |
| Hedinger / Gehe            | Petroleum ether DAB | 28174B       | 2              |
| Hedinger / Gehe            | Petroleum ether DAB | 28176B       | 1              |
| Hedinger / Gehe            | Petroleum ether DAB | 28177B       | 1              |
| Hedinger / Gehe            | Petroleum ether DAB | 28178B       | 5              |
| Hedinger / Gehe            | Petroleum ether DAB | 28181B       | 1              |
| Hedinger / Gehe            | Petroleum ether DAB | 28187B       | 2              |
| Hedinger / Gehe            | Petroleum ether DAB | 28188B       | 1              |
| Hedinger / Max Jenne       | Petroleum ether DAB | 28188B       | 1              |
| Hedinger / Noveda          | Petroleum ether DAB | 28176B       | 1              |
| Hedinger / NOW             | Petroleum ether DAB | 28170B       | 1              |
| Hedinger / NOW             | Petroleum ether DAB | 28184B       | 1              |
| Hedinger / Noweda          | Petroleum ether DAB | 28169B       | 1              |
| Hedinger / Noweda          | Petroleum ether DAB | 28172B       | 2              |
| Hedinger / Noweda          | Petroleum ether DAB | 28174B       | 2              |
| Hedinger / Noweda          | Petroleum ether DAB | 28175B       | 2              |
| HEDINGER / NOWEDA          | Petroleum ether DAB | 28175B       | 1              |
| Hedinger / Noweda          | Petroleum ether DAB | 28178B       | 1              |
| Hedinger / Noweda          | Petroleum ether DAB | 28179B       | 1              |
| Hedinger / Noweda          | Petroleum ether DAB | 28180B       | 1              |
| Hedinger / Noweda          | Petroleum ether DAB | 2818B        | 1              |
| Hedinger / Phoenix         | Petroleum ether DAB | 28180B       | 1              |
| Hedinger / Phoenix         | Petroleum ether DAB | 3966/V02/17  | 1              |
| Hedinger / Phönix          | Petroleum ether DAB | 28172B       | 1              |
| Hedinger / Sanacorp        | Petroleum ether DAB | 28179B       | 1              |
| Hedinger / Sanacorp        | Petroleum ether DAB | 28183B       | 1              |
| Hedinger / Sanacorp        | Petroleum ether DAB | 28186B       | 1              |
| hedinger /AHD              | Petroleum ether DAB | 28176B5449   | 1              |
| Hedinger /Sanacorp         | Petroleum ether DAB | 28173B       | 1              |
| Hedinger 1/Noweda          | Petroleum ether DAB | 28182B       | 1              |
| Hedinger 1/Noweda          | Petroleum ether DAB | 28185B       | 1              |
| Hedinger 1/Noweda          | Petroleum ether DAB | 28186B       | 1              |
| Hedinger GmbH &Co KG       | Petroleum ether DAB | 28176B       | 2              |
| Hedinger GmbH &Co KG       | Petroleum ether DAB | 28177B       | 1              |
| Hedinger GmbH &Co KG       | Petroleum ether DAB | 28178B       | 1              |
| Hedinger GmbH&Co. KG       | Petroleum ether DAB | 28182B       | 1              |
| Hedinger GmbH&Co.KG        | Petroleum ether DAB | 28181B       | 1              |
| Hedinger GmbH/ NOWEDA      | Petroleum ether DAB | 28174B       | 1              |
| Hedinger GmbH/ NOWEDA      | Petroleum ether DAB | 28175B       | 1              |
| Hedinger GmbH/ NOWEDA      | Petroleum ether DAB | 28179B       | 1              |
| Hedinger GmbH              | Petroleum ether DAB | 281738       | 1              |
| Hedinger GmbH              | Petroleum ether DAB | 28174B       | 1              |
| Hedinger GmbH              | Petroleum ether DAB | 28175B       | 1              |
| Hedinger Phönix            | Petroleum ether DAB | 28167B       | 1              |
| Hedinger Phönix            | Petroleum ether DAB | 28168B       | 2              |
| Hedinger Phönix            | Petroleum ether DAB | 28174B       | 1              |
| Hedinger Sanacorp          | Petroleum ether DAB | 28179B       | 1              |
| Hedinger Sanacorp          | Petroleum ether DAB | 28180B       | 1              |
| Hedinger über Sanacorp     | Petroleum ether DAB | 28173B       | 1              |
| Hedinger, Heiligenwiese... | Petroleum ether DAB |              | 1              |
| Hedinger, Heiligenwiese... | Petroleum ether DAB | 28166B       | 2              |
| Hedinger, Noweda           | Petroleum ether DAB | 28166B       | 2              |
| Hedinger, Noweda           | Petroleum ether DAB | 28167B       | 3              |
| Hedinger, Noweda           | Petroleum ether DAB | 28168B       | 2              |
| Hedinger, Stuttgart / P... | Petroleum ether DAB | 28183B       | 1              |
| Hedinger/ Alliance Heal... | Petroleum ether DAB | 28176B       | 1              |
| Hedinger/ Anzag EK 6,48    | Petroleum ether DAB | 28180B       | 1              |
| Hedinger/ Fiebig           | Petroleum ether DAB | 28028        | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Hedinger/ Gehe             | Petroleum ether DAB | 28168B       | 1              |
| Hedinger/ Gehe             | Petroleum ether DAB | 28173B       | 3              |
| Hedinger/ Gehe             | Petroleum ether DAB | 28174B       | 1              |
| Hedinger/ Gehe             | Petroleum ether DAB | 281788       | 1              |
| Hedinger/ Gehe             | Petroleum ether DAB | 28178B       | 2              |
| Hedinger/ GEHE             | Petroleum ether DAB | 28178B       | 1              |
| Hedinger/ Gehe             | Petroleum ether DAB | 28180B       | 2              |
| Hedinger/ Jenne            | Petroleum ether DAB | 28171B       | 4              |
| Hedinger/ Jenne            | Petroleum ether DAB | 28176B       | 2              |
| Hedinger/ Kehr             | Petroleum ether DAB | 281808       | 1              |
| Hedinger/ Kehr             | Petroleum ether DAB | 28181B       | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB |              | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB | 28171B       | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB | 28172B       | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB | 28176B       | 1              |
| Hedinger/ NOWEDA           | Petroleum ether DAB | 28176B       | 3              |
| Hedinger/ Noweda           | Petroleum ether DAB | 28177B       | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB | 281788       | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB | 28180B       | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB | 28182B       | 1              |
| Hedinger/ Noweda           | Petroleum ether DAB | 28184B       | 2              |
| Hedinger/ Phoenix WE...    | Petroleum ether DAB | 28172B       | 1              |
| Hedinger/ Phoenix          | Petroleum ether DAB | 28179B       | 1              |
| Hedinger/ Phoenix          | Petroleum ether DAB | 28184B       | 1              |
| Hedinger/ Phönix           | Petroleum ether DAB | (028)028     | 1              |
| Hedinger/ Phönix           | Petroleum ether DAB | 28171B       | 1              |
| Hedinger/ Phönix           | Petroleum ether DAB | 28178B       | 2              |
| Hedinger/ Phönix           | Petroleum ether DAB | 28180B       | 1              |
| Hedinger/ Sanacorp         | Petroleum ether DAB | 28173B       | 2              |
| Hedinger/ Sanacorp         | Petroleum ether DAB | 28175B       | 2              |
| Hedinger/ Sanacorp         | Petroleum ether DAB | 28178B       | 2              |
| Hedinger/ Sanacorp         | Petroleum ether DAB | 28179B       | 1              |
| Hedinger/ Sanacorp         | Petroleum ether DAB | 281818       | 1              |
| Hedinger/                  | Petroleum ether DAB | 28181B       | 1              |
| Hedinger/AHD               | Petroleum ether DAB | 28169B       | 1              |
| Hedinger/AHD               | Petroleum ether DAB | 28173B       | 1              |
| Hedinger/AHD               | Petroleum ether DAB | 28174B       | 1              |
| Hedinger/AHD               | Petroleum ether DAB | 28175B       | 1              |
| Hedinger/AHD               | Petroleum ether DAB | 28177B       | 2              |
| Hedinger/AHD               | Petroleum ether DAB | 28178B       | 3              |
| Hedinger/AHD               | Petroleum ether DAB | 28179B       | 1              |
| Hedinger/AHD               | Petroleum ether DAB | 28180B       | 2              |
| Hedinger/AHD               | Petroleum ether DAB | 28181B       | 1              |
| Hedinger/AHD               | Petroleum ether DAB | 28187B       | 3              |
| Hedinger/AHD               | Petroleum ether DAB | 28188B       | 1              |
| Hedinger/Allia             | Petroleum ether DAB | 28181b       | 1              |
| Hedinger/Allia             | Petroleum ether DAB | 28184B       | 1              |
| Hedinger/Allia             | Petroleum ether DAB | 28187B       | 1              |
| Hedinger/Alliance Healt... | Petroleum ether DAB | 28174B       | 1              |
| Hedinger/Alliance Healt... | Petroleum ether DAB | 28177B       | 4              |
| Hedinger/Alliance          | Petroleum ether DAB | 28174B       | 1              |
| Hedinger/Alliance          | Petroleum ether DAB | 28175B       | 1              |
| Hedinger/Alliance          | Petroleum ether DAB | 28176B       | 3              |
| Hedinger/Alliance          | Petroleum ether DAB | 28177B       | 1              |
| Hedinger/Alliance          | Petroleum ether DAB | 28183B       | 1              |
| Hedinger/AllianceHC        | Petroleum ether DAB | 28172B       | 1              |
| Hedinger/AllianceHC        | Petroleum ether DAB | 28173B       | 1              |
| Hedinger/Anzag 11.06.2012  | Petroleum ether DAB | 28166B       | 1              |
| Hedinger/Anzag 20.11.2012  | Petroleum ether DAB | 28167B       | 2              |
| Hedinger/Anzag             | Petroleum ether DAB | 28167B       | 2              |

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| Supplier                   | Substance           | Batch     | Spectra |
|----------------------------|---------------------|-----------|---------|
| hedinger/anzag             | Petroleum ether DAB | 28169B    | 1       |
| Hedinger/Anzag             | Petroleum ether DAB | 28171B    | 2       |
| Hedinger/Anzag             | Petroleum ether DAB | 28174B    | 1       |
| Hedinger/Ebert             | Petroleum ether DAB | 28175B    | 1       |
| Hedinger/Ebert             | Petroleum ether DAB | 28176B    | 2       |
| Hedinger/Ebert             | Petroleum ether DAB | 28177B    | 1       |
| Hedinger/Fiebig 28.03.2... | Petroleum ether DAB | 28179B    | 1       |
| Hedinger/Fiebig            | Petroleum ether DAB | 28178B    | 1       |
| Hedinger/Fiebig            | Petroleum ether DAB | 281798    | 1       |
| Hedinger/Fiebig            | Petroleum ether DAB | 281818    | 1       |
| Hedinger/Fiebig            | Petroleum ether DAB | 6320074   | 1       |
| hedinger/Gehe/6,74         | Petroleum ether DAB | 28180B    | 1       |
| hedinger/Gehe/6,76         | Petroleum ether DAB | 28178B    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 1231234   | 1       |
| Hedinger/GEHE              | Petroleum ether DAB | 1914M1170 | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28167B    | 2       |
| Hedinger/Gehe              | Petroleum ether DAB | 28168B    | 2       |
| Hedinger/Gehe              | Petroleum ether DAB | 28169B    | 3       |
| Hedinger/Gehe              | Petroleum ether DAB | 28170B    | 2       |
| hedinger/gehe              | Petroleum ether DAB | 28171B    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28171B    | 6       |
| Hedinger/GEHE              | Petroleum ether DAB | 28171B    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28172b    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28172B    | 10      |
| Hedinger/Gehe              | Petroleum ether DAB | 281738    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28173B    | 6       |
| Hedinger/Gehe              | Petroleum ether DAB | 28174B    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 281758    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28175B    | 4       |
| Hedinger/Gehe              | Petroleum ether DAB | 28176B    | 3       |
| hedinger/Gehe              | Petroleum ether DAB | 28177B    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28177B    | 5       |
| Hedinger/Gehe              | Petroleum ether DAB | 28178B    | 6       |
| Hedinger/GEHE              | Petroleum ether DAB | 28178B    | 2       |
| HEDINGER/Gehe              | Petroleum ether DAB | 28178B    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28179B    | 2       |
| Hedinger/Gehe              | Petroleum ether DAB | 28180B    | 3       |
| Hedinger/GEHE              | Petroleum ether DAB | 28180B    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 281818    | 1       |
| Hedinger/Gehe              | Petroleum ether DAB | 28181B    | 4       |
| Hedinger/Gehe              | Petroleum ether DAB | 28182B    | 2       |
| Hedinger/Gehe              | Petroleum ether DAB | 28183B    | 2       |
| Hedinger/Gehe              | Petroleum ether DAB | 28184B    | 5       |
| Hedinger/Gehe              | Petroleum ether DAB | 28186B    | 2       |
| Hedinger/Geibo             | Petroleum ether DAB | 28175B    | 1       |
| Hedinger/Geilenkirchen     | Petroleum ether DAB | 28176B    | 1       |
| Hedinger/Holdermann        | Petroleum ether DAB | 28170B    | 1       |
| Hedinger/Jenne 1.10.20 ... | Petroleum ether DAB | 28184B    | 1       |
| Hedinger/Jenne             | Petroleum ether DAB | 28170B    | 4       |
| Hedinger/Jenne             | Petroleum ether DAB | 28177B    | 1       |
| Hedinger/Jenne             | Petroleum ether DAB | 281818    | 1       |
| Hedinger/Kehr              | Petroleum ether DAB | 28176B    | 1       |
| Hedinger/Kehr              | Petroleum ether DAB | 281788    | 2       |
| Hedinger/Kehr              | Petroleum ether DAB | 28179B    | 1       |
| Hedinger/Kehr              | Petroleum ether DAB | 28181B    | 1       |
| Hedinger/N/08.05.13/PZN... | Petroleum ether DAB | 28167B    | 1       |
| Hedinger/Noweda            | Petroleum ether DAB | 21728     | 1       |
| hedinger/noweda            | Petroleum ether DAB | 281698    | 1       |
| hedinger/noweda            | Petroleum ether DAB | 28169B    | 1       |
| Hedinger/Noweda            | Petroleum ether DAB | 28170B    | 2       |

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| <b>Supplier</b>  | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|------------------|---------------------|--------------|----------------|
| Hedinger/Noweda  | Petroleum ether DAB | 28171B       | 2              |
| Hedinger/Noweda  | Petroleum ether DAB | 28173B       | 3              |
| Hedinger/Noweda  | Petroleum ether DAB | 28174B       | 5              |
| Hedinger/Noweda  | Petroleum ether DAB | 28175B       | 2              |
| hedinger/noweda  | Petroleum ether DAB | 28176B       | 1              |
| Hedinger/noweda  | Petroleum ether DAB | 28176B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 28176B       | 8              |
| hedinger/Noweda  | Petroleum ether DAB | 28177B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 28177B       | 3              |
| Hedinger/Noweda  | Petroleum ether DAB | 28178B       | 3              |
| HEDINGER/NOWEDA  | Petroleum ether DAB | 28178B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 281798       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 28179B       | 2              |
| HEDINGER/NOWEDA  | Petroleum ether DAB | 28179B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 28180B       | 3              |
| Hedinger/Noweda  | Petroleum ether DAB | 28181B       | 6              |
| HEDINGER/NOWEDA  | Petroleum ether DAB | 28181B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 28182B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 28183B       | 1              |
| HEDINGER/NOWEDA  | Petroleum ether DAB | 28184B       | 2              |
| Hedinger/Noweda  | Petroleum ether DAB | 28186B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 28187B       | 1              |
| Hedinger/Noweda  | Petroleum ether DAB | 281888       | 1              |
| HEDINGER/NOWEDA  | Petroleum ether DAB | 28188B       | 1              |
| Hedinger/Otto    | Petroleum ether DAB |              | 1              |
| Hedinger/Otto    | Petroleum ether DAB | 281678       | 1              |
| Hedinger/Otto    | Petroleum ether DAB | 281698       | 1              |
| Hedinger/Otto    | Petroleum ether DAB | 28180B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28168B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28174B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28175B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28176B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28177B       | 4              |
| Hedinger/Phoenix | Petroleum ether DAB | 28178B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28179B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 281808       | 1              |
| hedinger/Phoenix | Petroleum ether DAB | 28180B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28180B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28183B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28184B       | 1              |
| Hedinger/Phoenix | Petroleum ether DAB | 28188B       | 2              |
| Hedinger/Phönix  | Petroleum ether DAB | (028)028     | 1              |
| hedinger/phönix  | Petroleum ether DAB | 28167b       | 1              |
| Hedinger/Phönix  | Petroleum ether DAB | 28168B       | 3              |
| Hedinger/Phönix  | Petroleum ether DAB | 28169B       | 3              |
| Hedinger/Phönix  | Petroleum ether DAB | 28171B       | 1              |
| Hedinger/Phönix  | Petroleum ether DAB | 281728       | 1              |
| Hedinger/Phönix  | Petroleum ether DAB | 28172B       | 1              |
| Hedinger/Phönix  | Petroleum ether DAB | 28173B       | 1              |
| Hedinger/Phönix  | Petroleum ether DAB | 28174B       | 7              |
| HEDINGER/Phönix  | Petroleum ether DAB | 28174B       | 2              |
| Hedinger/Phönix  | Petroleum ether DAB | 28175B       | 2              |
| Hedinger/Phönix  | Petroleum ether DAB | 28176B       | 10             |
| Hedinger/Phönix  | Petroleum ether DAB | 281778       | 2              |
| Hedinger/Phönix  | Petroleum ether DAB | 28177B       | 5              |
| Hedinger/Phönix  | Petroleum ether DAB | 281788       | 2              |
| Hedinger/Phönix  | Petroleum ether DAB | 28178B       | 11             |
| Hedinger/Phönix  | Petroleum ether DAB | 281798       | 1              |
| Hedinger/Phönix  | Petroleum ether DAB | 28179B       | 1              |
| Hedinger/Phönix  | Petroleum ether DAB | 28180B       | 3              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Hedinger/Phönix            | Petroleum ether DAB | 281818       | 1              |
| Hedinger/Phönix            | Petroleum ether DAB | 28181B       | 2              |
| Hedinger/Phönix            | Petroleum ether DAB | 28184B       | 4              |
| Hedinger/Phönix            | Petroleum ether DAB | 28185B       | 1              |
| Hedinger/Phönix            | Petroleum ether DAB | 28188B       | 2              |
| Hedinger/Phönix            | Petroleum ether DAB | 2818ob       | 1              |
| Hedinger/Sanacorp 35,16EUR | Petroleum ether DAB | 281888       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB |              | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28166B       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28167B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28168B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 281698       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28169B       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28170B       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 281728       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28172b       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28172B       | 6              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28173b       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28173B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 281748       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28174B       | 3              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28175B       | 7              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28176B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28177B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28178B       | 3              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28179B       | 3              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28180B       | 6              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 281818       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28181B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28182B       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28183B       | 1              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28184B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28185B       | 2              |
| Hedinger/Sanacorp          | Petroleum ether DAB | 28188B       | 1              |
| Hedinger/Stumpf            | Petroleum ether DAB | 28167B       | 1              |
| Hedinger/Stumpf            | Petroleum ether DAB | 28168B       | 1              |
| Hedinger/V.d.L.            | Petroleum ether DAB | 28170B       | 1              |
| Hedinger/V.d.L.            | Petroleum ether DAB | 28171B       | 1              |
| Hedinger/XX                | Petroleum ether DAB | 28181B       | 1              |
| Hedinger                   | Petroleum ether DAB |              | 1              |
| Hedinger                   | Petroleum ether DAB | (028)028     | 1              |
| Hedinger                   | Petroleum ether DAB | 11051703     | 1              |
| Hedinger                   | Petroleum ether DAB | 12121401     | 1              |
| Hedinger                   | Petroleum ether DAB | 13081309     | 1              |
| Hedinger                   | Petroleum ether DAB | 14051804     | 1              |
| Hedinger                   | Petroleum ether DAB | 15091402     | 1              |
| Hedinger                   | Petroleum ether DAB | 170323184    | 1              |
| Hedinger                   | Petroleum ether DAB | 18111701     | 1              |
| Hedinger                   | Petroleum ether DAB | 204311170    | 1              |
| Hedinger                   | Petroleum ether DAB | 2071202      | 1              |
| Hedinger                   | Petroleum ether DAB | 2411Q-01170  | 1              |
| Hedinger                   | Petroleum ether DAB | 25021302     | 1              |
| Hedinger                   | Petroleum ether DAB | 28011506     | 1              |
| Hedinger                   | Petroleum ether DAB | 281478B      | 1              |
| Hedinger                   | Petroleum ether DAB | 2815B        | 1              |
| Hedinger                   | Petroleum ether DAB | 281658       | 1              |
| Hedinger                   | Petroleum ether DAB | 28165B       | 5              |
| Hedinger                   | Petroleum ether DAB | 28166B       | 9              |
| HEDINGER                   | Petroleum ether DAB | 28166B       | 2              |
| hedinger                   | Petroleum ether DAB | 28167B       | 2              |

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| <b>Supplier</b> | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------|--------------|----------------|
| Hedinger        | Petroleum ether DAB | 28167B       | 16             |
| HEDINGER        | Petroleum ether DAB | 28167B       | 1              |
| Hedinger        | Petroleum ether DAB | 281688       | 3              |
| HEDINGER        | Petroleum ether DAB | 281688       | 2              |
| hedinger        | Petroleum ether DAB | 28168B       | 1              |
| Hedinger        | Petroleum ether DAB | 28168B       | 20             |
| Hedinger        | Petroleum ether DAB | 281698       | 2              |
| Hedinger        | Petroleum ether DAB | 28169B       | 17             |
| Hedinger        | Petroleum ether DAB | 28170B       | 15             |
| Hedinger        | Petroleum ether DAB | 281718       | 1              |
| Hedinger        | Petroleum ether DAB | 28171B       | 28             |
| Hedinger        | Petroleum ether DAB | 28172b       | 1              |
| Hedinger        | Petroleum ether DAB | 28172B       | 41             |
| Hedinger        | Petroleum ether DAB | 281738       | 6              |
| Hedinger        | Petroleum ether DAB | 28173B       | 22             |
| HEDINGER        | Petroleum ether DAB | 28173B       | 1              |
| Hedinger        | Petroleum ether DAB | 28174        | 1              |
| Hedinger        | Petroleum ether DAB | 281748       | 5              |
| HEDINGER        | Petroleum ether DAB | 281748       | 1              |
| Hedinger        | Petroleum ether DAB | 28174b       | 2              |
| Hedinger        | Petroleum ether DAB | 28174B       | 33             |
| hedinger        | Petroleum ether DAB | 28175        | 1              |
| Hedinger        | Petroleum ether DAB | 281758       | 3              |
| Hedinger        | Petroleum ether DAB | 28175B       | 34             |
| Hedinger        | Petroleum ether DAB | 281768       | 3              |
| hedinger        | Petroleum ether DAB | 28176B       | 1              |
| Hedinger        | Petroleum ether DAB | 28176B       | 32             |
| Hedinger        | Petroleum ether DAB | 28176B5395   | 1              |
| Hedinger        | Petroleum ether DAB | 281778       | 3              |
| Hedinger        | Petroleum ether DAB | 28177B       | 22             |
| Hedinger        | Petroleum ether DAB | 281788       | 1              |
| hedinger        | Petroleum ether DAB | 28178B       | 2              |
| Hedinger        | Petroleum ether DAB | 28178B       | 29             |
| Hedinger        | Petroleum ether DAB | 28179B       | 13             |
| Hedinger        | Petroleum ether DAB | 2817SB       | 2              |
| Hedinger        | Petroleum ether DAB | 28180B       | 16             |
| Hedinger        | Petroleum ether DAB | 281818       | 2              |
| Hedinger        | Petroleum ether DAB | 28181B       | 14             |
| Hedinger        | Petroleum ether DAB | 28182B       | 3              |
| Hedinger        | Petroleum ether DAB | 28183B       | 3              |
| HEDINGER        | Petroleum ether DAB | 28183B       | 1              |
| hedinger        | Petroleum ether DAB | 28184B       | 1              |
| Hedinger        | Petroleum ether DAB | 28184B       | 11             |
| Hedinger        | Petroleum ether DAB | 28185B       | 3              |
| Hedinger        | Petroleum ether DAB | 28187B       | 6              |
| Hedinger        | Petroleum ether DAB | 28188B       | 1              |
| Hedinger        | Petroleum ether DAB | 29041501     | 1              |
| hedinger        | Petroleum ether DAB | 298171B      | 1              |
| Hedinger        | Petroleum ether DAB | 2B175B       | 1              |
| Hedinger        | Petroleum ether DAB | 2B180B       | 1              |
| Hedinger        | Petroleum ether DAB | 30101310     | 1              |
| Hedinger        | Petroleum ether DAB | 3071304      | 1              |
| Hedinger        | Petroleum ether DAB | 3071401      | 1              |
| Hedinger        | Petroleum ether DAB | 31101203     | 1              |
| Hedinger        | Petroleum ether DAB | 5121815      | 1              |
| Hedinger        | Petroleum ether DAB | 6324041      | 2              |
| hedinger        | Petroleum ether DAB | 6326011      | 1              |
| Hedinger        | Petroleum ether DAB | 7081801      | 1              |
| Hedinger        | Petroleum ether DAB | 7091707      | 1              |
| Hedinger        | Petroleum ether DAB | 9071803      | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Hedinger1                  | Petroleum ether DAB | 28170B       | 1              |
| Hediniger                  | Petroleum ether DAB | 28167B       | 1              |
| heidinger/anzag            | Petroleum ether DAB | 28174B       | 1              |
| Heidinger/Anzag            | Petroleum ether DAB | 28174B       | 1              |
| Heidinger/Anzag            | Petroleum ether DAB | 28176B       | 1              |
| Heidinger/Anzag            | Petroleum ether DAB | 28179B       | 1              |
| heidinger/gehe             | Petroleum ether DAB | 28167B       | 1              |
| heidinger/gehe             | Petroleum ether DAB | 28172B       | 2              |
| heidinger/gehe             | Petroleum ether DAB | 28175B       | 1              |
| Heidinger/Noweda           | Petroleum ether DAB | 281788       | 1              |
| Hubertus Apotheke          | Petroleum ether DAB | 6325055      | 1              |
| Jenne                      | Petroleum ether DAB | 15045203     | 1              |
| Jenne                      | Petroleum ether DAB | 28171B       | 1              |
| Jenne                      | Petroleum ether DAB | 28173B       | 1              |
| Kehr/Hedinger              | Petroleum ether DAB | 28175B       | 1              |
| Klenk                      | Petroleum ether DAB | 28167b       | 1              |
| Klenk                      | Petroleum ether DAB | 28171B       | 1              |
| Kögl                       | Petroleum ether DAB | 1801320      | 1              |
| Kost/kost                  | Petroleum ether DAB | 4065061213   | 1              |
| Krieger                    | Petroleum ether DAB | 6329034      | 1              |
| Kriger/Hedinger/06.01.14   | Petroleum ether DAB | 28167B       | 1              |
| L 20/Hedinger              | Petroleum ether DAB | 28175B       | 1              |
| L10/Fischar                | Petroleum ether DAB | 632801A      | 1              |
| L10                        | Petroleum ether DAB | 28174B       | 1              |
| L12                        | Petroleum ether DAB | 28175B       | 1              |
| L12                        | Petroleum ether DAB | 28179B       | 1              |
| Midas                      | Petroleum ether DAB | 28178B       | 1              |
| Noweda / Fischer           | Petroleum ether DAB | 6324075      | 1              |
| Noweda Hedinger 24.02.2... | Petroleum ether DAB | 28174B       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 28166B       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 28168B       | 2              |
| Noweda/Hedinger            | Petroleum ether DAB | 28170B       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 28173B       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 281748       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 28174B       | 1              |
| Noweda/hedinger            | Petroleum ether DAB | 28175B       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 28176B       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 28177B       | 1              |
| Noweda/Hedinger            | Petroleum ether DAB | 28180B       | 3              |
| Noweda/Hedinger            | Petroleum ether DAB | 281818       | 1              |
| Noweda                     | Petroleum ether DAB |              | 1              |
| Noweda                     | Petroleum ether DAB | 28164B       | 1              |
| Noweda                     | Petroleum ether DAB | 28166B       | 1              |
| Noweda                     | Petroleum ether DAB | 281698       | 1              |
| Noweda                     | Petroleum ether DAB | 28169B       | 1              |
| Noweda                     | Petroleum ether DAB | 28171B       | 2              |
| Noweda                     | Petroleum ether DAB | 28175B       | 2              |
| Noweda                     | Petroleum ether DAB | 28176B       | 3              |
| Noweda                     | Petroleum ether DAB | 28178B       | 1              |
| Noweda                     | Petroleum ether DAB | 28179B       | 1              |
| Noweda                     | Petroleum ether DAB | 28180B       | 1              |
| Noweda                     | Petroleum ether DAB | 281818       | 1              |
| Noweda                     | Petroleum ether DAB | 320062       | 1              |
| Noweda                     | Petroleum ether DAB | 6320033      | 1              |
| Noweda                     | Petroleum ether DAB | 6327021      | 1              |
| Noweda                     | Petroleum ether DAB | 6327062      | 2              |
| Noweda                     | Petroleum ether DAB | 6327092      | 1              |
| Noweda                     | Petroleum ether DAB | 6327093      | 1              |
| Noweda                     | Petroleum ether DAB | 6327105      | 1              |
| Noweda                     | Petroleum ether DAB | 6328064      | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------|--------------|----------------|
| Noweda                     | Petroleum ether DAB | 6329043      | 1              |
| Otto Fischar               | Petroleum ether DAB | 6322042      | 1              |
| Otto Fischar GmbH & Co KG  | Petroleum ether DAB | 6329103      | 1              |
| Otto Fischar GmbH & Co.... | Petroleum ether DAB | 6321083      | 1              |
| Otto Fischar GmbH & Co.... | Petroleum ether DAB | 6325111      | 1              |
| Otto Fischar GmbH & Co.... | Petroleum ether DAB | 6327013      | 1              |
| Otto Fischar GmbH & Co.... | Petroleum ether DAB | 6321035      | 2              |
| OTTO FISCHAR GmbH & Co.... | Petroleum ether DAB | 6321061      | 1              |
| Otto Fischar GmbH & Co.... | Petroleum ether DAB | 6326101      | 1              |
| Otto Fischar GmbH & Co.... | Petroleum ether DAB | 6327091      | 1              |
| Otto Fischar GmbH & Co.... | Petroleum ether DAB | X81A41       | 1              |
| Otto Fischar GmbH & nCo.KG | Petroleum ether DAB | 6327035      | 1              |
| Otto Fischar gmbH Co.KG    | Petroleum ether DAB | 6321064      | 1              |
| Otto Fischar GmbH&Co KG    | Petroleum ether DAB | 6327091      | 1              |
| Otto Fischar GmbH&Co KG    | Petroleum ether DAB | 6327115      | 1              |
| Otto Fischar GmbH/ Alli... | Petroleum ether DAB | 6329023      | 1              |
| Otto Fischar GmbH/AHD      | Petroleum ether DAB | 6320014      | 1              |
| Otto Fischar GmbH/AHD      | Petroleum ether DAB | 6329051      | 1              |
| Otto Fischar GmbH/Gehe     | Petroleum ether DAB | 6320032      | 1              |
| Otto Fischar GmbH/Phönix   | Petroleum ether DAB | 6320062      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6320024      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6320033      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6320062      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6320072      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6323094      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6324063      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6324115      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6327114      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6328014      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6328065      | 2              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6328111      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6328123      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6329034      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6329051      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6329053      | 1              |
| Otto Fischar GmbH          | Petroleum ether DAB | 6329091      | 1              |
| Otto Fischar Phönix        | Petroleum ether DAB | 6323069      | 1              |
| Otto Fischar Phönix        | Petroleum ether DAB | 6323111      | 1              |
| Otto Fischar/ Noweda/ N... | Petroleum ether DAB | 6329073      | 1              |
| Otto Fischar/AHD           | Petroleum ether DAB | 6320065      | 1              |
| Otto Fischar/AHD           | Petroleum ether DAB | 6329073      | 1              |
| Otto Fischar/Alliance      | Petroleum ether DAB | 632801A      | 1              |
| Otto Fischar/Alliance      | Petroleum ether DAB | 6328105      | 1              |
| Otto Fischar/Gehe          | Petroleum ether DAB | 6324035      | 1              |
| Otto Fischar/Gehe          | Petroleum ether DAB | 6324044      | 2              |
| Otto Fischar/Gehe          | Petroleum ether DAB | 6326027      | 1              |
| Otto Fischar/Gehe          | Petroleum ether DAB | 6328113      | 1              |
| Otto Fischar/Now           | Petroleum ether DAB | 6327091      | 1              |
| Otto Fischar/Noweda        | Petroleum ether DAB | 6325119      | 1              |
| Otto Fischar/Noweda        | Petroleum ether DAB | 6328113      | 1              |
| otto fischar/Phoenix       | Petroleum ether DAB | 6325044      | 1              |
| Otto Fischar/Phönix        | Petroleum ether DAB | 6327092      | 1              |
| Otto Fischar/Phönix        | Petroleum ether DAB | 6328019      | 2              |
| Otto Fischar/Phönix        | Petroleum ether DAB | 6328065      | 1              |
| Otto Fischar/Phönix        | Petroleum ether DAB | 6328111      | 1              |
| Otto Fischar/Phönix        | Petroleum ether DAB | 6328114      | 1              |
| Otto Fischar/Phönix        | Petroleum ether DAB | 6329023      | 2              |
| Otto Fischar/Phönix        | Petroleum ether DAB | 6329024      | 3              |
| otto fischar/Sana          | Petroleum ether DAB | 6323065      | 1              |
| Otto Fischar/Sanacorp      | Petroleum ether DAB | 6325051      | 1              |

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| <b>Supplier</b>            | <b>Substance</b>    | <b>Batch</b>       | <b>Spectra</b> |
|----------------------------|---------------------|--------------------|----------------|
| Otto Fischar/Sanacorp      | Petroleum ether DAB | 6327116            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6320015            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6321061            | 2              |
| Otto Fischar               | Petroleum ether DAB | 6322116            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6323063            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6325051            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6325063            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6326085            | 1              |
| otto Fischar               | Petroleum ether DAB | 6327055            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6327072            | 1              |
| Otto Fischar               | Petroleum ether DAB | 6327092            | 1              |
| Otto Fischar               | Petroleum ether DAB | 632792             | 1              |
| Otto Fischar               | Petroleum ether DAB | 6329103            | 1              |
| Otto Fischbar GmbH         | Petroleum ether DAB | 6328072            | 1              |
| Otto Fischbar GmbH         | Petroleum ether DAB | 6329031            | 1              |
| Otto Fischer / Sanacorp    | Petroleum ether DAB | 6325083            | 1              |
| Otto Fischer GmbH & co...  | Petroleum ether DAB | 6327019            | 1              |
| Otto Fischer GmbH & co...  | Petroleum ether DAB | 6327105            | 1              |
| Otto Fischer GmbH & co...  | Petroleum ether DAB | 6328044            | 2              |
| Otto Fischer GmbH & co...  | Petroleum ether DAB | 6328074            | 1              |
| Otto Fischer GmbH & Co.KG  | Petroleum ether DAB | 6320105            | 1              |
| Otto Fischer GmbH / Gehe   | Petroleum ether DAB | 6328072            | 1              |
| Otto Fischer GmbH / Phö... | Petroleum ether DAB | 6328113            | 1              |
| Otto Fischer GmbH/Allia... | Petroleum ether DAB | 6329072            | 1              |
| Otto Fischer GmbH/Allia... | Petroleum ether DAB | 6329074            | 1              |
| Otto Fischer GmbH          | Petroleum ether DAB | 15031402           | 1              |
| Otto Fischer GmbH          | Petroleum ether DAB | 6329051            | 1              |
| Otto Fischer/Gehe          | Petroleum ether DAB | 6329095            | 1              |
| Otto Fischer/Noweda        | Petroleum ether DAB | 6325108            | 1              |
| Otto Fischer/Noweda        | Petroleum ether DAB | 6327024            | 1              |
| Otto Fischer/Phoenix       | Petroleum ether DAB | 6328032            | 2              |
| Otto Fischer/Phönix        | Petroleum ether DAB | 6326026            | 4              |
| Otto Fischer/Phönix        | Petroleum ether DAB | 6326047            | 1              |
| otto fischer               | Petroleum ether DAB | 15081602           | 1              |
| Otto Fischer               | Petroleum ether DAB | 6320012            | 1              |
| Otto Fischer               | Petroleum ether DAB | 6323069            | 1              |
| Otto Fischer               | Petroleum ether DAB | 6325104            | 1              |
| otto fischer               | Petroleum ether DAB | 6326035            | 1              |
| Otto Fischer               | Petroleum ether DAB | 6326052            | 1              |
| Otto Fischer               | Petroleum ether DAB | 6326105            | 1              |
| Otto Fischer               | Petroleum ether DAB | 6328015            | 1              |
| Otto Fischar Noweda        | Petroleum ether DAB | 632065             | 1              |
| OttoFischar/Alkun          | Petroleum ether DAB | 362510A            | 1              |
| OttoFischar/Alkun          | Petroleum ether DAB | 6328121            | 1              |
| OttoFischer/Gehe           | Petroleum ether DAB | 6329034            | 1              |
| OttoFischerGmbH/Phoenix    | Petroleum ether DAB | 6326075            | 2              |
| Ph/Hedinger                | Petroleum ether DAB | 28178B             | 1              |
| Phoenix 08.03.14 Fischar   | Petroleum ether DAB | 6324013            | 1              |
| Phoenix/ Otto Fischer G... | Petroleum ether DAB | 6328014            | 1              |
| Phoenix/Cealo              | Petroleum ether DAB | 28176B/0818E-01170 | 1              |
| Phoenix/hedinger           | Petroleum ether DAB | 28168B             | 1              |
| Phoenix/hedinger           | Petroleum ether DAB | 28169B             | 2              |
| phoenix/hedinger           | Petroleum ether DAB | 28172B             | 1              |
| Phoenix/Hedinger           | Petroleum ether DAB | 28177B             | 1              |
| Phoenix/Hedinger           | Petroleum ether DAB | 28178B             | 1              |
| Phoenix                    | Petroleum ether DAB | 28171B             | 1              |
| Phoenix                    | Petroleum ether DAB | 28176B             | 1              |
| Phoenix                    | Petroleum ether DAB | 28178B             | 1              |
| Phoenix                    | Petroleum ether DAB | 2818838            | 1              |
| Phoenix                    | Petroleum ether DAB | 28188B             | 1              |

*continued on the next page*



continued from previous page

| Supplier                   | Substance           | Batch      | Spectra |
|----------------------------|---------------------|------------|---------|
| Phoenix                    | Petroleum ether DAB | 6326072    | 1       |
| Phoenix                    | Petroleum ether DAB | 6326093    | 1       |
| Phoenix                    | Petroleum ether DAB | 6328063    | 1       |
| Phönix EK:6,26 EUR -11     | Petroleum ether DAB | 28176B     | 1       |
| Phönix 16.09.2019          | Petroleum ether DAB | 6329051    | 1       |
| Phönix/Fischar             | Petroleum ether DAB | 6328013    | 1       |
| Phönix/Fischar             | Petroleum ether DAB | 6328072    | 5       |
| phönix/fischar             | Petroleum ether DAB | 6329031    | 4       |
| Phönix/Fischer             | Petroleum ether DAB | 6327034    | 1       |
| Phönix/Hedinger            | Petroleum ether DAB | 28179B     | 1       |
| Phönix                     | Petroleum ether DAB | 28168B     | 1       |
| Phönix                     | Petroleum ether DAB | 28169B     | 1       |
| phönix                     | Petroleum ether DAB | 28175B     | 1       |
| Phönix                     | Petroleum ether DAB | 6320115    | 1       |
| phönix                     | Petroleum ether DAB | 6326112    | 1       |
| Phönix                     | Petroleum ether DAB | 6327013    | 1       |
| phönix                     | Petroleum ether DAB | 6327062    | 1       |
| Phönix                     | Petroleum ether DAB | 6327093    | 1       |
| Phönix                     | Petroleum ether DAB | 6329051    | 1       |
| Phönix                     | Petroleum ether DAB | 6329123    | 1       |
| Phönix                     | Petroleum ether DAB | 6329124    | 1       |
| Sana Corp/Otto Fischar     | Petroleum ether DAB | 6328063    | 1       |
| Sanacorp 8.12.15           | Petroleum ether DAB | 28174B     | 2       |
| Sanacorp /Fischar          | Petroleum ether DAB | 6329123    | 1       |
| Sanacorp WE:04.02.2017 ... | Petroleum ether DAB | 28175B     | 1       |
| Sanacorp/ Lamotte          | Petroleum ether DAB | 28177B     | 1       |
| Sanacorp/Hedinger          | Petroleum ether DAB | 28181B     | 1       |
| Sanacorp                   | Petroleum ether DAB |            | 2       |
| Sanacorp                   | Petroleum ether DAB | 28166B     | 1       |
| Sanacorp                   | Petroleum ether DAB | 28169B     | 1       |
| Sanacorp                   | Petroleum ether DAB | 28171B     | 5       |
| Sanacorp                   | Petroleum ether DAB | 28174B     | 1       |
| Sanacorp                   | Petroleum ether DAB | 28175B     | 1       |
| Sanacorp                   | Petroleum ether DAB | 28177B     | 1       |
| Sanacorp                   | Petroleum ether DAB | 28178B     | 1       |
| Sanacorp                   | Petroleum ether DAB | 6322096    | 1       |
| Sanacorp                   | Petroleum ether DAB | 6323068    | 1       |
| Sanacorp                   | Petroleum ether DAB | 6324103    | 1       |
| Sanacorp                   | Petroleum ether DAB | 632510A    | 1       |
| Sanacorp                   | Petroleum ether DAB | 6327091    | 1       |
| Sanacorp                   | Petroleum ether DAB | 6328111    | 1       |
| Spangr/Hedinger            | Petroleum ether DAB | 28169B     | 1       |
| Spangro 14.09.2018         | Petroleum ether DAB | 6328064    | 1       |
| Spangro/Fischar            | Petroleum ether DAB | 6327017    | 1       |
| Spangro/Hedinger           | Petroleum ether DAB | 28171B     | 1       |
| Stumpf / Hedinger          | Petroleum ether DAB | 28169B     | 1       |
| Stumpf/Hedinger            | Petroleum ether DAB | 281718     | 1       |
| Stumpf/Hedinger            | Petroleum ether DAB | 28172B     | 1       |
| Taoasis                    | Petroleum ether DAB | 6328063    | 1       |
| tob                        | Petroleum ether DAB | 6326092    | 1       |
| Unisan                     | Petroleum ether DAB | 28174B     | 1       |
| Vbf A1/Phönix              | Petroleum ether DAB | 318E-01170 | 1       |
| VDL                        | Petroleum ether DAB | 28180B     | 1       |
| wepa/Sanaco                | Petroleum ether DAB | 6326031    | 1       |

- 286 557 spectra from 1294 *Apo-Ident* customers from a total of 51 476 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#),

the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Petroleum ether DAB* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Petroleum ether DAB* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 240           | 0              | 66 919        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 2147          | 5              | 286 557       |

The substance/substance group *Petroleum ether DAB* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.5000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.7677 % (> 99.6283 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Petroleum ether DAB* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Myrtle oil                                | 19.36                  | —                              |
| Petroleum oil, not for internal use       | 20.94                  | —                              |
| Peppermint oil                            | 27.11                  | —                              |
| Verbena oil, nature-identical             | 29.35                  | —                              |
| Turpentine oil                            | 32.08                  | —                              |
| Cypress oil                               | 37.72                  | —                              |
| Matricaria oil, rich in (-)-alpha-bisa... | 38.73                  | —                              |
| Cajeput (essentiel oil)                   | 40.94                  | —                              |
| Mint oil                                  | 41.27                  | —                              |
| Juniper wood oil                          | 45.22                  | —                              |
| Geranium oil, genuine                     | 46.07                  | —                              |
| Citronella oil                            | 48.89                  | —                              |
| Melissa oil                               | 50.64                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Petroleum ether DAB* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30899     | 30899               | 0.00                         | 31.69                           |
| 31253     | 31253               | 0.00                         | 28.99                           |
| 31283     | 31283               | 0.00                         | 33.43                           |
| 35820     | 30899               | 10.42                        | 26.47                           |
| 35855     | 31253               | 10.33                        | 32.73                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Petroleum oil, not for internal use**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31212-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Petroleum oil, not for internal use

### Special notes

When selecting the *Petroleum oil, not for internal use* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group           | Type A | Type B | Type C |
|-------------------------------------|--------|--------|--------|
| Petroleum oil, not for internal use | 4      | 2      | 15     |

## Second-stage model

For differentiation of the substance/substance group *Petroleum oil, not for internal use* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Petroleum oil, not for internal use*:

| Supplier | Substance             | Batch       | Sample ID | Spectra | Certificate |
|----------|-----------------------|-------------|-----------|---------|-------------|
| Caelo    | Petroleum oil, n. . . | 13146704    | 31212     | 40      | 1403110     |
| Caelo    | Petroleum oil, n. . . | 14019607    | 31387     | 60      | 20140124    |
| Caelo    | Petroleum oil, n. . . | 173331      | 34324     | 40      | 20180129*   |
| Caelo    | Petroleum oil, n. . . | 20003514005 | 35842     | 50      | 20201207    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 190 spectra of 4 reference samples from the substance/substance group *Petroleum oil, not for internal use*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 969 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Petroleum oil, not for internal use*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance                       | Batch  | Sample ID | Spectra |
|----------|---------------------------------|--------|-----------|---------|
| Caelo    | Petroleum oil, not for inter... | 163278 | 33109     | 40      |
| Caelo    | Petroleum oil, not for inter... | 182344 | 34238     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 22 spectra from 15 *Apo-Ident* customers from 16 batches from the substance/substance group *Petroleum oil, not for internal use*.
- Among them are spectra of independent samples from 15 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier             | Substance                       | Batch       | Spectra |
|----------------------|---------------------------------|-------------|---------|
| Caelo                | Petroleum oil, not for inter... | 11198403    | 1       |
| Caelo                | Petroleum oil, not for inter... | 113791      | 1       |
| Caelo                | Petroleum oil, not for inter... | 12173103    | 1       |
| Caelo                | Petroleum oil, not for inter... | 13086401    | 1       |
| Caelo                | Petroleum oil, not for inter... | 13086402    | 1       |
| Caelo                | Petroleum oil, not for inter... | 13146702    | 2       |
| Caelo                | Petroleum oil, not for inter... | 13303603    | 2       |
| Caelo                | Petroleum oil, not for inter... | 14019607    | 3       |
| Caelo                | Petroleum oil, not for inter... | 14242203    | 2       |
| Caelo                | Petroleum oil, not for inter... | 16165201    | 1       |
| Caelo                | Petroleum oil, not for inter... | 16327803    | 1       |
| Caelo                | Petroleum oil, not for inter... | 16327804    | 1       |
| Caelo                | Petroleum oil, not for inter... | 18234408    | 1       |
| Caelo                | Petroleum oil, not for inter... | 18234414    | 1       |
| Caelo                | Petroleum oil, not for inter... | 2306921     | 1       |
| Caelo                | Petroleum oil, not for inter... | 4416I-02003 | 1       |
| Caesar & Loretz GmbH | Petroleum oil, not for inter... | 18234414    | 1       |

- 288 687 spectra from 1294 *Apo-Ident* customers from a total of 51 872 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Petroleum oil, not for internal use* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Petroleum oil, not for internal use* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 190           | 0              | 66 969        |
| Type B | 0              | 80            | 0              | 107 283       |
| Type C | 0              | 22            | 0              | 288 687       |

The substance/substance group *Petroleum oil, not for internal use* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.8421 %) |
| Type B | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| Type C | 100.0000 % (> 99.6875 %) | 100.0000 % (> 72.7273 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Petroleum oil, not for internal use* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Petroleum ether DAB                       | 12.66                  | —                              |
| Triglycerides, medium-chain               | 22.52                  | —                              |
| All-rac-alpha-tocopheryl acetate          | 33.90                  | —                              |
| Peppermint oil                            | 34.61                  | —                              |
| Myrtle oil                                | 35.22                  | —                              |
| Verbena oil, nature-identical             | 36.26                  | —                              |
| Camphor oil 20%                           | 37.11                  | —                              |
| Guaiazulene 25%, water-soluble            | 39.43                  | —                              |
| Mint oil                                  | 40.60                  | —                              |
| Turpentine oil                            | 41.17                  | —                              |
| Citronella oil                            | 46.04                  | —                              |
| Matricaria oil, rich in (-)-alpha-bisa... | 47.09                  | —                              |
| Melissa oil                               | 47.14                  | —                              |
| Geranium oil, genuine                     | 49.25                  | —                              |
| Soy lecithin, liquid                      | 50.64                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Petroleum oil, not for internal use* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:



| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31212     | 31212               | 0.00                         | 35.84                           |
| 31387     | 31212               | 4.37                         | 35.94                           |
| 34324     | 34324               | 0.00                         | 17.06                           |
| 35842     | 31212               | 17.82                        | 32.97                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Phenoxyethanol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31808-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Phenoxyethanol; Phenoxyethanolum

### Special notes

When selecting the *Phenoxyethanol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Phenoxyethanol            | 3      | 3      | 3      |

## Second-stage model

For differentiation of the substance/substance group *Phenoxyethanol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Phenoxyethanol*:

| Supplier     | Substance      | Batch          | Sample ID | Spectra | Certificate        |
|--------------|----------------|----------------|-----------|---------|--------------------|
| Audor Pharma | Phenoxyethanol | APDEG4324219P  | 31808     | 60      | AR-16-FG-003720-01 |
| Audor Pharma | Phenoxyethanol | APDEG4324219P  | 31953     | 60      | 20150219           |
| Audor Pharma | Phenoxyethanol | APDEG4324219XP | 33293     | 40      | 20170406           |
| Euro OTC     | Phenoxyethanol | 2107019        | 35624     | 50      | 20210831*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 210 spectra of 4 reference samples from the substance/substance group *Phenoxyethanol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 66 949 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Phenoxyethanol*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance      | Batch   | Sample ID | Spectra |
|----------|----------------|---------|-----------|---------|
| Euro OTC | Phenoxyethanol | 2007015 | 35121     | 40      |
| Euro OTC | Phenoxyethanol | 2103021 | 35269     | 40      |
| Euro OTC | Phenoxyethanol | 2111011 | 35902     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 19 spectra from 10 *Apo-Ident* customers from 6 batches from the substance/substance group *Phenoxyethanol*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier        | Substance      | Batch          | Spectra |
|-----------------|----------------|----------------|---------|
| Audor Pharma    | Phenoxyethanol | APDEG432419P   | 1       |
| Audor Pharma    | Phenoxyethanol | APDEG4324219   | 1       |
| Audor Pharma    | Phenoxyethanol | APDEG4324219P  | 12      |
| Audor Pharma    | Phenoxyethanol | APDEG4324219XP | 3       |
| EuRho           | Phenoxyethanol | 2103021-01     | 1       |
| Fluka Analytics | Phenoxyethanol |                | 1       |

- 288 690 spectra from 1294 *Apo-Ident* customers from a total of 51 882 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Phenoxyethanol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Phenoxyethanol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 210           | 0              | 66 949        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 19            | 0              | 288 690       |

The substance/substance group *Phenoxyethanol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.1429 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6875 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Phenoxylethanol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>        | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|-------------------------|-------------------------------|---------------------------------------|
| Hydroxyethyl salicylate | 33.81                         | —                                     |
| Benzyl alcohol          | 96.91                         | —                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Phenoxylethanol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31808            | 31808                      | 0.00                                | 51.58                                  |
| 31953            | 35624                      | 2.48                                | 51.42                                  |
| 33293            | 35624                      | 4.74                                | 49.03                                  |
| 35624            | 35624                      | 0.00                                | 50.21                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Phytomenadione**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30747-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Phytomenadione; Phytomenadionum

### Special notes

When selecting the *Phytomenadione* substance/substance group, the following information is displayed to the user:

- Distinction to Phytomenadione, racemic: The monography Phytomenadione has been discontinued in Ph. Eur. 9.6. At the same time, Phytomenadione, racemic has been published. Decide, if a supplementary test is necessary.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Phytomenadione            | 3      | 2      | 12     |



## Second-stage model

For differentiation of the substance/substance group *Phytomenadione* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Phytomenadione*:

| Supplier | Substance      | Batch            | Sample ID | Spectra | Certificate |
|----------|----------------|------------------|-----------|---------|-------------|
| Fagron   | Phytomenadione | 12H31-N02        | 30747     | 40      | 1405178     |
| Fagron   | Phytomenadione | 16D07-B03-328576 | 33303     | 40      | 20160603    |
| Fagron   | Phytomenadione | 16D07-B03-328730 | 33304     | 40      | 20160603    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 3 reference samples from the substance/substance group *Phytomenadione*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 039 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 100 spectra of 2 reference samples from the substance/substance group *Phytomenadione*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance      | Batch            | Sample ID | Spectra |
|----------|----------------|------------------|-----------|---------|
| Fagron   | Phytomenadione | 14I02-B04-301537 | 31621     | 60      |
| Fagron   | Phytomenadione | 17F12-B12-344796 | 34086     | 40      |

- 107 263 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 14 spectra from 9 *Apo-Ident* customers from 13 batches from the substance/substance group *Phytomenadione*.
- Among them are spectra of independent samples from 12 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance      | Batch            | Spectra |
|----------|----------------|------------------|---------|
| Fagron   | Phytomenadione | 13C25-N07        | 1       |
| Fagron   | Phytomenadione | 13D26-B07-286714 | 1       |
| Fagron   | Phytomenadione | 15F25-B04-314081 | 1       |
| Fagron   | Phytomenadione | 17F12-B12        | 1       |
| Fagron   | Phytomenadione | 17F12-B12-344795 | 2       |
| Fagron   | Phytomenadione | 17F28-H10-00239  | 1       |
| Fagron   | Phytomenadione | 18H03-B06        | 1       |
| Fagron   | Phytomenadione | 20D29-F05        | 1       |
| Merck    | Phytomenadione |                  | 1       |
| Merck    | Phytomenadione | EH13000590       | 1       |
| Merck    | Phytomenadione | EH14000190       | 1       |
| Merck    | Phytomenadione | L016067990       | 1       |
| Merck    | Phytomenadione | L017134390       | 1       |

- 288 695 spectra from 1294 *Apo-Ident* customers from a total of 51 876 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Phytomenadione* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Phytomenadione* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 100           | 0              | 107 223       |
| <b>Type C</b> | 0              | 12            | 2              | 288 695       |

The substance/substance group *Phytomenadione* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| Type B | 100.0000 % (> 99.9676 %) | 100.0000 % (> 94.0000 %) |
| Type C | 100.0000 % (> 99.6877 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Phytomenadione* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                             | Distance in main model | Distance in second-stage model |
|---------------------------------------|------------------------|--------------------------------|
| Metronidazole 25% in white petrolatum | 56.51                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Phytomenadione* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30747     | 30747               | 0.00                         | 119.21                          |
| 33303     | 30747               | 4.53                         | 118.54                          |
| 33304     | 30747               | 7.48                         | 117.88                          |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Pine silvestris oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31183-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Pine silvestris oil; Pini silvestris aetheroleum

### Special notes

When selecting the *Pine silvestris oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Pine silvestris oil       | 4      | 2      | 68     |

## Second-stage model

For differentiation of the substance/substance group *Pine silvestris oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Pine silvestris oil*:

| Supplier | Substance           | Batch     | Sample ID | Spectra | Certificate |
|----------|---------------------|-----------|-----------|---------|-------------|
| Caelo    | Pine silvestris ... | 13334502  | 31202     | 40      | 1403168     |
| Caelo    | Pine silvestris ... | 13334501  | 31405     | 40      | 20131009    |
| Caelo    | Pine silvestris ... | 180752    | 34452     | 40      | 20180309*   |
| Fagron   | Pine silvestris ... | 13E24-N05 | 31183     | 40      | 1403166     |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 160 spectra of 4 reference samples from the substance/substance group *Pine silvestris oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 999 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Pine silvestris oil*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance           | Batch       | Sample ID | Spectra |
|----------|---------------------|-------------|-----------|---------|
| Caelo    | Pine silvestris oil | 16298401    | 33250     | 40      |
| Caelo    | Pine silvestris oil | 21002090005 | 35746     | 50      |
| Caelo    | Pine silvestris oil | 16298401    | 33424     | 40      |

- 107 233 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 196 spectra from 80 *Apo-Ident* customers from 69 batches from the substance/substance group *Pine silvestris oil*.
- Among them are spectra of independent samples from 62 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance           | Batch     | Spectra |
|----------|---------------------|-----------|---------|
| Bergland | Pine silvestris oil | C502587   | 1       |
| Bergland | Pine silvestris oil | C700086   | 1       |
| Caelo    | Pine silvestris oil | 11024602  | 1       |
| Caelo    | Pine silvestris oil | 11024603  | 1       |
| Caelo    | Pine silvestris oil | 11161605  | 2       |
| Caelo    | Pine silvestris oil | 12080504  | 5       |
| Caelo    | Pine silvestris oil | 12246905  | 1       |
| Caelo    | Pine silvestris oil | 12246907  | 2       |
| Caelo    | Pine silvestris oil | 13334501  | 6       |
| Caelo    | Pine silvestris oil | 14252202  | 4       |
| Caelo    | Pine silvestris oil | 14252203  | 2       |
| Caelo    | Pine silvestris oil | 15239101  | 8       |
| Caelo    | Pine silvestris oil | 15239102  | 2       |
| Caelo    | Pine silvestris oil | 15239103  | 1       |
| Caelo    | Pine silvestris oil | 16007402  | 4       |
| Caelo    | Pine silvestris oil | 16007405  | 2       |
| Caelo    | Pine silvestris oil | 16007406  | 1       |
| Caelo    | Pine silvestris oil | 16298401  | 13      |
| Caelo    | Pine silvestris oil | 16298403  | 2       |
| Caelo    | Pine silvestris oil | 1713001   | 1       |
| Caelo    | Pine silvestris oil | 17133001  | 10      |
| Caelo    | Pine silvestris oil | 17133002  | 1       |
| Caelo    | Pine silvestris oil | 17321803  | 1       |
| Caelo    | Pine silvestris oil | 17321804  | 1       |
| Caelo    | Pine silvestris oil | 18075201  | 18      |
| Caelo    | Pine silvestris oil | 18075202  | 3       |
| Caelo    | Pine silvestris oil | 18075203  | 1       |
| Caelo    | Pine silvestris oil | 18075204  | 1       |
| Caelo    | Pine silvestris oil | 18075205  | 3       |
| Caelo    | Pine silvestris oil | 18075206  | 1       |
| Caelo    | Pine silvestris oil | 190334001 | 3       |
| Caelo    | Pine silvestris oil | 19033401  | 1       |
| Caelo    | Pine silvestris oil | 19033402  | 6       |
| Caelo    | Pine silvestris oil | 19033403  | 1       |
| Caelo    | Pine silvestris oil | 19033404  | 4       |

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| Supplier                     | Substance           | Batch            | Spectra |
|------------------------------|---------------------|------------------|---------|
| Caelo                        | Pine silvestris oil | 2000000397005    | 1       |
| Caelo                        | Pine silvestris oil | 200000397004     | 1       |
| Caelo                        | Pine silvestris oil | 2000039          | 1       |
| Caelo                        | Pine silvestris oil | 20000397004      | 5       |
| Caelo                        | Pine silvestris oil | 20000397005      | 11      |
| Caelo                        | Pine silvestris oil | 21002090003      | 1       |
| Caelo                        | Pine silvestris oil | 24061710         | 1       |
| Caelo                        | Pine silvestris oil | 26091404         | 1       |
| Caesar & Loretz GmbH AHD     | Pine silvestris oil | 19033404         | 1       |
| Caesar & Loretz GmbH/Gehe    | Pine silvestris oil | 18075201         | 2       |
| Caesar & Loretz GmbH/gehe    | Pine silvestris oil | 19033404         | 1       |
| Caesar & Loretz GmbH/Gehe    | Pine silvestris oil | 20000397004      | 2       |
| Caesar & Loretz GmbH/Sa. . . | Pine silvestris oil | 20000397004      | 1       |
| Caesar & Loretz GmbH         | Pine silvestris oil | 18075201         | 3       |
| Caesar & Loretz GmbH         | Pine silvestris oil | 19033402         | 1       |
| Caesar & Loretz GmbH         | Pine silvestris oil | 19033403         | 1       |
| Caesar & Loretz GmbH         | Pine silvestris oil | 19033404         | 3       |
| Caesar & Loretz GmbH         | Pine silvestris oil | 19033405         | 2       |
| Caesar & Loretz GmbH         | Pine silvestris oil | 20000397004      | 2       |
| Fagron                       | Pine silvestris oil | 12G20-N04        | 1       |
| Fagron                       | Pine silvestris oil | 12L03-N05        | 1       |
| Fagron                       | Pine silvestris oil | 14J27-B06        | 1       |
| Fagron                       | Pine silvestris oil | 15F12-B02_308878 | 1       |
| Fagron                       | Pine silvestris oil | 15F12-B02-308878 | 1       |
| Fagron                       | Pine silvestris oil | 15F12-B02-323109 | 1       |
| Fiebig                       | Pine silvestris oil | 16298402         | 1       |
| Fiebig                       | Pine silvestris oil | 17321801         | 1       |
| Fiebig                       | Pine silvestris oil | 18075201         | 2       |
| Hänseler                     | Pine silvestris oil |                  | 8       |
| Noweda                       | Pine silvestris oil | 11161605         | 1       |
| noweda                       | Pine silvestris oil | 13334501         | 1       |
| Phönix                       | Pine silvestris oil | 13334501         | 2       |
| Taoasis/Phönix               | Pine silvestris oil | 32372-110382     | 1       |
| Taoasis                      | Pine silvestris oil | 20017-118846     | 1       |
| Taoasis                      | Pine silvestris oil | 28663-119029     | 1       |
| Taoasis                      | Pine silvestris oil | 28663-119531     | 1       |
| Taoasis                      | Pine silvestris oil | 28663-120876     | 2       |
| Taoasis                      | Pine silvestris oil | 30600-18490      | 1       |
| Taoasis                      | Pine silvestris oil | 33717-112501     | 2       |
| Taoasis                      | Pine silvestris oil | 35808-123038     | 2       |
| Taoasis                      | Pine silvestris oil | 49977-12442      | 1       |
| Taoasis                      | Pine silvestris oil | 49977-125240     | 2       |
| Taoasis                      | Pine silvestris oil | 8169-117244      | 4       |

- 288 513 spectra from 1294 *Apo-Ident* customers from a total of 51 819 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Pine silvestris oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Pine silvestris oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The



following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 160           | 0              | 66 999        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 194           | 2              | 288 513       |

The substance/substance group *Pine silvestris oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.2500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.9796 % (> 97.4490 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Pine silvestris oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in main model | Distance in second-stage model |
|-------------------|------------------------|--------------------------------|
| Cypress oil       | 21.40                  | —                              |
| Dwarf pine oil    | 23.52                  | —                              |
| Juniper wood oil  | 29.17                  | —                              |
| Spearmint oil     | 29.56                  | —                              |
| Turpentine oil    | 34.64                  | —                              |
| Caraway oil       | 35.07                  | —                              |
| Eucalyptus oil    | 35.88                  | —                              |
| Juniper oil       | 40.40                  | —                              |
| Citric oil        | 41.63                  | —                              |
| Bitter orange oil | 44.75                  | —                              |
| Grapefruit oil    | 47.15                  | —                              |
| Bergamot oil      | 48.45                  | —                              |
| Cedar wood oil    | 55.34                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Pine silvestris oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested

reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31183     | 31183               | 0.00                         | 21.40                           |
| 31202     | 31202               | 0.00                         | 22.10                           |
| 31405     | 31202               | 2.43                         | 21.98                           |
| 34452     | 34452               | 0.00                         | 22.47                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Pine tar**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31221-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Pine tar; Pix liquida

### Special notes

When selecting the *Pine tar* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Pine tar                  | 3      | 1      | 0      |

## Second-stage model

For differentiation of the substance/substance group *Pine tar* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Pine tar*:

| Supplier | Substance | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------|----------|-----------|---------|-------------|
| Caelo    | Pine tar  | 13008302 | 31221     | 40      | 1403320     |
| Caelo    | Pine tar  | 16017905 | 33442     | 40      | 20160217    |
| Caelo    | Pine tar  | 180594   | 34085     | 40      | 20180227*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 3 reference samples from the substance/substance group *Pine tar*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 039 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 60 spectra of 1 reference samples from the substance/substance group *Pine tar*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance | Batch    | Sample ID | Spectra |
|----------|-----------|----------|-----------|---------|
| Caelo    | Pine tar  | 13008309 | 31614     | 60      |

- 107 303 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 0 spectra from 0 *Apo-Ident* customers from 0 batches from the substance/substance group *Pine tar*.
- Among them are spectra of independent samples from 0 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.
- 288 709 spectra from 1294 *Apo-Ident* customers from a total of 51 888 batches from a further 344 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Pine tar* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Pine tar* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 60            | 0              | 107 303       |
| <b>Type C</b> | 0              | 0             | 0              | 288 709       |

The substance/substance group *Pine tar* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 90.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6894 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Pine tar* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance       | Distance in<br>main model | Distance in<br>second-stage model |
|-----------------|---------------------------|-----------------------------------|
| (s)-Lactic acid | 147.33                    | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Pine tar* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31221     | 31221                  | 0.00                            | 167.22                             |
| 33442     | 31221                  | 22.40                           | 206.11                             |
| 34085     | 34085                  | 0.00                            | 253.37                             |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50% greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Polyhexanide solution 20%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30596-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Polyhexanide solution 20%; Solutio polyhexanidi 20%

### Special notes

When selecting the *Polyhexanide solution 20%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Polyhexanide solution 20% | 5      | 2      | 191    |



## Second-stage model

For differentiation of the substance/substance group *Polyhexanide solution 20%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Polyhexanide solution 20%*:

| Supplier | Substance           | Batch            | Sample ID | Spectra | Certificate |
|----------|---------------------|------------------|-----------|---------|-------------|
| Fagron   | Polyhexanide sol... | 13H05-N04        | 31180     | 40      | 1403256     |
| Fagron   | Polyhexanide sol... | 13K29-B30-288935 | 31571     | 60      | 20131217    |
| Fagron   | Polyhexanide sol... | 16B16-B04-322720 | 32733     | 40      | 20160229    |
| Fagron   | Polyhexanide sol... | 18B16-B10-345748 | 34087     | 40      | 20180306    |
| Fagron   | Polyhexanide sol... | 20A16-F03-368291 | 34846     | 40      | 20200228    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Polyhexanide solution 20%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Polyhexanide solution 20%*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                 | Batch            | Sample ID | Spectra |
|----------|---------------------------|------------------|-----------|---------|
| Fagron   | Polyhexanide solution 20% | 12A04-N06        | 30596     | 40      |
| Fagron   | Polyhexanide solution 20% | 15H28-B11-313603 | 32276     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 982 spectra from 464 *Apo-Ident* customers from 209 batches from the substance/substance group *Polyhexanide solution 20%*.
- Among them are spectra of independent samples from 188 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier         | Substance                 | Batch             | Spectra |
|------------------|---------------------------|-------------------|---------|
| 18GR009011       | Polyhexanide solution 20% | 19D03-B01-360931  | 1       |
| Anzag 14.01.2019 | Polyhexanide solution 20% | 18D09-B01-348161  | 1       |
| ANZAG KASSEL     | Polyhexanide solution 20% | 18GR353621        | 1       |
| Anzag            | Polyhexanide solution 20% | 16B16-B04-325487  | 1       |
| Anzag            | Polyhexanide solution 20% | 16G29-B01-335336  | 2       |
| B.Braun/ Noweda  | Polyhexanide solution 20% | 13103M18          | 3       |
| Beiersdorf       | Polyhexanide solution 20% | 18816-810-345748  | 1       |
| bergländ         | Polyhexanide solution 20% | 18D09-B01-348161  | 1       |
| Bombastus        | Polyhexanide solution 20% | 18b16b10435748    | 1       |
| Caelo            | Polyhexanide solution 20% | 12B09-N01         | 1       |
| Caelo            | Polyhexanide solution 20% | 12GR227646        | 1       |
| Caelo            | Polyhexanide solution 20% | 12K20N01          | 1       |
| Caelo            | Polyhexanide solution 20% | 13351M28          | 2       |
| Caelo            | Polyhexanide solution 20% | 13K29-B30-288934  | 1       |
| Caelo            | Polyhexanide solution 20% | 13K29-B30-288938  | 2       |
| Caelo            | Polyhexanide solution 20% | 14F25-B06         | 1       |
| Caelo            | Polyhexanide solution 20% | 14F25-B06-296291  | 2       |
| Caelo            | Polyhexanide solution 20% | 14F25-B06-296292  | 2       |
| Caelo            | Polyhexanide solution 20% | 14F25-B06-300093  | 2       |
| Caelo            | Polyhexanide solution 20% | 14F25-B06-305013  | 1       |
| Caelo            | Polyhexanide solution 20% | 14GR132285        | 1       |
| Caelo            | Polyhexanide solution 20% | 15D09-B01-348161  | 1       |
| Caelo            | Polyhexanide solution 20% | 15H28-B11         | 1       |
| Caelo            | Polyhexanide solution 20% | 15H28-B11-313603  | 1       |
| Caelo            | Polyhexanide solution 20% | 15H28-B11-315703  | 2       |
| Caelo            | Polyhexanide solution 20% | 16B16-B04         | 1       |
| Caelo            | Polyhexanide solution 20% | 16B16-B04-318789  | 2       |
| Caelo            | Polyhexanide solution 20% | 16B16B04322720    | 2       |
| Caelo            | Polyhexanide solution 20% | 16B16-B04-325487  | 1       |
| Caelo            | Polyhexanide solution 20% | 16B16-B04-3325487 | 1       |
| Caelo            | Polyhexanide solution 20% | 16G29B01328171    | 1       |
| Caelo            | Polyhexanide solution 20% | 16G29-B01-335336  | 1       |
| Caelo            | Polyhexanide solution 20% | 16GR025056        | 1       |
| Caelo            | Polyhexanide solution 20% | 17GR185627        | 2       |
| Caelo            | Polyhexanide solution 20% | 17L14-B02-343990  | 1       |
| Caelo            | Polyhexanide solution 20% | 17L14-B02-343991  | 2       |

*continued on the next page*

continued from previous page

| Supplier          | Substance                 | Batch             | Spectra |
|-------------------|---------------------------|-------------------|---------|
| Caelo             | Polyhexanide solution 20% | 18/18-B05-355791  | 1       |
| Caelo             | Polyhexanide solution 20% | 18B16-B10-345748  | 2       |
| Caelo             | Polyhexanide solution 20% | 18D09-B01-348160  | 2       |
| Caelo             | Polyhexanide solution 20% | 18D09B01348161    | 1       |
| Caelo             | Polyhexanide solution 20% | 18D09-B01-348161  | 2       |
| Caelo             | Polyhexanide solution 20% | 18G02-B01         | 1       |
| Caelo             | Polyhexanide solution 20% | 18G02-B01-353296  | 4       |
| Caelo             | Polyhexanide solution 20% | 18G02-B01-353297  | 1       |
| Caelo             | Polyhexanide solution 20% | 19A16-B04-357983  | 1       |
| Caelo             | Polyhexanide solution 20% | 19D03-B01-360930  | 2       |
| Caelo             | Polyhexanide solution 20% | 19d03-b01-360931  | 1       |
| Caelo             | Polyhexanide solution 20% | 20A16-F03-368291  | 1       |
| Caelo             | Polyhexanide solution 20% | 20A16-F03-368292  | 1       |
| Caelo             | Polyhexanide solution 20% | 93007             | 1       |
| Caelo             | Polyhexanide solution 20% | AKD17             | 1       |
| Caelo             | Polyhexanide solution 20% | F03-3682900       | 2       |
| Calachem / Noweda | Polyhexanide solution 20% | 19A16-B04-357983  | 1       |
| Calachem / Noweda | Polyhexanide solution 20% | 20A16-F03-3682809 | 2       |
| Caleo/ Noweda     | Polyhexanide solution 20% | 18J18-B05         | 1       |
| Ebert-Jacobi      | Polyhexanide solution 20% | 16G29-B01-328171  | 1       |
| Ebert-Jacobi      | Polyhexanide solution 20% | 16G29-B01-330629  | 1       |
| Euro OTC          | Polyhexanide solution 20% | 15H28-B11-313603  | 1       |
| Euro OTC          | Polyhexanide solution 20% | 15H28-B11-313604  | 1       |
| Euro OTC          | Polyhexanide solution 20% | 16B16-B04-320854  | 1       |
| Euro OTC          | Polyhexanide solution 20% | 18D09-B01348161   | 1       |
| Euro OTC          | Polyhexanide solution 20% | 18D09-B01-348161  | 4       |
| facron 2          | Polyhexanide solution 20% | 19A16b04359557    | 1       |
| Fagon/Sanacorp    | Polyhexanide solution 20% | 18J18-B05-355791  | 1       |
| Fagron            | Polyhexanide solution 20% |                   | 4       |
| Fagron            | Polyhexanide solution 20% | 1092005           | 1       |
| Fagron            | Polyhexanide solution 20% | 11G22N02          | 1       |
| Fagron            | Polyhexanide solution 20% | 11GR180545        | 1       |
| Fagron            | Polyhexanide solution 20% | 12A04-N06         | 1       |
| Fagron            | Polyhexanide solution 20% | 12D27-N07         | 1       |
| Fagron            | Polyhexanide solution 20% | 12k20-n01         | 2       |
| Fagron            | Polyhexanide solution 20% | 12K20-N01         | 5       |
| Fagron            | Polyhexanide solution 20% | 13GR157470        | 1       |
| Fagron            | Polyhexanide solution 20% | 13H05-N01         | 8       |
| Fagron            | Polyhexanide solution 20% | 13H05-N04         | 9       |
| Fagron            | Polyhexanide solution 20% | 13H05-N040339/904 | 1       |
| Fagron            | Polyhexanide solution 20% | 13H05-No4         | 1       |
| Fagron            | Polyhexanide solution 20% | 13K29-B30         | 2       |
| Fagron            | Polyhexanide solution 20% | 13K29-B30_288934  | 1       |
| Fagron            | Polyhexanide solution 20% | 13K29-B30-288934  | 5       |
| Fagron            | Polyhexanide solution 20% | 13K29-B30-288938  | 4       |
| Fagron            | Polyhexanide solution 20% | 14F25-B06         | 11      |
| Fagron            | Polyhexanide solution 20% | 14F25-B06-296291  | 2       |
| Fagron            | Polyhexanide solution 20% | 14F25-b06-296292  | 1       |
| Fagron            | Polyhexanide solution 20% | 14F25-B06296292   | 1       |
| Fagron            | Polyhexanide solution 20% | 14F25-B06-296292  | 12      |
| Fagron            | Polyhexanide solution 20% | 14F25B06300092    | 1       |
| Fagron            | Polyhexanide solution 20% | 14F25-B06-300092  | 8       |
| Fagron            | Polyhexanide solution 20% | 14F25-B06-300093  | 8       |
| Fagron            | Polyhexanide solution 20% | 14F25-B06-305013  | 4       |
| Fagron            | Polyhexanide solution 20% | 14GR132285        | 2       |
| Fagron            | Polyhexanide solution 20% | 14GR274618        | 1       |
| Fagron            | Polyhexanide solution 20% | 15C20-B06-309678  | 6       |
| Fagron            | Polyhexanide solution 20% | 15GR209540        | 1       |
| Fagron            | Polyhexanide solution 20% | 15H25-B11-312309  | 1       |
| Fagron            | Polyhexanide solution 20% | 15H28             | 1       |

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| Supplier | Substance                 | Batch             | Spectra |
|----------|---------------------------|-------------------|---------|
| Fagron   | Polyhexanide solution 20% | 15H28-B11         | 7       |
| Fagron   | Polyhexanide solution 20% | 15H28-B11_313603  | 1       |
| Fagron   | Polyhexanide solution 20% | 15h28-b11-312309  | 1       |
| Fagron   | Polyhexanide solution 20% | 15H28-B11-312309  | 5       |
| Fagron   | Polyhexanide solution 20% | 15H28-B11313603   | 1       |
| Fagron   | Polyhexanide solution 20% | 15H28-B11-313603  | 13      |
| Fagron   | Polyhexanide solution 20% | 15H28-B11-313604  | 9       |
| Fagron   | Polyhexanide solution 20% | 15H28-B11-315703  | 7       |
| Fagron   | Polyhexanide solution 20% | 15H28B11345703    | 1       |
| Fagron   | Polyhexanide solution 20% | 16816-B04         | 1       |
| Fagron   | Polyhexanide solution 20% | 16B16-b04         | 1       |
| Fagron   | Polyhexanide solution 20% | 16B16-B04         | 7       |
| Fagron   | Polyhexanide solution 20% | 16B16-B04-318789  | 10      |
| Fagron   | Polyhexanide solution 20% | 16B16-B04-320854  | 9       |
| Fagron   | Polyhexanide solution 20% | 16B16-b04-322720  | 1       |
| Fagron   | Polyhexanide solution 20% | 16B16-B04-322720  | 11      |
| Fagron   | Polyhexanide solution 20% | 16B16-B04-325487  | 13      |
| Fagron   | Polyhexanide solution 20% | 16G259-B01-328171 | 1       |
| Fagron   | Polyhexanide solution 20% | 16G29-B01         | 8       |
| Fagron   | Polyhexanide solution 20% | 16G-29-B01        | 1       |
| Fagron   | Polyhexanide solution 20% | 16G29-B01-328171  | 11      |
| Fagron   | Polyhexanide solution 20% | 16G29-B01-330629  | 11      |
| Fagron   | Polyhexanide solution 20% | 16G29-B01-330630  | 3       |
| Fagron   | Polyhexanide solution 20% | 16G29-B01-334336  | 1       |
| Fagron   | Polyhexanide solution 20% | 16g29-b01-335336  | 1       |
| Fagron   | Polyhexanide solution 20% | 16G29-B01-335336  | 16      |
| Fagron   | Polyhexanide solution 20% | 16G29-B01-337612  | 3       |
| Fagron   | Polyhexanide solution 20% | 16gr025056        | 1       |
| Fagron   | Polyhexanide solution 20% | 16GR025056        | 5       |
| Fagron   | Polyhexanide solution 20% | 16GR180497        | 2       |
| Fagron   | Polyhexanide solution 20% | 16GR1-B01-330629  | 1       |
| Fagron   | Polyhexanide solution 20% | 17G185627         | 1       |
| Fagron   | Polyhexanide solution 20% | 17GR185627        | 16      |
| Fagron   | Polyhexanide solution 20% | 17GR1856627       | 1       |
| Fagron   | Polyhexanide solution 20% | 17L14-B02         | 2       |
| Fagron   | Polyhexanide solution 20% | 17l14b02143990    | 1       |
| Fagron   | Polyhexanide solution 20% | 17l14-b02-343990  | 1       |
| Fagron   | Polyhexanide solution 20% | 17L14-B02-343990  | 13      |
| Fagron   | Polyhexanide solution 20% | 17L14-B02-343991  | 11      |
| Fagron   | Polyhexanide solution 20% | 17L14-B02-34990   | 1       |
| Fagron   | Polyhexanide solution 20% | 18/18B05355791    | 1       |
| Fagron   | Polyhexanide solution 20% | 18009-8013-348161 | 1       |
| Fagron   | Polyhexanide solution 20% | 18071501          | 1       |
| Fagron   | Polyhexanide solution 20% | 18816B10345748    | 1       |
| Fagron   | Polyhexanide solution 20% | 18816-B10-345748  | 2       |
| Fagron   | Polyhexanide solution 20% | 18B10-345748      | 1       |
| Fagron   | Polyhexanide solution 20% | 18B16             | 1       |
| Fagron   | Polyhexanide solution 20% | 18B16-B10         | 3       |
| Fagron   | Polyhexanide solution 20% | 18B16-B10-345748  | 25      |
| Fagron   | Polyhexanide solution 20% | 18D09-B01         | 6       |
| Fagron   | Polyhexanide solution 20% | 18d09b01348160    | 1       |
| Fagron   | Polyhexanide solution 20% | 18d09-b01-348160  | 1       |
| Fagron   | Polyhexanide solution 20% | 18D09-B01348160   | 1       |
| Fagron   | Polyhexanide solution 20% | 18D09-B01-348160  | 17      |
| Fagron   | Polyhexanide solution 20% | 18D09-B01-348161  | 25      |
| Fagron   | Polyhexanide solution 20% | 18G02-801         | 1       |
| Fagron   | Polyhexanide solution 20% | 18G02-B01         | 10      |
| Fagron   | Polyhexanide solution 20% | 18G02-B01_353297  | 1       |
| Fagron   | Polyhexanide solution 20% | 18G02-B01353296   | 1       |
| Fagron   | Polyhexanide solution 20% | 18G02-B01-353296  | 25      |

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| Supplier | Substance                 | Batch              | Spectra |
|----------|---------------------------|--------------------|---------|
| Fagron   | Polyhexanide solution 20% | 18G02-B01-353297   | 14      |
| Fagron   | Polyhexanide solution 20% | 18G02-B01-353298   | 1       |
| Fagron   | Polyhexanide solution 20% | 18GR038066         | 8       |
| Fagron   | Polyhexanide solution 20% | 18GR353621         | 5       |
| Fagron   | Polyhexanide solution 20% | 18I18-B05-355791   | 3       |
| Fagron   | Polyhexanide solution 20% | 18J18-B05          | 4       |
| Fagron   | Polyhexanide solution 20% | 18j18-b05-355791   | 1       |
| Fagron   | Polyhexanide solution 20% | 18J18-B05355791    | 1       |
| Fagron   | Polyhexanide solution 20% | 18J18-B05-355791   | 18      |
| Fagron   | Polyhexanide solution 20% | 19003-B01-360931   | 1       |
| Fagron   | Polyhexanide solution 20% | 19A16_B04          | 1       |
| Fagron   | Polyhexanide solution 20% | 19A16-B04          | 11      |
| Fagron   | Polyhexanide solution 20% | 19A16-B04_357983   | 1       |
| Fagron   | Polyhexanide solution 20% | 19A16-B04-357983   | 19      |
| Fagron   | Polyhexanide solution 20% | 19A16-B04-359557   | 29      |
| Fagron   | Polyhexanide solution 20% | 19A16-B04-39557    | 1       |
| Fagron   | Polyhexanide solution 20% | 19A16-B09-357983   | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03-01-360931    | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03B01           | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03-B01          | 7       |
| Fagron   | Polyhexanide solution 20% | 19D03B01360930     | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03-B01-360930   | 29      |
| Fagron   | Polyhexanide solution 20% | 19D03-B01-3609-30  | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03-B01360931    | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03-B01-360931   | 18      |
| Fagron   | Polyhexanide solution 20% | 19D-03-B01-360931  | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03-B01-360932   | 2       |
| Fagron   | Polyhexanide solution 20% | 19D03-B01-360931   | 1       |
| Fagron   | Polyhexanide solution 20% | 19D03-BV01-360931  | 2       |
| Fagron   | Polyhexanide solution 20% | 19D23-B01-360932   | 1       |
| Fagron   | Polyhexanide solution 20% | 19d303b01360930    | 1       |
| Fagron   | Polyhexanide solution 20% | 19D3-B01           | 1       |
| Fagron   | Polyhexanide solution 20% | 19E15-B01          | 4       |
| Fagron   | Polyhexanide solution 20% | 19GR009011         | 2       |
| Fagron   | Polyhexanide solution 20% | 19Gr304768         | 1       |
| Fagron   | Polyhexanide solution 20% | 19GR304768         | 9       |
| Fagron   | Polyhexanide solution 20% | 2019U-03580        | 1       |
| Fagron   | Polyhexanide solution 20% | 2021906            | 1       |
| Fagron   | Polyhexanide solution 20% | 20A166-F03-3682809 | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F003-368289  | 1       |
| Fagron   | Polyhexanide solution 20% | 20a16-f03          | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03          | 25      |
| Fagron   | Polyhexanide solution 20% | 20A16-F03_368290   | 2       |
| Fagron   | Polyhexanide solution 20% | 20A16F033368296    | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-3628008  | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-366296   | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368288   | 14      |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368289   | 13      |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368289   | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03368290    | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368290   | 30      |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-3682900  | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03368291    | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368291   | 19      |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368292   | 10      |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368294   | 3       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368296   | 22      |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368569   | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368290   | 1       |
| Fagron   | Polyhexanide solution 20% | 20A16-F03-368292   | 1       |

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| Supplier                  | Substance                 | Batch             | Spectra |
|---------------------------|---------------------------|-------------------|---------|
| Fagron                    | Polyhexanide solution 20% | 20A16-F03-368296  | 1       |
| Fagron                    | Polyhexanide solution 20% | 20A16-F03-368396  | 1       |
| Fagron                    | Polyhexanide solution 20% | 20A26-F03         | 2       |
| Fagron                    | Polyhexanide solution 20% | 2215I-03580       | 1       |
| Fagron                    | Polyhexanide solution 20% | 25021712          | 1       |
| Fagron                    | Polyhexanide solution 20% | 2516U-03580       | 1       |
| Fagron                    | Polyhexanide solution 20% | 20A16-F03-368290  | 1       |
| Fagron                    | Polyhexanide solution 20% | 3018E-03580       | 1       |
| Fagron                    | Polyhexanide solution 20% | 32289-58-0        | 1       |
| Fagron                    | Polyhexanide solution 20% | 335336            | 1       |
| Fagron                    | Polyhexanide solution 20% | 3-36829000        | 1       |
| Fagron                    | Polyhexanide solution 20% | 368290            | 1       |
| Fagron                    | Polyhexanide solution 20% | 3714M-03580       | 1       |
| Fagron                    | Polyhexanide solution 20% | 701823_00004      | 1       |
| Fagron                    | Polyhexanide solution 20% | 7018230004        | 2       |
| Fagron                    | Polyhexanide solution 20% | 7051803           | 1       |
| Fagron                    | Polyhexanide solution 20% | 8GR038066         | 1       |
| Fagron                    | Polyhexanide solution 20% | A16-F03-3682912   | 1       |
| Fagron                    | Polyhexanide solution 20% | F03-3682809       | 1       |
| Fagron                    | Polyhexanide solution 20% | F03-3682900       | 1       |
| Fagron                    | Polyhexanide solution 20% | F03-3682902       | 2       |
| Fagron                    | Polyhexanide solution 20% | F03-3682906       | 2       |
| Fargo / Gehe              | Polyhexanide solution 20% | F03-3682808       | 1       |
| Fargom                    | Polyhexanide solution 20% | 116B16-B04-320854 | 1       |
| Fargon/ Gehe              | Polyhexanide solution 20% | 15H28-B11-312309  | 1       |
| Fargon/AHC                | Polyhexanide solution 20% | 18G02-B01-353296  | 1       |
| Fargon/AHD                | Polyhexanide solution 20% | 18GR038066        | 1       |
| Fargon/Gehe               | Polyhexanide solution 20% | 19D03-B01         | 1       |
| Fargon                    | Polyhexanide solution 20% | 16G29-B01-0004    | 1       |
| Fargon                    | Polyhexanide solution 20% | 16G29-B01-328171  | 1       |
| Fargon                    | Polyhexanide solution 20% | 20A16-F03-368296  | 1       |
| Fiebig/Fagon              | Polyhexanide solution 20% | 19A16-b04-357983  | 1       |
| Fiebig/Fagon              | Polyhexanide solution 20% | 20A16-F03-368288  | 1       |
| Fragon GmbH               | Polyhexanide solution 20% | 16GR025056        | 1       |
| Fragon/Noweda             | Polyhexanide solution 20% | 16G29-B01-328171  | 1       |
| Fragon/Sanacorp           | Polyhexanide solution 20% | 20A16-F03-368290  | 1       |
| Fragon                    | Polyhexanide solution 20% | 12K20-N01         | 1       |
| GEHE 14.04.2014           | Polyhexanide solution 20% | 13K29-B30_288934  | 1       |
| Gehe 16.12.14             | Polyhexanide solution 20% | 14F25-B06-296292  | 1       |
| Gehe/Fagaron              | Polyhexanide solution 20% | 16B16-B04-320854  | 1       |
| Gehe                      | Polyhexanide solution 20% | 15H28-B11         | 1       |
| Gehe                      | Polyhexanide solution 20% | 16G29-B01-330629  | 1       |
| Gehe                      | Polyhexanide solution 20% | 17L14-B02-343990  | 1       |
| Gehe                      | Polyhexanide solution 20% | 18B16-B10-345748  | 1       |
| GEHE                      | Polyhexanide solution 20% | 18G02-B01         | 1       |
| Gehe                      | Polyhexanide solution 20% | 18G02b01353297    | 1       |
| Gehe                      | Polyhexanide solution 20% | 18G02-B01-353297  | 1       |
| Gehe                      | Polyhexanide solution 20% | 20A16-F03         | 2       |
| Gepepharm                 | Polyhexanide solution 20% | 17061709          | 1       |
| Ichthyol Gesellschaft/AHD | Polyhexanide solution 20% | 14F25-B06-296292  | 1       |
| Noveda                    | Polyhexanide solution 20% | 18/18-B05-355791  | 1       |
| Noweda                    | Polyhexanide solution 20% | 12K20-N01         | 1       |
| Noweda                    | Polyhexanide solution 20% | 14F25B06305013    | 1       |
| Noweda                    | Polyhexanide solution 20% | 15H28-B11-312309  | 2       |
| Noweda                    | Polyhexanide solution 20% | 18J18-B05-355791  | 1       |
| Noweda                    | Polyhexanide solution 20% | 19A16-B04-359557  | 1       |
| Noweda                    | Polyhexanide solution 20% | 20A16-F03-368291  | 1       |
| Noweda                    | Polyhexanide solution 20% | 20A16-F03-3682809 | 1       |
| Phagron                   | Polyhexanide solution 20% | 17L14-B02-343990  | 1       |
| Phoenix                   | Polyhexanide solution 20% | 12K20-N01         | 1       |

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| Supplier     | Substance                 | Batch             | Spectra |
|--------------|---------------------------|-------------------|---------|
| Phoenix      | Polyhexanide solution 20% | 16B16-B04         | 1       |
| Phoenix      | Polyhexanide solution 20% | 18G02-B01-353297  | 1       |
| Phoenix      | Polyhexanide solution 20% | 19D03-B01-360930  | 1       |
| Phoenix      | Polyhexanide solution 20% | 20A16-F03-368290  | 1       |
| Phönix Gotha | Polyhexanide solution 20% | 19A16-B04-359557  | 1       |
| PHÖNIX       | Polyhexanide solution 20% | 17L14-B02         | 1       |
| Phönix       | Polyhexanide solution 20% | 18B16-B10-345748  | 1       |
| Phönix       | Polyhexanide solution 20% | 18D09-B01-348160  | 1       |
| PHÖNIX       | Polyhexanide solution 20% | 18D09-B01-348160  | 1       |
| Phönix       | Polyhexanide solution 20% | 19D03-B01-360930  | 1       |
| Phönix       | Polyhexanide solution 20% | 20A16-F03-368290  | 1       |
| Phönix       | Polyhexanide solution 20% | F03-3682808       | 1       |
| Phytocomm    | Polyhexanide solution 20% | 27803278          | 1       |
| Sanacorp     | Polyhexanide solution 20% | 14f25-b06-2962291 | 1       |
| Sanacorp     | Polyhexanide solution 20% | 14F25-B06-296291  | 1       |
| Sanacorp     | Polyhexanide solution 20% | 16B16-B04-318789  | 1       |
| Sanacorp     | Polyhexanide solution 20% | 17L14-B02-343990  | 1       |
| Sanacorp     | Polyhexanide solution 20% | 18D09-B01-348160  | 2       |
| Sanacorp     | Polyhexanide solution 20% | 18G02-B01         | 1       |
| Sanacorp     | Polyhexanide solution 20% | 18GR038066        | 1       |
| Sanacorp     | Polyhexanide solution 20% | 18GR353621        | 1       |
| Sanacorp     | Polyhexanide solution 20% | 18J18-Bo5         | 1       |
| Sanacorp     | Polyhexanide solution 20% | 19D03-B01         | 1       |
| Sanacorp     | Polyhexanide solution 20% | 19D03-B01-360931  | 1       |
| Sanacorp     | Polyhexanide solution 20% | 19GR304768        | 1       |
| Sanacorp     | Polyhexanide solution 20% | 20A16-F03         | 1       |
| Sanacorp     | Polyhexanide solution 20% | Fagron            | 1       |

- 287 727 spectra from 1294 *Apo-Ident* customers from a total of 51 682 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Polyhexanide solution 20%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Polyhexanide solution 20%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 220           | 0              | 66 939        |
| Type B | 0              | 80            | 0              | 107 283       |
| Type C | 0              | 963           | 19             | 287 727       |

The substance/substance group *Polyhexanide solution 20%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| Type B | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 98.0652 % (> 97.7597 %)  |



In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Polyhexanide solution 20%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Hydrophilic base emulsion (NRF p.25)      | 18.26                     | —                                 |
| Dextrorotary lactic acid 20%              | 31.68                     | —                                 |
| Aluminium acetotartrate solution          | 32.91                     | —                                 |
| Non-ionic hydrous liniment SR/DAC (NRF... | 34.93                     | —                                 |
| Liquorice juice purified, diluted         | 36.15                     | —                                 |
| Chlorhexidine digluconate solution        | 38.39                     | —                                 |
| Water                                     | 39.05                     | —                                 |
| Gel basis Audo <sup>®</sup>               | 41.61                     | —                                 |
| Chest elixir                              | 43.28                     | —                                 |
| Condurango wine                           | 43.62                     | —                                 |
| Hydrated liniment SR/DAC (NRF p.40)       | 44.16                     | —                                 |
| Glycolic acid 70%                         | 44.99                     | —                                 |
| Hydrophilic cream, non-ionic SR (NRF p... | 48.50                     | —                                 |
| Sodium-(s)-lactate solution 50%           | 49.37                     | —                                 |
| Fortified wine                            | 49.59                     | —                                 |
| Hydrophilic cream, non-ionic without p... | 50.40                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Polyhexanide solution 20%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31180     | 31180                  | 0.00                            | 29.05                              |
| 31571     | 31180                  | 7.83                            | 29.80                              |
| 32733     | 31180                  | 12.01                           | 30.55                              |
| 34087     | 31180                  | 4.99                            | 26.42                              |
| 34846     | 31180                  | 8.07                            | 30.40                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Polysorbates / Macrogol 20 glycerol monostearate type II</b>  |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 10004575-2022-09-10                                              |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Polysorbates / Macrogol 20 glycerol monostearate type II; Macrogol 20 glycerol monostearate type II; Macrogol 20 glyceroli monostearas; Polysorbate 20; Polysorbate 60; Polysorbate 80; Polysorbatum 20; Polysorbatum 60; Polysorbatum 80

### Special notes

When selecting the *Polysorbates / Macrogol 20 glycerol monostearate type II* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                                | Type A | Type B | Type C |
|----------------------------------------------------------|--------|--------|--------|
| Polysorbates / Macrogol 20 glycerol monostearate type II | 26     | 15     | 356    |

## Second-stage model

For differentiation of the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II* the following second-stage model is used:

- [Submodel 10](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II*:

| Supplier | Substance           | Batch            | Sample ID | Spectra | Certificate        |
|----------|---------------------|------------------|-----------|---------|--------------------|
| Caelo    | Macrogol 20 glyc... | 14033701         | 31469     | 60      | 20140214           |
| Caelo    | Macrogol 20 glyc... | 162800           | 33323     | 40      | 20161026*          |
| Caelo    | Macrogol 20 glyc... | 170801           | 33324     | 40      | 20170428*          |
| Caelo    | Macrogol 20 glyc... | 20000323         | 35044     | 40      | 20200310*          |
| Caelo    | Macrogol 20 glyc... | 20004413         | 35257     | 40      | 20210226*          |
| Fagron   | Macrogol 20 glyc... | 13H09-N06        | 31182     | 40      | 1407195            |
| Caelo    | Polysorbate 20      | 14019413         | 31323     | 40      | AR-15-FG-008174-01 |
| Caelo    | Polysorbate 20      | 14365105         | 31697     | 60      | 20150116           |
| Caelo    | Polysorbate 20      | 182768           | 34331     | 40      | 20180312*          |
| Caelo    | Polysorbate 20      | 190922           | 34469     | 40      | 20190503*          |
| Caelo    | Polysorbate 20      | 192430           | 34707     | 40      | 20191014*          |
| Caelo    | Polysorbate 20      | 21000590         | 35295     | 40      | 20210406*          |
| Caelo    | Polysorbate 60      | 12133619         | 31033     | 40      | 20120531           |
| Caelo    | Polysorbate 60      | 14027102         | 31324     | 40      | AR-15-FG-008175-01 |
| Caelo    | Polysorbate 60      | 170258           | 33058     | 40      | 20170313*          |
| Caelo    | Polysorbate 60      | 172920           | 33888     | 40      | 20171117*          |
| Caelo    | Polysorbate 60      | 180292           | 34081     | 40      | 20180302*          |
| Caelo    | Polysorbate 60      | 182897           | 34338     | 40      | 20181128*          |
| Caelo    | Polysorbate 60      | 191141           | 34623     | 40      | 20190604*          |
| Caelo    | Polysorbate 60      | 192038           | 34702     | 40      | 20190827*          |
| Caelo    | Polysorbate 80      | 12116009         | 30893     | 80      | 20120427           |
| Caelo    | Polysorbate 80      | 13372015         | 31325     | 40      | AR-15-FG-008176-01 |
| Caelo    | Polysorbate 80      | 20000727         | 35015     | 40      | 20200408*          |
| Fagron   | Polysorbate 80      | 17A23-B09-331594 | 33300     | 40      | 20170208           |
| Fagron   | Polysorbate 80      | 18H01-B04-357189 | 34673     | 40      | 20180828           |
| Fagron   | Polysorbate 80      | 21E27-T05-090136 | 35911     | 40      | 20210819           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 1120 spectra of 26 reference samples from the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 26 different batches.
- 66 039 spectra from a total of 1353 batches from further 225 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 740 spectra of 19 reference samples from the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II*.
- Among them are spectra of independent samples from 15 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch       | Sample ID          | Spectra |
|----------|---------------------------------|-------------|--------------------|---------|
| Caelo    | Macrogol 20 glycerol monoste... | 161883      | 33325              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 161884      | 33326              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 172882      | 33901              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 172880      | 33902              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 181870      | 34239              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 183242      | 34335              | 40      |
| Caelo    | Polysorbate 20                  | 162335      | 32330              | 40      |
| Caelo    | Polysorbate 20                  | 172825      | 33884              | 40      |
| Caelo    | Polysorbate 60                  | 161771      | 32329              | 40      |
| Caelo    | Polysorbate 60                  | 170999      | 33322              | 40      |
| Caelo    | Polysorbate 60                  | 19000533    | 35041              | 40      |
| Caelo    | Polysorbate 60                  | 21002004001 | 35840              | 50      |
| Caelo    | Polysorbate 80                  | 16260201    | 33296              | 40      |
| Caelo    | Polysorbate 80                  | 173048      | 33887              | 40      |
| Caelo    | Polysorbate 80                  | 191639      | 34624              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 162800      | 32702              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 161883      | 33722              | 40      |
| Caelo    | Macrogol 20 glycerol monoste... | 161884      | 33723              | 40      |
| Caelo    | Polysorbate 80                  | 12116009    | 30893 <sup>†</sup> | 10      |

- 106 623 spectra from a total of 2484 batches from further 347 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

<sup>†</sup>These spectra were recorded from material of the same package as the corresponding calibration spectra (*Type A*). Hence, these spectra are not independent and are not of *Type B*.

- 2922 spectra from 898 *Apo-Ident* customers from 371 batches from the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II*.
- Among them are spectra of independent samples from 355 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                 | Substance                       | Batch            | Spectra |
|--------------------------|---------------------------------|------------------|---------|
|                          | Polysorbate 20                  | 14019413         | 1       |
| 10.02.2020 Phoenix       | Polysorbate 60                  | 19114102         | 1       |
| 21.03.2017               | Polysorbate 20                  | 153233912        | 1       |
| AHD                      | Polysorbate 20                  | 153233912        | 1       |
| AHD                      | Polysorbate 20                  | 16233506         | 1       |
| AHD                      | Polysorbate 20                  | 17021310         | 1       |
| AHD                      | Polysorbate 20                  | 17325410         | 1       |
| Alliance Healthcare      | Polysorbate 80                  | 12315308         | 1       |
| Alliance Healthcare      | Polysorbate 20                  | 17325413         | 1       |
| Alliance Healthcare      | Polysorbate 20                  | 19092207         | 1       |
| Alliance                 | Polysorbate 20                  | 17021310         | 1       |
| Alliance                 | Polysorbate 80                  | 18236805         | 1       |
| Allianes                 | Polysorbate 20                  | 14365105         | 2       |
| Allianz Healthcare       | Polysorbate 80                  | 18236813         | 1       |
| Alte Apotheke            | Polysorbate 80                  | 16059402         | 1       |
| Anzag                    | Polysorbate 80                  | 1/2454542        | 2       |
| Anzag                    | Polysorbate 20                  | 12303006Caelo    | 1       |
| Anzag                    | Polysorbate 80                  | 16059402         | 1       |
| Anzag                    | Polysorbate 20                  | 16114502         | 1       |
| Anzag                    | Polysorbate 20                  | 17021303         | 2       |
| Anzag                    | Polysorbate 20                  | 17325413         | 1       |
| Anzag                    | Polysorbate 60                  | 18005907         | 1       |
| Anzag                    | Polysorbate 80                  | 18K21-B02-359671 | 1       |
| Bären Apotheke           | Polysorbate 80                  | 16260201         | 1       |
| Beiersdorf               | Polysorbate 80                  | 16059402         | 1       |
| Berkel AHK               | Polysorbate 20                  | 14019418         | 1       |
| Bionorica/Phönix         | Polysorbate 20                  | 17325410         | 1       |
| Bombastus                | Polysorbate 80                  | 11347907         | 1       |
| Bombastus                | Polysorbate 20                  | 13297001         | 1       |
| Bombastus                | Macrogol 20 glycerol monoste... | 13H09-N06        | 1       |
| Bombastus                | Polysorbate 20                  | 17325301         | 1       |
| Bombastus                | Macrogol 20 glycerol monoste... | 700906           | 1       |
| Cael Sanacorp 05.02.2016 | Polysorbate 20                  | 15323902         | 1       |
| Caelo                    | Polysorbate 20                  |                  | 4       |
| Caelo                    | Polysorbate 20                  | 1000590006       | 1       |
| Caelo                    | Polysorbate 80                  | 10235202         | 1       |
| Caelo                    | Polysorbate 20                  | 1086517          | 1       |
| Caelo                    | Polysorbate 20                  | 11117201         | 2       |
| Caelo                    | Polysorbate 20                  | 11117205         | 2       |
| Caelo                    | Polysorbate 20                  | 11179506         | 2       |
| Caelo                    | Polysorbate 20                  | 11179511         | 4       |
| Caelo                    | Polysorbate 80                  | 11179606         | 1       |
| Caelo                    | Polysorbate 80                  | 11179618         | 2       |
| Caelo                    | Polysorbate 20                  | 11347701         | 1       |
| Caelo                    | Polysorbate 20                  | 11347702         | 1       |
| Caelo                    | Polysorbate 20                  | 11347707         | 5       |
| Caelo                    | Polysorbate 20                  | 11347711         | 8       |
| Caelo                    | Polysorbate 20                  | 11347715         | 6       |
| Caelo                    | Polysorbate 20                  | 11347719         | 8       |
| Caelo                    | Polysorbate 80                  | 11347907         | 2       |
| Caelo                    | Polysorbate 80                  | 11347909         | 1       |
| Caelo                    | Polysorbate 80                  | 1190318/16260210 | 1       |
| Caelo                    | Polysorbate 20                  | 12031605         | 1       |
| Caelo                    | Polysorbate 80                  | 12116005         | 4       |

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| Supplier | Substance                         | Batch               | Spectra |
|----------|-----------------------------------|---------------------|---------|
| Caelo    | Polysorbate 80                    | 12116009            | 8       |
| Caelo    | Polysorbate 80                    | 12116013            | 6       |
| Caelo    | Polysorbate 80                    | 12116014            | 1       |
| Caelo    | Polysorbate 60                    | 12133602            | 1       |
| Caelo    | Polysorbate 60                    | 12133611            | 2       |
| Caelo    | Polysorbate 80                    | 1220616             | 1       |
| Caelo    | Polysorbate 20                    | 12303006            | 10      |
| Caelo    | Polysorbate 20                    | 12303016            | 13      |
| Caelo    | Polysorbate 80                    | 123125308           | 1       |
| Caelo    | Polysorbate 80                    | 12315305            | 1       |
| Caelo    | Polysorbate 80                    | 12315308            | 9       |
| Caelo    | Polysorbate 80                    | 12315317            | 10      |
| Caelo    | Polysorbate 80                    | 12315324            | 1       |
| Caelo    | Polysorbate 80                    | 12315328            | 15      |
| Caelo    | Macrogol 20 glycerol monoste. ... | 12326201            | 2       |
| Caelo    | Polysorbate 20                    | 13066512            | 1       |
| Caelo    | Polysorbate 20                    | 13086505            | 3       |
| Caelo    | Polysorbate 20                    | 13086509            | 9       |
| Caelo    | Polysorbate 20                    | 13086510            | 1       |
| Caelo    | Polysorbate 20                    | 13086512            | 14      |
| Caelo    | Polysorbate 20                    | 13086517            | 15      |
| Caelo    | Polysorbate 60                    | 13098006            | 1       |
| Caelo    | Polysorbate 80                    | 13152216            | 15      |
| Caelo    | Polysorbate 80                    | 13152218            | 1       |
| Caelo    | Polysorbate 80                    | 13152219            | 1       |
| Caelo    | Polysorbate 80                    | 13152223            | 11      |
| Caelo    | Macrogol 20 glycerol monoste. ... | 13213601            | 1       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 13213602            | 3       |
| Caelo    | Polysorbate 60                    | 13258902            | 5       |
| Caelo    | Polysorbate 20                    | 1329001             | 1       |
| Caelo    | Polysorbate 20                    | 13297001            | 8       |
| Caelo    | Polysorbate 20                    | 13297001-3449311132 | 1       |
| Caelo    | Polysorbate 20                    | 13297005            | 11      |
| Caelo    | Polysorbate 20                    | 13297009            | 12      |
| Caelo    | Polysorbate 20                    | 13297010            | 18      |
| Caelo    | Polysorbate 80                    | 13372012            | 12      |
| Caelo    | Polysorbate 80                    | 13372015            | 1       |
| Caelo    | Polysorbate 20                    | 14019410            | 11      |
| Caelo    | Polysorbate 20                    | 14019413            | 1       |
| Caelo    | Polysorbate 20                    | 14019418            | 23      |
| Caelo    | Polysorbate 60                    | 14027102            | 1       |
| Caelo    | Polysorbate 60                    | 14027103            | 2       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 14033701            | 2       |
| Caelo    | Polysorbate 20                    | 14041503            | 1       |
| Caelo    | Polysorbate 20                    | 1413213             | 1       |
| Caelo    | Polysorbate 80                    | 1419026             | 1       |
| Caelo    | Polysorbate 80                    | 14190306            | 7       |
| Caelo    | Polysorbate 80                    | 14190316            | 20      |
| Caelo    | Polysorbate 80                    | 14190317            | 1       |
| Caelo    | Polysorbate 20                    | 14213211            | 2       |
| Caelo    | Polysorbate 20                    | 14213213            | 13      |
| Caelo    | Macrogol 20 glycerol monoste. ... | 14302001            | 2       |
| Caelo    | Polysorbate 20                    | 14365105            | 24      |
| Caelo    | Polysorbate 20                    | 14365109            | 28      |
| Caelo    | Polysorbate 20                    | 14365116            | 35      |
| Caelo    | Polysorbate 20                    | 1465105             | 1       |
| Caelo    | Polysorbate 20                    | 1465109             | 1       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 15009302            | 2       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 15060303            | 2       |
| Caelo    | Polysorbate 60                    | 15067401            | 7       |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Polysorbate 60                  | 15067407         | 2       |
| Caelo    | Polysorbate 60                  | 15067408         | 12      |
| Caelo    | Polysorbate 60                  | 15067409         | 3       |
| Caelo    | Polysorbate 80                  | 15104103         | 11      |
| Caelo    | Polysorbate 80                  | 15104112         | 21      |
| Caelo    | Polysorbate 80                  | 15104113         | 1       |
| Caelo    | Polysorbate 80                  | 15104121         | 17      |
| Caelo    | Polysorbate 80                  | 15104126         | 7       |
| Caelo    | Polysorbate 80                  | 15121404         | 1       |
| Caelo    | Polysorbate 20                  | 15159004         | 3       |
| Caelo    | Polysorbate 20                  | 1523902          | 1       |
| Caelo    | Polysorbate 60                  | 15292906         | 5       |
| Caelo    | Polysorbate 20                  | 1532302          | 1       |
| Caelo    | Polysorbate 20                  | 15323902         | 22      |
| Caelo    | Polysorbate 20                  | 15323912         | 24      |
| Caelo    | Polysorbate 20                  | 1532902          | 2       |
| Caelo    | Macrogol 20 glycerol monoste... | 15410502         | 5       |
| Caelo    | Macrogol 20 glycerol monoste... | 15410503         | 1       |
| Caelo    | Macrogol 20 glycerol monoste... | 15410504         | 4       |
| Caelo    | Polysorbate 60                  | 16007302         | 11      |
| Caelo    | Polysorbate 20                  | 16029703         | 55      |
| Caelo    | Polysorbate 20                  | 16029704         | 1       |
| Caelo    | Polysorbate 80                  | 16053402         | 1       |
| Caelo    | Polysorbate 80                  | 16059402         | 48      |
| Caelo    | Polysorbate 80                  | 16059403         | 1       |
| Caelo    | Polysorbate 80                  | 16059408         | 1       |
| Caelo    | Polysorbate 80                  | 1609402          | 1       |
| Caelo    | Polysorbate 20                  | 16114502         | 9       |
| Caelo    | Polysorbate 20                  | 16114503         | 52      |
| Caelo    | Polysorbate 20                  | 16114504         | 1       |
| Caelo    | Polysorbate 80                  | 1612B08327237    | 1       |
| Caelo    | Polysorbate 60                  | 16177104         | 2       |
| Caelo    | Polysorbate 60                  | 16177106         | 2       |
| Caelo    | Macrogol 20 glycerol monoste... | 16188302         | 1       |
| Caelo    | Macrogol 20 glycerol monoste... | 16188401         | 11      |
| Caelo    | Polysorbate 20                  | 162335           | 1       |
| Caelo    | Polysorbate 20                  | 1623350          | 1       |
| Caelo    | Polysorbate 20                  | 16233500         | 1       |
| Caelo    | Polysorbate 20                  | 16233501         | 56      |
| Caelo    | Polysorbate 20                  | 16233502         | 1       |
| Caelo    | Polysorbate 20                  | 16233506         | 28      |
| Caelo    | Polysorbate 20                  | 162335060        | 1       |
| Caelo    | Polysorbate 80                  | 16260201         | 37      |
| Caelo    | Polysorbate 80                  | 16260202         | 2       |
| Caelo    | Polysorbate 80                  | 16260206         | 1       |
| Caelo    | Polysorbate 80                  | 16260210         | 27      |
| Caelo    | Polysorbate 80                  | 162602210        | 2       |
| Caelo    | Polysorbate 20                  | 170130P/16233501 | 1       |
| Caelo    | Polysorbate 20                  | 17021303         | 55      |
| Caelo    | Polysorbate 20                  | 17021304         | 1       |
| Caelo    | Polysorbate 20                  | 17021307         | 1       |
| Caelo    | Polysorbate 20                  | 17021310         | 63      |
| Caelo    | Polysorbate 20                  | 17021311         | 9       |
| Caelo    | Polysorbate 60                  | 17025804         | 2       |
| Caelo    | Polysorbate 80                  | 17064702         | 2       |
| Caelo    | Polysorbate 80                  | 17064705         | 33      |
| Caelo    | Polysorbate 80                  | 17064706         | 1       |
| Caelo    | Macrogol 20 glycerol monoste... | 1708002          | 1       |
| Caelo    | Macrogol 20 glycerol monoste... | 17080101         | 2       |
| Caelo    | Macrogol 20 glycerol monoste... | 17080102         | 5       |

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| Supplier | Substance                         | Batch               | Spectra |
|----------|-----------------------------------|---------------------|---------|
| Caelo    | Macrogol 20 glycerol monoste. ... | 17080104            | 8       |
| Caelo    | Polysorbate 20                    | 1709930             | 2       |
| Caelo    | Polysorbate 80                    | 1709947             | 1       |
| Caelo    | Polysorbate 60                    | 17099901            | 8       |
| Caelo    | Polysorbate 60                    | 17099903            | 6       |
| Caelo    | Polysorbate 60                    | 17099905            | 9       |
| Caelo    | Polysorbate 60                    | 170999903           | 1       |
| Caelo    | Polysorbate 20                    | 17235413            | 1       |
| Caelo    | Polysorbate 20                    | 1725407             | 1       |
| Caelo    | Polysorbate 20                    | 1732510             | 1       |
| Caelo    | Polysorbate 20                    | 17325301            | 67      |
| Caelo    | Polysorbate 20                    | 17325301-20180404Ma | 1       |
| Caelo    | Polysorbate 20                    | 17325302            | 1       |
| Caelo    | Polysorbate 20                    | 17325407            | 68      |
| Caelo    | Polysorbate 20                    | 17325410            | 52      |
| Caelo    | Polysorbate 20                    | 173254105745        | 1       |
| Caelo    | Polysorbate 20                    | 17325413            | 57      |
| Caelo    | Polysorbate 20                    | 173254413           | 1       |
| Caelo    | Polysorbate 20                    | 173255410           | 1       |
| Caelo    | Polysorbate 20                    | 1735410             | 1       |
| Caelo    | Polysorbate 20                    | 17355301            | 1       |
| Caelo    | Polysorbate 80                    | 17A23-B09           | 1       |
| Caelo    | Polysorbate 60                    | 18005903            | 2       |
| Caelo    | Polysorbate 60                    | 18005907            | 2       |
| Caelo    | Polysorbate 60                    | 18005909            | 13      |
| Caelo    | Polysorbate 60                    | 18005910            | 1       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 18018501            | 6       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 18018505            | 6       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 18018506            | 1       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 18018508            | 6       |
| Caelo    | Polysorbate 80                    | 18045802            | 3       |
| Caelo    | Polysorbate 80                    | 18045803            | 16      |
| Caelo    | Polysorbate 80                    | 18045804            | 1       |
| Caelo    | Polysorbate 80                    | 18045805            | 1       |
| Caelo    | Polysorbate 60                    | 1805909             | 1       |
| Caelo    | Polysorbate 80                    | 18081502            | 1       |
| Caelo    | Polysorbate 80                    | 182368              | 2       |
| Caelo    | Polysorbate 80                    | 18236801            | 36      |
| Caelo    | Polysorbate 80                    | 18236805            | 13      |
| Caelo    | Polysorbate 80                    | 18236808            | 14      |
| Caelo    | Polysorbate 80                    | 18236810            | 17      |
| Caelo    | Polysorbate 80                    | 18236812            | 1       |
| Caelo    | Polysorbate 80                    | 18236813            | 13      |
| Caelo    | Polysorbate 80                    | 18236818            | 10      |
| Caelo    | Polysorbate 80                    | 18236818P-200217-6  | 1       |
| Caelo    | Polysorbate 20                    | 182766810           | 1       |
| Caelo    | Polysorbate 20                    | 18276801            | 133     |
| Caelo    | Polysorbate 20                    | 182768012           | 1       |
| Caelo    | Polysorbate 20                    | 18276802            | 6       |
| Caelo    | Polysorbate 20                    | 18276806            | 18      |
| Caelo    | Polysorbate 20                    | 18276807            | 61      |
| Caelo    | Polysorbate 20                    | 18276808            | 1       |
| Caelo    | Polysorbate 20                    | 18276810            | 40      |
| Caelo    | Polysorbate 20                    | 18276811            | 1       |
| Caelo    | Polysorbate 20                    | 182776806           | 1       |
| Caelo    | Polysorbate 60                    | 18289705            | 8       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 18324202            | 9       |
| Caelo    | Polysorbate 80                    | 18H01-B04           | 1       |
| Caelo    | Polysorbate 20                    | 19021303            | 1       |
| Caelo    | Macrogol 20 glycerol monoste. ... | 19040503            | 10      |

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| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Polysorbate 20                  | 19071802     | 1       |
| Caelo    | Polysorbate 20                  | 19092203     | 1       |
| Caelo    | Polysorbate 20                  | 19092206     | 42      |
| Caelo    | Polysorbate 20                  | 19092207     | 69      |
| Caelo    | Polysorbate 20                  | 19092208     | 7       |
| Caelo    | Polysorbate 20                  | 19092270     | 1       |
| Caelo    | Polysorbate 60                  | 19114102     | 7       |
| Caelo    | Polysorbate 20                  | 1912M-02525  | 1       |
| Caelo    | Polysorbate 80                  | 191639002    | 1       |
| Caelo    | Polysorbate 80                  | 19163904     | 30      |
| Caelo    | Polysorbate 20                  | 19173801     | 1       |
| Caelo    | Polysorbate 60                  | 192038002    | 3       |
| Caelo    | Polysorbate 20                  | 192430005    | 20      |
| Caelo    | Polysorbate 20                  | 1924300085   | 1       |
| Caelo    | Polysorbate 20                  | 194230005    | 1       |
| Caelo    | Polysorbate 20                  | 200002482005 | 3       |
| Caelo    | Macrogol 20 glycerol monoste... | 20000323003  | 11      |
| Caelo    | Polysorbate 80                  | 20000727002  | 8       |
| Caelo    | Polysorbate 80                  | 20000727006  | 5       |
| Caelo    | Polysorbate 60                  | 20001789003  | 4       |
| Caelo    | Polysorbate 20                  | 20002482002  | 2       |
| Caelo    | Polysorbate 20                  | 20002482005  | 48      |
| Caelo    | Polysorbate 20                  | 20002891001  | 1       |
| Caelo    | Polysorbate 20                  | 20002891002  | 29      |
| Caelo    | Polysorbate 20                  | 20002891003  | 17      |
| Caelo    | Polysorbate 20                  | 20002891006  | 2       |
| Caelo    | Macrogol 20 glycerol monoste... | 2000323003   | 1       |
| Caelo    | Polysorbate 80                  | 20003729005  | 8       |
| Caelo    | Polysorbate 80                  | 20003729010  | 4       |
| Caelo    | Polysorbate 60                  | 20004253001  | 7       |
| Caelo    | Macrogol 20 glycerol monoste... | 20004413003  | 2       |
| Caelo    | Polysorbate 20                  | 2000590006   | 1       |
| Caelo    | Polysorbate 20                  | 2002482005   | 1       |
| Caelo    | Polysorbate 20                  | 20210312-1   | 1       |
| Caelo    | Polysorbate 80                  | 20210312-2   | 1       |
| Caelo    | Polysorbate 20                  | 20220312-1   | 1       |
| Caelo    | Polysorbate 20                  | 210000590006 | 1       |
| Caelo    | Polysorbate 20                  | 21000590002  | 4       |
| Caelo    | Polysorbate 20                  | 21000590006  | 22      |
| Caelo    | Polysorbate 20                  | 21000590008  | 1       |
| Caelo    | Polysorbate 20                  | 21000590009  | 13      |
| Caelo    | Macrogol 20 glycerol monoste... | 21001961003  | 1       |
| Caelo    | Polysorbate 20                  | 21002070002  | 14      |
| Caelo    | Polysorbate 60                  | 21003152003  | 1       |
| Caelo    | Polysorbate 20                  | 21003610004  | 2       |
| Caelo    | Polysorbate 80                  | 21061301     | 1       |
| Caelo    | Polysorbate 20                  | 2112E-02525  | 1       |
| Caelo    | Polysorbate 20                  | 2215I-02525  | 1       |
| Caelo    | Polysorbate 20                  | 24061713     | 1       |
| Caelo    | Polysorbate 20                  | 25(17021303) | 1       |
| Caelo    | Polysorbate 20                  | 25041806     | 1       |
| Caelo    | Polysorbate 80                  | 25062015C    | 1       |
| Caelo    | Polysorbate 20                  | 26(18276801) | 1       |
| Caelo    | Polysorbate 20                  | 2616A-02525  | 1       |
| Caelo    | Polysorbate 20                  | 2704212525   | 1       |
| Caelo    | Polysorbate 80                  | 27111308     | 1       |
| Caelo    | Polysorbate 20                  | 2713E2525    | 1       |
| Caelo    | Polysorbate 80                  | 2772013      | 1       |
| Caelo    | Polysorbate 20                  | 2805         | 1       |
| Caelo    | Polysorbate 80                  | 2821         | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caelo                      | Polysorbate 80                  | 2915A-02527 | 1       |
| Caelo                      | Polysorbate 20                  | 2918E-02525 | 1       |
| Caelo                      | Macrogol 20 glycerol monoste... | 3042223     | 1       |
| Caelo                      | Polysorbate 20                  | 3114I-02525 | 1       |
| Caelo                      | Polysorbate 80                  | 3212I-02527 | 1       |
| Caelo                      | Polysorbate 80                  | 3213E2527   | 1       |
| Caelo                      | Polysorbate 20                  | 3217M-02525 | 1       |
| Caelo                      | Polysorbate 80                  | 3327        | 1       |
| Caelo                      | Polysorbate 20                  | 3478        | 2       |
| Caelo                      | Polysorbate 80                  | 42175394    | 2       |
| Caelo                      | Polysorbate 80                  | 4512A-02527 | 1       |
| Caelo                      | Polysorbate 80                  | 4513M       | 1       |
| Caelo                      | Polysorbate 20                  | 4612A-02525 | 1       |
| Caelo                      | Polysorbate 20                  | 5/AKD7      | 1       |
| Caelo                      | Polysorbate 80                  | 5015A-02527 | 1       |
| Caelo                      | Polysorbate 80                  | 5116Q-02527 | 1       |
| Caelo                      | Polysorbate 80                  | 515I-02527  | 1       |
| Caelo                      | Polysorbate 80                  | 5218Q-02527 | 2       |
| Caelo                      | Polysorbate 20                  | 611poly     | 1       |
| Caelo                      | Polysorbate 20                  | 70879397    | 1       |
| Caelo                      | Polysorbate 20                  | 714E-02525  | 1       |
| Caelo                      | Polysorbate 20                  | 80479168    | 1       |
| Caelo                      | Polysorbate 20                  | C1300       | 1       |
| Caelo                      | Macrogol 20 glycerol monoste... | ES62A93607  | 1       |
| Caelo                      | Polysorbate 80                  | P-300319-3  | 1       |
| Caeol/Noweda               | Polysorbate 20                  | 17325413    | 1       |
| Caeolo/Gehe                | Polysorbate 20                  | 16233501    | 1       |
| Caeolo/Noweda              | Polysorbate 20                  | 17325407    | 1       |
| Caeolo                     | Polysorbate 20                  | 17325301    | 1       |
| Caesar & Loretz GmbH / ... | Polysorbate 60                  | 17099905    | 1       |
| Caesar & Loretz GmbH Hi... | Polysorbate 20                  | 15323902    | 1       |
| Caesar & Loretz GmbH Sa... | Polysorbate 20                  | 20002482005 | 1       |
| Caesar & Loretz GmbH/ AHD  | Polysorbate 20                  | 18276807    | 1       |
| Caesar & Loretz GmbH/ G... | Polysorbate 80                  | 19163904    | 1       |
| Caesar & Loretz GmbH/ G... | Polysorbate 80                  | 20003729010 | 1       |
| Caesar & Loretz GmbH/ P... | Polysorbate 20                  | 18276810    | 1       |
| Caesar & Loretz GmbH/An... | Polysorbate 80                  | 19163904    | 1       |
| Caesar & Loretz GmbH/Fi... | Polysorbate 20                  | 18276807    | 1       |
| Caesar & Loretz GmbH/Fi... | Polysorbate 60                  | 19114102    | 1       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 60                  | 18289705    | 1       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 20                  | 19092207    | 1       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 20                  | 192430005   | 1       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 20                  | 20002891003 | 2       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 80                  | 20003729005 | 1       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 80                  | 20003729010 | 1       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 20                  | 21000590009 | 2       |
| Caesar & Loretz GmbH/Gehe  | Polysorbate 60                  | 21003152003 | 1       |
| Caesar & Loretz GmbH/Ge... | Polysorbate 20                  | 20002482005 | 1       |
| Caesar & Loretz GmbH/Je... | Polysorbate 20                  | 18276807    | 1       |
| Caesar & Loretz GmbH/Je... | Polysorbate 20                  | 20002891002 | 1       |
| Caesar & Loretz GmbH/Je... | Polysorbate 60                  | 20004253001 | 1       |
| Caesar & Loretz GmbH/Je... | Polysorbate 20                  | 21000590009 | 1       |
| Caesar & Loretz GmbH/Kehr  | Polysorbate 20                  | 19092206    | 1       |
| Caesar & Loretz GmbH/Kehr  | Polysorbate 20                  | 192430005   | 1       |
| Caesar & Loretz GmbH/No... | Polysorbate 80                  | 18236818    | 1       |
| Caesar & Loretz GmbH/No... | Polysorbate 20                  | 18276801    | 1       |
| Caesar & Loretz GmbH/No... | Polysorbate 20                  | 19092207    | 1       |
| Caesar & Loretz GmbH/No... | Macrogol 20 glycerol monoste... | 20000323003 | 1       |
| Caesar & Loretz GmbH/No... | Polysorbate 20                  | 20002482005 | 1       |
| Caesar & Loretz GmbH/Ph... | Polysorbate 60                  | 19114102    | 1       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Caesar & Loretz GmbH/Ph... | Polysorbate 20                  | 18276810     | 2       |
| Caesar & Loretz GmbH/Ph... | Polysorbate 20                  | 192430005    | 1       |
| Caesar & Loretz GmbH/Ph... | Polysorbate 80                  | 20003729005  | 1       |
| Caesar & Loretz GmbH/Sa... | Polysorbate 80                  | 18236810     | 2       |
| Caesar & Loretz GmbH/Sa... | Polysorbate 20                  | 18276810     | 1       |
| Caesar & Loretz GmbH/Sa... | Polysorbate 80                  | 19163904     | 2       |
| Caesar & Loretz GmbH/Sa... | Polysorbate 20                  | 20002891002  | 1       |
| Caesar & Loretz GmbH/Sa... | Polysorbate 20                  | 20002891003  | 1       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 16233501     | 1       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 17325410     | 1       |
| Caesar & Loretz GmbH       | Macrogol 20 glycerol monoste... | 18018501     | 1       |
| Caesar & Loretz GmbH       | Polysorbate 60                  | 18029208     | 3       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18045803     | 2       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 1819Q-02525  | 1       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18236801     | 3       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18236805     | 5       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18236808     | 3       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18236810     | 2       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18236811     | 2       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18236813     | 3       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 18236818     | 1       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 18276801     | 12      |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 18276802     | 1       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 18276806     | 2       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 18276807     | 18      |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 18276810     | 11      |
| Caesar & Loretz GmbH       | Polysorbate 60                  | 18289705     | 1       |
| Caesar & Loretz GmbH       | Macrogol 20 glycerol monoste... | 18324202     | 2       |
| Caesar & Loretz GmbH       | Macrogol 20 glycerol monoste... | 19040503     | 3       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 19092206     | 8       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 19092207     | 14      |
| Caesar & Loretz GmbH       | Polysorbate 60                  | 19114102     | 2       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 191639002    | 1       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 19163901     | 4       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 19163902     | 5       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 19163904     | 9       |
| Caesar & Loretz GmbH       | Polysorbate 60                  | 192038002    | 1       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 192430005    | 16      |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 200002482005 | 1       |
| Caesar & Loretz GmbH       | Macrogol 20 glycerol monoste... | 20000323003  | 1       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 20000727002  | 3       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 20000727003  | 1       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 20000727004  | 1       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 20000727006  | 2       |
| Caesar & Loretz GmbH       | Polysorbate 60                  | 20001789003  | 3       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 20002482005  | 12      |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 20002891002  | 7       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 20002891003  | 9       |
| Caesar & Loretz GmbH       | Polysorbate 80                  | 20003729005  | 5       |
| Caesar & Loretz GmbH       | Polysorbate 60                  | 20004253001  | 1       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 21000590002  | 4       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 21000590006  | 11      |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 21000590009  | 1       |
| Caesar & Loretz GmbH       | Macrogol 20 glycerol monoste... | 21001961003  | 1       |
| Caesar & Loretz GmbH       | Polysorbate 20                  | 21002070002  | 6       |
| Caesar & Loretz GmbH       | Polysorbate 60                  | 21003152006  | 1       |
| Caesar & Loretz GmbHGehe   | Polysorbate 20                  | 18276807     | 1       |
| Caesar & Loretz GmbHNow... | Polysorbate 20                  | 20002891003  | 1       |
| Caesar & Loretz Hilden     | Polysorbate 20                  | 18276810     | 1       |
| Caesar & Loretz/Geilenk... | Polysorbate 80                  | 18236805     | 1       |

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| <b>Supplier</b>          | <b>Substance</b>                | <b>Batch</b>       | <b>Spectra</b> |
|--------------------------|---------------------------------|--------------------|----------------|
| Caesar & Loretz/Noweda   | Polysorbate 80                  | 16260201           | 1              |
| Caesar & Loretz          | Polysorbate 20                  | 17325413           | 1              |
| Caesar&Lorenz/Noweda     | Polysorbate 20                  | 17325413           | 1              |
| Caesar&Loretz GmbH       | Polysorbate 60                  | 15067409           | 1              |
| Caesar&Loretz GmbH       | Polysorbate 60                  | 21002004001        | 1              |
| Caleo/ Noweda            | Polysorbate 80                  | 16059402           | 1              |
| Caolo- Noweda            | Polysorbate 20                  | 16029703           | 1              |
| Carlo/Gehe/6,65          | Polysorbate 60                  | 18289705           | 1              |
| cawlo                    | Polysorbate 20                  | 19092207           | 1              |
| Cealo/AHD                | Polysorbate 80                  | 16059402           | 1              |
| Cealo/Anzag              | Polysorbate 20                  | 18276810           | 1              |
| Cealo/GEHE               | Polysorbate 20                  | 18276801           | 1              |
| Cealo/Gehe               | Polysorbate 20                  | 192430005          | 1              |
| Cealo/Phoenix            | Polysorbate 20                  | 19092207           | 1              |
| Cealo/Sanacorp           | Polysorbate 80                  | 16260210           | 1              |
| Cealo                    | Polysorbate 20                  | 14019418           | 1              |
| Cealo                    | Polysorbate 60                  | 16007302           | 1              |
| Cealo                    | Polysorbate 80                  | 16260210           | 1              |
| Cealo                    | Polysorbate 80                  | 18236801           | 2              |
| Celo/Noweda              | Polysorbate 80                  | 17064705           | 1              |
| celo                     | Polysorbate 20                  | 21000590006        | 1              |
| Devesa/ Phönix           | Polysorbate 80                  | 14K27-Bo1-307106   | 1              |
| Dr. Wolff                | Polysorbate 20                  | 17021303           | 1              |
| Ebert u. Jacobi 24.06... | Polysorbate 80                  | 15104112           | 1              |
| Ebert-Jacobi             | Polysorbate 60                  | 1617106            | 1              |
| Eurho Phönix             | Polysorbate 20                  | 18276806           | 1              |
| EuRho                    | Polysorbate 20                  | 14019410           | 1              |
| EuRho                    | Polysorbate 20                  | 18276801           | 1              |
| Euro OTC                 | Polysorbate 20                  | 13297009           | 1              |
| Euro OTC                 | Polysorbate 20                  | 13297010           | 1              |
| Euro OTC                 | Polysorbate 20                  | 14213213           | 1              |
| Euro OTC                 | Macrogol 20 glycerol monoste... | 15410502           | 1              |
| Euro OTC                 | Polysorbate 20                  | 16029703           | 2              |
| Euro OTC                 | Polysorbate 80                  | 16059402           | 1              |
| Euro OTC                 | Polysorbate 80                  | 18236808           | 1              |
| Euro OTC                 | Polysorbate 20                  | 18276801           | 1              |
| Euro OTC                 | Polysorbate 20                  | 18276806           | 2              |
| euro//Noweda             | Polysorbate 20                  | 17325413           | 1              |
| Fa. Croda                | Polysorbate 60                  | 22004              | 6              |
| Fagro/Phönix             | Polysorbate 80                  | 14C24-B07-296371   | 1              |
| Fagron                   | Polysorbate 20                  | 11I15-N13          | 1              |
| Fagron                   | Polysorbate 80                  | 11L22-N12          | 1              |
| Fagron                   | Polysorbate 80                  | 12D02-N02          | 1              |
| Fagron                   | Macrogol 20 glycerol monoste... | 12H23-N03          | 4              |
| Fagron                   | Polysorbate 80                  | 12K05-N04          | 4              |
| Fagron                   | Polysorbate 80                  | 13A10-N03          | 2              |
| Fagron                   | Polysorbate 80                  | 13C19N01           | 1              |
| Fagron                   | Polysorbate 80                  | 13C19-N01          | 1              |
| Fagron                   | Macrogol 20 glycerol monoste... | 13H09-N06          | 5              |
| Fagron                   | Polysorbate 20                  | 13J18-B02          | 1              |
| Fagron                   | Polysorbate 20                  | 13J18-B02-287378   | 4              |
| Fagron                   | Polysorbate 20                  | 14365105           | 1              |
| Fagron                   | Polysorbate 20                  | 14A23-B01          | 1              |
| Fagron                   | Polysorbate 20                  | 14A23-B01-294167   | 1              |
| Fagron                   | Polysorbate 80                  | 14C24-B07          | 1              |
| Fagron                   | Polysorbate 80                  | 14C24-B07-296371   | 3              |
| Fagron                   | Polysorbate 80                  | 14K27-B01-307106   | 2              |
| Fagron                   | Polysorbate 80                  | 16/12-B08          | 1              |
| Fagron                   | Polysorbate 80                  | 16/12-B08-32727237 | 1              |
| Fagron                   | Polysorbate 20                  | 16029703           | 1              |

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| Supplier           | Substance                       | Batch            | Spectra |
|--------------------|---------------------------------|------------------|---------|
| Fagron             | Polysorbate 80                  | 16059402         | 1       |
| Fagron             | Polysorbate 20                  | 16114502         | 2       |
| Fagron             | Polysorbate 80                  | 16B17-B09-322541 | 1       |
| Fagron             | Polysorbate 80                  | 16I12-B02-327237 | 1       |
| Fagron             | Polysorbate 20                  | 17021311         | 1       |
| Fagron             | Polysorbate 80                  | 17A23-B09-334347 | 1       |
| Fagron             | Polysorbate 80                  | 18/H1-B04-354550 | 1       |
| Fagron             | Polysorbate 80                  | 18236802         | 2       |
| Fagron             | Polysorbate 80                  | 18B07-B07        | 1       |
| Fagron             | Polysorbate 80                  | 18B07-B07-346922 | 1       |
| Fagron             | Polysorbate 80                  | 18B17-B07-346922 | 1       |
| Fagron             | Polysorbate 80                  | 18H01-B04        | 1       |
| Fagron             | Polysorbate 80                  | 18H01-B04-352186 | 1       |
| Fagron             | Polysorbate 80                  | 18H01-B04-354550 | 1       |
| Fagron             | Polysorbate 80                  | 18H01-B04-357189 | 1       |
| Fagron             | Polysorbate 80                  | 18K21-B02-359671 | 4       |
| Fagron             | Polysorbate 80                  | 21E27-T05-090136 | 2       |
| Fagron             | Polysorbate 80                  | 226953-0002      | 1       |
| Fagron             | Polysorbate 20                  | 25092014A        | 1       |
| Fagron             | Polysorbate 80                  | 808ND3713        | 1       |
| Fagron             | Polysorbate 80                  | 813I-02527       | 1       |
| Fagron             | Polysorbate 80                  | 908ND3714        | 2       |
| Fagron             | Macrogol 20 glycerol monoste... | ES61A85388       | 1       |
| Fargon/Kehr        | Polysorbate 80                  | 14K27-B01-307106 | 1       |
| Fargon             | Polysorbate 80                  | 10114N07         | 1       |
| Fiebig             | Polysorbate 80                  | 17064705         | 1       |
| Fiebig             | Polysorbate 20                  | 17325410         | 2       |
| Fiebig             | Polysorbate 20                  | 17325413         | 1       |
| Fiebig             | Polysorbate 80                  | 18236808         | 1       |
| Fiebig             | Polysorbate 20                  | 18276807         | 1       |
| Fiebig             | Polysorbate 80                  | 20000727002      | 1       |
| Fiebig             | Polysorbate 60                  | 20001789003      | 1       |
| Gehe 01.07.2014    | Polysorbate 80                  | 13372015         | 1       |
| gehe 28.12.2013    | Polysorbate 80                  | 13152216         | 3       |
| Gehe am 06.02.2014 | Polysorbate 60                  | 13258902         | 1       |
| Gehe               | Polysorbate 80                  | 12K05-N04        | 1       |
| GEHE               | Polysorbate 20                  | 13086505         | 1       |
| Gehe               | Polysorbate 60                  | 14027103         | 1       |
| Gehe               | Polysorbate 80                  | 14190316         | 1       |
| Gehe               | Polysorbate 20                  | 14365116         | 1       |
| Gehe               | Polysorbate 60                  | 15067407         | 1       |
| Gehe               | Polysorbate 60                  | 15067409         | 1       |
| Gehe               | Polysorbate 80                  | 15104103         | 1       |
| Gehe               | Polysorbate 80                  | 15104111         | 1       |
| Gehe               | Polysorbate 20                  | 15323902         | 1       |
| Gehe               | Polysorbate 20                  | 16114502         | 1       |
| Gehe               | Polysorbate 80                  | 1612-B08-327237  | 1       |
| Gehe               | Polysorbate 60                  | 16177104         | 1       |
| Gehe               | Polysorbate 20                  | 162334501        | 1       |
| Gehe               | Polysorbate 20                  | 16233501         | 1       |
| Gehe               | Polysorbate 80                  | 16260201         | 1       |
| Gehe               | Polysorbate 80                  | 16260210         | 1       |
| GEHE               | Polysorbate 80                  | 16B17-B09        | 1       |
| Gehe               | Polysorbate 80                  | 17064705         | 1       |
| Gehe               | Polysorbate 20                  | 17325301         | 1       |
| Gehe               | Polysorbate 20                  | 17325407         | 3       |
| GEHE               | Polysorbate 20                  | 17325407         | 1       |
| Gehe               | Polysorbate 20                  | 17325410         | 1       |
| Gehe               | Polysorbate 20                  | 17325413         | 1       |
| GEHE               | Polysorbate 20                  | 18276801         | 1       |

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| Supplier              | Substance                       | Batch            | Spectra |
|-----------------------|---------------------------------|------------------|---------|
| Gehe                  | Polysorbate 20                  | 18276806         | 1       |
| Gehe                  | Polysorbate 20                  | 18276810         | 3       |
| Gehe                  | Polysorbate 60                  | 18289705         | 1       |
| Gehe                  | Macrogol 20 glycerol monoste... | 18324202         | 2       |
| gehe                  | Polysorbate 80                  | 18h01-b04-357189 | 1       |
| Gehe                  | Polysorbate 80                  | 18H01-B04-357189 | 2       |
| Gehe                  | Macrogol 20 glycerol monoste... | 19040503         | 1       |
| Gehe                  | Polysorbate 20                  | 192430005        | 1       |
| Gehe                  | Macrogol 20 glycerol monoste... | 200000323003     | 1       |
| Hedinger              | Polysorbate 80                  | 18236805         | 2       |
| Henry Lamotte / Gehe  | Polysorbate 80                  | 18236805         | 1       |
| Ichthyol /Anzag       | Polysorbate 80                  | 20(18236808)     | 1       |
| ICHTHYOL/ahp          | Polysorbate 80                  | 14190310         | 1       |
| Infectopharm / Noweda | Polysorbate 20                  | 17325301         | 1       |
| INTERN-DROGEN         | Polysorbate 20                  | 21002070002      | 2       |
| Jenne                 | Polysorbate 20                  | 17021310         | 1       |
| Kehr                  | Polysorbate 20                  | 17021303         | 1       |
| Kehr                  | Polysorbate 20                  | 17325407         | 1       |
| Kehr                  | Polysorbate 20                  | 17325413         | 2       |
| Kögl                  | Polysorbate 80                  | 1700293          | 2       |
| Krieger               | Polysorbate 80                  | 131522232x       | 1       |
| L10                   | Polysorbate 20                  | 17021303         | 1       |
| L12                   | Polysorbate 80                  | 16260201         | 1       |
| L12                   | Polysorbate 20                  | 17325410         | 1       |
| Lamotte/Alliance      | Polysorbate 20                  | 15323912         | 1       |
| Nachprüfung 3008      | Polysorbate 80                  | 13152223         | 1       |
| Nachprüfung           | Polysorbate 20                  | 111111           | 1       |
| Nachprüfung           | Polysorbate 20                  | 123456           | 1       |
| Nachprüfung           | Polysorbate 20                  | AP201218-09      | 1       |
| NOW                   | Polysorbate 80                  | 15104121         | 1       |
| noweda/anzag          | Polysorbate 80                  | 18236808         | 1       |
| Noweda                | Polysorbate 20                  | 11111111         | 1       |
| Noweda                | Polysorbate 20                  | 12303016         | 1       |
| Noweda                | Polysorbate 20                  | 15323902         | 1       |
| Noweda                | Polysorbate 20                  | 16233501         | 2       |
| Noweda                | Polysorbate 20                  | 16233506         | 1       |
| Noweda                | Polysorbate 80                  | 16260210         | 1       |
| Noweda                | Polysorbate 60                  | 17099905         | 2       |
| Noweda                | Polysorbate 20                  | 17325301         | 1       |
| Noweda                | Polysorbate 80                  | 18236801         | 1       |
| Noweda                | Polysorbate 80                  | 18236818         | 1       |
| Noweda                | Polysorbate 20                  | 18276801         | 1       |
| Noweda                | Polysorbate 20                  | 18276810         | 1       |
| Noweda                | Polysorbate 60                  | 18289705         | 1       |
| Noweda                | Polysorbate 20                  | 19092207         | 2       |
| Noweda                | Polysorbate 20                  | 19092208         | 1       |
| Noweda                | Polysorbate 20                  | 20002891001      | 1       |
| Noweda                | Polysorbate 20                  | 20002891003      | 1       |
| Phoenix 30.01.2019    | Polysorbate 20                  | 18276801         | 1       |
| Phoenix               | Polysorbate 80                  | 12116005         | 1       |
| Phoenix               | Polysorbate 20                  | 13086517         | 1       |
| Phoenix               | Polysorbate 20                  | 16233501         | 1       |
| Phoenix               | Polysorbate 20                  | 18276807         | 2       |
| Phoenix               | Polysorbate 20                  | 18276810         | 2       |
| Phoenix               | Polysorbate 80                  | 20003729005      | 1       |
| Phoenix               | Polysorbate 80                  | 3079             | 1       |
| Phoenix               | Polysorbate 20                  | 3095             | 1       |
| Phoenix               | Polysorbate 20                  | 3380             | 1       |
| Phönix Gotha          | Polysorbate 20                  | 11347701         | 1       |
| Phönix Gotha          | Polysorbate 20                  | 13297005         | 1       |

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| Supplier                   | Substance      | Batch       | Spectra |
|----------------------------|----------------|-------------|---------|
| Phönix Gotha               | Polysorbate 20 | 14365116    | 1       |
| Phönix                     | Polysorbate 20 | 14019410    | 2       |
| Phönix                     | Polysorbate 20 | 14365116    | 1       |
| Phönix                     | Polysorbate 20 | 16233501    | 1       |
| Phönix                     | Polysorbate 20 | 17021310    | 1       |
| Phönix                     | Polysorbate 80 | 17064705    | 1       |
| Phönix                     | Polysorbate 20 | 17325407    | 1       |
| Phönix                     | Polysorbate 20 | 1735301     | 1       |
| PHÖNIX                     | Polysorbate 80 | 18045803    | 2       |
| Phönix                     | Polysorbate 80 | 18236801    | 1       |
| Phönix                     | Polysorbate 20 | 20002482005 | 1       |
| PHÖNIX                     | Polysorbate 20 | 200029100   | 1       |
| Phönix                     | Polysorbate 20 | 21000590009 | 2       |
| Roth                       | Polysorbate 80 | 241310140   | 2       |
| Roth                       | Polysorbate 80 | 501313056   | 1       |
| Sana                       | Polysorbate 20 | 21002070002 | 1       |
| Sanacorp, 16.08.2016, 4... | Polysorbate 20 | 16114502    | 1       |
| Sanacorp, 4,52, 18.1.17    | Polysorbate 80 | 16059402    | 1       |
| Sanacorp                   | Polysorbate 20 |             | 1       |
| Sanacorp                   | Polysorbate 20 | 11347711    | 1       |
| Sanacorp                   | Polysorbate 20 | 12303006    | 1       |
| Sanacorp                   | Polysorbate 20 | 12345       | 1       |
| Sanacorp                   | Polysorbate 20 | 13086509    | 2       |
| Sanacorp                   | Polysorbate 20 | 13086517    | 1       |
| Sanacorp                   | Polysorbate 20 | 13297005    | 1       |
| Sanacorp                   | Polysorbate 20 | 14019410    | 2       |
| Sanacorp                   | Polysorbate 20 | 15323902    | 1       |
| Sanacorp                   | Polysorbate 20 | 15323912    | 1       |
| Sanacorp                   | Polysorbate 20 | 16114503    | 1       |
| Sanacorp                   | Polysorbate 20 | 17021303    | 2       |
| Sanacorp                   | Polysorbate 80 | 17064706    | 2       |
| Sanacorp                   | Polysorbate 60 | 17099905    | 1       |
| Sanacorp                   | Polysorbate 20 | 17325412    | 1       |
| Sanacorp                   | Polysorbate 20 | 17325413    | 2       |
| Sanacorp                   | Polysorbate 60 | 18005909    | 1       |
| Sanacorp                   | Polysorbate 80 | 18045804    | 1       |
| Sanacorp                   | Polysorbate 20 | 1827680     | 1       |
| Sanacorp                   | Polysorbate 20 | 4/AKD1      | 1       |
| Sanacorp                   | Polysorbate 80 | 7/AKD20     | 1       |
| VDL 17.04.14               | Polysorbate 80 |             | 1       |
| VDL Nachliefer; 2.7.15;... | Polysorbate 80 | 15104103    | 1       |
| VDL                        | Polysorbate 20 | 11347707    | 1       |
| VDL                        | Polysorbate 20 | 13297005    | 1       |
| VDL;4,39EUR;23.03.15       | Polysorbate 20 | 14365105    | 1       |
| WE:31.03.2016 Sanacorp     | Polysorbate 20 | 15323902    | 2       |

- 285 787 spectra from 1294 *Apo-Ident* customers from a total of 51 528 batches from a further 340 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Polysorbates / Macrogol 20 glycerol monostearate type II* and it was evaluated how many

matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 1120          | 0              | 66 039        |
| <b>Type B</b> | 0              | 740           | 0              | 106 623       |
| <b>Type C</b> | 0              | 2906          | 16             | 285 787       |

The substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.4643 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.1892 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.4524 % (> 99.3498 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                           | Distance in main model | Distance in second-stage model |
|-------------------------------------|------------------------|--------------------------------|
| Macrogolglycerol hydroxystearate 40 | 9.01                   | 21.78                          |
| Macrogolglycerol ricinoleate        | 11.04                  | 14.78                          |
| Macrogol 8 stearate type I          | 13.78                  | 20.96                          |
| Cetiol® HE                          | 17.36                  | —                              |
| Macrogol ointment                   | 18.06                  | —                              |
| Lauromacrogol 400                   | 18.36                  | 21.22                          |
| Macrogol 4 lauryl ether             | 36.79                  | 50.81                          |
| Macrogols 400                       | 46.82                  | —                              |
| Macrogols 300                       | 50.65                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Polysorbates / Macrogol 20 glycerol monostearate type II* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30893     | 35015               | 3.06                         | 14.68                           |
| 31033     | 34623               | 1.25                         | 15.37                           |
| 31182     | 31182               | 0.00                         | 21.76                           |
| 31323     | 31323               | 0.00                         | 34.79                           |
| 31324     | 31324               | 0.00                         | 18.01                           |
| 31325     | 31325               | 0.00                         | 16.42                           |
| 31469     | 31182               | 4.12                         | 20.93                           |
| 31697     | 35295               | 3.59                         | 30.28                           |
| 33058     | 33058               | 0.00                         | 26.66                           |
| 33300     | 31325               | 5.94                         | 14.73                           |
| 33323     | 33323               | 0.00                         | 27.84                           |
| 33324     | 33324               | 0.00                         | 29.24                           |
| 33888     | 33888               | 0.00                         | 29.56                           |
| 34081     | 34081               | 0.00                         | 24.69                           |
| 34331     | 34331               | 0.00                         | 34.71                           |
| 34338     | 34338               | 0.00                         | 16.09                           |
| 34469     | 34469               | 0.00                         | 35.26                           |
| 34623     | 34623               | 0.00                         | 15.96                           |
| 34673     | 31325               | 4.81                         | 16.98                           |
| 34702     | 34702               | 0.00                         | 23.25                           |
| 34707     | 34707               | 0.00                         | 31.60                           |
| 35015     | 35015               | 0.00                         | 18.07                           |
| 35044     | 35044               | 0.00                         | 25.55                           |
| 35257     | 35257               | 0.00                         | 19.16                           |
| 35295     | 35295               | 0.00                         | 36.25                           |
| 35911     | 35015               | 5.85                         | 20.35                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Potash soap DAC</b>                                           |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30987-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Potash soap DAC; Sapo kalinus DAC

### Special notes

When selecting the *Potash soap DAC* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Potash soap DAC           | 12     | 20     | 85     |

## Second-stage model

For differentiation of the substance/substance group *Potash soap DAC* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Potash soap DAC*:

| Supplier | Substance       | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------------|----------|-----------|---------|-------------|
| Caelo    | Potash soap DAC | 13008101 | 30987     | 40      | 1402565     |
| Caelo    | Potash soap DAC | 14143401 | 31480     | 40      | 20140520    |
| Caelo    | Potash soap DAC | 14240801 | 31561     | 60      | 20140815    |
| Caelo    | Potash soap DAC | 14289101 | 31650     | 60      | 20141017    |
| Caelo    | Potash soap DAC | 160908   | 32392     | 40      | 20160606*   |
| Caelo    | Potash soap DAC | 160909   | 32393     | 40      | 20160606*   |
| Caelo    | Potash soap DAC | 160910   | 32394     | 40      | 20160606*   |
| Caelo    | Potash soap DAC | 171575   | 33408     | 40      | 20170620*   |
| Caelo    | Potash soap DAC | 170461   | 33409     | 40      | 20170620*   |
| Caelo    | Potash soap DAC | 170462   | 33410     | 40      | 20170620*   |
| Caelo    | Potash soap DAC | 21003122 | 36015     | 40      | 20211118*   |
| Caelo    | Potash soap DAC | 22000077 | 36019     | 40      | 20220128*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 520 spectra of 12 reference samples from the substance/substance group *Potash soap DAC*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 12 different batches.
- 66 639 spectra from a total of 1367 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples:

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 690 spectra of 20 reference samples from the substance/substance group *Potash soap DAC*.
- Among them are spectra of independent samples from 20 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance       | Batch    | Sample ID | Spectra |
|----------|-----------------|----------|-----------|---------|
| Caelo    | Potash soap DAC | 13322201 | 31125     | 40      |
| Caelo    | Potash soap DAC | 173023   | 34016     | 40      |
| Caelo    | Potash soap DAC | 180707   | 34149     | 40      |
| Caelo    | Potash soap DAC | 190048   | 34528     | 40      |
| Caelo    | Potash soap DAC | 190049   | 34529     | 40      |
| Caelo    | Potash soap DAC | 190050   | 34530     | 40      |
| Caelo    | Potash soap DAC | 19000483 | 34985     | 40      |
| Caelo    | Potash soap DAC | 20003353 | 35160     | 40      |
| Caelo    | Potash soap DAC | 21001021 | 35320     | 40      |
| Caelo    | Potash soap DAC | 21001022 | 35321     | 40      |
| Caelo    | Potash soap DAC | 21001023 | 35322     | 40      |
| Caelo    | Potash soap DAC | 21002108 | 35618     | 50      |
| Caelo    | Potash soap DAC | 21002109 | 35619     | 50      |
| Caelo    | Potash soap DAC | 21002110 | 35620     | 50      |
| Caelo    | Potash soap DAC | 21002111 | 35621     | 50      |
| Caelo    | Potash soap DAC | 21003123 | 36016     | 10      |
| Caelo    | Potash soap DAC | 21003124 | 36017     | 10      |
| Caelo    | Potash soap DAC | 21003125 | 36018     | 10      |
| Caelo    | Potash soap DAC | 22000078 | 36020     | 10      |
| Caelo    | Potash soap DAC | 22000079 | 36021     | 10      |

- 106 673 spectra from a total of 2481 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 231 spectra from 97 *Apo-Ident* customers from 87 batches from the substance/substance group *Potash soap DAC*.
- Among them are spectra of independent samples from 85 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance       | Batch    | Spectra |
|----------|-----------------|----------|---------|
| AHD      | Potash soap DAC | 19062201 | 1       |
| Caelo    | Potash soap DAC | 11198901 | 1       |
| Caelo    | Potash soap DAC | 11276401 | 1       |
| Caelo    | Potash soap DAC | 12060401 | 1       |
| Caelo    | Potash soap DAC | 12060701 | 1       |
| Caelo    | Potash soap DAC | 13161401 | 1       |
| Caelo    | Potash soap DAC | 13161901 | 2       |
| Caelo    | Potash soap DAC | 13322201 | 1       |
| Caelo    | Potash soap DAC | 13322401 | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Potash soap DAC  | 13322601     | 1              |
| Caelo           | Potash soap DAC  | 14032801     | 1              |
| Caelo           | Potash soap DAC  | 14032901     | 2              |
| Caelo           | Potash soap DAC  | 14033001     | 1              |
| Caelo           | Potash soap DAC  | 14143601     | 1              |
| Caelo           | Potash soap DAC  | 14240701     | 1              |
| Caelo           | Potash soap DAC  | 14240901     | 1              |
| Caelo           | Potash soap DAC  | 14241001     | 2              |
| Caelo           | Potash soap DAC  | 14241101     | 2              |
| Caelo           | Potash soap DAC  | 14289101     | 2              |
| Caelo           | Potash soap DAC  | 14289201     | 2              |
| Caelo           | Potash soap DAC  | 15/134/KS    | 1              |
| Caelo           | Potash soap DAC  | 15181701     | 1              |
| Caelo           | Potash soap DAC  | 15182001     | 1              |
| Caelo           | Potash soap DAC  | 15240401     | 2              |
| Caelo           | Potash soap DAC  | 15240501     | 4              |
| Caelo           | Potash soap DAC  | 15435201     | 2              |
| Caelo           | Potash soap DAC  | 15435301     | 1              |
| Caelo           | Potash soap DAC  | 16090901     | 1              |
| Caelo           | Potash soap DAC  | 16091001     | 1              |
| Caelo           | Potash soap DAC  | 16091101     | 1              |
| Caelo           | Potash soap DAC  | 16091201     | 1              |
| Caelo           | Potash soap DAC  | 16256801     | 1              |
| Caelo           | Potash soap DAC  | 16256901     | 3              |
| Caelo           | Potash soap DAC  | 16257001     | 1              |
| Caelo           | Potash soap DAC  | 17045801     | 5              |
| Caelo           | Potash soap DAC  | 17046001     | 1              |
| Caelo           | Potash soap DAC  | 17046101     | 1              |
| Caelo           | Potash soap DAC  | 17046201     | 3              |
| Caelo           | Potash soap DAC  | 17157501     | 2              |
| Caelo           | Potash soap DAC  | 17221701     | 2              |
| Caelo           | Potash soap DAC  | 17221901     | 3              |
| Caelo           | Potash soap DAC  | 17302101     | 1              |
| Caelo           | Potash soap DAC  | 17302201     | 3              |
| Caelo           | Potash soap DAC  | 18060501     | 4              |
| Caelo           | Potash soap DAC  | 18070801     | 3              |
| Caelo           | Potash soap DAC  | 18071001     | 1              |
| Caelo           | Potash soap DAC  | 18211301     | 1              |
| Caelo           | Potash soap DAC  | 18211401     | 1              |
| Caelo           | Potash soap DAC  | 18211402     | 1              |
| Caelo           | Potash soap DAC  | 18211501     | 1              |
| Caelo           | Potash soap DAC  | 19000482001  | 5              |
| Caelo           | Potash soap DAC  | 19000483001  | 4              |
| Caelo           | Potash soap DAC  | 190005001    | 1              |
| Caelo           | Potash soap DAC  | 19004901     | 1              |
| Caelo           | Potash soap DAC  | 19005001     | 1              |
| Caelo           | Potash soap DAC  | 19062201     | 4              |
| Caelo           | Potash soap DAC  | 19062301     | 2              |
| Caelo           | Potash soap DAC  | 19062601     | 1              |
| Caelo           | Potash soap DAC  | 19159101     | 4              |
| Caelo           | Potash soap DAC  | 19159201     | 6              |
| Caelo           | Potash soap DAC  | 19159301     | 9              |
| Caelo           | Potash soap DAC  | 19210901     | 7              |
| Caelo           | Potash soap DAC  | 19211101     | 3              |
| Caelo           | Potash soap DAC  | 200003980001 | 1              |
| Caelo           | Potash soap DAC  | 20001210001  | 3              |
| Caelo           | Potash soap DAC  | 20001212001  | 1              |
| Caelo           | Potash soap DAC  | 20001214001  | 1              |
| Caelo           | Potash soap DAC  | 20001215001  | 3              |
| Caelo           | Potash soap DAC  | 20002380001  | 6              |

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| Supplier                   | Substance       | Batch         | Spectra |
|----------------------------|-----------------|---------------|---------|
| Caelo                      | Potash soap DAC | 20002381001   | 3       |
| Caelo                      | Potash soap DAC | 20002382002   | 2       |
| Caelo                      | Potash soap DAC | 20002384001   | 5       |
| Caelo                      | Potash soap DAC | 20003353001   | 2       |
| Caelo                      | Potash soap DAC | 20003355001   | 2       |
| Caelo                      | Potash soap DAC | 20003357001   | 2       |
| Caelo                      | Potash soap DAC | 20003980001   | 2       |
| Caelo                      | Potash soap DAC | 20003995001   | 1       |
| Caelo                      | Potash soap DAC | 20004297001   | 3       |
| Caelo                      | Potash soap DAC | 2000604297001 | 1       |
| Caelo                      | Potash soap DAC | 21001022001   | 3       |
| Caelo                      | Potash soap DAC | 21001023001   | 1       |
| Caelo                      | Potash soap DAC | 21002108001   | 6       |
| Caelo                      | Potash soap DAC | 21002109001   | 1       |
| Caelo                      | Potash soap DAC | 21003125001   | 3       |
| Caesar & Loretz GmbH / ... | Potash soap DAC | 18211501      | 1       |
| Caesar & Loretz GmbH / ... | Potash soap DAC | 19000482001   | 2       |
| Caesar & Loretz GmbH / ... | Potash soap DAC | 19062601      | 1       |
| Caesar & Loretz GmbH / ... | Potash soap DAC | 19211101      | 1       |
| Caesar & Loretz GmbH / ... | Potash soap DAC | 19004901      | 2       |
| Caesar & Loretz GmbH/Gehe  | Potash soap DAC | 20001210001   | 1       |
| Caesar & Loretz GmbH/Je... | Potash soap DAC | 19000483001   | 2       |
| Caesar & Loretz GmbH/Je... | Potash soap DAC | 19159201      | 1       |
| Caesar & Loretz GmbH/Ph... | Potash soap DAC | 19210901      | 2       |
| Caesar & Loretz GmbH/Ph... | Potash soap DAC | 20003353001   | 1       |
| Caesar & Loretz GmbH/Ph... | Potash soap DAC | 21002111001   | 1       |
| Caesar & Loretz GmbH/Sa... | Potash soap DAC | 19159201      | 1       |
| Caesar & Loretz GmbH/Sa... | Potash soap DAC | 20003355001   | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 18211301      | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 19000482001   | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 19000483001   | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 19005001      | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 19062201      | 3       |
| Caesar & Loretz GmbH       | Potash soap DAC | 19210901      | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 192733001     | 2       |
| Caesar & Loretz GmbH       | Potash soap DAC | 20002380001   | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 20002382002   | 3       |
| Caesar & Loretz GmbH       | Potash soap DAC | 20002384001   | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 20003353001   | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 20003357001   | 1       |
| Caesar & Loretz GmbH       | Potash soap DAC | 21003125001   | 4       |
| Carlo/Phönix/6,40          | Potash soap DAC | 19062301      | 1       |
| GEHE                       | Potash soap DAC | 17221901      | 1       |
| Gehe                       | Potash soap DAC | 20001212001   | 1       |
| Jenne                      | Potash soap DAC | 19062201      | 1       |
| Klenk                      | Potash soap DAC | 14143401      | 1       |
| Noweda                     | Potash soap DAC | 17302301      | 1       |
| Noweda                     | Potash soap DAC | 19000483001   | 1       |
| Noweda                     | Potash soap DAC | 19159301      | 1       |
| Sanacorp                   | Potash soap DAC | 17302101      | 1       |
| Sanacorp                   | Potash soap DAC | 18211501      | 1       |
| Sanacorp                   | Potash soap DAC | 19000483001   | 2       |
| Sanacorp                   | Potash soap DAC | 192733001     | 1       |

- 288 478 spectra from 1294 *Apo-Ident* customers from a total of 51 802 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#),

the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Potash soap DAC* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Potash soap DAC* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 520           | 0              | 66 639        |
| <b>Type B</b> | 0              | 690           | 0              | 106 673       |
| <b>Type C</b> | 0              | 230           | 1              | 288 478       |

The substance/substance group *Potash soap DAC* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.8462 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.1304 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.5671 % (> 98.2684 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Potash soap DAC* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                    | Distance in main model | Distance in second-stage model |
|------------------------------|------------------------|--------------------------------|
| Base cream DAC               | 37.29                  | —                              |
| Non-ionic hydrophil ointment | 52.80                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Potash soap DAC* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30987     | 30987               | 0.00                         | 62.38                           |
| 31480     | 32394               | 2.13                         | 64.25                           |
| 31561     | 32394               | 5.37                         | 66.84                           |
| 31650     | 33409               | 12.20                        | 66.09                           |
| 32392     | 32392               | 0.00                         | 64.28                           |
| 32393     | 32393               | 0.00                         | 63.38                           |
| 32394     | 32394               | 0.00                         | 65.27                           |
| 33408     | 33408               | 0.00                         | 59.87                           |
| 33409     | 33409               | 0.00                         | 59.68                           |
| 33410     | 33410               | 0.00                         | 59.21                           |
| 36015     | 36015               | 0.00                         | 64.53                           |
| 36019     | 36019               | 0.00                         | 67.34                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Potash soap Ph.Helv.**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 34278-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Potash soap Ph.Helv.; Sapo kalinus Ph.Helv.

### Special notes

When selecting the *Potash soap Ph.Helv.* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Potash soap Ph.Helv.      | 3      | 1      | 0      |

## Second-stage model

For differentiation of the substance/substance group *Potash soap Ph.Helv.* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Potash soap Ph.Helv.*:

| Supplier    | Substance           | Batch      | Sample ID | Spectra | Certificate |
|-------------|---------------------|------------|-----------|---------|-------------|
| Hänseler AG | Potash soap Ph.H... | 2018080637 | 34278     | 40      | 1812453     |
| Hänseler AG | Potash soap Ph.H... | 2017080141 | 34279     | 40      | 1812452     |
| Hänseler AG | Potash soap Ph.H... | 2021120379 | 36285     | 40      | 20220104    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 120 spectra of 3 reference samples from the substance/substance group *Potash soap Ph.Helv.*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 039 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Potash soap Ph.Helv.*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier    | Substance            | Batch      | Sample ID | Spectra |
|-------------|----------------------|------------|-----------|---------|
| Hänseler AG | Potash soap Ph.Helv. | 2017120020 | 34280     | 40      |



- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 0 spectra from 0 *Apo-Ident* customers from 0 batches from the substance/substance group *Potash soap Ph.Helv.*.
- Among them are spectra of independent samples from 0 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.
- 288 709 spectra from 1294 *Apo-Ident* customers from a total of 51 888 batches from a further 344 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Potash soap Ph.Helv.* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Potash soap Ph.Helv.* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 120           | 0              | 67 039        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 0             | 0              | 288 709       |

The substance/substance group *Potash soap Ph.Helv.* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6894 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Potash soap Ph.Helv.* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance       | Distance in<br>main model | Distance in<br>second-stage model |
|-----------------|---------------------------|-----------------------------------|
| Potash soap DAC | 82.47                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Potash soap Ph.Helv.* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 34278     | 34278                  | 0.00                            | 99.36                              |
| 34279     | 34279                  | 0.00                            | 75.41                              |
| 36285     | 34279                  | 16.21                           | 77.45                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Propylene glycol**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30872-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Propylene glycol; Propylenglycolum

### Special notes

When selecting the *Propylene glycol* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Propylene glycol          | 13     | 13     | 921    |

## Second-stage model

For differentiation of the substance/substance group *Propylene glycol* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Propylene glycol*:

| Supplier      | Substance        | Batch            | Sample ID | Spectra | Certificate |
|---------------|------------------|------------------|-----------|---------|-------------|
| Bombastus     | Propylene glycol | 301162           | 32728     | 40      | 20160323    |
| Bombastus     | Propylene glycol | 18003480         | 34516     | 40      | 20180627    |
| Caelo         | Propylene glycol | 12372405         | 30872     | 40      | 20130107    |
| Caelo         | Propylene glycol | 14346604         | 31663     | 60      | 1508143     |
| Caelo         | Propylene glycol | 15335403         | 32074     | 40      | 20150930    |
| Caelo         | Propylene glycol | 15355108         | 32486     | 40      | 20151021    |
| Euro OTC      | Propylene glycol | 1509031          | 31738     | 60      | 20151005*   |
| Euro OTC      | Propylene glycol | 1603034          | 32190     | 40      | 20160425*   |
| Euro OTC      | Propylene glycol | 1606014          | 32466     | 40      | 20160617*   |
| Fagron        | Propylene glycol | 18J03-B07-356433 | 34514     | 40      | 20181107    |
| Fagron        | Propylene glycol | 19A28-B09-361175 | 34515     | 40      | 20190513    |
| Henry Lamotte | Propylene glycol | 0123095          | 30920     | 40      | 1502554     |
| Henry Lamotte | Propylene glycol | 6012897001       | 34513     | 40      | 20180808    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 560 spectra of 13 reference samples from the substance/substance group *Propylene glycol*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 13 different batches.
- 66 599 spectra from a total of 1366 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

in the validation, are marked with a †. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 530 spectra of 13 reference samples from the substance/substance group *Propylene glycol*.
- Among them are spectra of independent samples from 13 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance        | Batch    | Sample ID | Spectra |
|-----------|------------------|----------|-----------|---------|
| Bombastus | Propylene glycol | 22000478 | 36215     | 40      |
| Euro OTC  | Propylene glycol | 1610031  | 32836     | 40      |
| Euro OTC  | Propylene glycol | 1703024  | 33447     | 40      |
| Euro OTC  | Propylene glycol | 1708002  | 33665     | 40      |
| Euro OTC  | Propylene glycol | 1711023  | 33923     | 40      |
| Euro OTC  | Propylene glycol | 1803023  | 34093     | 40      |
| Euro OTC  | Propylene glycol | 1809007  | 34302     | 40      |
| Euro OTC  | Propylene glycol | 1901018  | 34431     | 40      |
| Euro OTC  | Propylene glycol | 1906034  | 34654     | 40      |
| Euro OTC  | Propylene glycol | 1912001  | 34808     | 40      |
| Euro OTC  | Propylene glycol | 2003060  | 34834     | 40      |
| Euro OTC  | Propylene glycol | 2104019  | 35580     | 50      |
| Euro OTC  | Propylene glycol | 2204011  | 36281     | 40      |

- 106 833 spectra from a total of 2488 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 8760 spectra from 1200 *Apo-Ident* customers from 960 batches from the substance/substance group *Propylene glycol*.
- Among them are spectra of independent samples from 919 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance        | Batch       | Spectra |
|----------------------------|------------------|-------------|---------|
| / Noweda                   | Propylene glycol | 1000007047  | 2       |
| /Phoenix                   | Propylene glycol | 17053806    | 1       |
| 03.12.18 Phoenix           | Propylene glycol | 8064908     | 1       |
| 11.09.2018 Phoenix 2,69EUR | Propylene glycol | 18064904    | 1       |
| 19.04.2016 Phoenix 2,84EUR | Propylene glycol | 15335403    | 1       |
| 21002539002                | Propylene glycol | 21002539002 | 1       |
| A.H.D.                     | Propylene glycol | 1112004-01  | 1       |
| ACM                        | Propylene glycol | KNC0776J15  | 1       |
| Adler                      | Propylene glycol | 18064908    | 2       |
| AHD / Lamotte              | Propylene glycol | 1000002992  | 2       |
| AHD 26.01.15               | Propylene glycol | 14248707    | 1       |
| AHD Lamotte GmbH           | Propylene glycol | 8002520002  | 1       |
| AHD/Henry Lamotte Oils ... | Propylene glycol | 1000007047  | 1       |
| AHD/Lamotte                | Propylene glycol | 6012897001  | 5       |

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| Supplier                   | Substance        | Batch            | Spectra |
|----------------------------|------------------|------------------|---------|
| AHD                        | Propylene glycol | 1000001132       | 1       |
| AHD                        | Propylene glycol | 13100907         | 1       |
| AHD                        | Propylene glycol | 17053809         | 1       |
| AHD                        | Propylene glycol | 21002539003      | 1       |
| AHD                        | Propylene glycol | 29775B           | 1       |
| AHD                        | Propylene glycol | F08-3744509      | 1       |
| AHL                        | Propylene glycol | 17H03-B04-340573 | 2       |
| Alliance 05.2.15           | Propylene glycol | 14113105         | 1       |
| Alliance H.                | Propylene glycol | 15430513         | 1       |
| Alliance Healthcare/Hen... | Propylene glycol | 125099           | 2       |
| Alliance Healthcare        | Propylene glycol | 10274303         | 1       |
| Alliance Healthcare        | Propylene glycol | 12372403         | 1       |
| Alliance Healthcare        | Propylene glycol | 15430508         | 1       |
| Alliance Healthcare        | Propylene glycol | 17321705         | 1       |
| Alliance Healthcare        | Propylene glycol | 19A28-B09-361175 | 1       |
| Alliance Healthcare        | Propylene glycol | 272684           | 1       |
| Alliance/Caeolo            | Propylene glycol | 18219105         | 1       |
| Alliance/Henry             | Propylene glycol | 8002520002       | 1       |
| alliance/henry-lamotte     | Propylene glycol | 8007215001       | 5       |
| Alliance/Lamotte           | Propylene glycol | 80072125001      | 1       |
| Alliance                   | Propylene glycol | 18J03-B07-356433 | 1       |
| Allianz Healthcare         | Propylene glycol | 18j03-b07-356433 | 1       |
| Allianz Healthcare         | Propylene glycol | 19g04-b03-363220 | 2       |
| Allianz                    | Propylene glycol | 1000007047       | 1       |
| Allianz                    | Propylene glycol | 8003093001       | 2       |
| Anzag 19.03.13 ek: 3,03EUR | Propylene glycol | 12372404         | 2       |
| ANZAG 20.01.2014           | Propylene glycol | 13256704         | 1       |
| Anzag 25.01.2013           | Propylene glycol | 12169802         | 2       |
| Anzag/Henry Lotte          | Propylene glycol | 8003093001       | 1       |
| Anzag                      | Propylene glycol | 1000002768       | 1       |
| ANZAG                      | Propylene glycol | 123095           | 8       |
| Anzag                      | Propylene glycol | 12G13N07         | 1       |
| Anzag                      | Propylene glycol | 13E22-B03-283450 | 1       |
| Anzag                      | Propylene glycol | 18064901         | 1       |
| Anzag                      | Propylene glycol | 18219106         | 1       |
| Anzag                      | Propylene glycol | 192461005        | 1       |
| Anzag                      | Propylene glycol | 8002520002       | 4       |
| Apo-ident                  | Propylene glycol | 1509031-01       | 1       |
| Apo-ident                  | Propylene glycol | 1603034-01       | 2       |
| apo-ident                  | Propylene glycol | 1708002-01       | 1       |
| Apotheke/Defektur Misch... | Propylene glycol | 35/15            | 1       |
| Apotheke-Ansatz            | Propylene glycol | 19/15            | 1       |
| Audor Pharma               | Propylene glycol | 2016M-02110      | 1       |
| Audor Pharma               | Propylene glycol | 2104019-01       | 1       |
| Azelis                     | Propylene glycol | 32030            | 8       |
| Azelis                     | Propylene glycol | 81930p1          | 1       |
| Azelis                     | Propylene glycol | 81930p2          | 1       |
| Azelis                     | Propylene glycol | 81930p3          | 1       |
| Azelis                     | Propylene glycol | 81930p4          | 1       |
| Azelis                     | Propylene glycol | 81930p5          | 1       |
| Azelis                     | Propylene glycol | 81930p6          | 1       |
| Bambustus/Noweda           | Propylene glycol | 299106           | 10      |
| BASF AG Deutschland        | Propylene glycol | 1901018-01       | 1       |
| BASF AG                    | Propylene glycol | 140802001        | 1       |
| BASF/Gehe                  | Propylene glycol | 1610031-01       | 1       |
| BASF/Phoenix               | Propylene glycol | 1901018-01       | 1       |
| BASF/Sanacorp              | Propylene glycol | 1509031-01       | 1       |
| BASF                       | Propylene glycol | 1501013-01       | 1       |
| Beiersdorf AG              | Propylene glycol | 15335404         | 1       |
| Bionorica/Noweda           | Propylene glycol | 129878           | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Bombastus       | Propylene glycol | 11417            | 1              |
| Bombastus       | Propylene glycol | 123095           | 1              |
| Bombastus       | Propylene glycol | 13256707         | 1              |
| Bombastus       | Propylene glycol | 15430504         | 2              |
| Bombastus       | Propylene glycol | 16251201         | 1              |
| Bombastus       | Propylene glycol | 17275502         | 1              |
| Bombastus       | Propylene glycol | 17H03-B04-340573 | 1              |
| Bombastus       | Propylene glycol | 18000423         | 3              |
| Bombastus       | Propylene glycol | 18000424         | 12             |
| Bombastus       | Propylene glycol | 18003480         | 12             |
| Bombastus       | Propylene glycol | 18005449         | 11             |
| Bombastus       | Propylene glycol | 1803479          | 1              |
| Bombastus       | Propylene glycol | 18H07-B01-352662 | 1              |
| Bombastus       | Propylene glycol | 19001345         | 2              |
| Bombastus       | Propylene glycol | 19001346         | 11             |
| Bombastus       | Propylene glycol | 19003047         | 2              |
| Bombastus       | Propylene glycol | 19003049         | 8              |
| Bombastus       | Propylene glycol | 19004748         | 7              |
| Bombastus       | Propylene glycol | 1901018-01       | 1              |
| Bombastus       | Propylene glycol | 20000737         | 1              |
| Bombastus       | Propylene glycol | 20000738         | 1              |
| Bombastus       | Propylene glycol | 20001869         | 2              |
| Bombastus       | Propylene glycol | 20001870         | 11             |
| Bombastus       | Propylene glycol | 20004944         | 2              |
| Bombastus       | Propylene glycol | 21001976         | 3              |
| Bombastus       | Propylene glycol | 22000478         | 1              |
| Bombastus       | Propylene glycol | 265358           | 1              |
| Bombastus       | Propylene glycol | 268295           | 1              |
| Bombastus       | Propylene glycol | 270359           | 1              |
| Bombastus       | Propylene glycol | 277548           | 4              |
| Bombastus       | Propylene glycol | 281569           | 3              |
| Bombastus       | Propylene glycol | 283937           | 1              |
| Bombastus       | Propylene glycol | 286382           | 4              |
| Bombastus       | Propylene glycol | 289078           | 4              |
| Bombastus       | Propylene glycol | 291103           | 1              |
| Bombastus       | Propylene glycol | 293947           | 9              |
| Bombastus       | Propylene glycol | 295111           | 5              |
| Bombastus       | Propylene glycol | 296424           | 4              |
| Bombastus       | Propylene glycol | 297626           | 11             |
| Bombastus       | Propylene glycol | 2983947          | 1              |
| Bombastus       | Propylene glycol | 299106           | 6              |
| Bombastus       | Propylene glycol | 301162           | 19             |
| Bombastus       | Propylene glycol | 303788           | 25             |
| Bombastus       | Propylene glycol | 306364           | 1              |
| Bombastus       | Propylene glycol | 307185           | 11             |
| Bombastus       | Propylene glycol | 309030           | 3              |
| Bombastus       | Propylene glycol | 309031           | 7              |
| Bombastus       | Propylene glycol | 311416           | 3              |
| Bombastus       | Propylene glycol | 311417           | 7              |
| Bombastus       | Propylene glycol | 60091702         | 1              |
| Bombastus       | Propylene glycol | 7/14             | 1              |
| Bombastus       | Propylene glycol | 8003093001       | 2              |
| Bombastuts/Gehe | Propylene glycol | 307185           | 2              |
| cae             | Propylene glycol | 15430514         | 1              |
| cae             | Propylene glycol | 18219102         | 2              |
| Caeleo/ Krieger | Propylene glycol | 17321703         | 1              |
| Caeleo/ Krieger | Propylene glycol | 18064912         | 1              |
| Caeleo/ Krieger | Propylene glycol | 20003903013      | 1              |
| Caelo           | Propylene glycol |                  | 4              |
| Caelo           | Propylene glycol | 1000001132       | 8              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Propylene glycol | 1000002768       | 1              |
| Caelo           | Propylene glycol | 1000002992       | 3              |
| Caelo           | Propylene glycol | 1000007047       | 4              |
| Caelo           | Propylene glycol | 10061712         | 1              |
| Caelo           | Propylene glycol | 10101720         | 1              |
| Caelo           | Propylene glycol | 10371307         | 1              |
| Caelo           | Propylene glycol | 1051805          | 1              |
| Caelo           | Propylene glycol | 1051821          | 1              |
| Caelo           | Propylene glycol | 1053801          | 1              |
| Caelo           | Propylene glycol | 1064907          | 1              |
| Caelo           | Propylene glycol | 1064915          | 1              |
| Caelo           | Propylene glycol | 1070318/17053809 | 1              |
| Caelo           | Propylene glycol | 1071502          | 1              |
| Caelo           | Propylene glycol | 11021404         | 1              |
| Caelo           | Propylene glycol | 11051707         | 1              |
| Caelo           | Propylene glycol | 11121702         | 1              |
| Caelo           | Propylene glycol | 11125811         | 1              |
| Caelo           | Propylene glycol | 1113102          | 1              |
| Caelo           | Propylene glycol | 11300502         | 2              |
| Caelo           | Propylene glycol | 11300504         | 1              |
| Caelo           | Propylene glycol | 11300505         | 2              |
| Caelo           | Propylene glycol | 11300506         | 3              |
| Caelo           | Propylene glycol | 11372005         | 3              |
| Caelo           | Propylene glycol | 11372006         | 14             |
| Caelo           | Propylene glycol | 11372007         | 9              |
| Caelo           | Propylene glycol | 11372009         | 5              |
| Caelo           | Propylene glycol | 11372010         | 6              |
| Caelo           | Propylene glycol | 11372011         | 3              |
| Caelo           | Propylene glycol | 113Q-02110       | 1              |
| Caelo           | Propylene glycol | 1140817          | 1              |
| Caelo           | Propylene glycol | 11H04-N01        | 1              |
| Caelo           | Propylene glycol | 11K28-N01        | 3              |
| Caelo           | Propylene glycol | 12021823         | 1              |
| Caelo           | Propylene glycol | 1206038-01       | 1              |
| Caelo           | Propylene glycol | 12071403         | 1              |
| Caelo           | Propylene glycol | 12088205         | 3              |
| Caelo           | Propylene glycol | 12088206         | 5              |
| Caelo           | Propylene glycol | 12088207         | 11             |
| Caelo           | Propylene glycol | 12100907         | 1              |
| Caelo           | Propylene glycol | 12101701         | 1              |
| Caelo           | Propylene glycol | 12111304         | 1              |
| Caelo           | Propylene glycol | 12169802         | 16             |
| Caelo           | Propylene glycol | 12169803         | 10             |
| Caelo           | Propylene glycol | 12169804         | 8              |
| Caelo           | Propylene glycol | 1219803          | 1              |
| Caelo           | Propylene glycol | 122882           | 1              |
| Caelo           | Propylene glycol | 123095           | 1              |
| Caelo           | Propylene glycol | 12345            | 1              |
| Caelo           | Propylene glycol | 12372402         | 2              |
| Caelo           | Propylene glycol | 12372403         | 7              |
| Caelo           | Propylene glycol | 12372404         | 14             |
| Caelo           | Propylene glycol | 12372405         | 15             |
| Caelo           | Propylene glycol | 125099           | 19             |
| Caelo           | Propylene glycol | 1272404          | 1              |
| Caelo           | Propylene glycol | 1288205          | 1              |
| Caelo           | Propylene glycol | 12C06-N04        | 1              |
| Caelo           | Propylene glycol | 12G13-N07        | 4              |
| Caelo           | Propylene glycol | 12K13-N05        | 1              |
| Caelo           | Propylene glycol | 1301C003-277799  | 1              |
| Caelo           | Propylene glycol | 1301C004-277798  | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Propylene glycol | 1304C009-281100  | 2              |
| Caelo           | Propylene glycol | 13071303         | 1              |
| Caelo           | Propylene glycol | 13100905         | 2              |
| Caelo           | Propylene glycol | 13100906         | 11             |
| Caelo           | Propylene glycol | 13100907         | 24             |
| Caelo           | Propylene glycol | 13100908         | 37             |
| Caelo           | Propylene glycol | 1310098          | 1              |
| Caelo           | Propylene glycol | 13111405         | 1              |
| Caelo           | Propylene glycol | 13111703         | 1              |
| Caelo           | Propylene glycol | 1316003          | 1              |
| Caelo           | Propylene glycol | 13167003         | 19             |
| Caelo           | Propylene glycol | 13167004         | 26             |
| Caelo           | Propylene glycol | 13167005         | 1              |
| Caelo           | Propylene glycol | 13167006         | 7              |
| Caelo           | Propylene glycol | 1316Q-02110      | 1              |
| Caelo           | Propylene glycol | 1321704          | 1              |
| Caelo           | Propylene glycol | 13256704         | 30             |
| Caelo           | Propylene glycol | 13256705         | 21             |
| Caelo           | Propylene glycol | 13256706         | 20             |
| Caelo           | Propylene glycol | 13256707         | 29             |
| Caelo           | Propylene glycol | 13256708         | 8              |
| Caelo           | Propylene glycol | 13256709         | 14             |
| Caelo           | Propylene glycol | 13E22-B03        | 1              |
| Caelo           | Propylene glycol | 13G09-B01283456  | 1              |
| Caelo           | Propylene glycol | 140101001        | 2              |
| Caelo           | Propylene glycol | 1405003-01       | 1              |
| Caelo           | Propylene glycol | 140510804        | 1              |
| Caelo           | Propylene glycol | 1405180          | 1              |
| Caelo           | Propylene glycol | 14051802         | 18             |
| Caelo           | Propylene glycol | 14051803         | 7              |
| Caelo           | Propylene glycol | 14051804         | 16             |
| Caelo           | Propylene glycol | 14051805         | 25             |
| Caelo           | Propylene glycol | 14113102         | 21             |
| Caelo           | Propylene glycol | 14113103         | 6              |
| Caelo           | Propylene glycol | 14113105         | 12             |
| Caelo           | Propylene glycol | 1418Q-02110      | 1              |
| Caelo           | Propylene glycol | 14248702         | 16             |
| Caelo           | Propylene glycol | 14248703         | 21             |
| Caelo           | Propylene glycol | 14248704         | 8              |
| Caelo           | Propylene glycol | 14248706         | 7              |
| Caelo           | Propylene glycol | 14248707         | 11             |
| Caelo           | Propylene glycol | 1428704          | 2              |
| Caelo           | Propylene glycol | 1428706          | 1              |
| Caelo           | Propylene glycol | 14288707         | 1              |
| Caelo           | Propylene glycol | 14346602         | 7              |
| Caelo           | Propylene glycol | 14346603         | 13             |
| Caelo           | Propylene glycol | 14346604         | 16             |
| Caelo           | Propylene glycol | 14346605         | 2              |
| Caelo           | Propylene glycol | 14346606         | 9              |
| Caelo           | Propylene glycol | 14346607         | 25             |
| Caelo           | Propylene glycol | 14346608         | 17             |
| Caelo           | Propylene glycol | 14346609         | 20             |
| Caelo           | Propylene glycol | 1436603          | 1              |
| Caelo           | Propylene glycol | 1436604          | 1              |
| Caelo           | Propylene glycol | 14A09-B04-289598 | 1              |
| Caelo           | Propylene glycol | 14C05-B02-295787 | 2              |
| Caelo           | Propylene glycol | 15051721         | 2              |
| Caelo           | Propylene glycol | 15052021         | 1              |
| Caelo           | Propylene glycol | 15069201         | 5              |
| Caelo           | Propylene glycol | 15069202         | 18             |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Propylene glycol | 150771           | 1              |
| Caelo           | Propylene glycol | 15081501         | 1              |
| Caelo           | Propylene glycol | 15081620         | 1              |
| Caelo           | Propylene glycol | 150903101        | 1              |
| Caelo           | Propylene glycol | 15181601         | 27             |
| Caelo           | Propylene glycol | 15181602         | 17             |
| Caelo           | Propylene glycol | 15181603         | 15             |
| Caelo           | Propylene glycol | 15181604         | 9              |
| Caelo           | Propylene glycol | 15181605         | 12             |
| Caelo           | Propylene glycol | 151816055        | 1              |
| Caelo           | Propylene glycol | 1518601          | 1              |
| Caelo           | Propylene glycol | 1518602          | 1              |
| Caelo           | Propylene glycol | 15262401         | 22             |
| Caelo           | Propylene glycol | 15262402         | 10             |
| Caelo           | Propylene glycol | 15262403         | 25             |
| Caelo           | Propylene glycol | 15262404         | 17             |
| Caelo           | Propylene glycol | 15262406         | 8              |
| Caelo           | Propylene glycol | 15262407         | 14             |
| Caelo           | Propylene glycol | 15262408         | 11             |
| Caelo           | Propylene glycol | 15262409         | 16             |
| Caelo           | Propylene glycol | 1526407          | 1              |
| Caelo           | Propylene glycol | 1526409          | 1              |
| Caelo           | Propylene glycol | 153335405        | 1              |
| Caelo           | Propylene glycol | 1533405          | 2              |
| Caelo           | Propylene glycol | 15335403         | 39             |
| Caelo           | Propylene glycol | 15335404         | 39             |
| Caelo           | Propylene glycol | 15335405         | 36             |
| Caelo           | Propylene glycol | 15335406         | 36             |
| Caelo           | Propylene glycol | 15335407         | 21             |
| Caelo           | Propylene glycol | 15335408         | 15             |
| Caelo           | Propylene glycol | 15340502         | 1              |
| Caelo           | Propylene glycol | 15355101         | 3              |
| Caelo           | Propylene glycol | 15355105         | 1              |
| Caelo           | Propylene glycol | 15355107         | 2              |
| Caelo           | Propylene glycol | 15355108         | 19             |
| Caelo           | Propylene glycol | 153565101        | 1              |
| Caelo           | Propylene glycol | 1540502          | 1              |
| Caelo           | Propylene glycol | 1540513          | 1              |
| Caelo           | Propylene glycol | 15413409         | 1              |
| Caelo           | Propylene glycol | 154305           | 1              |
| Caelo           | Propylene glycol | 15430502         | 28             |
| Caelo           | Propylene glycol | 15430503         | 41             |
| Caelo           | Propylene glycol | 15430504         | 24             |
| Caelo           | Propylene glycol | 15430505         | 7              |
| Caelo           | Propylene glycol | 15430506         | 10             |
| Caelo           | Propylene glycol | 15430508         | 33             |
| Caelo           | Propylene glycol | 15430511         | 3              |
| Caelo           | Propylene glycol | 15430512         | 16             |
| Caelo           | Propylene glycol | 15430513         | 15             |
| Caelo           | Propylene glycol | 15430514         | 6              |
| Caelo           | Propylene glycol | 15439502         | 1              |
| Caelo           | Propylene glycol | 1562404          | 1              |
| Caelo           | Propylene glycol | 1562408          | 1              |
| Caelo           | Propylene glycol | 15A07-B04-302969 | 1              |
| Caelo           | Propylene glycol | 15A07-B04-302970 | 3              |
| Caelo           | Propylene glycol | 15F25-B02-311890 | 1              |
| Caelo           | Propylene glycol | 15G28-B03-311889 | 1              |
| Caelo           | Propylene glycol | 15L23-B01-318036 | 1              |
| Caelo           | Propylene glycol | 16021506         | 1              |
| Caelo           | Propylene glycol | 1603034-01       | 2              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Caelo           | Propylene glycol | 1605403           | 1              |
| Caelo           | Propylene glycol | 1606014-01        | 1              |
| Caelo           | Propylene glycol | 16081802          | 1              |
| Caelo           | Propylene glycol | 1610031           | 1              |
| Caelo           | Propylene glycol | 161003101         | 1              |
| Caelo           | Propylene glycol | 1610031-01        | 1              |
| Caelo           | Propylene glycol | 1610503           | 1              |
| Caelo           | Propylene glycol | 1610540           | 1              |
| Caelo           | Propylene glycol | 16105403          | 59             |
| Caelo           | Propylene glycol | 16105404          | 14             |
| Caelo           | Propylene glycol | 1615403           | 1              |
| Caelo           | Propylene glycol | 162251207         | 1              |
| Caelo           | Propylene glycol | 1625120           | 1              |
| Caelo           | Propylene glycol | 16251201          | 99             |
| Caelo           | Propylene glycol | 16251201/1060217  | 1              |
| Caelo           | Propylene glycol | 16251202          | 67             |
| Caelo           | Propylene glycol | 16251203          | 13             |
| Caelo           | Propylene glycol | 16251205          | 59             |
| Caelo           | Propylene glycol | 16251206          | 75             |
| Caelo           | Propylene glycol | 16251207          | 11             |
| Caelo           | Propylene glycol | 16251208          | 5              |
| Caelo           | Propylene glycol | 1651206           | 1              |
| Caelo           | Propylene glycol | 16551207          | 1              |
| Caelo           | Propylene glycol | 16851205          | 1              |
| Caelo           | Propylene glycol | 16C10-B04         | 2              |
| Caelo           | Propylene glycol | 16C10-B04-321659  | 1              |
| Caelo           | Propylene glycol | 16C10B04323302    | 1              |
| Caelo           | Propylene glycol | 16C10-B04-323302  | 2              |
| Caelo           | Propylene glycol | 16G04B01328151    | 1              |
| Caelo           | Propylene glycol | 170131PG/16105403 | 1              |
| Caelo           | Propylene glycol | 1703024-01        | 3              |
| Caelo           | Propylene glycol | 170323182         | 1              |
| Caelo           | Propylene glycol | 17041501          | 1              |
| Caelo           | Propylene glycol | 17053188          | 1              |
| Caelo           | Propylene glycol | 17053801          | 59             |
| Caelo           | Propylene glycol | 170538015378      | 1              |
| Caelo           | Propylene glycol | 17053802          | 11             |
| Caelo           | Propylene glycol | 17053803          | 1              |
| Caelo           | Propylene glycol | 17053804          | 73             |
| Caelo           | Propylene glycol | 17053805          | 3              |
| Caelo           | Propylene glycol | 17053806          | 88             |
| Caelo           | Propylene glycol | 170538065447      | 1              |
| Caelo           | Propylene glycol | 17053807          | 13             |
| Caelo           | Propylene glycol | 17053809          | 95             |
| Caelo           | Propylene glycol | 17053810          | 5              |
| Caelo           | Propylene glycol | 17053814          | 19             |
| Caelo           | Propylene glycol | 17053815          | 2              |
| Caelo           | Propylene glycol | 1705804           | 1              |
| Caelo           | Propylene glycol | 17061707          | 1              |
| Caelo           | Propylene glycol | 170729184         | 1              |
| Caelo           | Propylene glycol | 1708002-01        | 1              |
| Caelo           | Propylene glycol | 170808PG/16251206 | 1              |
| Caelo           | Propylene glycol | 1711023-01        | 2              |
| Caelo           | Propylene glycol | 171106PG/16251202 | 1              |
| Caelo           | Propylene glycol | 1725502           | 1              |
| Caelo           | Propylene glycol | 17275502          | 70             |
| Caelo           | Propylene glycol | 17275503          | 1              |
| Caelo           | Propylene glycol | 17275504          | 1              |
| Caelo           | Propylene glycol | 17296702          | 1              |
| Caelo           | Propylene glycol | 1731703           | 1              |

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| Supplier | Substance        | Batch             | Spectra |
|----------|------------------|-------------------|---------|
| Caelo    | Propylene glycol | 173211703         | 1       |
| Caelo    | Propylene glycol | 17321703          | 108     |
| Caelo    | Propylene glycol | 17321704          | 42      |
| Caelo    | Propylene glycol | 17321705          | 6       |
| Caelo    | Propylene glycol | 17321706          | 1       |
| Caelo    | Propylene glycol | 17321708          | 11      |
| Caelo    | Propylene glycol | 17423HH431        | 1       |
| Caelo    | Propylene glycol | 1793451           | 2       |
| Caelo    | Propylene glycol | 17A06B03_334896   | 1       |
| Caelo    | Propylene glycol | 17a06-b03-332091  | 1       |
| Caelo    | Propylene glycol | 17A06-B03-332091  | 1       |
| Caelo    | Propylene glycol | 17E22B10          | 1       |
| Caelo    | Propylene glycol | 17E22-B10         | 1       |
| Caelo    | Propylene glycol | 17E22-B10-336830  | 2       |
| Caelo    | Propylene glycol | 17H03-B04-340573  | 1       |
| Caelo    | Propylene glycol | 17H03-B04-344395  | 1       |
| Caelo    | Propylene glycol | 18/03-B07-355043  | 1       |
| Caelo    | Propylene glycol | 18000424          | 1       |
| Caelo    | Propylene glycol | 18003480          | 1       |
| Caelo    | Propylene glycol | 180130PG/17275502 | 1       |
| Caelo    | Propylene glycol | 1803023-01        | 2       |
| Caelo    | Propylene glycol | 18031704          | 1       |
| Caelo    | Propylene glycol | 18041302          | 1       |
| Caelo    | Propylene glycol | 1804212110        | 1       |
| Caelo    | Propylene glycol | 18046901          | 1       |
| Caelo    | Propylene glycol | 18046912          | 1       |
| Caelo    | Propylene glycol | 180644913         | 1       |
| Caelo    | Propylene glycol | 18064901          | 178     |
| Caelo    | Propylene glycol | 18064902          | 45      |
| Caelo    | Propylene glycol | 18064904          | 115     |
| Caelo    | Propylene glycol | 18064905          | 3       |
| Caelo    | Propylene glycol | 18064906          | 29      |
| Caelo    | Propylene glycol | 18064907          | 66      |
| Caelo    | Propylene glycol | 18064908          | 57      |
| Caelo    | Propylene glycol | 18064909          | 3       |
| Caelo    | Propylene glycol | 1806491           | 1       |
| Caelo    | Propylene glycol | 18064912          | 95      |
| Caelo    | Propylene glycol | 18064913          | 15      |
| Caelo    | Propylene glycol | 18064914          | 4       |
| Caelo    | Propylene glycol | 18064915          | 117     |
| Caelo    | Propylene glycol | 18064916          | 6       |
| Caelo    | Propylene glycol | 18064917          | 54      |
| Caelo    | Propylene glycol | 18064918          | 16      |
| Caelo    | Propylene glycol | 18064919          | 2       |
| Caelo    | Propylene glycol | 18064920          | 9       |
| Caelo    | Propylene glycol | 18065904          | 1       |
| Caelo    | Propylene glycol | 1806908           | 1       |
| Caelo    | Propylene glycol | 18081702          | 1       |
| Caelo    | Propylene glycol | 1809007-01        | 7       |
| Caelo    | Propylene glycol | 181016185         | 1       |
| Caelo    | Propylene glycol | 1821902           | 1       |
| Caelo    | Propylene glycol | 18219101          | 73      |
| Caelo    | Propylene glycol | 18219102          | 61      |
| Caelo    | Propylene glycol | 18219103          | 1       |
| Caelo    | Propylene glycol | 18219105          | 37      |
| Caelo    | Propylene glycol | 1821910501        | 1       |
| Caelo    | Propylene glycol | 18219106          | 65      |
| Caelo    | Propylene glycol | 18219107          | 2       |
| Caelo    | Propylene glycol | 18219108          | 1       |
| Caelo    | Propylene glycol | 18219109          | 1       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Propylene glycol | 18219110         | 18             |
| Caelo           | Propylene glycol | 18219112         | 1              |
| Caelo           | Propylene glycol | 186494           | 1              |
| Caelo           | Propylene glycol | 18964901         | 1              |
| Caelo           | Propylene glycol | 18A19-B01        | 1              |
| Caelo           | Propylene glycol | 18A19-B01-348338 | 3              |
| Caelo           | Propylene glycol | 18A19-B01-351227 | 5              |
| Caelo           | Propylene glycol | 18H07-352662     | 1              |
| Caelo           | Propylene glycol | 18H07-B01        | 1              |
| Caelo           | Propylene glycol | 18H07-B01-352703 | 2              |
| Caelo           | Propylene glycol | 18j03-B07        | 1              |
| Caelo           | Propylene glycol | 18J03-B07-356433 | 2              |
| Caelo           | Propylene glycol | 18J03-B07-357162 | 1              |
| Caelo           | Propylene glycol | 19041307         | 1              |
| Caelo           | Propylene glycol | 1906034-01       | 2              |
| Caelo           | Propylene glycol | 19064915         | 1              |
| Caelo           | Propylene glycol | 19091801         | 1              |
| Caelo           | Propylene glycol | 19111421         | 1              |
| Caelo           | Propylene glycol | 19230101         | 40             |
| Caelo           | Propylene glycol | 19230102         | 19             |
| Caelo           | Propylene glycol | 19230103         | 11             |
| Caelo           | Propylene glycol | 19230104         | 1              |
| Caelo           | Propylene glycol | 1923101          | 1              |
| Caelo           | Propylene glycol | 1923601          | 1              |
| Caelo           | Propylene glycol | 19239101         | 1              |
| Caelo           | Propylene glycol | 19241006         | 3              |
| Caelo           | Propylene glycol | 19243601         | 85             |
| Caelo           | Propylene glycol | 19243602         | 17             |
| Caelo           | Propylene glycol | 19243603         | 2              |
| Caelo           | Propylene glycol | 19243604         | 1              |
| Caelo           | Propylene glycol | 1924461005       | 1              |
| Caelo           | Propylene glycol | 1924601          | 1              |
| Caelo           | Propylene glycol | 19246100         | 1              |
| Caelo           | Propylene glycol | 192461001        | 1              |
| Caelo           | Propylene glycol | 192461004        | 1              |
| Caelo           | Propylene glycol | 192461005        | 74             |
| Caelo           | Propylene glycol | 192461006        | 24             |
| Caelo           | Propylene glycol | 1924610063       | 1              |
| Caelo           | Propylene glycol | 192461009        | 4              |
| Caelo           | Propylene glycol | 19246101         | 85             |
| Caelo           | Propylene glycol | 192461011        | 69             |
| Caelo           | Propylene glycol | 192461012        | 4              |
| Caelo           | Propylene glycol | 192461013        | 1              |
| Caelo           | Propylene glycol | 1924611011       | 1              |
| Caelo           | Propylene glycol | 19A18-T06-063528 | 1              |
| Caelo           | Propylene glycol | 19E20-B01-362176 | 1              |
| Caelo           | Propylene glycol | 19I27-F03-365136 | 1              |
| Caelo           | Propylene glycol | 200000779002     | 1              |
| Caelo           | Propylene glycol | 200000779005     | 1              |
| Caelo           | Propylene glycol | 200000779009     | 1              |
| Caelo           | Propylene glycol | 200003592003     | 1              |
| Caelo           | Propylene glycol | 2000077900       | 1              |
| Caelo           | Propylene glycol | 20000779001      | 2              |
| Caelo           | Propylene glycol | 20000779002      | 49             |
| Caelo           | Propylene glycol | 20000779005      | 35             |
| Caelo           | Propylene glycol | 20000779006      | 7              |
| Caelo           | Propylene glycol | 20000779007      | 4              |
| Caelo           | Propylene glycol | 20000779008      | 5              |
| Caelo           | Propylene glycol | 20000779009      | 39             |
| Caelo           | Propylene glycol | 2000077909       | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Caelo           | Propylene glycol | 20000779099  | 1              |
| Caelo           | Propylene glycol | 20003592002  | 3              |
| Caelo           | Propylene glycol | 20003592003  | 25             |
| Caelo           | Propylene glycol | 200039004    | 1              |
| Caelo           | Propylene glycol | 20003903003  | 3              |
| Caelo           | Propylene glycol | 20003903004  | 47             |
| Caelo           | Propylene glycol | 20003903005  | 4              |
| Caelo           | Propylene glycol | 20003903007  | 1              |
| Caelo           | Propylene glycol | 20003903008  | 11             |
| Caelo           | Propylene glycol | 20003903012  | 1              |
| Caelo           | Propylene glycol | 20003903013  | 11             |
| Caelo           | Propylene glycol | 2000393013   | 1              |
| Caelo           | Propylene glycol | 2000779005   | 3              |
| Caelo           | Propylene glycol | 2000779009   | 4              |
| Caelo           | Propylene glycol | 2003592003   | 1              |
| Caelo           | Propylene glycol | 2003903004   | 1              |
| Caelo           | Propylene glycol | 2003903012   | 1              |
| Caelo           | Propylene glycol | 20071201     | 1              |
| Caelo           | Propylene glycol | 20111203     | 1              |
| Caelo           | Propylene glycol | 20140612-6   | 1              |
| Caelo           | Propylene glycol | 2021621      | 1              |
| Caelo           | Propylene glycol | 2021801      | 1              |
| Caelo           | Propylene glycol | 2100239003   | 1              |
| Caelo           | Propylene glycol | 210025390003 | 1              |
| Caelo           | Propylene glycol | 21002539002  | 14             |
| Caelo           | Propylene glycol | 21002539003  | 19             |
| Caelo           | Propylene glycol | 21002539006  | 1              |
| Caelo           | Propylene glycol | 21002539009  | 1              |
| Caelo           | Propylene glycol | 2101302      | 1              |
| Caelo           | Propylene glycol | 2104019-01   | 1              |
| Caelo           | Propylene glycol | 210718064901 | 1              |
| Caelo           | Propylene glycol | 22121810     | 1              |
| Caelo           | Propylene glycol | 22121811     | 1              |
| Caelo           | Propylene glycol | 2310070      | 1              |
| Caelo           | Propylene glycol | 24041221     | 2              |
| Caelo           | Propylene glycol | 24121301     | 1              |
| Caelo           | Propylene glycol | 25011302     | 1              |
| Caelo           | Propylene glycol | 25031301     | 1              |
| Caelo           | Propylene glycol | 26021320     | 2              |
| Caelo           | Propylene glycol | 26041402     | 1              |
| Caelo           | Propylene glycol | 26061302     | 1              |
| Caelo           | Propylene glycol | 27091402     | 2              |
| Caelo           | Propylene glycol | 27101805     | 1              |
| Caelo           | Propylene glycol | 2741         | 1              |
| Caelo           | Propylene glycol | 2755         | 1              |
| Caelo           | Propylene glycol | 2765         | 1              |
| Caelo           | Propylene glycol | 28021301     | 1              |
| Caelo           | Propylene glycol | 28071503     | 1              |
| Caelo           | Propylene glycol | 28111814     | 1              |
| Caelo           | Propylene glycol | 2887         | 1              |
| Caelo           | Propylene glycol | 2888         | 1              |
| Caelo           | Propylene glycol | 29091403     | 1              |
| Caelo           | Propylene glycol | 2913M-02110  | 1              |
| Caelo           | Propylene glycol | 29814B       | 1              |
| Caelo           | Propylene glycol | 29879B       | 1              |
| Caelo           | Propylene glycol | 29934B       | 1              |
| Caelo           | Propylene glycol | 300915       | 1              |
| Caelo           | Propylene glycol | 3071402      | 1              |
| Caelo           | Propylene glycol | 30718        | 1              |
| Caelo           | Propylene glycol | 307185       | 1              |

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| Supplier                     | Substance        | Batch         | Spectra |
|------------------------------|------------------|---------------|---------|
| Caelo                        | Propylene glycol | 3092003       | 1       |
| Caelo                        | Propylene glycol | 31051317      | 1       |
| Caelo                        | Propylene glycol | 31256708      | 1       |
| Caelo                        | Propylene glycol | 3352          | 1       |
| Caelo                        | Propylene glycol | 3512M-02110   | 1       |
| Caelo                        | Propylene glycol | 3615U-02110   | 1       |
| Caelo                        | Propylene glycol | 4111708       | 1       |
| Caelo                        | Propylene glycol | 418M-02110    | 1       |
| Caelo                        | Propylene glycol | 4248702       | 1       |
| Caelo                        | Propylene glycol | 42488055      | 1       |
| Caelo                        | Propylene glycol | 4419M-02110   | 1       |
| Caelo                        | Propylene glycol | 46033516K0    | 1       |
| Caelo                        | Propylene glycol | 5051802       | 1       |
| Caelo                        | Propylene glycol | 5061201       | 1       |
| Caelo                        | Propylene glycol | 514E-02110    | 1       |
| Caelo                        | Propylene glycol | 5262402       | 1       |
| Caelo                        | Propylene glycol | 54/AKD7       | 1       |
| Caelo                        | Propylene glycol | 5671401       | 3       |
| Caelo                        | Propylene glycol | 58/AKD16      | 1       |
| Caelo                        | Propylene glycol | 60016860001   | 1       |
| Caelo                        | Propylene glycol | 6012897001    | 13      |
| Caelo                        | Propylene glycol | 6016860001    | 1       |
| Caelo                        | Propylene glycol | 6021301       | 1       |
| Caelo                        | Propylene glycol | 6031720       | 1       |
| Caelo                        | Propylene glycol | 6071520       | 1       |
| Caelo                        | Propylene glycol | 6071718       | 1       |
| Caelo                        | Propylene glycol | 611211        | 1       |
| Caelo                        | Propylene glycol | 6509HH9041    | 1       |
| Caelo                        | Propylene glycol | 70214PJK02    | 1       |
| Caelo                        | Propylene glycol | 7051807       | 1       |
| Caelo                        | Propylene glycol | 7053802       | 1       |
| Caelo                        | Propylene glycol | 7053806       | 1       |
| Caelo                        | Propylene glycol | 7071806       | 1       |
| Caelo                        | Propylene glycol | 8002520002    | 7       |
| Caelo                        | Propylene glycol | 8003093001    | 5       |
| Caelo                        | Propylene glycol | 8007215001    | 5       |
| Caelo                        | Propylene glycol | 8051503       | 1       |
| Caelo                        | Propylene glycol | 80649121      | 1       |
| Caelo                        | Propylene glycol | 83/2014       | 1       |
| Caelo                        | Propylene glycol | 9061811       | 1       |
| Caelo                        | Propylene glycol | 9102001       | 1       |
| Caelo                        | Propylene glycol | 9246101       | 1       |
| Caelo                        | Propylene glycol | Caelo14113105 | 1       |
| Caelo                        | Propylene glycol | ch8003093001  | 1       |
| Caeolo / Phönix              | Propylene glycol | 17053806      | 2       |
| Caeolo/Phoenix               | Propylene glycol | 18064912      | 2       |
| Caeolo/Sanacorp              | Propylene glycol | 18064916      | 1       |
| Caesa / Alliance Health...   | Propylene glycol | 18064907      | 1       |
| Caesar & Lorenz GmbH         | Propylene glycol | 16105403      | 2       |
| Caesar & Lorenz GmbH         | Propylene glycol | 18064901      | 2       |
| Caesar & Lorenz GmbH         | Propylene glycol | 18219102      | 1       |
| Caesar & Lorenz GmbH         | Propylene glycol | 18219106      | 1       |
| Caesar & Lorenz GmbH         | Propylene glycol | 19243601      | 2       |
| Caesar & Lorenz GmbH         | Propylene glycol | 192461005     | 1       |
| Caesar & Lorenz GmbH         | Propylene glycol | 20000779002   | 1       |
| Caesar & Loretz GmbH / Je... | Propylene glycol | 21002539002   | 1       |
| Caesar & Loretz GmbH / ...   | Propylene glycol | 18064904      | 3       |
| Caesar & Loretz GmbH / ...   | Propylene glycol | 18064912      | 1       |
| Caesar & Loretz GmbH / ...   | Propylene glycol | 15430512      | 1       |
| Caesar & Loretz GmbH / ...   | Propylene glycol | 192461011     | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>   | <b>Spectra</b> |
|----------------------------|------------------|----------------|----------------|
| Caesar & Loretz GmbH / ... | Propylene glycol | 192461011      | 1              |
| Caesar & Loretz GmbH / ... | Propylene glycol | 108064915      | 1              |
| Caesar & Loretz GmbH / ... | Propylene glycol | 17053804       | 2              |
| Caesar & Loretz GmbH / ... | Propylene glycol | 17321703       | 1              |
| Caesar & Loretz GmbH / ... | Propylene glycol | 19246101       | 1              |
| Caesar & Loretz GmbH / ... | Propylene glycol | 18064915       | 4              |
| Caesar & Loretz GmbH / ... | Propylene glycol | 18064920       | 1              |
| Caesar & Loretz GmbH Hi... | Propylene glycol | 13256705       | 1              |
| Caesar & Loretz GmbH Hi... | Propylene glycol | 14248706       | 1              |
| Caesar & Loretz GmbH Hi... | Propylene glycol | 14248707       | 1              |
| Caesar & Loretz GmbH Hi... | Propylene glycol | 15335403       | 1              |
| Caesar & Loretz GmbH Hi... | Propylene glycol | 15335404       | 1              |
| Caesar & Loretz GmbH Hi... | Propylene glycol | 15430508       | 1              |
| Caesar & Loretz GmbH Sa... | Propylene glycol | 19246101       | 1              |
| Caesar & Loretz GmbH, 4... | Propylene glycol | 11300505       | 1              |
| Caesar & Loretz GmbH, 4... | Propylene glycol | 11372007       | 1              |
| Caesar & Loretz GmbH, 4... | Propylene glycol | 12169802       | 5              |
| Caesar & Loretz GmbH/ A... | Propylene glycol | 192461005      | 1              |
| Caesar & Loretz GmbH/ A... | Propylene glycol | 19246101       | 1              |
| Caesar & Loretz GmbH/ G... | Propylene glycol | 192461006      | 1              |
| Caesar & Loretz GmbH/ G... | Propylene glycol | 20000779008    | 1              |
| Caesar & Loretz GmbH/ G... | Propylene glycol | 20003592003    | 1              |
| Caesar & Loretz GmbH/ G... | Propylene glycol | 20003903008    | 1              |
| Caesar & Loretz GmbH/ G... | Propylene glycol | 21002539002    | 1              |
| Caesar & Loretz GmbH/ J... | Propylene glycol | 20000779006    | 1              |
| Caesar & Loretz GmbH/ K... | Propylene glycol | 192461005      | 1              |
| Caesar & Loretz GmbH/ N... | Propylene glycol | 19243602       | 1              |
| Caesar & Loretz GmbH/ P... | Propylene glycol | 18219105       | 1              |
| Caesar & Loretz GmbH/ P... | Propylene glycol | 19243601       | 1              |
| Caesar & Loretz GmbH/ P... | Propylene glycol | 192461006      | 1              |
| Caesar & Loretz GmbH/ P... | Propylene glycol | 20003592002    | 1              |
| Caesar & Loretz GmbH/ S... | Propylene glycol | 20000779009    | 1              |
| Caesar & Loretz GmbH/AHD   | Propylene glycol | 18219102       | 1              |
| Caesar & Loretz GmbH/AHD   | Propylene glycol | 19230101       | 1              |
| Caesar & Loretz GmbH/AHD   | Propylene glycol | 20000779009    | 1              |
| Caesar & Loretz GmbH/AHD   | Propylene glycol | 20003592003    | 1              |
| Caesar & Loretz GmbH/Al... | Propylene glycol | 29030080003    | 1              |
| Caesar & Loretz GmbH/Fi... | Propylene glycol | 18219110       | 1              |
| Caesar & Loretz GmbH/Gehe  | Propylene glycol | 18064917       | 1              |
| Caesar & Loretz GmbH/Gehe  | Propylene glycol | 19243602       | 1              |
| Caesar & Loretz GmbH/Gehe  | Propylene glycol | 19246101       | 2              |
| Caesar & Loretz GmbH/Gehe  | Propylene glycol | 20000779009    | 1              |
| Caesar & Loretz GmbH/GEHE  | Propylene glycol | 20000779009    | 1              |
| Caesar & Loretz GmbH/Gehe  | Propylene glycol | 20003592003    | 1              |
| Caesar & Loretz GmbH/GEHE  | Propylene glycol | 20003903004    | 1              |
| Caesar & Loretz GmbH/GEHE  | Propylene glycol | 20003903008    | 1              |
| Caesar & Loretz GmbH/Gehe  | Propylene glycol | 21002539003    | 3              |
| Caesar & Loretz GmbH/Gö... | Propylene glycol | 19230101       | 1              |
| Caesar & Loretz GmbH/Je... | Propylene glycol | 18219102       | 1              |
| Caesar & Loretz GmbH/Je... | Propylene glycol | 19230103       | 1              |
| Caesar & Loretz GmbH/Je... | Propylene glycol | 19243601       | 1              |
| Caesar & Loretz GmbH/Je... | Propylene glycol | 192461006      | 1              |
| Caesar & Loretz GmbH/Kr... | Propylene glycol | 192461006      | 1              |
| Caesar & Loretz GmbH/Kr... | Propylene glycol | 20000779005    | 1              |
| Caesar & Loretz GmbH/Kr... | Propylene glycol | 20003592003    | 1              |
| Caesar & Loretz GmbH/No... | Propylene glycol | 18219101       | 1              |
| Caesar & Loretz GmbH/No... | Propylene glycol | 18J03B07355043 | 1              |
| Caesar & Loretz GmbH/No... | Propylene glycol | 192461005      | 4              |
| Caesar & Loretz GmbH/No... | Propylene glycol | 20000779002    | 3              |
| Caesar & Loretz GmbH/Ph... | Propylene glycol | 192461006      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|----------------------------|------------------|-------------------|----------------|
| Caesar & Loretz GmbH/Ph... | Propylene glycol | 20003903008       | 1              |
| Caesar & Loretz GmbH/Ph... | Propylene glycol | 20003903013       | 1              |
| Caesar & Loretz GmbH/Ph... | Propylene glycol | 18064917          | 1              |
| Caesar & Loretz GmbH/Ph... | Propylene glycol | 18219106          | 1              |
| Caesar & Loretz GmbH/Ph... | Propylene glycol | 20003592003       | 4              |
| Caesar & Loretz GmbH/Ph... | Propylene glycol | 21002539002       | 3              |
| Caesar & Loretz GmbH/Px    | Propylene glycol | 18064917          | 1              |
| Caesar & Loretz GmbH/Sana  | Propylene glycol | 20003903004       | 1              |
| Caesar & Loretz GmbH/Sa... | Propylene glycol | 18064920          | 2              |
| Caesar & Loretz GmbH/sa... | Propylene glycol | 18219106          | 1              |
| Caesar & Loretz GmbH/Sa... | Propylene glycol | 19246101          | 1              |
| Caesar & Loretz GmbH/sa... | Propylene glycol | 20000779009       | 1              |
| Caesar & Loretz GmbH/Sa... | Propylene glycol | 20000779009       | 3              |
| Caesar & Loretz GmbH/Sa... | Propylene glycol | 20003592003       | 1              |
| Caesar & Loretz GmbH/Sp... | Propylene glycol | 18064913          | 1              |
| Caesar & Loretz GmbH/VDL   | Propylene glycol | 19246101          | 2              |
| Caesar & Loretz GmbH       | Propylene glycol | 11372006          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 12372404          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 14051804          | 2              |
| Caesar & Loretz GmbH       | Propylene glycol | 15262403          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 16251201          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064904          | 2              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064908          | 3              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064912          | 4              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064913          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064914          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064915          | 14             |
| Caesar & Loretz GmbH       | Propylene glycol | 18064916          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064917          | 9              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064918          | 2              |
| Caesar & Loretz GmbH       | Propylene glycol | 18064919          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 18219101          | 7              |
| Caesar & Loretz GmbH       | Propylene glycol | 18219102          | 15             |
| Caesar & Loretz GmbH       | Propylene glycol | 18219103          | 2              |
| Caesar & Loretz GmbH       | Propylene glycol | 18219105          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 18219106          | 7              |
| Caesar & Loretz GmbH       | Propylene glycol | 18219110          | 3              |
| Caesar & Loretz GmbH       | Propylene glycol | 18219112          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 18J03-_B07-356433 | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 1906034-01        | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 1912001-01        | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 19230101          | 9              |
| Caesar & Loretz GmbH       | Propylene glycol | 19230102          | 3              |
| Caesar & Loretz GmbH       | Propylene glycol | 19230103          | 7              |
| Caesar & Loretz GmbH       | Propylene glycol | 19243601          | 21             |
| Caesar & Loretz GmbH       | Propylene glycol | 19243602          | 10             |
| Caesar & Loretz GmbH       | Propylene glycol | 19243603          | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 192461001         | 1              |
| Caesar & Loretz GmbH       | Propylene glycol | 192461005         | 15             |
| Caesar & Loretz GmbH       | Propylene glycol | 192461006         | 2              |
| Caesar & Loretz GmbH       | Propylene glycol | 192461009         | 2              |
| Caesar & Loretz GmbH       | Propylene glycol | 19246101          | 21             |
| Caesar & Loretz GmbH       | Propylene glycol | 192461012         | 3              |
| Caesar & Loretz GmbH       | Propylene glycol | 200000779006      | 3              |
| Caesar & Loretz GmbH       | Propylene glycol | 20000779002       | 17             |
| Caesar & Loretz GmbH       | Propylene glycol | 20000779005       | 12             |
| Caesar & Loretz GmbH       | Propylene glycol | 20000779006       | 9              |
| Caesar & Loretz GmbH       | Propylene glycol | 20000779008       | 3              |
| Caesar & Loretz GmbH       | Propylene glycol | 20000779009       | 13             |
| Caesar & Loretz GmbH       | Propylene glycol | 2000079005        | 1              |

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| Supplier                     | Substance        | Batch        | Spectra |
|------------------------------|------------------|--------------|---------|
| Caesar & Loretz GmbH         | Propylene glycol | 20003592003  | 10      |
| Caesar & Loretz GmbH         | Propylene glycol | 20003903004  | 21      |
| Caesar & Loretz GmbH         | Propylene glycol | 20003903005  | 5       |
| Caesar & Loretz GmbH         | Propylene glycol | 20003903008  | 4       |
| Caesar & Loretz GmbH         | Propylene glycol | 20003903012  | 2       |
| Caesar & Loretz GmbH         | Propylene glycol | 20003903013  | 2       |
| Caesar & Loretz GmbH         | Propylene glycol | 21002539002  | 4       |
| Caesar & Loretz GmbH         | Propylene glycol | 21002539003  | 6       |
| Caesar & Loretz GmbH         | Propylene glycol | 21002539008  | 1       |
| Caesar & Loretz GmbH         | Propylene glycol | 21002539009  | 1       |
| Caesar & Loretz GmbH         | Propylene glycol | 210718064901 | 1       |
| Caesar & Loretz GmbH         | Propylene glycol | B01-3621706  | 1       |
| Caesar & Loretz Hilden       | Propylene glycol | 18064912     | 3       |
| Caesar & Loretz Hilden       | Propylene glycol | 19230102     | 2       |
| Caesar & Loretz Hilden       | Propylene glycol | 19243601     | 1       |
| Caesar & Loretz/Noweda       | Propylene glycol | 16105403     | 1       |
| Caesar & Loretz/Noweda       | Propylene glycol | 20000779002  | 1       |
| Caesar & Loretz/Noweda       | Propylene glycol | 20000779009  | 1       |
| Caesar & Loretz              | Propylene glycol | 16251206     | 1       |
| Caesar & Loretz              | Propylene glycol | 18064901     | 1       |
| Caesar & Loretz              | Propylene glycol | 18064908     | 1       |
| Caesar /phönix               | Propylene glycol | 13167003     | 1       |
| Caesar und Loretz GmbH       | Propylene glycol | 17053806     | 2       |
| Caesar und Loretz GmbH       | Propylene glycol | 20000779005  | 1       |
| Caesar und Loretz            | Propylene glycol | 18219106     | 1       |
| Caesar&Lorenz                | Propylene glycol | 20000779005  | 1       |
| Caesar&Lorenz                | Propylene glycol | 20003903008  | 1       |
| Caesar&Lorenz                | Propylene glycol | 2003903008   | 1       |
| caesar&lorenz GmbH,Phön. ... | Propylene glycol | 16251201     | 1       |
| Caesar&Loretz GmbH/ San. ... | Propylene glycol | 18064915     | 1       |
| Caesar&Loretz GmbH/Anzag     | Propylene glycol | 15181605     | 2       |
| Caesar&Loretz GmbH           | Propylene glycol | 15335405     | 1       |
| Caesar&Loretz GmbH           | Propylene glycol | 192461011    | 1       |
| Caesar&Loretz GmbH           | Propylene glycol | 20003903013  | 1       |
| Caesar&Loretz GmbH           | Propylene glycol | 21002539003  | 1       |
| Caesar&lorenz,Phoenix        | Propylene glycol | 15069202     | 1       |
| caesar&lorenz                | Propylene glycol | 15262406     | 1       |
| Caesar/Ebert                 | Propylene glycol | 18064912     | 1       |
| Caesar/Noweda                | Propylene glycol | 13100906     | 1       |
| Caesar/Noweda                | Propylene glycol | 13167006     | 2       |
| Caesar/Noweda                | Propylene glycol | 14051803     | 2       |
| caesar                       | Propylene glycol | 14248707     | 1       |
| Caleo/ Gehe                  | Propylene glycol | 18064915     | 2       |
| Caleo/ Noweda                | Propylene glycol | 17053809     | 1       |
| Caleo                        | Propylene glycol | 15430508     | 1       |
| Calo/Sanacorp                | Propylene glycol | 16105403     | 1       |
| canea, anzag                 | Propylene glycol | 13167003     | 3       |
| Carlo/ Gehe                  | Propylene glycol | 16105403     | 1       |
| Cealo / Noweda               | Propylene glycol | 13256708     | 2       |
| Cealo/ AHD                   | Propylene glycol | 18219102     | 1       |
| Cealo/ Anzag                 | Propylene glycol | 17053804     | 1       |
| Cealo/Phönix                 | Propylene glycol | 15430502     | 1       |
| Cealo/Phönix                 | Propylene glycol | 17321703     | 1       |
| Cealo                        | Propylene glycol | 13100907     | 2       |
| Cealo                        | Propylene glycol | 15430504     | 1       |
| cealo                        | Propylene glycol | 16251201     | 1       |
| Ceasar & Loretz GmbH / ...   | Propylene glycol | 18064908     | 1       |
| Celo/Noweda                  | Propylene glycol | 14248704     | 1       |
| Celo/Noweda                  | Propylene glycol | 17053802     | 1       |
| Celo/Noweda                  | Propylene glycol | 18064906     | 1       |

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| <b>Supplier</b>  | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|------------------|------------------|------------------|----------------|
| Celo/Phönix      | Propylene glycol | 17053804         | 3              |
| Celo             | Propylene glycol | 11607-2          | 1              |
| Cordes/AHD       | Propylene glycol | 19230103         | 2              |
| Delta            | Propylene glycol | 17A06-B03-332091 | 1              |
| Delta            | Propylene glycol | 17H03-B04-344395 | 1              |
| Ebert & Jacobi   | Propylene glycol | 1000007047       | 2              |
| Ebert & Jacobi   | Propylene glycol | 6016860001       | 2              |
| Eigenherstellung | Propylene glycol | 120912PML01      | 1              |
| Eu Rho/Ge-HH     | Propylene glycol | 1912001-01       | 1              |
| EuRho/ AHD       | Propylene glycol | 18064904         | 1              |
| EuRho/Noweda     | Propylene glycol | 140020-01        | 1              |
| EuRho/Noweda     | Propylene glycol | 1504031-01       | 1              |
| EuRho/Noweda     | Propylene glycol | 1803023-01       | 5              |
| EuRho/Noweda     | Propylene glycol | 1809007-01       | 5              |
| EuRho/Noweda     | Propylene glycol | 1901018-01       | 5              |
| EuRho/Noweda     | Propylene glycol | 1912001-01       | 1              |
| EuRho/Noweda     | Propylene glycol | Euro0TC          | 1              |
| EuRho            | Propylene glycol | 1206038-01       | 1              |
| EuRho            | Propylene glycol | 1302002-01       | 1              |
| EuRho            | Propylene glycol | 1509031-01       | 2              |
| EuRho            | Propylene glycol | 1803023-01       | 1              |
| EuRho            | Propylene glycol | 1906034-01       | 1              |
| Euro OTC         | Propylene glycol |                  | 1              |
| Euro OTC         | Propylene glycol | 1000002992       | 1              |
| Euro OTC         | Propylene glycol | 1000007047       | 2              |
| Euro OTC         | Propylene glycol | 1051821          | 1              |
| Euro OTC         | Propylene glycol | 1109015-01       | 1              |
| Euro OTC         | Propylene glycol | 11C07-N06        | 1              |
| Euro OTC         | Propylene glycol | 1206038-01       | 4              |
| Euro OTC         | Propylene glycol | 125099           | 7              |
| Euro OTC         | Propylene glycol | 130200201        | 1              |
| Euro OTC         | Propylene glycol | 1302002-01       | 9              |
| Euro OTC         | Propylene glycol | 130702101        | 1              |
| Euro OTC         | Propylene glycol | 1307021-01       | 7              |
| Euro OTC         | Propylene glycol | 13256704         | 1              |
| Euro OTC         | Propylene glycol | 140101001        | 1              |
| Euro OTC         | Propylene glycol | 1401010-01       | 8              |
| Euro OTC         | Propylene glycol | 140500301        | 3              |
| Euro OTC         | Propylene glycol | 1405003-01       | 2              |
| Euro OTC         | Propylene glycol | 140802001        | 1              |
| Euro OTC         | Propylene glycol | 1408020-01       | 11             |
| Euro OTC         | Propylene glycol | 14346602         | 2              |
| Euro OTC         | Propylene glycol | 150101301        | 2              |
| Euro OTC         | Propylene glycol | 1501013-01       | 17             |
| Euro OTC         | Propylene glycol | 15040301-01      | 1              |
| Euro OTC         | Propylene glycol | 150403101        | 3              |
| Euro OTC         | Propylene glycol | 1504031-01       | 21             |
| Euro OTC         | Propylene glycol | 150903101        | 1              |
| Euro OTC         | Propylene glycol | 1509031-01       | 23             |
| Euro OTC         | Propylene glycol | 1509031-02       | 1              |
| Euro OTC         | Propylene glycol | 1509031-031      | 1              |
| Euro OTC         | Propylene glycol | 15262403         | 1              |
| Euro OTC         | Propylene glycol | 15262404         | 1              |
| Euro OTC         | Propylene glycol | 15355108         | 1              |
| Euro OTC         | Propylene glycol | 15430508         | 2              |
| Euro OTC         | Propylene glycol | 16016014-01      | 1              |
| Euro OTC         | Propylene glycol | 1603034          | 1              |
| Euro OTC         | Propylene glycol | 160303401        | 2              |
| Euro OTC         | Propylene glycol | 1603034-01       | 25             |
| Euro OTC         | Propylene glycol | 160303401-01     | 1              |

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| Supplier                   | Substance        | Batch            | Spectra |
|----------------------------|------------------|------------------|---------|
| Euro OTC                   | Propylene glycol | 16060114-01      | 1       |
| Euro OTC                   | Propylene glycol | 1606014-01       | 15      |
| Euro OTC                   | Propylene glycol | 1610031          | 1       |
| Euro OTC                   | Propylene glycol | 1610031-01       | 24      |
| Euro OTC                   | Propylene glycol | 16C10-B04-321081 | 1       |
| Euro OTC                   | Propylene glycol | 16G04-B01-328151 | 2       |
| Euro OTC                   | Propylene glycol | 17008002-01      | 1       |
| Euro OTC                   | Propylene glycol | 1703024-01       | 19      |
| Euro OTC                   | Propylene glycol | 17053809         | 1       |
| Euro OTC                   | Propylene glycol | 1708002-01       | 32      |
| Euro OTC                   | Propylene glycol | 171102301        | 2       |
| Euro OTC                   | Propylene glycol | 1711023-01       | 36      |
| Euro OTC                   | Propylene glycol | 17423HH431       | 3       |
| Euro OTC                   | Propylene glycol | 17538H61471      | 1       |
| Euro OTC                   | Propylene glycol | 17538HH431       | 3       |
| Euro OTC                   | Propylene glycol | 1803023-01       | 8       |
| Euro OTC                   | Propylene glycol | 18064901         | 2       |
| Euro OTC                   | Propylene glycol | 1809007          | 1       |
| Euro OTC                   | Propylene glycol | 1809007-01       | 33      |
| Euro OTC                   | Propylene glycol | 18219102         | 2       |
| Euro OTC                   | Propylene glycol | 18532HH431       | 1       |
| Euro OTC                   | Propylene glycol | 190006034-01     | 1       |
| Euro OTC                   | Propylene glycol | 190101801        | 3       |
| Euro OTC                   | Propylene glycol | 1901018-01       | 41      |
| Euro OTC                   | Propylene glycol | 1901018-07       | 1       |
| Euro OTC                   | Propylene glycol | 190480705        | 1       |
| Euro OTC                   | Propylene glycol | 190603401        | 2       |
| Euro OTC                   | Propylene glycol | 1906034-01       | 43      |
| Euro OTC                   | Propylene glycol | 191200101        | 1       |
| Euro OTC                   | Propylene glycol | 1912001-01       | 27      |
| Euro OTC                   | Propylene glycol | 1912001-1        | 1       |
| Euro OTC                   | Propylene glycol | 19606034-01      | 1       |
| Euro OTC                   | Propylene glycol | 1996034-01       | 1       |
| Euro OTC                   | Propylene glycol | 19G04-B03-363220 | 1       |
| Euro OTC                   | Propylene glycol | 200306001        | 4       |
| Euro OTC                   | Propylene glycol | 2003060-01       | 20      |
| Euro OTC                   | Propylene glycol | 2003060-02       | 3       |
| Euro OTC                   | Propylene glycol | 20033060-01      | 1       |
| Euro OTC                   | Propylene glycol | 2003660-01       | 1       |
| Euro OTC                   | Propylene glycol | 200749           | 1       |
| Euro OTC                   | Propylene glycol | 210401901        | 1       |
| Euro OTC                   | Propylene glycol | 2104019-01       | 18      |
| Euro OTC                   | Propylene glycol | 25697147G0       | 6       |
| Euro OTC                   | Propylene glycol | 289078           | 1       |
| Euro OTC                   | Propylene glycol | 309031           | 1       |
| Euro OTC                   | Propylene glycol | 46033516K0       | 1       |
| Euro OTC                   | Propylene glycol | 5315HH9041       | 2       |
| Euro OTC                   | Propylene glycol | 6230HH9041       | 1       |
| Euro OTC                   | Propylene glycol | 6509HH9041       | 4       |
| Euro OTC                   | Propylene glycol | 93839775L0       | 1       |
| Euro OTC                   | Propylene glycol | 96377556P0       | 3       |
| Euro OTC                   | Propylene glycol | q603034-01       | 1       |
| Euro PTC Pharma GmbH/Sa... | Propylene glycol | 1504031-01       | 1       |
| Euro/ Sanacorp             | Propylene glycol | 14248704         | 1       |
| Euro/ Sanacorp             | Propylene glycol | 1610031-01       | 1       |
| Euro/Noweda                | Propylene glycol | 1703024-01       | 1       |
| Europ. AB                  | Propylene glycol | 5671401          | 1       |
| EuroPTC/Phönix             | Propylene glycol | 15901013-01      | 1       |
| Fa. Azelis                 | Propylene glycol | 11824a           | 1       |
| Fa. Azelis                 | Propylene glycol | 11824b           | 1       |

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*continued from previous page*

| Supplier   | Substance        | Batch            | Spectra |
|------------|------------------|------------------|---------|
| Fa. Azelis | Propylene glycol | 11824c1v2        | 1       |
| Fa. Azelis | Propylene glycol | 11824c2v2        | 1       |
| Fagro / G  | Propylene glycol | 17H03-B04-344395 | 1       |
| Fagron     | Propylene glycol |                  | 2       |
| Fagron     | Propylene glycol | 10101720         | 3       |
| Fagron     | Propylene glycol | 1051821          | 2       |
| Fagron     | Propylene glycol | 11372007         | 2       |
| Fagron     | Propylene glycol | 11H04-N01        | 2       |
| Fagron     | Propylene glycol | 11K28-N01        | 7       |
| Fagron     | Propylene glycol | 11L22-N14        | 6       |
| Fagron     | Propylene glycol | 12041920         | 8       |
| Fagron     | Propylene glycol | 12088205         | 1       |
| Fagron     | Propylene glycol | 120C004-277798   | 1       |
| Fagron     | Propylene glycol | 12372403         | 1       |
| Fagron     | Propylene glycol | 12C06-N04        | 6       |
| Fagron     | Propylene glycol | 12g13-n07        | 2       |
| Fagron     | Propylene glycol | 12G13-N07        | 30      |
| Fagron     | Propylene glycol | 12G13-No7        | 1       |
| Fagron     | Propylene glycol | 12G13-N07        | 4       |
| Fagron     | Propylene glycol | 12J04-N06        | 11      |
| Fagron     | Propylene glycol | 12k13-n05        | 1       |
| Fagron     | Propylene glycol | 12K13-N05        | 13      |
| Fagron     | Propylene glycol | 1301C003         | 3       |
| Fagron     | Propylene glycol | 1301C003-277799  | 1       |
| Fagron     | Propylene glycol | 1301C004         | 5       |
| Fagron     | Propylene glycol | 1301C004-277798  | 16      |
| Fagron     | Propylene glycol | 13040010-281099  | 1       |
| Fagron     | Propylene glycol | 1304C009         | 6       |
| Fagron     | Propylene glycol | 1304C009-28      | 1       |
| Fagron     | Propylene glycol | 1304c009-281100  | 1       |
| Fagron     | Propylene glycol | 1304C009-281100  | 3       |
| Fagron     | Propylene glycol | 1304C010         | 10      |
| Fagron     | Propylene glycol | 1304C-010        | 1       |
| Fagron     | Propylene glycol | 1304c010-281099  | 4       |
| Fagron     | Propylene glycol | 1304C010281099   | 1       |
| Fagron     | Propylene glycol | 1304C010-281099  | 21      |
| Fagron     | Propylene glycol | 1304C010         | 1       |
| Fagron     | Propylene glycol | 1307021-01       | 1       |
| Fagron     | Propylene glycol | 1314Q2110        | 1       |
| Fagron     | Propylene glycol | 13E22B03         | 2       |
| Fagron     | Propylene glycol | 13E22-B03        | 11      |
| Fagron     | Propylene glycol | 13E22B0328345    | 1       |
| Fagron     | Propylene glycol | 13E22-B03-283450 | 22      |
| Fagron     | Propylene glycol | 13E22-B03-283451 | 2       |
| Fagron     | Propylene glycol | 13E22-B03-28350  | 1       |
| Fagron     | Propylene glycol | 13E22Bo3283450   | 1       |
| Fagron     | Propylene glycol | 13G09B01         | 2       |
| Fagron     | Propylene glycol | 13G09-B01        | 5       |
| Fagron     | Propylene glycol | 13G09-B01-283452 | 1       |
| Fagron     | Propylene glycol | 13G09B01283456   | 1       |
| Fagron     | Propylene glycol | 13G09-B01-283456 | 24      |
| Fagron     | Propylene glycol | 1405003-01       | 1       |
| Fagron     | Propylene glycol | 14346608         | 1       |
| Fagron     | Propylene glycol | 14a09-b04        | 1       |
| Fagron     | Propylene glycol | 14A09B04         | 4       |
| Fagron     | Propylene glycol | 14A09-B04        | 16      |
| Fagron     | Propylene glycol | 14A09-B04-28959  | 1       |
| Fagron     | Propylene glycol | 14A09-B04-289597 | 21      |
| Fagron     | Propylene glycol | 14A09-B04-289598 | 5       |
| Fagron     | Propylene glycol | 14A09-B04-289599 | 5       |

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continued from previous page

| Supplier | Substance        | Batch             | Spectra |
|----------|------------------|-------------------|---------|
| Fagron   | Propylene glycol | 14A09-B04-289600  | 1       |
| Fagron   | Propylene glycol | 14A09-Bo4-289597  | 1       |
| Fagron   | Propylene glycol | 14C05-B02         | 4       |
| Fagron   | Propylene glycol | 14C05B02295787    | 1       |
| Fagron   | Propylene glycol | 14C05-B02-295787  | 10      |
| Fagron   | Propylene glycol | 14C05-B02295788   | 1       |
| Fagron   | Propylene glycol | 14C05-B02-295788  | 5       |
| Fagron   | Propylene glycol | 14C09-B02-289597  | 1       |
| Fagron   | Propylene glycol | 14H03-B04-340573  | 1       |
| Fagron   | Propylene glycol | 14H22-B02         | 2       |
| Fagron   | Propylene glycol | 14H22-B02-302506  | 7       |
| Fagron   | Propylene glycol | 150403101         | 1       |
| Fagron   | Propylene glycol | 15051721          | 2       |
| Fagron   | Propylene glycol | 15052021          | 1       |
| Fagron   | Propylene glycol | 15081620          | 7       |
| Fagron   | Propylene glycol | 15262407          | 1       |
| Fagron   | Propylene glycol | 15335407          | 1       |
| Fagron   | Propylene glycol | 15430502          | 1       |
| Fagron   | Propylene glycol | 15430503          | 1       |
| Fagron   | Propylene glycol | 15A07_B04_302970  | 1       |
| Fagron   | Propylene glycol | 15A07B04          | 3       |
| Fagron   | Propylene glycol | 15A07-B04         | 5       |
| Fagron   | Propylene glycol | 15A07-B04_302970  | 1       |
| Fagron   | Propylene glycol | 15A07-B04-302969  | 10      |
| Fagron   | Propylene glycol | 15A07-B04-30297   | 1       |
| Fagron   | Propylene glycol | 15A07-B04-302970  | 24      |
| Fagron   | Propylene glycol | 15B24-B40         | 4       |
| Fagron   | Propylene glycol | 15B24-B40-307379  | 5       |
| Fagron   | Propylene glycol | 15F25-B02-311890  | 6       |
| Fagron   | Propylene glycol | 15G28-803-314758  | 1       |
| Fagron   | Propylene glycol | 15G28-B03         | 10      |
| Fagron   | Propylene glycol | 15G28-B03-311889  | 8       |
| Fagron   | Propylene glycol | 15G-28-B03-311889 | 1       |
| Fagron   | Propylene glycol | 15G28-B03-314768  | 25      |
| Fagron   | Propylene glycol | 15G28-B03-314769  | 3       |
| Fagron   | Propylene glycol | 15L23             | 1       |
| Fagron   | Propylene glycol | 15L23-B01         | 1       |
| Fagron   | Propylene glycol | 15L23-B01-3108036 | 1       |
| Fagron   | Propylene glycol | 15L23-B01-31803   | 1       |
| Fagron   | Propylene glycol | 15L23-B01-318036  | 17      |
| Fagron   | Propylene glycol | 15L26-B01         | 1       |
| Fagron   | Propylene glycol | 1610031-01        | 1       |
| Fagron   | Propylene glycol | 16C10-B04         | 7       |
| Fagron   | Propylene glycol | 16C-10-B04        | 1       |
| Fagron   | Propylene glycol | 16C10-B04-319299  | 3       |
| Fagron   | Propylene glycol | 16c10-b04-321081  | 1       |
| Fagron   | Propylene glycol | 16C10-B04-321081  | 25      |
| Fagron   | Propylene glycol | 16C10-B04-321082  | 1       |
| Fagron   | Propylene glycol | 16C10-B04-321659  | 1       |
| Fagron   | Propylene glycol | 16C10-B04-323302  | 4       |
| Fagron   | Propylene glycol | 16C10-Bo4-321081  | 1       |
| Fagron   | Propylene glycol | 16E09-B02         | 2       |
| Fagron   | Propylene glycol | 16E09-B02-3024843 | 1       |
| Fagron   | Propylene glycol | 16E09-B02-324     | 2       |
| Fagron   | Propylene glycol | 16e09-b02-324843  | 1       |
| Fagron   | Propylene glycol | 16E09-B02-324843  | 16      |
| Fagron   | Propylene glycol | 16E09-B02-325331  | 4       |
| Fagron   | Propylene glycol | 16G04-B01         | 2       |
| Fagron   | Propylene glycol | 16G04B01328151    | 3       |
| Fagron   | Propylene glycol | 16G04-B01-328151  | 18      |

continued on the next page

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Propylene glycol | 16G04-B01-329687  | 4              |
| Fagron          | Propylene glycol | 17053804          | 1              |
| Fagron          | Propylene glycol | 1708002-01        | 1              |
| Fagron          | Propylene glycol | 17082015A         | 1              |
| Fagron          | Propylene glycol | 17A06-B03         | 6              |
| Fagron          | Propylene glycol | 17a06b03332091    | 1              |
| Fagron          | Propylene glycol | 17A06-b03-332091  | 1              |
| Fagron          | Propylene glycol | 17A06-B03-332091  | 20             |
| Fagron          | Propylene glycol | 17A06B03334896    | 1              |
| Fagron          | Propylene glycol | 17A06-B03-334896  | 7              |
| Fagron          | Propylene glycol | 17E22             | 1              |
| Fagron          | Propylene glycol | 17E22-B10         | 3              |
| Fagron          | Propylene glycol | 17E22-B10-3365666 | 1              |
| Fagron          | Propylene glycol | 17E22B10336830    | 3              |
| Fagron          | Propylene glycol | 17E22-B10336830   | 1              |
| Fagron          | Propylene glycol | 17E22-B10-336830  | 16             |
| Fagron          | Propylene glycol | 17E22-B-10-336830 | 1              |
| Fagron          | Propylene glycol | 17E22-B10-338768  | 3              |
| Fagron          | Propylene glycol | 17H0304           | 1              |
| Fagron          | Propylene glycol | 17H03-B03-340573  | 1              |
| Fagron          | Propylene glycol | 17H03-B04         | 12             |
| Fagron          | Propylene glycol | 17H03-B04_344395  | 1              |
| Fagron          | Propylene glycol | 17H03-B04-340573  | 26             |
| Fagron          | Propylene glycol | 17H03-B04-341721  | 1              |
| Fagron          | Propylene glycol | 17h03b04344395    | 1              |
| Fagron          | Propylene glycol | 17H03-B04-344395  | 24             |
| Fagron          | Propylene glycol | 17W22-B10         | 1              |
| Fagron          | Propylene glycol | 18005448          | 1              |
| Fagron          | Propylene glycol | 18061311          | 1              |
| Fagron          | Propylene glycol | 18061321          | 1              |
| Fagron          | Propylene glycol | 18064902          | 1              |
| Fagron          | Propylene glycol | 18064904          | 1              |
| Fagron          | Propylene glycol | 18081121          | 1              |
| Fagron          | Propylene glycol | 18091521          | 1              |
| Fagron          | Propylene glycol | 181013prop        | 1              |
| Fagron          | Propylene glycol | 1811028-05        | 1              |
| Fagron          | Propylene glycol | 18219106          | 1              |
| Fagron          | Propylene glycol | 18A19-B01         | 3              |
| Fagron          | Propylene glycol | 18A19-B01-346655  | 5              |
| Fagron          | Propylene glycol | 18a19-b01-348338  | 1              |
| Fagron          | Propylene glycol | 18A19-B01-348338  | 14             |
| Fagron          | Propylene glycol | 18A19-B01-349128  | 1              |
| Fagron          | Propylene glycol | 18a19-b01-351127  | 1              |
| Fagron          | Propylene glycol | 18A19-B01-351227  | 18             |
| Fagron          | Propylene glycol | 18H07-B01         | 5              |
| Fagron          | Propylene glycol | 18H07-B01_352703  | 1              |
| Fagron          | Propylene glycol | 18H07B01352662    | 2              |
| Fagron          | Propylene glycol | 18H07-B01-352662  | 14             |
| Fagron          | Propylene glycol | 18h07b01352703    | 1              |
| Fagron          | Propylene glycol | 18H07-B01-352703  | 33             |
| Fagron          | Propylene glycol | 18H07-B01-353899  | 2              |
| Fagron          | Propylene glycol | 18H0-B01-352662   | 1              |
| Fagron          | Propylene glycol | 18I03-B07-355043  | 1              |
| Fagron          | Propylene glycol | 18J03-B07         | 12             |
| Fagron          | Propylene glycol | 18J03-B07_356433  | 1              |
| Fagron          | Propylene glycol | 18j03b07355043    | 2              |
| Fagron          | Propylene glycol | 18J03B07355043    | 1              |
| Fagron          | Propylene glycol | 18J03-B07355043   | 1              |
| Fagron          | Propylene glycol | 18J03-B07-355043  | 25             |
| Fagron          | Propylene glycol | 18j03-b07-356433  | 1              |

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continued from previous page

| Supplier | Substance        | Batch              | Spectra |
|----------|------------------|--------------------|---------|
| Fagron   | Propylene glycol | 18J03-b07-356433   | 1       |
| Fagron   | Propylene glycol | 18J03-B07356433    | 1       |
| Fagron   | Propylene glycol | 18J03-B07-356433   | 27      |
| Fagron   | Propylene glycol | 18J03-B07-356435   | 1       |
| Fagron   | Propylene glycol | 18J03-B07-357162   | 1       |
| Fagron   | Propylene glycol | 18j03-b07-358066   | 1       |
| Fagron   | Propylene glycol | 18J03-B07-358066   | 3       |
| Fagron   | Propylene glycol | 19/27-F03-365136   | 2       |
| Fagron   | Propylene glycol | 19/27-F03-365557   | 1       |
| Fagron   | Propylene glycol | 19/27-F03-365136   | 1       |
| Fagron   | Propylene glycol | 19111421           | 5       |
| Fagron   | Propylene glycol | 19127-F03-365557   | 2       |
| Fagron   | Propylene glycol | 19127-f03-365558   | 1       |
| Fagron   | Propylene glycol | 19127-F0-365557    | 1       |
| Fagron   | Propylene glycol | 19A28              | 1       |
| Fagron   | Propylene glycol | 19A28-809-361175   | 1       |
| Fagron   | Propylene glycol | 19A28-B01-361175   | 1       |
| Fagron   | Propylene glycol | 19A28B09           | 1       |
| Fagron   | Propylene glycol | 19A28-B09          | 8       |
| Fagron   | Propylene glycol | 19A28-B09-261175   | 1       |
| Fagron   | Propylene glycol | 19A28-B09-361175   | 31      |
| Fagron   | Propylene glycol | 19A28-B09-361176   | 2       |
| Fagron   | Propylene glycol | 19A28-B09-361193   | 2       |
| Fagron   | Propylene glycol | 19a8-b09-361175    | 1       |
| Fagron   | Propylene glycol | 19A-B09-361175     | 1       |
| Fagron   | Propylene glycol | 19E20-B01          | 6       |
| Fagron   | Propylene glycol | 19E20-B01-12041920 | 1       |
| Fagron   | Propylene glycol | 19e20-b01-362176   | 2       |
| Fagron   | Propylene glycol | 19E20B01362176     | 1       |
| Fagron   | Propylene glycol | 19E20-B01362176    | 1       |
| Fagron   | Propylene glycol | 19E20-B01-362176   | 36      |
| Fagron   | Propylene glycol | 19E20-B01-362177   | 9       |
| Fagron   | Propylene glycol | 19E20-B01-363217   | 1       |
| Fagron   | Propylene glycol | 19E20-bo1-362176   | 1       |
| Fagron   | Propylene glycol | 19E20-B01-362176   | 1       |
| Fagron   | Propylene glycol | 19E-B01-362176     | 1       |
| Fagron   | Propylene glycol | 19G04              | 1       |
| Fagron   | Propylene glycol | 19G04-803-363220   | 1       |
| Fagron   | Propylene glycol | 19G04-B03          | 9       |
| Fagron   | Propylene glycol | 19g04-b03-363220   | 1       |
| Fagron   | Propylene glycol | 19G04-B03-363220   | 36      |
| Fagron   | Propylene glycol | 19G94-B03-363220   | 1       |
| Fagron   | Propylene glycol | 19G04-B03-363220   | 1       |
| Fagron   | Propylene glycol | 19I27-F03          | 5       |
| Fagron   | Propylene glycol | 19I27-F03-3651306  | 1       |
| Fagron   | Propylene glycol | 19I27F03365136     | 1       |
| Fagron   | Propylene glycol | 19I27-F03-365136   | 14      |
| Fagron   | Propylene glycol | 19I27F03365557     | 1       |
| Fagron   | Propylene glycol | 19I27-F03-365557   | 11      |
| Fagron   | Propylene glycol | 19I27-F03-365558   | 3       |
| Fagron   | Propylene glycol | 19I27-F03          | 1       |
| Fagron   | Propylene glycol | 19I27-F03-365136   | 1       |
| Fagron   | Propylene glycol | 19127-F03-3651306  | 1       |
| Fagron   | Propylene glycol | 19127-F03-365558   | 1       |
| Fagron   | Propylene glycol | 200749-0001        | 1       |
| Fagron   | Propylene glycol | 200749-0005        | 1       |
| Fagron   | Propylene glycol | 200749-B04-289597  | 1       |
| Fagron   | Propylene glycol | 20122013B          | 1       |
| Fagron   | Propylene glycol | 2021621            | 2       |
| Fagron   | Propylene glycol | 20F04-F05          | 2       |

continued on the next page

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Propylene glycol | 20f04f05371328    | 1              |
| Fagron          | Propylene glycol | 20F04-F05-371328  | 11             |
| Fagron          | Propylene glycol | 20F04-F05-371329  | 1              |
| Fagron          | Propylene glycol | 20F04-F05-37328   | 1              |
| Fagron          | Propylene glycol | 20G14-F03         | 2              |
| Fagron          | Propylene glycol | 20G14-F03-373219  | 3              |
| Fagron          | Propylene glycol | 20J05-F08         | 5              |
| Fagron          | Propylene glycol | 20J05F08374459    | 1              |
| Fagron          | Propylene glycol | 20J05-F08374459   | 1              |
| Fagron          | Propylene glycol | 20J05-F08-374459  | 10             |
| Fagron          | Propylene glycol | 20J05-F08-374460  | 1              |
| Fagron          | Propylene glycol | 20j05-f08-374464  | 1              |
| Fagron          | Propylene glycol | 20J05-F08-374464  | 3              |
| Fagron          | Propylene glycol | 20J05-F08-3744654 | 1              |
| Fagron          | Propylene glycol | 20J05-F08-375549  | 1              |
| Fagron          | Propylene glycol | 2101820           | 5              |
| Fagron          | Propylene glycol | 2112212110        | 1              |
| Fagron          | Propylene glycol | 21E25-T03-088477  | 7              |
| Fagron          | Propylene glycol | 21E-25-T03-088477 | 1              |
| Fagron          | Propylene glycol | 21E25-T03-088478  | 1              |
| Fagron          | Propylene glycol | 21F10-F03-380281  | 3              |
| Fagron          | Propylene glycol | 21F10-F03-380281  | 1              |
| Fagron          | Propylene glycol | 23011420          | 1              |
| Fagron          | Propylene glycol | 23021320          | 1              |
| Fagron          | Propylene glycol | 24014556P0        | 1              |
| Fagron          | Propylene glycol | 24041221          | 8              |
| Fagron          | Propylene glycol | 25082020          | 2              |
| Fagron          | Propylene glycol | 26021320          | 5              |
| Fagron          | Propylene glycol | 270114A           | 1              |
| Fagron          | Propylene glycol | 280714C           | 1              |
| Fagron          | Propylene glycol | 2F04-F05-371328   | 1              |
| Fagron          | Propylene glycol | 30041621          | 1              |
| Fagron          | Propylene glycol | 336830            | 2              |
| Fagron          | Propylene glycol | 365557            | 1              |
| Fagron          | Propylene glycol | 3959/V02/15       | 1              |
| Fagron          | Propylene glycol | 4061821           | 2              |
| Fagron          | Propylene glycol | 41758575L0        | 1              |
| Fagron          | Propylene glycol | 5021520           | 3              |
| Fagron          | Propylene glycol | 50515PJK01        | 1              |
| Fagron          | Propylene glycol | 5115Q-02110       | 1              |
| Fagron          | Propylene glycol | 6031720           | 2              |
| Fagron          | Propylene glycol | 6071520           | 4              |
| Fagron          | Propylene glycol | 8021621           | 4              |
| Fagron          | Propylene glycol | 8121120           | 1              |
| Fagron          | Propylene glycol | 9031321           | 1              |
| Fagron          | Propylene glycol | 9031520           | 1              |
| Fagron          | Propylene glycol | 9051220           | 6              |
| Fagron          | Propylene glycol | 9G04-B03-3632201  | 1              |
| Fagron          | Propylene glycol | B01-351227        | 1              |
| Fagron          | Propylene glycol | B01-3621706       | 5              |
| Fagron          | Propylene glycol | B01-3621707       | 2              |
| Fagron          | Propylene glycol | B09-3611705       | 2              |
| Fagron          | Propylene glycol | B09-361175        | 1              |
| Fagron          | Propylene glycol | F03-3651306       | 2              |
| Fagron          | Propylene glycol | F03-3655507       | 2              |
| Fagron          | Propylene glycol | F04-F05-371328    | 1              |
| Fagron          | Propylene glycol | F08-3744509       | 1              |
| Fagron          | Propylene glycol | F08-3744604       | 2              |
| Fagron          | Propylene glycol | T03-0884707       | 5              |
| Fagron          | Propylene glycol | TQ131410          | 2              |

*continued on the next page*

continued from previous page

| Supplier                    | Substance        | Batch            | Spectra |
|-----------------------------|------------------|------------------|---------|
| Fargron                     | Propylene glycol | TQ191812         | 5       |
| Fargron/AHD                 | Propylene glycol | 18H07-B01        | 1       |
| Fargron/AHD                 | Propylene glycol | 18H07-B01-352703 | 1       |
| Fargron/Noweda              | Propylene glycol | 18J03-B07-356433 | 1       |
| Fargron/Noweda              | Propylene glycol | 19A28-B09-361175 | 2       |
| Fargron                     | Propylene glycol | 12K13-N05        | 2       |
| Fargron                     | Propylene glycol | 16C10-B04-321081 | 1       |
| Fargron                     | Propylene glycol | 17A06-B03-332091 | 1       |
| Fargron                     | Propylene glycol | 17A06-B03-334896 | 1       |
| Fargron                     | Propylene glycol | 17A06-B03-332091 | 1       |
| Fargron                     | Propylene glycol | 17E22-B10-336830 | 1       |
| Fargron                     | Propylene glycol | 16G04-B01        | 1       |
| Fargron / Alliance Healthc. | Propylene glycol | 17A06-B03-334896 | 1       |
| Fiebig/Lamotte              | Propylene glycol | 6012897001       | 2       |
| Fiebig/Lamotte              | Propylene glycol | 6016860001       | 7       |
| Fiebig                      | Propylene glycol | 1000002768       | 1       |
| Fiebig                      | Propylene glycol | 1000007047       | 6       |
| Fiebig                      | Propylene glycol | 12099            | 1       |
| Fiebig                      | Propylene glycol | 18064908         | 1       |
| Fiebig                      | Propylene glycol | 21002539009      | 1       |
| Fiebig                      | Propylene glycol | 6012897001       | 7       |
| Fiebig                      | Propylene glycol | 6016860001       | 2       |
| Fiebig                      | Propylene glycol | 8002520002       | 4       |
| Fiebig                      | Propylene glycol | 8003093001       | 4       |
| fischar                     | Propylene glycol | 13G09B01         | 1       |
| Fischbar                    | Propylene glycol | 18091201         | 1       |
| Fragon/ Fragon              | Propylene glycol | 19E20-B01-362177 | 1       |
| Fragon/Gehe                 | Propylene glycol | 19A28-B09-361175 | 1       |
| Fragon/Phoenix              | Propylene glycol | 18A19-B01        | 1       |
| Fragon/Sana                 | Propylene glycol | 18H07-B01        | 1       |
| Fragon                      | Propylene glycol | 20J05-F08-374460 | 1       |
| fragon/Gehe                 | Propylene glycol | 18H07-B01-352703 | 1       |
| Gatt-Koller                 | Propylene glycol | 1801516          | 3       |
| GEHE 06.05.2014             | Propylene glycol | 13256705         | 2       |
| Gehe 3.3.15                 | Propylene glycol | 14C05-B02-295787 | 1       |
| Gehe amax                   | Propylene glycol | 15262409         | 1       |
| Gehe amax                   | Propylene glycol | 16251201         | 1       |
| Gehe amax                   | Propylene glycol | 16251205         | 3       |
| Gehe amax                   | Propylene glycol | 17053804         | 1       |
| Gehe amax                   | Propylene glycol | 17321703         | 2       |
| Gehe amax                   | Propylene glycol | 18064904         | 1       |
| Gehe amax                   | Propylene glycol | 18064915         | 1       |
| Gehe amax                   | Propylene glycol | 19246101         | 3       |
| GEHE Kassel 11.04.2019      | Propylene glycol | 18J03-B07-355043 | 2       |
| Gehe Pharma                 | Propylene glycol | 8007215001       | 1       |
| Gehe, 01.03.19              | Propylene glycol | 1000007047       | 1       |
| GEHE/Caesar & Loretz GmbH   | Propylene glycol | 19230103         | 1       |
| Gehe/EuRho                  | Propylene glycol | 1906034-01       | 1       |
| Gehe/Henry Lamotte          | Propylene glycol | 8002520002       | 1       |
| Gehe/L10                    | Propylene glycol | 18064915         | 1       |
| Gehe/Lamotte                | Propylene glycol | 8003093001       | 2       |
| Gehe                        | Propylene glycol | 1000001132       | 3       |
| Gehe                        | Propylene glycol | 1000002768       | 2       |
| Gehe                        | Propylene glycol | 1000002992       | 2       |
| GEHE                        | Propylene glycol | 1000007047       | 2       |
| Gehe                        | Propylene glycol | 11300506         | 1       |
| Gehe                        | Propylene glycol | 11372007         | 3       |
| GEHE                        | Propylene glycol | 11372007         | 1       |
| Gehe                        | Propylene glycol | 11372009         | 1       |
| Gehe                        | Propylene glycol | 12088207         | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b>     | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|---------------------|------------------|------------------|----------------|
| Gehe                | Propylene glycol | 12169802         | 1              |
| Gehe                | Propylene glycol | 12372405         | 2              |
| Gehe                | Propylene glycol | 125099           | 4              |
| Gehe                | Propylene glycol | 13100908         | 3              |
| Gehe                | Propylene glycol | 13167003         | 2              |
| Gehe                | Propylene glycol | 13256704         | 2              |
| Gehe                | Propylene glycol | 14051802         | 1              |
| Gehe                | Propylene glycol | 14346602         | 3              |
| Gehe                | Propylene glycol | 14C05-B02-295787 | 1              |
| Gehe                | Propylene glycol | 15069202         | 1              |
| Gehe                | Propylene glycol | 15181604         | 1              |
| Gehe                | Propylene glycol | 15181605         | 1              |
| Gehe                | Propylene glycol | 15262406         | 1              |
| Gehe                | Propylene glycol | 15335403         | 1              |
| Gehe                | Propylene glycol | 15335404         | 1              |
| Gehe                | Propylene glycol | 15355108         | 1              |
| Gehe                | Propylene glycol | 1540508          | 1              |
| Gehe                | Propylene glycol | 15430508         | 2              |
| Gehe                | Propylene glycol | 15430512         | 1              |
| Gehe                | Propylene glycol | 15A07-B04-302969 | 1              |
| Gehe                | Propylene glycol | 1606014-01       | 1              |
| Gehe                | Propylene glycol | 16251201         | 4              |
| Gehe                | Propylene glycol | 16251202         | 2              |
| Gehe                | Propylene glycol | 16251205         | 3              |
| Gehe                | Propylene glycol | 16251206         | 1              |
| Gehe                | Propylene glycol | 16251207         | 1              |
| GEHE                | Propylene glycol | 16G04-B01-328151 | 1              |
| Gehe                | Propylene glycol | 17053801         | 1              |
| Gehe                | Propylene glycol | 17053804         | 1              |
| Gehe                | Propylene glycol | 17053806         | 2              |
| Gehe                | Propylene glycol | 17053809         | 2              |
| Gehe                | Propylene glycol | 17321703         | 1              |
| GEHE                | Propylene glycol | 17321703         | 2              |
| Gehe                | Propylene glycol | 17321705         | 1              |
| Gehe                | Propylene glycol | 17A06-B03-332091 | 1              |
| GEHE                | Propylene glycol | 17A06-B03-332091 | 1              |
| GEHE                | Propylene glycol | 17H03-B04-340573 | 1              |
| Gehe                | Propylene glycol | 17H03-B04-340753 | 1              |
| Gehe                | Propylene glycol | 18064901         | 1              |
| Gehe                | Propylene glycol | 18064912         | 1              |
| Gehe                | Propylene glycol | 18064915         | 4              |
| Gehe                | Propylene glycol | 18065904         | 1              |
| Gehe                | Propylene glycol | 18219101         | 1              |
| Gehe                | Propylene glycol | 18H07-B01-352703 | 2              |
| Gehe                | Propylene glycol | 18J03-B07-356433 | 1              |
| Gehe                | Propylene glycol | 19A28-B09-361175 | 1              |
| Gehe                | Propylene glycol | 19E20-B01        | 2              |
| Gehe                | Propylene glycol | 19I27-F03-365557 | 1              |
| Gehe                | Propylene glycol | 20000779002      | 2              |
| Gehe                | Propylene glycol | 5671401          | 1              |
| Gehe                | Propylene glycol | 6012897001       | 3              |
| GEHE                | Propylene glycol | 6012897001       | 7              |
| Gehe                | Propylene glycol | 6016860001       | 5              |
| GEHE                | Propylene glycol | 6016860001       | 1              |
| gehe                | Propylene glycol | 8002520002       | 1              |
| Gehe                | Propylene glycol | 8002520002       | 2              |
| Gehe                | Propylene glycol | 8003093001       | 2              |
| Gehe                | Propylene glycol | 8006970001       | 6              |
| Gehe                | Propylene glycol | 800697001        | 1              |
| Geibo/Lamotte 29.8. | Propylene glycol | 6012897001       | 1              |

*continued on the next page*



*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| GUMO                       | Propylene glycol | 20000779005      | 1              |
| H.Lamotte 19.03.20         | Propylene glycol | 6016860001       | 1              |
| H.Lamotte/Anzag 10.12.2... | Propylene glycol | 6012897001       | 1              |
| H.Lamotte/Anzag 16.05.17   | Propylene glycol | 8002520002       | 2              |
| H.Lamotte/Anzag 21.11.17   | Propylene glycol | 8003093001       | 1              |
| H.Lamotte/anzag 30.12.16   | Propylene glycol | 1000002992       | 1              |
| H.Lamotte/Jenne            | Propylene glycol | 6016860001       | 2              |
| H.Lamotte/Jenne            | Propylene glycol | 8006970001       | 1              |
| H.Lamotte                  | Propylene glycol | 1000002768       | 2              |
| H.Lamotte                  | Propylene glycol | 1000007047       | 2              |
| H.Lamotte                  | Propylene glycol | 8002520002       | 2              |
| H.Lamotte                  | Propylene glycol | 8003093001       | 1              |
| H.Lamotte                  | Propylene glycol | 8007215001       | 2              |
| Hänseler                   | Propylene glycol | 2019030355       | 1              |
| Hedinger vdL               | Propylene glycol | 16251202         | 2              |
| Hedinger / Noweda          | Propylene glycol | 291005B          | 1              |
| Hedinger / Phönix          | Propylene glycol | 29934B           | 3              |
| Hedinger / Phönix          | Propylene glycol | 29945B           | 3              |
| Hedinger / Phönix          | Propylene glycol | 29963B           | 3              |
| Hedinger GmbH              | Propylene glycol | 29905b           | 1              |
| Hedinger/ Sanacorp         | Propylene glycol | 29743B           | 1              |
| Hedinger/Alliance Heath... | Propylene glycol | 29775B           | 1              |
| Hedinger/Alliance          | Propylene glycol | 29897B           | 1              |
| Hedinger/Alliance          | Propylene glycol | 29905B           | 1              |
| Hedinger/Alliance          | Propylene glycol | 29934B           | 1              |
| Hedinger/Noweda            | Propylene glycol | 6016860001       | 2              |
| Hedinger/Phoenix           | Propylene glycol | 291020B          | 1              |
| Hedinger/Phoenix           | Propylene glycol | 29762B           | 2              |
| Hedinger/Phönix            | Propylene glycol | 192461006        | 1              |
| Hedinger/Phönix            | Propylene glycol | 291005B          | 1              |
| Hedinger/Phönix            | Propylene glycol | 291020B          | 1              |
| Hedinger/Phönix            | Propylene glycol | 29775B           | 1              |
| Hedinger/Phönix            | Propylene glycol | 29797B           | 1              |
| Hedinger/Phönix            | Propylene glycol | 29847B           | 1              |
| Hedinger/phönix            | Propylene glycol | 29859B           | 1              |
| Hedinger/Phönix            | Propylene glycol | 29934B           | 1              |
| Hedinger/Phönix            | Propylene glycol | 29994B           | 3              |
| Hedinger/Sanacorp          | Propylene glycol | 1304C010-281099  | 1              |
| Hedinger/Sanacorp          | Propylene glycol | 15A07-B04-302969 | 1              |
| Hedinger/Sanacorp          | Propylene glycol | 29823B           | 1              |
| Hedinger/Sanacorp          | Propylene glycol | 29945B           | 1              |
| Hedinger/VDL               | Propylene glycol | 29847B           | 1              |
| Hedinger/VDL               | Propylene glycol | 29859B           | 1              |
| Hedinger                   | Propylene glycol | 18064915         | 2              |
| Hedinger                   | Propylene glycol | 291020B          | 1              |
| Hedinger                   | Propylene glycol | 291037B          | 3              |
| Hedinger                   | Propylene glycol | 291053B          | 1              |
| Hedinger                   | Propylene glycol | 29625B           | 1              |
| Hedinger                   | Propylene glycol | 29702B           | 1              |
| Hedinger                   | Propylene glycol | 29775B           | 1              |
| Hedinger                   | Propylene glycol | 29797B           | 2              |
| Hedinger                   | Propylene glycol | 29823B           | 1              |
| Hedinger                   | Propylene glycol | 29837B           | 1              |
| Hedinger                   | Propylene glycol | 29859B           | 1              |
| Hedinger                   | Propylene glycol | 29859BP          | 1              |
| Hedinger                   | Propylene glycol | 29897B           | 1              |
| Hedinger                   | Propylene glycol | 29905B           | 1              |
| Hedinger                   | Propylene glycol | 29930B           | 3              |
| Hedinger                   | Propylene glycol | 29934B           | 1              |
| Hedinger                   | Propylene glycol | 29945B           | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>    | <b>Spectra</b> |
|----------------------------|------------------|-----------------|----------------|
| Hedinger                   | Propylene glycol | 2994B           | 1              |
| Hedinger                   | Propylene glycol | 29975B          | 2              |
| Henry Lamotte Oils Gmb...  | Propylene glycol | 6016860001      | 2              |
| Henry Lamotte Oils Gmb...  | Propylene glycol | 8006970001      | 5              |
| Henr                       | Propylene glycol | 1000002768      | 1              |
| Henry Lam./ Phönix         | Propylene glycol | 123095          | 1              |
| Henry Lamotte              | Propylene glycol | 1000002992      | 1              |
| Henry Lamotte              | Propylene glycol | 125099          | 1              |
| Henry Lamotte              | Propylene glycol | 6012897001      | 3              |
| Henry Lamotte / Allianc... | Propylene glycol | 1000001132      | 2              |
| Henry Lamotte / Allianc... | Propylene glycol | 125099          | 1              |
| Henry Lamotte / Anzag      | Propylene glycol | 120(6012897001) | 1              |
| Henry Lamotte / Fiebig     | Propylene glycol | 8007215001      | 2              |
| henry lamotte / Gehe       | Propylene glycol | 1000007047      | 3              |
| Henry Lamotte / GEHE       | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte / Jenne      | Propylene glycol | 118(1000007047) | 1              |
| Henry Lamotte / Krieger    | Propylene glycol | 6016860001      | 1              |
| Henry Lamotte / Noweda     | Propylene glycol | 1000002768      | 1              |
| Henry Lamotte / Noweda     | Propylene glycol | 1000007047      | 1              |
| Henry Lamotte / Noweda     | Propylene glycol | 6016860001      | 1              |
| Henry Lamotte / Noweda     | Propylene glycol | 8002520002      | 1              |
| Henry Lamotte / Sanacorp   | Propylene glycol | 125099          | 1              |
| Henry Lamotte / Sanacorp   | Propylene glycol | 8002520002      | 1              |
| Henry Lamotte / Sanacorp   | Propylene glycol | 8003093001      | 1              |
| Henry Lamotte /Gehe        | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte /Jenne       | Propylene glycol |                 | 1              |
| Henry Lamotte /Jenne       | Propylene glycol | 117(1000007047) | 1              |
| Henry Lamotte /Jenne       | Propylene glycol | 119(6012897001) | 1              |
| Henry Lamotte /Jenne       | Propylene glycol | 121(6012897001) | 1              |
| Henry Lamotte /Sanacorp    | Propylene glycol | 6012897001      | 2              |
| Henry Lamotte /Sanacorp    | Propylene glycol | 6016860001      | 2              |
| Henry Lamotte /Sanacorp    | Propylene glycol | 800725001       | 1              |
| Henry Lamotte Bremen /A... | Propylene glycol | 8006970001      | 1              |
| Henry Lamotte Bremen/Al... | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte GmbH/Phönix  | Propylene glycol | 8002520002      | 1              |
| Henry Lamotte GmbH         | Propylene glycol | 1000002768      | 1              |
| Henry Lamotte GmbH         | Propylene glycol | 1000002992      | 1              |
| Henry Lamotte GmbH         | Propylene glycol | 125099          | 1              |
| Henry Lamotte Oels GmbH    | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte Oils / No... | Propylene glycol | 1000001132      | 1              |
| Henry Lamotte Oils / No... | Propylene glycol | 125099          | 2              |
| Henry Lamotte Oils / Sa... | Propylene glycol | 6016860001      | 1              |
| Henry Lamotte Oils / Sa... | Propylene glycol | 8007215001      | 1              |
| Henry lamotte Oils /Gehe   | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 125099          | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000007047      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 123095          | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000002992      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000007047      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8002520002      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 125099          | 2              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8002520002      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6016860001      | 4              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6016860001      | 2              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001      | 1              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000007047      | 3              |
| Henry Lamotte Oils GMBH... | Propylene glycol | 8002520002      | 4              |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000001132      | 3              |

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| Supplier                   | Substance        | Batch       | Spectra |
|----------------------------|------------------|-------------|---------|
| Henry Lamotte Oils GmbH/   | Propylene glycol | 8003093001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000007047  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001  | 4       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8003093001  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8007215001  | 1       |
| Henry Lamotte Oils GMBH... | Propylene glycol | 6016860001  | 1       |
| Henry Lamotte Oils GMBH... | Propylene glycol | 1000007047  | 5       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001  | 3       |
| Henry Lamotte Oils GMBH... | Propylene glycol | 6012897001  | 4       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8002520002  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8002520002  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000007047  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8003093001  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8003093001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000001132  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6016860001  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8003093001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8007215001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000007047  | 4       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 123095      | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 5671401     | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001  | 3       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8002520002  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8006970001  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8007215001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8007215001  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 1000007047  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6012897001  | 1       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 6016860001  | 2       |
| Henry Lamotte Oils GmbH... | Propylene glycol | 8002520002  | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 1000001132  | 6       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 1000002768  | 4       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 1000002992  | 3       |
| Henry Lamotte oils GmbH    | Propylene glycol | 1000007047  | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 1000007047  | 13      |
| HENRY LAMOTTE OILS GmbH    | Propylene glycol | 1000007047  | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 1000016713  | 1       |
| Henry Lamotte oils GmbH    | Propylene glycol | 123095      | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 123095      | 2       |
| Henry Lamotte oils GmbH    | Propylene glycol | 125099      | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 125099      | 4       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 168600016   | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 5471401     | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 5671401     | 11      |
| Henry Lamotte oils GmbH    | Propylene glycol | 6012897001  | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 6012897001  | 13      |
| HENRY LAMOTTE OILS GmbH    | Propylene glycol | 6012897001  | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 60129897001 | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 6016860001  | 10      |
| HENRY LAMOTTE OILS GmbH    | Propylene glycol | 6016860001  | 2       |
| HENRY LAMOTTE OILS GmbH    | Propylene glycol | 6021897001  | 1       |
| henry lamotte oils gmbh    | Propylene glycol | 8002520002  | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 8002520002  | 6       |
| HENRY LAMOTTE OILS GmbH    | Propylene glycol | 8002520002  | 1       |
| Henry Lamotte oils GmbH    | Propylene glycol | 8003093001  | 1       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 8003093001  | 7       |
| Henry Lamotte Oils GmbH    | Propylene glycol | 8006970001  | 7       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|----------------------------|------------------|----------------------|----------------|
| HENRY LAMOTTE OILS GmbH    | Propylene glycol | 8006970001           | 1              |
| Henry Lamotte Oils GmbH    | Propylene glycol | 8007215001           | 7              |
| Henry Lamotte Oils/ Gehe   | Propylene glycol | 1000002992           | 1              |
| Henry Lamotte Oils/ Gehe   | Propylene glycol | 1000007047           | 1              |
| Henry Lamotte Oils/ Gehe   | Propylene glycol | 8002520002           | 1              |
| Henry Lamotte Oils/ Gehe   | Propylene glycol | 8003093001           | 1              |
| Henry Lamotte Oils/ NOW... | Propylene glycol | 8003093001           | 1              |
| Henry Lamotte Oils/ San... | Propylene glycol | 1000007047           | 1              |
| Henry Lamotte Oils/GEHE    | Propylene glycol | 6016860001           | 1              |
| Henry Lamotte Oils/Gehe    | Propylene glycol | 8003093001           | 1              |
| Henry Lamotte Oils/Noweda  | Propylene glycol | 6012897001           | 2              |
| Henry Lamotte oils/noweda  | Propylene glycol | 6016860001           | 1              |
| Henry Lamotte Oils/Noweda  | Propylene glycol | 6016860001           | 1              |
| Henry Lamotte Oils/Noweda  | Propylene glycol | 8006970001           | 1              |
| Henry Lamotte Oils/Phoe... | Propylene glycol | 6012897001           | 1              |
| Henry Lamotte Oils/Phönix  | Propylene glycol | 1000002768           | 1              |
| Henry Lamotte Oils/Phönix  | Propylene glycol | 1000007047           | 2              |
| Henry Lamotte Oils/Phönix  | Propylene glycol | 8002520002           | 2              |
| Henry Lamotte Oils/Phönix  | Propylene glycol | 8003093001           | 1              |
| Henry Lamotte Oils         | Propylene glycol | 1000001132           | 1              |
| Henry Lamotte Oils         | Propylene glycol | 1000002992           | 1              |
| Henry Lamotte Oils         | Propylene glycol | 1000007047           | 4              |
| Henry Lamotte Oils         | Propylene glycol | 122880               | 1              |
| Henry Lamotte Oils         | Propylene glycol | 123095               | 3              |
| Henry Lamotte Oils         | Propylene glycol | 125099               | 2              |
| Henry Lamotte Oils         | Propylene glycol | 6012897001           | 1              |
| Henry Lamotte oils         | Propylene glycol | 6016860001           | 4              |
| Henry Lamotte Oils         | Propylene glycol | 6016860001           | 4              |
| Henry Lamotte Oils         | Propylene glycol | 7021401              | 1              |
| Henry Lamotte Oils         | Propylene glycol | 8002520002           | 6              |
| Henry Lamotte Oils         | Propylene glycol | 8003093001           | 2              |
| Henry Lamotte Olis GmbH... | Propylene glycol | 10000001132          | 1              |
| Henry Lamotte Olis GmbH... | Propylene glycol | 1000007047           | 1              |
| Henry Lamotte Olis GmbH... | Propylene glycol | 6012897001           | 1              |
| Henry Lamotte Olis GmbH... | Propylene glycol | 6016860001           | 2              |
| Henry Lamotte Olis GmbH... | Propylene glycol | 8003093001           | 2              |
| Henry Lamotte Olis GmbH... | Propylene glycol | 8007215001           | 1              |
| Henry Lamotte Olis GmbH    | Propylene glycol | 1000001132           | 1              |
| Henry Lamotte Olis GmbH    | Propylene glycol | 1000002768           | 1              |
| Henry Lamotte Olis GmbH    | Propylene glycol | 8002520002           | 1              |
| Henry Lamotte Olis GmbH    | Propylene glycol | 8003093001           | 1              |
| Henry Lamotte Olis GmbH    | Propylene glycol | 8006970001           | 1              |
| Henry Lamotte,Gehe 08.1... | Propylene glycol | 1000007047-P20190115 | 1              |
| Henry Lamotte,Gehe 3.4.18  | Propylene glycol | 8003093001-20180404M | 1              |
| Henry Lamotte,Gehe 4.4.17  | Propylene glycol |                      | 1              |
| Henry Lamotte,Phönix       | Propylene glycol | 123095               | 2              |
| Henry Lamotte/ AHD         | Propylene glycol | 1000007047           | 1              |
| Henry Lamotte/ AHD         | Propylene glycol | 8002520002           | 1              |
| Henry Lamotte/ Alliance... | Propylene glycol | 1000007047           | 1              |
| Henry Lamotte/ Alliance    | Propylene glycol | 1000002768           | 1              |
| Henry Lamotte/ Alliance    | Propylene glycol | 1000002992           | 1              |
| Henry Lamotte/ Alliance    | Propylene glycol | 1000007047           | 1              |
| Henry Lamotte/ Alliance    | Propylene glycol | 8002520002           | 1              |
| Henry Lamotte/ Alliance    | Propylene glycol | 8003093001           | 1              |
| Henry Lamotte/ Gehe        | Propylene glycol | 6012897001           | 2              |
| Henry Lamotte/ Gehe        | Propylene glycol | 8007215001           | 2              |
| Henry Lamotte/ Geilenki... | Propylene glycol | 6012897001           | 3              |
| Henry Lamotte/ Kehr        | Propylene glycol | 1000002768           | 1              |
| Henry Lamotte/ Kehr        | Propylene glycol | 1000007047           | 1              |
| Henry Lamotte/ Kehr        | Propylene glycol | 125099               | 1              |

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| Supplier                   | Substance        | Batch           | Spectra |
|----------------------------|------------------|-----------------|---------|
| Henry Lamotte/ Krieger     | Propylene glycol | 1000002992      | 1       |
| Henry Lamotte/ Noweda      | Propylene glycol | 1000001132      | 2       |
| Henry Lamotte/ Noweda      | Propylene glycol | 6012897001      | 5       |
| Henry Lamotte/ Noweda      | Propylene glycol | 6016860001      | 1       |
| Henry Lamotte/ Sanacorp    | Propylene glycol | 6012897001      | 1       |
| Henry Lamotte/ Sanacorp    | Propylene glycol | 6016860001      | 1       |
| Henry Lamotte/ Sanacorp    | Propylene glycol | 8006970001      | 3       |
| Henry Lamotte/ Sanacorp    | Propylene glycol | 8007215001      | 2       |
| Henry Lamotte/ Spangro     | Propylene glycol | 8003093001      | 1       |
| Henry Lamotte/AHD/ 03.0... | Propylene glycol | 8006970001      | 1       |
| Henry Lamotte/AHD          | Propylene glycol | 113(8003093001) | 1       |
| Henry Lamotte/AHD          | Propylene glycol | 448(8003093001) | 1       |
| Henry Lamotte/AHD          | Propylene glycol | 6016860001      | 1       |
| Henry Lamotte/AHD          | Propylene glycol | 8006970001      | 1       |
| Henry Lamotte/Alliance     | Propylene glycol | 6012897001      | 1       |
| Henry Lamotte/Alliance     | Propylene glycol | 8002520002      | 1       |
| Henry Lamotte/Allianz H.   | Propylene glycol | 6016860001      | 1       |
| Henry Lamotte/Anzag        | Propylene glycol | 5671401         | 1       |
| Henry Lamotte/Anzag        | Propylene glycol | 6016860001      | 1       |
| Henry Lamotte/EJ           | Propylene glycol | 1000007047      | 4       |
| Henry Lamotte/Fiebig       | Propylene glycol | 6016860001      | 2       |
| Henry Lamotte/Fiebig       | Propylene glycol | 8002520002      | 1       |
| Henry Lamotte/Gehe         | Propylene glycol | 1000007047      | 4       |
| Henry Lamotte/Gehe         | Propylene glycol | 6012897001      | 2       |
| Henry Lamotte/Gehe         | Propylene glycol | 6016860001      | 7       |
| henry lamotte/gehe         | Propylene glycol | 8002520002      | 1       |
| Henry Lamotte/Gehe         | Propylene glycol | 8006970001      | 1       |
| Henry Lamotte/Gehe         | Propylene glycol | 8007215001      | 1       |
| Henry Lamotte/Geilenkir... | Propylene glycol | 1000007047      | 3       |
| Henry Lamotte/Jenne        | Propylene glycol | 1000016713      | 1       |
| Henry Lamotte/Jenne        | Propylene glycol | 111(8003093001) | 1       |
| Henry Lamotte/Jenne        | Propylene glycol | 112(8003093001) | 1       |
| Henry Lamotte/Jenne        | Propylene glycol | 115(1000007047) | 1       |
| Henry Lamotte/Jenne        | Propylene glycol | 6012897001      | 2       |
| Henry Lamotte/Jenne        | Propylene glycol | 6016860001      | 3       |
| Henry Lamotte/Jenne        | Propylene glycol | 8003093001      | 3       |
| Henry Lamotte/Jenne        | Propylene glycol | 8006397001      | 1       |
| Henry Lamotte/Jenne        | Propylene glycol | 8007215001      | 1       |
| Henry Lamotte/Kehr         | Propylene glycol | 1000016713      | 1       |
| Henry Lamotte/Kehr         | Propylene glycol | 6012897001      | 1       |
| Henry Lamotte/Noweda       | Propylene glycol | 125099          | 5       |
| Henry Lamotte/Noweda       | Propylene glycol | 6012897001      | 1       |
| Henry Lamotte/Noweda       | Propylene glycol | 6016860001      | 2       |
| Henry Lamotte/Noweda       | Propylene glycol | 8002520002      | 1       |
| Henry Lamotte/Noweda       | Propylene glycol | 8006970001      | 1       |
| Henry Lamotte/Noweda       | Propylene glycol | 8007215001      | 2       |
| Henry Lamotte/Phoenix      | Propylene glycol | 1000016713      | 1       |
| Henry Lamotte/Phoenix      | Propylene glycol | 125099          | 2       |
| Henry lamotte/Phoenix      | Propylene glycol | 6016860001      | 2       |
| Henry Lamotte/Phönix 9...  | Propylene glycol | 8002520002      | 1       |
| Henry Lamotte/Phönix       | Propylene glycol | 1000002768      | 1       |
| Henry Lamotte/Phönix       | Propylene glycol | 1000007047      | 1       |
| Henry Lamotte/Phönix       | Propylene glycol | 6016860001      | 1       |
| Henry Lamotte/Phönix       | Propylene glycol | 8002520002      | 1       |
| Henry Lamotte/Phönix       | Propylene glycol | 8003093001      | 1       |
| Henry Lamotte/Phönix       | Propylene glycol | 8006970001      | 1       |
| Henry Lamotte/Phönix       | Propylene glycol | 8007215001      | 3       |
| Henry Lamotte/Phönix       | Propylene glycol | 8008774001      | 1       |
| Henry Lamotte/Sanacorp     | Propylene glycol | 1000001132      | 1       |
| Henry Lamotte/Sanacorp     | Propylene glycol | 1000002992      | 2       |

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| Supplier                   | Substance        | Batch            | Spectra |
|----------------------------|------------------|------------------|---------|
| Henry Lamotte/Sanacorp     | Propylene glycol | 100001132        | 1       |
| Henry Lamotte/Sanacorp     | Propylene glycol | 6012897001       | 3       |
| Henry Lamotte/Sanacorp     | Propylene glycol | 6016860001       | 5       |
| Henry Lamotte/Sanacorp     | Propylene glycol | 8002520002       | 2       |
| Henry Lamotte/Sanacorp     | Propylene glycol | 8003093001       | 5       |
| henry lamotte              | Propylene glycol | 1000001132       | 1       |
| Henry Lamotte              | Propylene glycol | 1000001132       | 18      |
| Henry Lamotte              | Propylene glycol | 1000002768       | 8       |
| Henry Lamotte              | Propylene glycol | 1000002992       | 9       |
| Henry Lamotte              | Propylene glycol | 1000007047       | 7       |
| Henry Lamotte              | Propylene glycol | 100000747        | 1       |
| Henry Lamotte              | Propylene glycol | 1000016713       | 1       |
| Henry Lamotte              | Propylene glycol | 123095           | 14      |
| henry lamotte              | Propylene glycol | 125099           | 1       |
| Henry Lamotte              | Propylene glycol | 125099           | 5       |
| Henry Lamotte              | Propylene glycol | 2992             | 1       |
| Henry Lamotte              | Propylene glycol | 5671401          | 4       |
| Henry Lamotte              | Propylene glycol | 60128597001      | 1       |
| henry lamotte              | Propylene glycol | 6012897001       | 1       |
| Henry Lamotte              | Propylene glycol | 6012897001       | 13      |
| Henry Lamotte              | Propylene glycol | 60168600001      | 1       |
| Henry Lamotte              | Propylene glycol | 6016860001       | 10      |
| Henry Lamotte              | Propylene glycol | 8002520002       | 15      |
| Henry Lamotte              | Propylene glycol | 800252002        | 1       |
| Henry Lamotte              | Propylene glycol | 8003093001       | 9       |
| Henry Lamotte              | Propylene glycol | 8006970001       | 1       |
| Henry Lamotte              | Propylene glycol | 8007215001       | 1       |
| Henry Lamotte676996        | Propylene glycol | 8003093001       | 2       |
| Henry LamotteAlliance H... | Propylene glycol | 6016860001       | 1       |
| Henry LamotteAlliance H... | Propylene glycol | 6016960001       | 1       |
| Henry/Geibo                | Propylene glycol | 125099           | 1       |
| Henry/Geibo                | Propylene glycol | 8002520002       | 2       |
| Henry/Phoenix              | Propylene glycol | 6012897001       | 1       |
| Henry/Phoenix              | Propylene glycol | 8002520002       | 1       |
| Henry/Sanacorp             | Propylene glycol | 6012897001       | 1       |
| henry                      | Propylene glycol | 1000007047       | 1       |
| henry                      | Propylene glycol | 8003093001       | 2       |
| HenryLamotte/Phönix        | Propylene glycol | 6016860001       | 2       |
| HenryLamotte/Sanacorp      | Propylene glycol | 6012897001       | 1       |
| HenryLamotte               | Propylene glycol | 8008774001       | 1       |
| HenryLamotteOils GmbH, ... | Propylene glycol | 8007215001       | 2       |
| HenryLamotteOilsGmbH       | Propylene glycol | 123095           | 1       |
| HenryNoweda                | Propylene glycol | 1000007047       | 1       |
| Herbasinica                | Propylene glycol | 12088206         | 2       |
| Hubertus Apotheke          | Propylene glycol | 16G04-B01-328151 | 1       |
| Ichthyol-Gesellschaft      | Propylene glycol | 18064902         | 1       |
| Jenne/Lamotte              | Propylene glycol | 6012897001       | 1       |
| Jenne                      | Propylene glycol | 1000007047       | 2       |
| Jenne                      | Propylene glycol | 18219102         | 1       |
| Jenne                      | Propylene glycol | 8003093001       | 1       |
| Jenne                      | Propylene glycol | 8007215001       | 3       |
| Kehr                       | Propylene glycol | 17053801         | 1       |
| Kehr                       | Propylene glycol | 17275502         | 2       |
| Kehr                       | Propylene glycol | 18064908         | 1       |
| Kehr                       | Propylene glycol | 18264908         | 1       |
| Kehr                       | Propylene glycol | 1906034-01       | 1       |
| Kehr                       | Propylene glycol | 1912001          | 1       |
| Klosterring                | Propylene glycol | 1625121          | 1       |
| Klosterring                | Propylene glycol | 18064915         | 1       |
| Kögl                       | Propylene glycol | 1700381          | 3       |

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| Supplier                  | Substance        | Batch            | Spectra |
|---------------------------|------------------|------------------|---------|
| Kögl                      | Propylene glycol | 1702176          | 1       |
| Kögl                      | Propylene glycol | 1800370          | 1       |
| Kögl                      | Propylene glycol | 23302171117      | 1       |
| Kögl                      | Propylene glycol | 399511164816     | 1       |
| Kögl                      | Propylene glycol | 4796011170417    | 1       |
| Krieger                   | Propylene glycol | 18064901         | 1       |
| Krieger                   | Propylene glycol | 18219105         | 1       |
| L10                       | Propylene glycol | 16251206         | 4       |
| L10                       | Propylene glycol | 17053801         | 1       |
| L12                       | Propylene glycol | 17053806         | 2       |
| L12                       | Propylene glycol | 180648913        | 1       |
| L12                       | Propylene glycol | 18064901         | 4       |
| L12                       | Propylene glycol | 18064902         | 1       |
| L12                       | Propylene glycol | 18064908         | 1       |
| L30                       | Propylene glycol | 16251202         | 1       |
| Laborchemie Apolda/Phönix | Propylene glycol | 18064901         | 1       |
| Lamotte / AHD             | Propylene glycol | 1000001132       | 1       |
| Lamotte / AHD             | Propylene glycol | 6016860001       | 1       |
| Lamotte / Gehe            | Propylene glycol | 1000007047       | 1       |
| Lamotte / GEHE            | Propylene glycol | 6012897001       | 1       |
| Lamotte / Gehe            | Propylene glycol | 6016860001       | 3       |
| Lamotte / GEHE            | Propylene glycol | 6016860001       | 2       |
| Lamotte / Kehr            | Propylene glycol | 6016860001       | 1       |
| Lamotte / Noweda          | Propylene glycol | 1000002768       | 1       |
| Lamotte / Noweda          | Propylene glycol | 15430512         | 2       |
| Lamotte / Noweda          | Propylene glycol | 6012897001       | 2       |
| Lamotte / Phoenix         | Propylene glycol | 20F04-F05-371328 | 1       |
| Lamotte / Phönix          | Propylene glycol | 8003093001       | 1       |
| Lamotte / Sanacorp        | Propylene glycol | 1000016713       | 1       |
| Lamotte / Sanacorp        | Propylene glycol | 8007215001       | 1       |
| Lamotte /Alliance         | Propylene glycol | 6016860001       | 2       |
| Lamotte /Sanacorp         | Propylene glycol | 1000007047       | 1       |
| Lamotte 004               | Propylene glycol | 122882           | 1       |
| Lamotte Ebert             | Propylene glycol | 6012897001       | 2       |
| Lamotte Gmbh/ Kehr        | Propylene glycol | 8003093001       | 1       |
| Lamotte Gmbh              | Propylene glycol | 125099           | 1       |
| Lamotte Noweda            | Propylene glycol | 6012897001       | 1       |
| Lamotte Oils GmbH         | Propylene glycol | 123095           | 1       |
| Lamotte Sanacorp          | Propylene glycol | 1000001132       | 1       |
| Lamotte, Bremen/ Phönix   | Propylene glycol | 6012897001       | 2       |
| Lamotte/ AHD              | Propylene glycol | 6012897001       | 1       |
| Lamotte/ Holdermann       | Propylene glycol | 6016860001       | 3       |
| Lamotte/ Holdermann       | Propylene glycol | 8007215001       | 2       |
| Lamotte/ Noweda           | Propylene glycol | 6012897001       | 1       |
| Lamotte/ Noweda           | Propylene glycol | 6016860001       | 3       |
| Lamotte/ Noweda           | Propylene glycol | 8007215001       | 1       |
| lamotte/ Phoenix          | Propylene glycol | 15335405         | 2       |
| Lamotte/ Phönix           | Propylene glycol | 15430503         | 1       |
| Lamotte/ Phönix           | Propylene glycol | 6016860001       | 1       |
| Lamotte/ Sanacorp         | Propylene glycol | 1000002992       | 1       |
| Lamotte/ Sanacorp         | Propylene glycol | 6016860001       | 4       |
| Lamotte/ Sanacorp         | Propylene glycol | 8002520002       | 3       |
| Lamotte/ Sanacorp         | Propylene glycol | 8007215001       | 3       |
| Lamotte/ Vedono           | Propylene glycol | 8003093001       | 2       |
| Lamotte/3                 | Propylene glycol | 14346607         | 1       |
| Lamotte/AHCA              | Propylene glycol | 1000007047       | 2       |
| Lamotte/AHCA              | Propylene glycol | 6012897001       | 2       |
| Lamotte/AHCA              | Propylene glycol | 8003093001       | 3       |
| Lamotte/AHD               | Propylene glycol | 1000007047       | 1       |
| Lamotte/AHD               | Propylene glycol | 8002520002       | 2       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Lamotte/AHD                | Propylene glycol | 8003093001   | 3              |
| Lamotte/Allia              | Propylene glycol | 8007215001   | 2              |
| Lamotte/Alliance Health... | Propylene glycol | 10000007047  | 1              |
| Lamotte/Alliance Health... | Propylene glycol | 1000007047   | 1              |
| Lamotte/Alliance Health... | Propylene glycol | 8003093001   | 1              |
| Lamotte/Anzag              | Propylene glycol | 1000007047   | 4              |
| Lamotte/ANZAG              | Propylene glycol | 1000007047   | 1              |
| Lamotte/Anzag              | Propylene glycol | 5671401      | 1              |
| Lamotte/Anzag              | Propylene glycol | 6012897001   | 2              |
| Lamotte/Anzag              | Propylene glycol | 6016860001   | 3              |
| Lamotte/Anzag              | Propylene glycol | 8002520002   | 1              |
| Lamotte/Anzag              | Propylene glycol | 800309001    | 1              |
| Lamotte/Anzag              | Propylene glycol | 8003093001   | 5              |
| Lamotte/Anzag              | Propylene glycol | 8006970001   | 1              |
| Lamotte/Anzag11            | Propylene glycol | 1000001132   | 3              |
| Lamotte/Ebert              | Propylene glycol | 1000002992   | 1              |
| Lamotte/Ebert              | Propylene glycol | 80002520002  | 1              |
| Lamotte/Ebert              | Propylene glycol | 8002520002   | 3              |
| Lamotte/Ebert              | Propylene glycol | 8003093001   | 5              |
| Lamotte/Ebert+Jacobi       | Propylene glycol | 1000007047   | 1              |
| Lamotte/Fiebig             | Propylene glycol | 1000002768   | 1              |
| Lamotte/Fiebig             | Propylene glycol | 6012897001   | 3              |
| Lamotte/Fiebig             | Propylene glycol | 8002520002   | 3              |
| Lamotte/Fiebig             | Propylene glycol | 8003093001   | 1              |
| Lamotte/Gehe 20.07.2020    | Propylene glycol | 6016860001   | 2              |
| Lamotte/Gehe               | Propylene glycol | 6012897001   | 1              |
| Lamotte/GE-HH              | Propylene glycol | 6012897001   | 1              |
| Lamotte/Ge-HH              | Propylene glycol | 8006970001   | 4              |
| Lamotte/Geilenkirchen      | Propylene glycol | 6016860001   | 3              |
| Lamotte/Geilenkirchen      | Propylene glycol | 8007215001   | 2              |
| Lamotte/Jenne EK:10,25EUR  | Propylene glycol | 1000016713   | 2              |
| Lamotte/Jenne              | Propylene glycol | 6012897001   | 1              |
| Lamotte/Kehr               | Propylene glycol | 8002520002   | 1              |
| Lamotte/Kehr               | Propylene glycol | 8003093001   | 1              |
| Lamotte/Noweda             | Propylene glycol | 100007047    | 1              |
| Lamotte/Noweda             | Propylene glycol | 5671401      | 1              |
| Lamotte/Noweda             | Propylene glycol | 6012897001   | 7              |
| Lamotte/Noweda             | Propylene glycol | 6016860001   | 5              |
| Lamotte/NOWEDA             | Propylene glycol | 8003093001   | 1              |
| Lamotte/Ph-GH              | Propylene glycol | 6016860001   | 23             |
| Lamotte/Phoenix            | Propylene glycol | 10000007047  | 1              |
| Lamotte/Phoenix            | Propylene glycol | 1000002768   | 1              |
| Lamotte/Phoenix            | Propylene glycol | 1000007047   | 2              |
| Lamotte/Phoenix            | Propylene glycol | 6012897001   | 3              |
| Lamotte/Phoenix            | Propylene glycol | 6016860001   | 1              |
| Lamotte/Phoenix            | Propylene glycol | 8003093001   | 2              |
| Lamotte/Phoenix            | Propylene glycol | 8006970001   | 2              |
| Lamotte/Phönix             | Propylene glycol | 1000002768   | 2              |
| Lamotte/Phönix             | Propylene glycol | 1000007047   | 2              |
| Lamotte/Phönix             | Propylene glycol | 2768         | 2              |
| Lamotte/Phönix             | Propylene glycol | 6012897001   | 2              |
| Lamotte/Phönix             | Propylene glycol | 6016860001   | 5              |
| Lamotte/Sana               | Propylene glycol | 8003093001   | 1              |
| Lamotte/Sana               | Propylene glycol | 8007215001   | 1              |
| Lamotte/Sanacorp           | Propylene glycol | 1000002768   | 1              |
| Lamotte/Sanacorp           | Propylene glycol | 1000007047   | 4              |
| Lamotte/Sanacorp           | Propylene glycol | 6012897001   | 5              |
| Lamotte/Sanacorp           | Propylene glycol | 601680001    | 1              |
| Lamotte/Sanacorp           | Propylene glycol | 6016860001   | 3              |
| Lamotte/Sanacorp           | Propylene glycol | 800250002    | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Lamotte/Sanacorp           | Propylene glycol | 8002520002       | 2              |
| Lamotte/Sanacorp           | Propylene glycol | 8003093001       | 4              |
| Lamotte                    | Propylene glycol | 1000001132       | 4              |
| Lamotte                    | Propylene glycol | 1000002768       | 3              |
| Lamotte                    | Propylene glycol | 1000002992       | 1              |
| Lamotte                    | Propylene glycol | 1000007047       | 1              |
| Lamotte                    | Propylene glycol | 123095           | 1              |
| Lamotte                    | Propylene glycol | 125099           | 2              |
| Lamotte                    | Propylene glycol | 18J03-B07-355043 | 1              |
| Lamotte                    | Propylene glycol | 19A28-B09-361175 | 4              |
| lamotte                    | Propylene glycol | 5671401          | 2              |
| Lamotte                    | Propylene glycol | 5671401          | 13             |
| Lamotte                    | Propylene glycol | 6012897001       | 6              |
| Lamotte                    | Propylene glycol | 6016860001       | 6              |
| lamotte                    | Propylene glycol | 8002520002       | 5              |
| Lamotte                    | Propylene glycol | 8002520002       | 5              |
| lamotte                    | Propylene glycol | 8003093001       | 1              |
| Lamotte                    | Propylene glycol | 8003093001       | 3              |
| lamotte-phönix             | Propylene glycol | 601686001        | 1              |
| Lamotte/Sanacorp           | Propylene glycol | 1000007047       | 4              |
| Linden-Apo                 | Propylene glycol | 1501013-01       | 1              |
| Merck                      | Propylene glycol | K51362178920     | 1              |
| Midas                      | Propylene glycol | 17053809         | 1              |
| Midas                      | Propylene glycol | 17321703         | 2              |
| Midas                      | Propylene glycol | 18064904         | 1              |
| nachprüfung C 1301         | Propylene glycol | 122882           | 1              |
| Nachprüfung 12.02.2019     | Propylene glycol | 18064908         | 1              |
| Nachprüfung                | Propylene glycol | 18005449         | 2              |
| Noweda / Henry Lamotte     | Propylene glycol | 122882           | 1              |
| Noweda / Henry Lamotte     | Propylene glycol | 6012897001       | 1              |
| Noweda 29.09.2014          | Propylene glycol | 1304C010-281099  | 1              |
| Noweda/ Henry Lamotte O... | Propylene glycol | 8003093001       | 1              |
| Noweda/Euro                | Propylene glycol | 1603034-01       | 1              |
| Noweda/Euro                | Propylene glycol | 1610031-01       | 1              |
| Noweda/Henry Lamotte Oi... | Propylene glycol | 1000007047       | 1              |
| Noweda/Hernry Lamotte O... | Propylene glycol | 8006970001       | 1              |
| Noweda                     | Propylene glycol | 1000007047       | 4              |
| Noweda                     | Propylene glycol | 1112004-01       | 2              |
| Noweda                     | Propylene glycol | 11372005         | 2              |
| Noweda                     | Propylene glycol | 12088205         | 3              |
| Noweda                     | Propylene glycol | 1302002-01       | 1              |
| Noweda                     | Propylene glycol | 1313HH9041       | 1              |
| Noweda                     | Propylene glycol | 13167003         | 1              |
| Noweda                     | Propylene glycol | 13256704         | 1              |
| Noweda                     | Propylene glycol | 13256705         | 3              |
| noweda                     | Propylene glycol | 14051802         | 1              |
| Noweda                     | Propylene glycol | 15069202         | 1              |
| Noweda                     | Propylene glycol | 15262402         | 1              |
| Noweda                     | Propylene glycol | 15262409         | 1              |
| Noweda                     | Propylene glycol | 15335405         | 1              |
| Noweda                     | Propylene glycol | 15430508         | 1              |
| Noweda                     | Propylene glycol | 15J03-B07-356433 | 1              |
| Noweda                     | Propylene glycol | 16251202         | 1              |
| Noweda                     | Propylene glycol | 17053804         | 1              |
| Noweda                     | Propylene glycol | 17053890         | 1              |
| Noweda                     | Propylene glycol | 17275502         | 1              |
| Noweda                     | Propylene glycol | 17321704         | 1              |
| Noweda                     | Propylene glycol | 17E22-B10        | 1              |
| Noweda                     | Propylene glycol | 18003479         | 2              |
| Noweda                     | Propylene glycol | 18064901         | 1              |

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| Supplier                   | Substance        | Batch             | Spectra |
|----------------------------|------------------|-------------------|---------|
| Noweda                     | Propylene glycol | 18064904          | 1       |
| Noweda                     | Propylene glycol | 18064907          | 1       |
| Noweda                     | Propylene glycol | 18064908          | 1       |
| Noweda                     | Propylene glycol | 18064909          | 1       |
| Noweda                     | Propylene glycol | 18064912          | 1       |
| Noweda                     | Propylene glycol | 1809007-01        | 1       |
| Noweda                     | Propylene glycol | 18219102          | 1       |
| Noweda                     | Propylene glycol | 18219106          | 1       |
| Noweda                     | Propylene glycol | 18H07-B01         | 1       |
| Noweda                     | Propylene glycol | 18J03-B07-355043  | 2       |
| Noweda                     | Propylene glycol | 19230103          | 1       |
| Noweda                     | Propylene glycol | 19243601          | 1       |
| Noweda                     | Propylene glycol | 19243602          | 2       |
| Noweda                     | Propylene glycol | 192461006         | 2       |
| Noweda                     | Propylene glycol | 19246101          | 1       |
| Noweda                     | Propylene glycol | 19A28-B09-361175  | 1       |
| Noweda                     | Propylene glycol | 19E20-B01         | 2       |
| Noweda                     | Propylene glycol | 19E20-B01         | 1       |
| Noweda                     | Propylene glycol | 19G04-B03-363220  | 1       |
| Noweda                     | Propylene glycol | 19G04-B03-363220  | 1       |
| Noweda                     | Propylene glycol | 20G14-F03         | 1       |
| Noweda                     | Propylene glycol | 20J05-F08         | 1       |
| Noweda                     | Propylene glycol | 20J05-F08-374459  | 1       |
| Noweda                     | Propylene glycol | 20J05-F08-374464  | 3       |
| Noweda                     | Propylene glycol | 21002539003       | 1       |
| Noweda                     | Propylene glycol | 212E25-T03-088477 | 2       |
| Noweda                     | Propylene glycol | 21E25-T03-088477  | 1       |
| Noweda                     | Propylene glycol | 6012897001        | 5       |
| Noweda                     | Propylene glycol | 6016860001        | 1       |
| Noweda                     | Propylene glycol | 8003093001        | 1       |
| Otto FischerGmbH / Alli... | Propylene glycol | 5671401           | 1       |
| Pala                       | Propylene glycol | 18064913          | 1       |
| Pala                       | Propylene glycol | 18064916          | 1       |
| Ph/Henry Lamotte           | Propylene glycol | 601686000         | 1       |
| Phagron                    | Propylene glycol |                   | 1       |
| Pharmachem GmbH / Phönix   | Propylene glycol | 18J03-B07-355043  | 1       |
| Phoenix 22.02.2017 2,84EUR | Propylene glycol | 16251201          | 1       |
| Phoenix am 10.03.2014      | Propylene glycol | 13256709          | 1       |
| Phoenix/ EuRho             | Propylene glycol | 20030660-01       | 1       |
| Phoenix/Cealo              | Propylene glycol | 16C10-B04-319299  | 1       |
| Phoenix/Henry-Lamotte      | Propylene glycol | 6012897001        | 1       |
| Phoenix/HenryLamotte       | Propylene glycol | 6016860001        | 1       |
| Phoenix/HenryLamotte       | Propylene glycol | 8006970001        | 1       |
| Phoenix/Henry-Lamotte      | Propylene glycol | 81191             | 1       |
| Phoenix                    | Propylene glycol | 1000001132        | 1       |
| Phoenix                    | Propylene glycol | 125099            | 1       |
| Phoenix                    | Propylene glycol | 1301C004-277798   | 1       |
| Phoenix                    | Propylene glycol | 1304C010-281099   | 1       |
| Phoenix                    | Propylene glycol | 13100907          | 1       |
| Phoenix                    | Propylene glycol | 13256705          | 1       |
| Phoenix                    | Propylene glycol | 13E22B03283450    | 1       |
| Phoenix                    | Propylene glycol | 14051805          | 1       |
| Phoenix                    | Propylene glycol | 14a09-b04-289597  | 1       |
| Phoenix                    | Propylene glycol | 14A09-B04-289597  | 1       |
| Phoenix                    | Propylene glycol | 15181602          | 1       |
| phoenix                    | Propylene glycol | 16251201          | 1       |
| Phoenix                    | Propylene glycol | 16251205          | 1       |
| Phoenix                    | Propylene glycol | 17053801          | 1       |
| Phoenix                    | Propylene glycol | 1708002-01        | 1       |
| Phoenix                    | Propylene glycol | 1711023-01        | 3       |

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continued from previous page

| Supplier                   | Substance        | Batch            | Spectra |
|----------------------------|------------------|------------------|---------|
| Phoenix                    | Propylene glycol | 18005449         | 1       |
| Phoenix                    | Propylene glycol | 18061321         | 1       |
| Phoenix                    | Propylene glycol | 18064906         | 1       |
| Phoenix                    | Propylene glycol | 1809007-01       | 2       |
| Phoenix                    | Propylene glycol | 19003049         | 1       |
| Phoenix                    | Propylene glycol | 1901018-01       | 3       |
| Phoenix                    | Propylene glycol | 1906034-01       | 1       |
| Phoenix                    | Propylene glycol | 19230101         | 2       |
| Phoenix                    | Propylene glycol | 192461005        | 1       |
| Phoenix                    | Propylene glycol | 19A28-B09        | 1       |
| Phoenix                    | Propylene glycol | 19a28-b09-361175 | 1       |
| Phoenix                    | Propylene glycol | 19e20-b01-362176 | 1       |
| Phoenix                    | Propylene glycol | 19g04-b09-361175 | 1       |
| Phoenix                    | Propylene glycol | 19I27-F03-365557 | 1       |
| Phoenix                    | Propylene glycol | 200039003013     | 1       |
| Phoenix                    | Propylene glycol | 200313103        | 1       |
| Phoenix                    | Propylene glycol | 200552306        | 1       |
| Phoenix                    | Propylene glycol | 20j05-f08-374464 | 1       |
| Phoenix                    | Propylene glycol | 21e25-t03-088477 | 1       |
| Phoenix                    | Propylene glycol | 21E25-T03-088477 | 1       |
| Phoenix                    | Propylene glycol | 29722B           | 1       |
| Phoenix                    | Propylene glycol | 3046             | 1       |
| Phoenix                    | Propylene glycol | 3051             | 1       |
| Phoenix                    | Propylene glycol | 307185           | 2       |
| Phoenix                    | Propylene glycol | 3099             | 1       |
| Phoenix                    | Propylene glycol | 3112             | 1       |
| Phoenix                    | Propylene glycol | 3121             | 1       |
| Phoenix                    | Propylene glycol | 3195             | 1       |
| Phoenix                    | Propylene glycol | 601686001        | 1       |
| Phoenix                    | Propylene glycol | 8007215001       | 2       |
| Phönix / 2                 | Propylene glycol | 19E20-B01-362176 | 1       |
| Phönix /Henry Lamotte 2... | Propylene glycol | 8007215001       | 1       |
| Phönix /Henry Lamotte 2... | Propylene glycol | 1000007047       | 3       |
| Phönix /Henry Lamotte 6... | Propylene glycol | 6016860001       | 1       |
| Phönix 4.3.15              | Propylene glycol | 1405003-01       | 1       |
| Phönix Gotha               | Propylene glycol | 11372011         | 1       |
| Phönix Gotha               | Propylene glycol | 1301C004-277798  | 1       |
| Phönix Gotha               | Propylene glycol | 14C05-B02-295787 | 1       |
| Phönix Gotha               | Propylene glycol | 15A07-B04-302970 | 2       |
| Phönix Gotha               | Propylene glycol | 1809007-01       | 1       |
| Phönix Gotha               | Propylene glycol | 18J03-B07-355043 | 1       |
| Phönix Gotha               | Propylene glycol | 19A28-B09-361175 | 1       |
| Phönix                     | Propylene glycol | 114113102        | 1       |
| Phönix                     | Propylene glycol | 12372405         | 1       |
| Phönix                     | Propylene glycol | 13167003         | 2       |
| Phönix                     | Propylene glycol | 13167004         | 1       |
| Phönix                     | Propylene glycol | 13167006         | 1       |
| Phönix                     | Propylene glycol | 141113102        | 1       |
| Phönix                     | Propylene glycol | 14113102         | 1       |
| phönix                     | Propylene glycol | 15335405         | 1       |
| phönix                     | Propylene glycol | 15430502         | 1       |
| phönix                     | Propylene glycol | 15430504         | 2       |
| phönix                     | Propylene glycol | 16251202         | 4       |
| Phönix                     | Propylene glycol | 16E09-B02-324843 | 1       |
| phönix                     | Propylene glycol | 17053801         | 1       |
| Phönix                     | Propylene glycol | 17053804         | 1       |
| phönix                     | Propylene glycol | 17053806         | 2       |
| Phönix                     | Propylene glycol | 1708002-01       | 1       |
| Phönix                     | Propylene glycol | 18064904         | 2       |
| Phönix                     | Propylene glycol | 1809007          | 1       |

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| Supplier                     | Substance        | Batch            | Spectra |
|------------------------------|------------------|------------------|---------|
| Phönix                       | Propylene glycol | 1809007-01       | 1       |
| Phönix                       | Propylene glycol | 18A19-B01-348338 | 1       |
| Phönix                       | Propylene glycol | 1906034-01       | 2       |
| Phönix                       | Propylene glycol | 19230101         | 1       |
| Phönix                       | Propylene glycol | 19230103         | 1       |
| Phönix                       | Propylene glycol | 192461005        | 1       |
| Phönix                       | Propylene glycol | 192461006        | 2       |
| Phönix                       | Propylene glycol | 19A28-B09-361175 | 1       |
| Phönix                       | Propylene glycol | 20000779009      | 2       |
| Phönix                       | Propylene glycol | 200712007        | 1       |
| PHÖNIX                       | Propylene glycol | 2669211          | 1       |
| Phönix                       | Propylene glycol | 29595B           | 1       |
| Phönix                       | Propylene glycol | 3153             | 1       |
| Phönix                       | Propylene glycol | 3162             | 1       |
| PHÖNIX                       | Propylene glycol | 6016860001       | 1       |
| Phönix                       | Propylene glycol | 8002520002       | 1       |
| PHÖNIX                       | Propylene glycol | 8003093001       | 2       |
| PHÖNIX                       | Propylene glycol | 8007215001       | 2       |
| phönix                       | Propylene glycol | AKD30            | 1       |
| Phönix                       | Propylene glycol | Retest03083      | 1       |
| Phytocomm                    | Propylene glycol | 12088207         | 1       |
| Repsol Quimica               | Propylene glycol | 15G28-B03-311889 | 1       |
| Rondell Apotheke             | Propylene glycol | 29797B           | 2       |
| Röntgen                      | Propylene glycol | 17053809         | 1       |
| Röntgen                      | Propylene glycol | 18H07-B01-352662 | 1       |
| Röntgen                      | Propylene glycol | 19246101         | 1       |
| Röntgen                      | Propylene glycol | 8007215001       | 1       |
| Sana 21.12.17 5.75           | Propylene glycol | 17423HH431       | 1       |
| sanacorb                     | Propylene glycol | 17053809         | 1       |
| sanacorp, 3,87EUR , 12.09... | Propylene glycol | 154305025        | 1       |
| Sanacorp/Caesar & Loret...   | Propylene glycol | 18064912         | 1       |
| Sanacorp                     | Propylene glycol |                  | 1       |
| Sanacorp                     | Propylene glycol | 10000007047      | 1       |
| Sanacorp                     | Propylene glycol | 1000001132       | 2       |
| Sanacorp                     | Propylene glycol | 1000007047       | 5       |
| Sanacorp                     | Propylene glycol | 1206038-01       | 1       |
| Sanacorp                     | Propylene glycol | 123095           | 3       |
| Sanacorp                     | Propylene glycol | 125099           | 5       |
| Sanacorp                     | Propylene glycol | 1302002-01       | 1       |
| Sanacorp                     | Propylene glycol | 1307021-01       | 3       |
| Sanacorp                     | Propylene glycol | 13167006         | 1       |
| Sanacorp                     | Propylene glycol | 13256706         | 1       |
| Sanacorp                     | Propylene glycol | 1401010-01       | 1       |
| Sanacorp                     | Propylene glycol | 14113103         | 1       |
| Sanacorp                     | Propylene glycol | 14248703         | 2       |
| Sanacorp                     | Propylene glycol | 14248706         | 1       |
| Sanacorp                     | Propylene glycol | 14346607         | 1       |
| Sanacorp                     | Propylene glycol | 14A09-B04        | 1       |
| Sanacorp                     | Propylene glycol | 15069201         | 1       |
| Sanacorp                     | Propylene glycol | 15262404         | 1       |
| Sanacorp                     | Propylene glycol | 15335404         | 1       |
| Sanacorp                     | Propylene glycol | 15335405         | 1       |
| Sanacorp                     | Propylene glycol | 17053802         | 1       |
| Sanacorp                     | Propylene glycol | 17053804         | 1       |
| Sanacorp                     | Propylene glycol | 17053809x2       | 1       |
| Sanacorp                     | Propylene glycol | 17053814         | 1       |
| Sanacorp                     | Propylene glycol | 18064902         | 1       |
| Sanacorp                     | Propylene glycol | 18064906         | 2       |
| Sanacorp                     | Propylene glycol | 18064913         | 1       |

*continued on the next page*

continued from previous page

| Supplier                   | Substance        | Batch         | Spectra |
|----------------------------|------------------|---------------|---------|
| Sanacorp                   | Propylene glycol | 18064920      | 2       |
| Sanacorp                   | Propylene glycol | 18219106      | 1       |
| Sanacorp                   | Propylene glycol | 1906034-01    | 1       |
| Sanacorp                   | Propylene glycol | 19230103      | 1       |
| Sanacorp                   | Propylene glycol | 19246101      | 1       |
| Sanacorp                   | Propylene glycol | 49/AKD1       | 1       |
| Sanacorp                   | Propylene glycol | 50/AKD3       | 1       |
| Sanacorp                   | Propylene glycol | 5671401       | 1       |
| Sanacorp                   | Propylene glycol | 6012897001    | 7       |
| Sanacorp                   | Propylene glycol | 6016860001    | 2       |
| Sanacorp                   | Propylene glycol | 8002520002    | 3       |
| Sanacorp                   | Propylene glycol | 8003093001    | 3       |
| Sanacorp                   | Propylene glycol | AKD70         | 1       |
| siehe Protokoll            | Propylene glycol | 303788        | 1       |
| Sonnen-Apotheke Wefensl... | Propylene glycol |               | 1       |
| Sonnen-Apotheke Wefensl... | Propylene glycol | 11/18         | 1       |
| Sonnen-Apotheke Wefensl... | Propylene glycol | 20/16         | 1       |
| Sonnen-Apotheke Wefensl... | Propylene glycol | 7/19          | 1       |
| Sonnen-Apotheke Wefensl... | Propylene glycol | Defektur03/18 | 1       |
| Spangropharm               | Propylene glycol | 8003093001    | 1       |
| Taoasis                    | Propylene glycol | 18064916      | 1       |
| VDL 14.05.14; Preis 3.07   | Propylene glycol |               | 1       |
| VDL 14.05.14; Preis 3.07   | Propylene glycol | 14051804      | 2       |
| VDL Nachliefer; 11.7.15... | Propylene glycol | 15181602      | 1       |
| VDL                        | Propylene glycol | 13256709      | 1       |
| VDL                        | Propylene glycol | 14113103      | 1       |
| Wepa/Jenne                 | Propylene glycol | 18064908      | 1       |
| wepa                       | Propylene glycol | 20003903008   | 2       |
| Wolf-Apotheke              | Propylene glycol | 15430506      | 1       |

- 279 949 spectra from 1294 *Apo-Ident* customers from a total of 50 951 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Propylene glycol* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Propylene glycol* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 560           | 0              | 66 599        |
| <b>Type B</b> | 0              | 530           | 0              | 106 833       |
| <b>Type C</b> | 0              | 8474          | 286            | 279 949       |

The substance/substance group *Propylene glycol* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.9286 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.8679 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 96.7352 % (> 96.7009 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Propylene glycol* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                    | Distance in<br>main model | Distance in<br>second-stage model |
|------------------------------|---------------------------|-----------------------------------|
| Dexpanthenol concentrate 50% | 16.60                     | —                                 |
| Dexpanthenol                 | 36.78                     | —                                 |
| Ethanol 90%                  | 129.93                    | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Propylene glycol* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30872     | 31738                  | 3.45                            | 50.81                              |
| 30920     | 30920                  | 0.00                            | 51.09                              |
| 31663     | 31663                  | 0.00                            | 52.88                              |
| 31738     | 31738                  | 0.00                            | 48.70                              |
| 32074     | 31663                  | 3.80                            | 56.01                              |
| 32190     | 32190                  | 0.00                            | 49.55                              |
| 32466     | 32466                  | 0.00                            | 52.42                              |
| 32486     | 31663                  | 5.23                            | 59.17                              |
| 32728     | 31663                  | 5.11                            | 48.68                              |
| 34513     | 31738                  | 4.55                            | 49.78                              |
| 34514     | 32466                  | 4.22                            | 50.24                              |
| 34515     | 31738                  | 4.87                            | 49.20                              |
| 34516     | 31663                  | 4.80                            | 49.73                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all

substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Psorisol base cream Audor®</b>                                |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 31109-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Psorisol base cream Audor®

### Special notes

When selecting the *Psorisol base cream Audor®* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group  | Type A | Type B | Type C |
|----------------------------|--------|--------|--------|
| Psorisol base cream Audor® | 3      | 3      | 16     |

## Second-stage model

For differentiation of the substance/substance group *Psorisol base cream Audor®* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Psorisol base cream Audor®*:

| Supplier     | Substance           | Batch       | Sample ID | Spectra | Certificate |
|--------------|---------------------|-------------|-----------|---------|-------------|
| Audor Pharma | Psorisol base cr... | AP101943PB  | 31109     | 40      | 1404015     |
| Audor Pharma | Psorisol base cr... | AP101943PB  | 31233     | 40      | 20130522    |
| Audor Pharma | Psorisol base cr... | AP45001.2PB | 31674     | 60      | 20141230    |
| Audor Pharma | Psorisol base cr... | AP45001.2PB | 32274     | 40      | 20141230    |
| Euro OTC     | Psorisol base cr... | 2104015     | 35495     | 40      | 20210518*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Psorisol base cream Audor®*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 66 939 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a †. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Psorisol base cream Audor®*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier     | Substance                              | Batch     | Sample ID | Spectra |
|--------------|----------------------------------------|-----------|-----------|---------|
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP55201PB | 32275     | 40      |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP70601PB | 34037     | 40      |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP81601PB | 34662     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 38 spectra from 16 *Apo-Ident* customers from 21 batches from the substance/substance group *Psorisol base cream Audor<sup>®</sup>*.
- Among them are spectra of independent samples from 16 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier     | Substance                              | Batch         | Spectra |
|--------------|----------------------------------------|---------------|---------|
| Anzag        | Psorisol base cream Audor <sup>®</sup> | AP102891PB    | 2       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> |               | 2       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | 101943        | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | 102844        | 2       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | 102891        | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | 102891PB      | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | 1417E-07016   | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | 91201         | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP100472PB    | 2       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP101943PB    | 3       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP102844PB    | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | Ap102891PB    | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP11943PB     | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP55201PB     | 6       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP70601PB     | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP70601PB5451 | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP70601PB5516 | 1       |
| Audor Pharma | Psorisol base cream Audor <sup>®</sup> | AP81601PB     | 5       |
| Caelo        | Psorisol base cream Audor <sup>®</sup> | AP102844PB    | 2       |
| Caelo        | Psorisol base cream Audor <sup>®</sup> | AP70601       | 1       |
| Caelo        | Psorisol base cream Audor <sup>®</sup> | AP81601PB     | 1       |
| Euro OTC     | Psorisol base cream Audor <sup>®</sup> | 2104015       | 1       |

- 288 671 spectra from 1294 *Apo-Ident* customers from a total of 51 867 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Psorisol base cream Audor<sup>®</sup>* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For

this purpose, all relevant spectra of the various substances were compared with *Psorisol base cream Audor*<sup>®</sup> and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 220           | 0              | 66 939        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 25            | 13             | 288 671       |

The substance/substance group *Psorisol base cream Audor*<sup>®</sup> can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6873 %) | 65.7895 % (> 57.8947 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Psorisol base cream Audor*<sup>®</sup> in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Base cream DAC                            | 11.92                  | —                              |
| Non-ionic hydrophil ointment              | 13.55                  | —                              |
| Lipo Lotio Cordes <sup>®</sup>            | 23.66                  | —                              |
| Eucerin <sup>®</sup> cum Aqua             | 24.89                  | —                              |
| Lanette <sup>®</sup> ointment (conserved) | 28.86                  | —                              |
| Wool alcohol cream SR                     | 33.71                  | —                              |
| Anionic hydrophilic cream with propyle... | 34.58                  | —                              |
| Anionic hydrophilic cream DAB             | 35.90                  | —                              |
| Base cream, hydrophobic DAC               | 39.04                  | —                              |
| Anionic hydrophilic cream SR (NRF p.27)   | 44.29                  | —                              |
| Potash soap DAC                           | 45.01                  | —                              |
| Skin care ointment W/L SR                 | 50.53                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Psorisol base cream Audor*<sup>®</sup> is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31109     | 31109               | 0.00                         | 23.10                           |
| 31233     | 31109               | 4.32                         | 23.25                           |
| 31674     | 31109               | 4.59                         | 24.05                           |
| 32274     | 31109               | 7.01                         | 20.22                           |
| 35495     | 35495               | 0.00                         | 24.97                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Rose oil (genuine / artificial)**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30111-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Rose oil (genuine / artificial); Oleum rosae (verum / artificiale)

### Special notes

When selecting the *Rose oil (genuine / artificial)* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group       | Type A | Type B | Type C |
|---------------------------------|--------|--------|--------|
| Rose oil (genuine / artificial) | 6      | 3      | 114    |



## Second-stage model

For differentiation of the substance/substance group *Rose oil (genuine / artificial)* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Rose oil (genuine / artificial)*:

| Supplier | Substance           | Batch            | Sample ID | Spectra | Certificate |
|----------|---------------------|------------------|-----------|---------|-------------|
| Caelo    | Rose oil (genuin... | 12164308         | 31021     | 40      | 1502254     |
| Caelo    | Rose oil (genuin... | 11287117         | 31022     | 40      | 20111011    |
| Caelo    | Rose oil (genuin... | 13335012         | 31301     | 20      | 20131009    |
| Caelo    | Rose oil (genuin... | 13252710         | 31412     | 40      | 1502252     |
| Caelo    | Rose oil (genuin... | 13335012         | 31425     | 60      | 20131009    |
| Caelo    | Rose oil (genuin... | 13335012         | 31426     | 60      | 20131009    |
| Fagron   | Rose oil (genuin... | 13J17-B01        | 31290     | 40      | 1507614     |
| Fagron   | Rose oil (genuin... | 14I25-B01-302286 | 31752     | 60      | 20141006    |
| Fagron   | Rose oil (genuin... | 14I25-B01-302286 | 31842     | 60      | 20141006    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 420 spectra of 9 reference samples from the substance/substance group *Rose oil (genuine / artificial)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 739 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Rose oil (genuine / artificial)*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch       | Sample ID | Spectra |
|----------|---------------------------------|-------------|-----------|---------|
| Caelo    | Rose oil (genuine / artifici... | 162311      | 32332     | 40      |
| Caelo    | Rose oil (genuine / artifici... | 173537      | 33907     | 40      |
| Caelo    | Rose oil (genuine / artifici... | 20002692007 | 35859     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 273 spectra from 141 *Apo-Ident* customers from 120 batches from the substance/substance group *Rose oil (genuine / artificial)*.
- Among them are spectra of independent samples from 114 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| AHD      | Rose oil (genuine / artifici... | 15G29-B12-327364 | 1       |
| AHD      | Rose oil (genuine / artifici... | 16H16-B04-342284 | 1       |
| Caelo    | Rose oil (genuine / artifici... | 11178601         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 11287114         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 11287117         | 2       |
| Caelo    | Rose oil (genuine / artifici... | 11287123         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 12164306         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 13/17-B01-293574 | 1       |
| Caelo    | Rose oil (genuine / artifici... | 13044608         | 3       |
| Caelo    | Rose oil (genuine / artifici... | 13252701         | 2       |
| Caelo    | Rose oil (genuine / artifici... | 13252710         | 3       |
| Caelo    | Rose oil (genuine / artifici... | 13252722         | 4       |
| Caelo    | Rose oil (genuine / artifici... | 13252723         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 13335006         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 1352710          | 1       |
| Caelo    | Rose oil (genuine / artifici... | 1353709          | 1       |
| Caelo    | Rose oil (genuine / artifici... | 14300703         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 14300704         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 14300712         | 6       |
| Caelo    | Rose oil (genuine / artifici... | 14300719         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 15187202         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 15197202         | 11      |
| Caelo    | Rose oil (genuine / artifici... | 15197206         | 5       |
| Caelo    | Rose oil (genuine / artifici... | 15197207         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 15197211         | 8       |
| Caelo    | Rose oil (genuine / artifici... | 15449108         | 1       |
| Caelo    | Rose oil (genuine / artifici... | 15G29-B12-312961 | 1       |
| Caelo    | Rose oil (genuine / artifici... | 15G29-B12-314833 | 1       |
| Caelo    | Rose oil (genuine / artifici... | 15G29-B12-332094 | 1       |
| Caelo    | Rose oil (genuine / artifici... | 16231104         | 2       |
| Caelo    | Rose oil (genuine / artifici... | 16231111         | 3       |
| Caelo    | Rose oil (genuine / artifici... | 16231112         | 3       |
| Caelo    | Rose oil (genuine / artifici... | 16231113         | 5       |
| Caelo    | Rose oil (genuine / artifici... | 1623113          | 1       |
| Caelo    | Rose oil (genuine / artifici... | 16H16-B04-342284 | 3       |

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| Supplier                 | Substance                       | Batch             | Spectra |
|--------------------------|---------------------------------|-------------------|---------|
| Caelo                    | Rose oil (genuine / artifici... | 16h16b04348745    | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 16H16-B04-351564  | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 17101412          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 17111411          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 17258204          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 17353703          | 5       |
| Caelo                    | Rose oil (genuine / artifici... | 17353704          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 17353705          | 2       |
| Caelo                    | Rose oil (genuine / artifici... | 17353709          | 4       |
| Caelo                    | Rose oil (genuine / artifici... | 17353711          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 17353712          | 4       |
| Caelo                    | Rose oil (genuine / artifici... | 183309003         | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 18330901          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 18330904          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 18330905          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 18330909          | 3       |
| Caelo                    | Rose oil (genuine / artifici... | 19011502          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 19022501          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 19218301          | 2       |
| Caelo                    | Rose oil (genuine / artifici... | 20002692007       | 2       |
| Caelo                    | Rose oil (genuine / artifici... | 315A-02011        | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 54(17353703)      | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 82931528          | 1       |
| Caelo                    | Rose oil (genuine / artifici... | 887963            | 1       |
| Caeolo                   | Rose oil (genuine / artifici... | 779579            | 1       |
| Caesar & Loretz GmbH     | Rose oil (genuine / artifici... | 18330904          | 1       |
| Caesar & Loretz GmbH     | Rose oil (genuine / artifici... | 20002692007       | 1       |
| Caleo Caesar & Laurentio | Rose oil (genuine / artifici... | 15197202          | 1       |
| Fagron                   | Rose oil (genuine / artifici... |                   | 2       |
| Fagron                   | Rose oil (genuine / artifici... | 11E04-N04         | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 11H05-N02         | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 12C19-N05         | 4       |
| Fagron                   | Rose oil (genuine / artifici... | 12G25-N01         | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 12G25-N02         | 8       |
| Fagron                   | Rose oil (genuine / artifici... | 12H16-B01         | 3       |
| Fagron                   | Rose oil (genuine / artifici... | 12H16-B01-286704  | 3       |
| Fagron                   | Rose oil (genuine / artifici... | 13C21-N04         | 10      |
| Fagron                   | Rose oil (genuine / artifici... | 13J17-801         | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 13J17-B01         | 2       |
| Fagron                   | Rose oil (genuine / artifici... | 13J17-B01-293574  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 13J17-B01-296955  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 13JU17-B01-296955 | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 14/25-B01-302286  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 14/25-B01-309675  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 14/25-B01-302287  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 14125-B01         | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 1425-01-309676    | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 1425-B01-302287   | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 14I25-B01         | 6       |
| Fagron                   | Rose oil (genuine / artifici... | 14I25-B01-309676  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 15/25-B01-302286  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 15G29-B12         | 2       |
| Fagron                   | Rose oil (genuine / artifici... | 15G29-B12-312961  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 15G29-B12-314833  | 3       |
| Fagron                   | Rose oil (genuine / artifici... | 15G29-B12-321984  | 5       |
| Fagron                   | Rose oil (genuine / artifici... | 15G29-B12-327263  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 15g29-b12-327364  | 1       |
| Fagron                   | Rose oil (genuine / artifici... | 15G29-B12-327364  | 4       |
| Fagron                   | Rose oil (genuine / artifici... | 16H16-B04-332931  | 2       |
| Fagron                   | Rose oil (genuine / artifici... | 16H16B04342284    | 1       |

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| Supplier               | Substance                       | Batch            | Spectra |
|------------------------|---------------------------------|------------------|---------|
| Fagron                 | Rose oil (genuine / artifici... | 16H16-B04-342284 | 4       |
| Fagron                 | Rose oil (genuine / artifici... | 16H16-B04-348745 | 2       |
| Fagron                 | Rose oil (genuine / artifici... | 16H16-B04-351564 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 16H16-B04-348745 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 18/17-B08        | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 18/17-B08-359738 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 18/17-B08-361975 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 18/17-B08-364702 | 3       |
| Fagron                 | Rose oil (genuine / artifici... | 18/17-B08-359738 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 1811-808-364702  | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 1817-B08-359738  | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 1817-B08-364702  | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 18I17-B08        | 2       |
| Fagron                 | Rose oil (genuine / artifici... | 18I17-B08-355554 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 18I17-B08-359738 | 4       |
| Fagron                 | Rose oil (genuine / artifici... | 18I17-B08-361975 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 18I17-B08-364702 | 2       |
| Fagron                 | Rose oil (genuine / artifici... | 18I17-B08-365590 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 1951824          | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 20H26-F02-088388 | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 20H26-F02-374165 | 4       |
| Fagron                 | Rose oil (genuine / artifici... | 2188             | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 4717Q-02011      | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 511I-02011       | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 688292           | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 698884           | 3       |
| Fagron                 | Rose oil (genuine / artifici... | 7091301          | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 713371           | 1       |
| Fagron                 | Rose oil (genuine / artifici... | 836899           | 3       |
| Fagron                 | Rose oil (genuine / artifici... | 887963           | 2       |
| Fagron                 | Rose oil (genuine / artifici... | 951824           | 3       |
| Fagron/Phoenix         | Rose oil (genuine / artifici... | 9/28-N14         | 1       |
| Fiebig                 | Rose oil (genuine / artifici... | 15197202         | 2       |
| Fiebig                 | Rose oil (genuine / artifici... | 16231111         | 1       |
| Fiebig                 | Rose oil (genuine / artifici... | 17353703         | 2       |
| Fiebig                 | Rose oil (genuine / artifici... | 17353712         | 1       |
| Frey & Lau / Gehe      | Rose oil (genuine / artifici... | 18I17-B08-359738 | 1       |
| Frey & Lau / Gehe      | Rose oil (genuine / artifici... | 18I17-B08-364702 | 1       |
| Frey & Lau GmbH/Noweda | Rose oil (genuine / artifici... | 15G29-B12        | 1       |
| Gehe                   | Rose oil (genuine / artifici... | 14I25-B01        | 1       |
| Gehe                   | Rose oil (genuine / artifici... | 15G29-B12        | 1       |
| Jenne                  | Rose oil (genuine / artifici... | 17353712         | 2       |
| Jenne                  | Rose oil (genuine / artifici... | 18I17-Bo8-359738 | 1       |
| Kehr                   | Rose oil (genuine / artifici... | 16H16-B04-332931 | 1       |
| Klosterring            | Rose oil (genuine / artifici... | 15G29-B12        | 1       |
| Noweda                 | Rose oil (genuine / artifici... | 15G29-B12-327364 | 1       |
| Phönix                 | Rose oil (genuine / artifici... | 12C19-N05        | 1       |
| Phönix                 | Rose oil (genuine / artifici... | 12G25-N02        | 2       |
| Phönix                 | Rose oil (genuine / artifici... | 13C21-N04        | 2       |
| Sanacorp               | Rose oil (genuine / artifici... | 183309006        | 1       |

- 288 436 spectra from 1294 *Apo-Ident* customers from a total of 51 768 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Rose oil (genuine / artificial)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Rose oil (genuine / artificial)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 420           | 0              | 66 739        |
| Type B | 0              | 130           | 0              | 107 233       |
| Type C | 0              | 264           | 9              | 288 436       |

The substance/substance group *Rose oil (genuine / artificial)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.5714 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| Type C | 100.0000 % (> 99.6871 %) | 96.7033 % (> 95.6044 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Rose oil (genuine / artificial)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                 | Distance in main model | Distance in second-stage model |
|---------------------------|------------------------|--------------------------------|
| Geranium oil, genuine     | 26.84                  | —                              |
| Citronella oil            | 46.40                  | —                              |
| RRR- $\alpha$ -Tocopherol | 104.75                 | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Rose oil (genuine / artificial)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31021     | 31021               | 0.00                         | 54.29                           |
| 31022     | 31412               | 9.17                         | 41.60                           |
| 31290     | 31290               | 0.00                         | 151.10                          |
| 31301     | 31021               | 9.86                         | 52.98                           |
| 31412     | 31412               | 0.00                         | 38.44                           |
| 31425     | 31021               | 5.73                         | 50.60                           |
| 31426     | 31021               | 4.55                         | 51.59                           |
| 31752     | 31290               | 3.04                         | 147.24                          |
| 31842     | 31290               | 4.04                         | 144.42                          |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Sage oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30578-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Sage oil; Salviae officinalis aetherolea

### Special notes

When selecting the *Sage oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Sage oil                  | 5      | 4      | 74     |

## Second-stage model

For differentiation of the substance/substance group *Sage oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Sage oil*:

| Supplier  | Substance | Batch    | Sample ID | Spectra | Certificate |
|-----------|-----------|----------|-----------|---------|-------------|
| Bombastus | Sage oil  | 305303   | 33292     | 40      | 1709470     |
| Bombastus | Sage oil  | 305303   | 33453     | 40      | 20161025    |
| Bombastus | Sage oil  | 17001385 | 34524     | 40      | 117774      |
| Bombastus | Sage oil  | 21000548 | 35468     | 40      | 20210126    |
| Caelo     | Sage oil  | 13146901 | 31597     | 60      | 20130522    |
| Caelo     | Sage oil  | 183022   | 34991     | 40      | 20181203*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 260 spectra of 6 reference samples from the substance/substance group *Sage oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 899 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Sage oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance | Batch    | Sample ID | Spectra |
|-----------|-----------|----------|-----------|---------|
| Bombastus | Sage oil  | 22001097 | 36218     | 40      |
| Caelo     | Sage oil  | 16051006 | 33601     | 40      |
| Caelo     | Sage oil  | 16051012 | 33949     | 40      |
| Caelo     | Sage oil  | 19000708 | 34993     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 256 spectra from 156 *Apo-Ident* customers from 78 batches from the substance/substance group *Sage oil*.
- Among them are spectra of independent samples from 74 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier              | Substance | Batch        | Spectra |
|-----------------------|-----------|--------------|---------|
| alliance healthcare   | Sage oil  | 17310007     | 1       |
| Anzag 10.8.12 ek:4,42 | Sage oil  | 11287305     | 1       |
| Bombastus             | Sage oil  | 18001280     | 1       |
| Bombastus             | Sage oil  | 19002757     | 1       |
| Bombastus             | Sage oil  | 19004661     | 1       |
| Bombastus             | Sage oil  | 20000495     | 1       |
| Bombastus             | Sage oil  | 20004247     | 1       |
| Bombastus             | Sage oil  | 21000548     | 1       |
| Bombastus             | Sage oil  | 274447       | 1       |
| Bombastus             | Sage oil  | 298189       | 1       |
| Caelo                 | Sage oil  | 10(17310001) | 1       |
| Caelo                 | Sage oil  | 1024214      | 1       |
| Caelo                 | Sage oil  | 10248206     | 1       |
| Caelo                 | Sage oil  | 11287306     | 1       |
| Caelo                 | Sage oil  | 11287311     | 2       |
| Caelo                 | Sage oil  | 11287312     | 1       |
| Caelo                 | Sage oil  | 11287314     | 2       |
| Caelo                 | Sage oil  | 11287315     | 1       |
| Caelo                 | Sage oil  | 11287317     | 9       |
| Caelo                 | Sage oil  | 11287318     | 1       |
| Caelo                 | Sage oil  | 11287320     | 4       |
| Caelo                 | Sage oil  | 11287323     | 6       |
| Caelo                 | Sage oil  | 13146901     | 5       |
| Caelo                 | Sage oil  | 13146903     | 2       |
| Caelo                 | Sage oil  | 13146904     | 1       |
| Caelo                 | Sage oil  | 13146907     | 1       |
| Caelo                 | Sage oil  | 13146908     | 2       |
| Caelo                 | Sage oil  | 13146914     | 6       |
| Caelo                 | Sage oil  | 13146918     | 1       |
| Caelo                 | Sage oil  | 14345502     | 1       |
| Caelo                 | Sage oil  | 14345505     | 8       |
| Caelo                 | Sage oil  | 14345506     | 1       |
| Caelo                 | Sage oil  | 14345511     | 3       |
| Caelo                 | Sage oil  | 14345512     | 3       |

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| Supplier                   | Substance | Batch             | Spectra |
|----------------------------|-----------|-------------------|---------|
| Caelo                      | Sage oil  | 14345514          | 1       |
| Caelo                      | Sage oil  | 14345517          | 13      |
| Caelo                      | Sage oil  | 14345518          | 2       |
| Caelo                      | Sage oil  | 1435517           | 1       |
| Caelo                      | Sage oil  | 16051006          | 8       |
| Caelo                      | Sage oil  | 16051009          | 4       |
| Caelo                      | Sage oil  | 16051012          | 9       |
| Caelo                      | Sage oil  | 160510125684      | 1       |
| Caelo                      | Sage oil  | 16051013          | 1       |
| Caelo                      | Sage oil  | 16051016          | 2       |
| Caelo                      | Sage oil  | 1702080S/14345517 | 1       |
| Caelo                      | Sage oil  | 1704030S/14345517 | 1       |
| Caelo                      | Sage oil  | 17310001          | 18      |
| Caelo                      | Sage oil  | 17310004          | 4       |
| Caelo                      | Sage oil  | 17310007          | 12      |
| Caelo                      | Sage oil  | 1731001           | 1       |
| Caelo                      | Sage oil  | 173110007         | 1       |
| Caelo                      | Sage oil  | 183022001         | 1       |
| Caelo                      | Sage oil  | 183022004         | 6       |
| Caelo                      | Sage oil  | 183022005         | 7       |
| Caelo                      | Sage oil  | 18302201          | 1       |
| Caelo                      | Sage oil  | 18302202          | 5       |
| Caelo                      | Sage oil  | 18302206          | 14      |
| Caelo                      | Sage oil  | 18302208          | 2       |
| Caelo                      | Sage oil  | 18303302          | 1       |
| Caelo                      | Sage oil  | 19000708002       | 3       |
| Caelo                      | Sage oil  | 19000708010       | 1       |
| Caelo                      | Sage oil  | 21111301          | 1       |
| Caelo                      | Sage oil  | 2716M-02014       | 1       |
| Caelo                      | Sage oil  | 28051312          | 1       |
| Caelo                      | Sage oil  | 305303            | 1       |
| Caelo                      | Sage oil  | 306897            | 1       |
| Caelo                      | Sage oil  | 31011401          | 1       |
| Caelo                      | Sage oil  | 3518M-02014       | 1       |
| Caelo                      | Sage oil  | 4117A-02014       | 1       |
| Caelo                      | Sage oil  | 5017A-02014       | 1       |
| Caelo                      | Sage oil  | 5x11287317        | 1       |
| Caesaer/Jenne              | Sage oil  | 17310001          | 1       |
| Caesar & Loretz GmbH, 4... | Sage oil  | 11287317          | 1       |
| Caesar & Loretz GmbH/An... | Sage oil  | 18302202          | 1       |
| Caesar & Loretz GmbH/Je... | Sage oil  | 18302202          | 1       |
| Caesar & Loretz GmbH/Sa... | Sage oil  | 18302206          | 1       |
| Caesar & Loretz GmbH       | Sage oil  | 17310004          | 3       |
| Caesar & Loretz GmbH       | Sage oil  | 17310007          | 3       |
| Caesar & Loretz GmbH       | Sage oil  | 183022004         | 1       |
| Caesar & Loretz GmbH       | Sage oil  | 183022005         | 1       |
| Caesar & Loretz GmbH       | Sage oil  | 18302201          | 2       |
| Caesar & Loretz GmbH       | Sage oil  | 18302202          | 3       |
| Caesar & Loretz GmbH       | Sage oil  | 18302206          | 3       |
| Caesar & Loretz GmbH       | Sage oil  | 18302208          | 3       |
| Cealo/ Noweda              | Sage oil  | 13146901          | 3       |
| Cealo                      | Sage oil  | 14345517          | 1       |
| Gehe amax                  | Sage oil  | 18302202          | 1       |
| Gehe                       | Sage oil  | 11287318          | 1       |
| gehe                       | Sage oil  | 13146901          | 2       |
| L12                        | Sage oil  | 16051012          | 2       |
| L12                        | Sage oil  | 17310007          | 1       |
| L30                        | Sage oil  | 17310001          | 1       |
| phoenix                    | Sage oil  | 18001280          | 1       |
| Phönix 07.11.2019          | Sage oil  | 17310004          | 1       |

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| Supplier       | Substance | Batch          | Spectra |
|----------------|-----------|----------------|---------|
| Phönix         | Sage oil  | 16051006       | 1       |
| Phönix         | Sage oil  | 17310001       | 2       |
| Phönix         | Sage oil  | 17310007       | 1       |
| Sanacorp       | Sage oil  | 18004851       | 1       |
| Sanacorp       | Sage oil  | 282545         | 1       |
| Taoasis GmbH   | Sage oil  | 526975-110409  | 1       |
| Taoasis/Phönix | Sage oil  |                | 1       |
| Taoasis        | Sage oil  | 498780-106211  | 1       |
| Taoasis        | Sage oil  | 526975-111295  | 1       |
| Taoasis        | Sage oil  | 530771-108279  | 1       |
| Taoasis        | Sage oil  | L19919DN-12640 | 1       |
| Toasis         | Sage oil  | 526975-110409  | 1       |

- 288 453 spectra from 1294 *Apo-Ident* customers from a total of 51 812 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Sage oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Sage oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 260           | 0              | 66 899        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 250           | 6              | 288 453       |

The substance/substance group *Sage oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.6923 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 97.6563 % (> 96.4844 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Sage oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------|---------------------------|-----------------------------------|
| Spruce needle oil | 11.17                     | —                                 |
| Eucalyptus oil    | 24.78                     | —                                 |
| Turpentine oil    | 32.60                     | —                                 |
| Rosemary oil      | 33.39                     | —                                 |
| Myrtle oil        | 33.41                     | —                                 |
| Dwarf pine oil    | 51.93                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Sage oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31597     | 34991                  | 7.84                            | 20.10                              |
| 33292     | 33292                  | 0.00                            | 11.17                              |
| 33453     | 33292                  | 5.22                            | 13.82                              |
| 34524     | 33292                  | 5.75                            | 11.79                              |
| 34991     | 34991                  | 0.00                            | 20.63                              |
| 35468     | 33292                  | 6.65                            | 17.43                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | Salicylic acid 50% (paraffin)                                    |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30496-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Salicylic acid 50% (paraffin); Acidum salicylicum cum vaselino 50 per centum

### Special notes

When selecting the *Salicylic acid 50% (paraffin)* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group     | Type A | Type B | Type C |
|-------------------------------|--------|--------|--------|
| Salicylic acid 50% (paraffin) | 8      | 12     | 286    |

## Second-stage model

For differentiation of the substance/substance group *Salicylic acid 50% (paraffin)* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Salicylic acid 50% (paraffin)*:

| Supplier      | Substance           | Batch      | Sample ID | Spectra | Certificate        |
|---------------|---------------------|------------|-----------|---------|--------------------|
| Caelo         | Salicylic acid 5... | 12305902   | 30883     | 40      | 20121107           |
| Caelo         | Salicylic acid 5... | 15231801   | 31727     | 60      | AR-15-FG-015411-01 |
| Caelo         | Salicylic acid 5... | 153729     | 31901     | 60      | 20151029*          |
| Caelo         | Salicylic acid 5... | 153730     | 31902     | 60      | 20151029*          |
| Caelo         | Salicylic acid 5... | 153731     | 31903     | 60      | 20151103*          |
| Caelo         | Salicylic acid 5... | 162761     | 32520     | 40      | 20160923*          |
| Henry Lamotte | Salicylic acid 5... | 5375300    | 30927     | 40      | 20121003           |
| Henry Lamotte | Salicylic acid 5... | 6001023001 | 32176     | 40      | 20150630           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 400 spectra of 8 reference samples from the substance/substance group *Salicylic acid 50% (paraffin)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 8 different batches.
- 66 759 spectra from a total of 1371 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 530 spectra of 12 reference samples from the substance/substance group *Salicylic acid 50% (paraffin)*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 12 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                     | Batch    | Sample ID | Spectra |
|----------|-------------------------------|----------|-----------|---------|
| Caelo    | Salicylic acid 50% (paraffin) | 153732   | 31904     | 60      |
| Caelo    | Salicylic acid 50% (paraffin) | 153733   | 31905     | 60      |
| Caelo    | Salicylic acid 50% (paraffin) | 171454   | 33357     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 171055   | 33358     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 171727   | 33359     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 182109   | 34266     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 182864   | 34309     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 191673   | 34777     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 21001617 | 35508     | 50      |
| Caelo    | Salicylic acid 50% (paraffin) | 21002050 | 35631     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 22000648 | 36084     | 40      |
| Caelo    | Salicylic acid 50% (paraffin) | 22001108 | 36258     | 40      |

- 106 833 spectra from a total of 2489 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 2337 spectra from 675 *Apo-Ident* customers from 295 batches from the substance/substance group *Salicylic acid 50% (paraffin)*.
- Among them are spectra of independent samples from 285 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                     | Batch       | Spectra |
|----------------------------|-------------------------------|-------------|---------|
|                            | Salicylic acid 50% (paraffin) | 6004854001  | 1       |
| 19209302                   | Salicylic acid 50% (paraffin) | 19209302    | 1       |
| A.H.D.                     | Salicylic acid 50% (paraffin) | 1228301     | 1       |
| AHC                        | Salicylic acid 50% (paraffin) | 8005713005  | 2       |
| AHC                        | Salicylic acid 50% (paraffin) | 8009713005  | 1       |
| AHD/ Henry Lamotte         | Salicylic acid 50% (paraffin) | 5763800     | 2       |
| AHD/ Henry Lamotte         | Salicylic acid 50% (paraffin) | 6001023001  | 4       |
| AHD/ Lamotte               | Salicylic acid 50% (paraffin) | 8005713005  | 2       |
| ahd/lamotte                | Salicylic acid 50% (paraffin) | 6004854001  | 1       |
| AHDE08.05.2015             | Salicylic acid 50% (paraffin) | 5763800     | 1       |
| Alliance Healthcare Deu... | Salicylic acid 50% (paraffin) | 5235330     | 1       |
| Allianz Healthcare         | Salicylic acid 50% (paraffin) | 17017401    | 1       |
| Anzag 15.10.12             | Salicylic acid 50% (paraffin) | 12201901    | 1       |
| Anzag                      | Salicylic acid 50% (paraffin) | 20003516001 | 1       |
| Anzag                      | Salicylic acid 50% (paraffin) | 6001023001  | 2       |
| Anzag                      | Salicylic acid 50% (paraffin) | 6001862002  | 1       |
| Anzag                      | Salicylic acid 50% (paraffin) | 6004854001  | 2       |
| Anzag                      | Salicylic acid 50% (paraffin) | 6007886001  | 2       |
| Anzag                      | Salicylic acid 50% (paraffin) | 6020091001  | 5       |
| apomix                     | Salicylic acid 50% (paraffin) | 10A110817   | 1       |
| apomix                     | Salicylic acid 50% (paraffin) | 10a181114   | 1       |

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| Supplier | Substance                     | Batch     | Spectra |
|----------|-------------------------------|-----------|---------|
| apomix   | Salicylic acid 50% (paraffin) | 10A181114 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 10A290716 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 11A290716 | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 12A050916 | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 12A130815 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 12A211221 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 13A121016 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 13A210818 | 4       |
| apomix   | Salicylic acid 50% (paraffin) | 13A240915 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 13A281220 | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 14A031115 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 14A121016 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 15A251116 | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 162796101 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 16A131217 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 16A281118 | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 17A121218 | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 17A131217 | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 1A040220  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 1A080217  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 1A150116  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 1a180214  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 1A180214  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 1A240113  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 2A030320  | 3       |
| apomix   | Salicylic acid 50% (paraffin) | 2a200219  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 2A200219  | 3       |
| apomix   | Salicylic acid 50% (paraffin) | 2A260115  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 2A280116  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 3a040413  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 3A070316  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 3A090519  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 3a100512  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 4A080515  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 4A200613  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 4A310519  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 5A020615  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 5A070416  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 5A170619  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 5A230418  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 5A250713  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 6a050813  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 6A150615  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 6A170719  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 6A270416  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 6A280820  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 6B110714  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 7A090819  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 7a160913  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 7A160913  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 7a161012  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 7A170920  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 7A230615  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 7A260521  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 8A220518  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 8A240616  | 2       |
| apomix   | Salicylic acid 50% (paraffin) | 8A250914  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 9A140716  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 9a150715  | 1       |
| apomix   | Salicylic acid 50% (paraffin) | 9A150715  | 1       |

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| Supplier         | Substance                     | Batch       | Spectra |
|------------------|-------------------------------|-------------|---------|
| apomix           | Salicylic acid 50% (paraffin) | 9A171213    | 1       |
| apomix           | Salicylic acid 50% (paraffin) | 9A270717    | 2       |
| apomix           | Salicylic acid 50% (paraffin) | 9A300819    | 1       |
| apomix           | Salicylic acid 50% (paraffin) | 9B020921    | 1       |
| bionorica ethics | Salicylic acid 50% (paraffin) | 17261401    | 1       |
| Bombastus        | Salicylic acid 50% (paraffin) | 12228301    | 1       |
| Bombastus        | Salicylic acid 50% (paraffin) | 16197401    | 1       |
| Bombastus        | Salicylic acid 50% (paraffin) | 60091680001 | 1       |
| Brückenapotheke  | Salicylic acid 50% (paraffin) | 1715Q-07018 | 1       |
| Caeanlo          | Salicylic acid 50% (paraffin) | 16197401    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) |             | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 1058001     | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 107105801   | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 1117M-01046 | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 11226601    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 11226801    | 3       |
| Caelo            | Salicylic acid 50% (paraffin) | 11333602    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 11333801    | 4       |
| Caelo            | Salicylic acid 50% (paraffin) | 12061201    | 7       |
| Caelo            | Salicylic acid 50% (paraffin) | 12061301    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 12201701    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 12201901    | 4       |
| Caelo            | Salicylic acid 50% (paraffin) | 12228301    | 12      |
| Caelo            | Salicylic acid 50% (paraffin) | 12228402    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 12305901    | 2       |
| Caelo            | Salicylic acid 50% (paraffin) | 126061201   | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 13052401    | 4       |
| Caelo            | Salicylic acid 50% (paraffin) | 13052502    | 9       |
| Caelo            | Salicylic acid 50% (paraffin) | 13067201    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 13087201    | 2       |
| Caelo            | Salicylic acid 50% (paraffin) | 13087301    | 9       |
| Caelo            | Salicylic acid 50% (paraffin) | 13087401    | 7       |
| Caelo            | Salicylic acid 50% (paraffin) | 1309211046  | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 13160002    | 2       |
| Caelo            | Salicylic acid 50% (paraffin) | 13160101    | 5       |
| Caelo            | Salicylic acid 50% (paraffin) | 13160102    | 12      |
| Caelo            | Salicylic acid 50% (paraffin) | 13278501    | 13      |
| Caelo            | Salicylic acid 50% (paraffin) | 13278601    | 7       |
| Caelo            | Salicylic acid 50% (paraffin) | 13278701    | 12      |
| Caelo            | Salicylic acid 50% (paraffin) | 13278801    | 4       |
| Caelo            | Salicylic acid 50% (paraffin) | 14017501    | 18      |
| Caelo            | Salicylic acid 50% (paraffin) | 14017601    | 3       |
| Caelo            | Salicylic acid 50% (paraffin) | 1401761     | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 14108001    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 14204302    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 14205001    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 1506211046  | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 15231501    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 15231601    | 15      |
| Caelo            | Salicylic acid 50% (paraffin) | 15231701    | 9       |
| Caelo            | Salicylic acid 50% (paraffin) | 15231801    | 19      |
| Caelo            | Salicylic acid 50% (paraffin) | 15231902    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 15247101    | 33      |
| Caelo            | Salicylic acid 50% (paraffin) | 15247201    | 13      |
| Caelo            | Salicylic acid 50% (paraffin) | 15277001    | 6       |
| Caelo            | Salicylic acid 50% (paraffin) | 15305601    | 1       |
| Caelo            | Salicylic acid 50% (paraffin) | 15305801    | 12      |
| Caelo            | Salicylic acid 50% (paraffin) | 15305901    | 18      |
| Caelo            | Salicylic acid 50% (paraffin) | 15372901    | 12      |
| Caelo            | Salicylic acid 50% (paraffin) | 15373001    | 18      |

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| Supplier | Substance                     | Batch             | Spectra |
|----------|-------------------------------|-------------------|---------|
| Caelo    | Salicylic acid 50% (paraffin) | 15373101          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 15373201          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 15373301          | 17      |
| Caelo    | Salicylic acid 50% (paraffin) | 15394602          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 16121203          | 2       |
| Caelo    | Salicylic acid 50% (paraffin) | 16121301          | 7       |
| Caelo    | Salicylic acid 50% (paraffin) | 16121302          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 16121401          | 25      |
| Caelo    | Salicylic acid 50% (paraffin) | 16121404          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 1612301           | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 16197202          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 16197302          | 5       |
| Caelo    | Salicylic acid 50% (paraffin) | 16197401          | 31      |
| Caelo    | Salicylic acid 50% (paraffin) | 16276101          | 38      |
| Caelo    | Salicylic acid 50% (paraffin) | 17014401          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 17017301          | 14      |
| Caelo    | Salicylic acid 50% (paraffin) | 17017401          | 27      |
| Caelo    | Salicylic acid 50% (paraffin) | 17017501          | 3       |
| Caelo    | Salicylic acid 50% (paraffin) | 170801SV/17172701 | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 171017501         | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 1710501           | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 17105501          | 11      |
| Caelo    | Salicylic acid 50% (paraffin) | 17105602          | 3       |
| Caelo    | Salicylic acid 50% (paraffin) | 17105702          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 17105801          | 35      |
| Caelo    | Salicylic acid 50% (paraffin) | 171450401         | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 17145401          | 34      |
| Caelo    | Salicylic acid 50% (paraffin) | 171454015424      | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 17145502          | 9       |
| Caelo    | Salicylic acid 50% (paraffin) | 17172701          | 8       |
| Caelo    | Salicylic acid 50% (paraffin) | 17172702          | 19      |
| Caelo    | Salicylic acid 50% (paraffin) | 17261301          | 15      |
| Caelo    | Salicylic acid 50% (paraffin) | 17261401          | 44      |
| Caelo    | Salicylic acid 50% (paraffin) | 1732201           | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 173260201         | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 17326201          | 32      |
| Caelo    | Salicylic acid 50% (paraffin) | 17326301          | 2       |
| Caelo    | Salicylic acid 50% (paraffin) | 18034201          | 15      |
| Caelo    | Salicylic acid 50% (paraffin) | 180342201         | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 18034301          | 51      |
| Caelo    | Salicylic acid 50% (paraffin) | 18034402          | 16      |
| Caelo    | Salicylic acid 50% (paraffin) | 1811490           | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 18114901          | 52      |
| Caelo    | Salicylic acid 50% (paraffin) | 18115002          | 6       |
| Caelo    | Salicylic acid 50% (paraffin) | 181151001         | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 18115101          | 21      |
| Caelo    | Salicylic acid 50% (paraffin) | 18210903          | 46      |
| Caelo    | Salicylic acid 50% (paraffin) | 18211002          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 18286301          | 12      |
| Caelo    | Salicylic acid 50% (paraffin) | 18286401          | 39      |
| Caelo    | Salicylic acid 50% (paraffin) | 18286502          | 3       |
| Caelo    | Salicylic acid 50% (paraffin) | 190101901         | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 19010802          | 10      |
| Caelo    | Salicylic acid 50% (paraffin) | 19010901          | 38      |
| Caelo    | Salicylic acid 50% (paraffin) | 19082701          | 36      |
| Caelo    | Salicylic acid 50% (paraffin) | 19082801          | 14      |
| Caelo    | Salicylic acid 50% (paraffin) | 19167201          | 34      |
| Caelo    | Salicylic acid 50% (paraffin) | 19167302          | 16      |
| Caelo    | Salicylic acid 50% (paraffin) | 19209302          | 29      |
| Caelo    | Salicylic acid 50% (paraffin) | 19274001          | 3       |

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| Supplier | Substance                     | Batch         | Spectra |
|----------|-------------------------------|---------------|---------|
| Caelo    | Salicylic acid 50% (paraffin) | 200000895001  | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 200001803001  | 3       |
| Caelo    | Salicylic acid 50% (paraffin) | 200002467001  | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 200003516001  | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20000459001   | 7       |
| Caelo    | Salicylic acid 50% (paraffin) | 20000459002   | 25      |
| Caelo    | Salicylic acid 50% (paraffin) | 20000847002   | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20000847003   | 8       |
| Caelo    | Salicylic acid 50% (paraffin) | 200008477003  | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20000895001   | 9       |
| Caelo    | Salicylic acid 50% (paraffin) | 2000105580001 | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20001058001   | 21      |
| Caelo    | Salicylic acid 50% (paraffin) | 2000105801    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20001803001   | 26      |
| Caelo    | Salicylic acid 50% (paraffin) | 20001804002   | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 200022467001  | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20002467001   | 26      |
| Caelo    | Salicylic acid 50% (paraffin) | 20002468001   | 10      |
| Caelo    | Salicylic acid 50% (paraffin) | 20003023001   | 6       |
| Caelo    | Salicylic acid 50% (paraffin) | 20003024002   | 12      |
| Caelo    | Salicylic acid 50% (paraffin) | 20003516001   | 27      |
| Caelo    | Salicylic acid 50% (paraffin) | 200035316001  | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20003781002   | 6       |
| Caelo    | Salicylic acid 50% (paraffin) | 2001058001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 2001803001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 2002311046    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 20310812-6    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 21001617001   | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 21001617002   | 14      |
| Caelo    | Salicylic acid 50% (paraffin) | 21001848001   | 8       |
| Caelo    | Salicylic acid 50% (paraffin) | 21001849001   | 5       |
| Caelo    | Salicylic acid 50% (paraffin) | 21002420001   | 3       |
| Caelo    | Salicylic acid 50% (paraffin) | 21003003002   | 6       |
| Caelo    | Salicylic acid 50% (paraffin) | 2100617002    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 22000648001   | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 2783          | 2       |
| Caelo    | Salicylic acid 50% (paraffin) | 3263          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 4717A-01046   | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 5375300       | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 5809400       | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6001023001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6001023002    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 600103001     | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6001862001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6001862002    | 3       |
| Caelo    | Salicylic acid 50% (paraffin) | 6004854001    | 2       |
| Caelo    | Salicylic acid 50% (paraffin) | 6009168001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6010004001    | 2       |
| Caelo    | Salicylic acid 50% (paraffin) | 601004001     | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6010101001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6020091001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 6121401       | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 613I-01046    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 8004748001    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 8005713005    | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 8728          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | 9C020921      | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | AKD2          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | AKD9          | 1       |
| Caelo    | Salicylic acid 50% (paraffin) | s-100513-1    | 1       |

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| Supplier                   | Substance                     | Batch        | Spectra |
|----------------------------|-------------------------------|--------------|---------|
| Caecolo/Phoenix            | Salicylic acid 50% (paraffin) | 18114901     | 1       |
| Caesar & Loretz GmbH / ... | Salicylic acid 50% (paraffin) | 19010901     | 1       |
| Caesar & Loretz GmbH / ... | Salicylic acid 50% (paraffin) | 19082701     | 1       |
| Caesar & Loretz GmbH / ... | Salicylic acid 50% (paraffin) | 19010901     | 1       |
| Caesar & Loretz GmbH / ... | Salicylic acid 50% (paraffin) | 20001058001  | 1       |
| Caesar & Loretz GmbH /G    | Salicylic acid 50% (paraffin) | 19010901     | 1       |
| Caesar & Loretz GmbH/ A... | Salicylic acid 50% (paraffin) | 19010901     | 1       |
| Caesar & Loretz GmbH/ A... | Salicylic acid 50% (paraffin) | 19209302     | 1       |
| Caesar & Loretz GmbH/ G... | Salicylic acid 50% (paraffin) | 20002468001  | 1       |
| Caesar & Loretz GmbH/ G... | Salicylic acid 50% (paraffin) | 20003781002  | 1       |
| Caesar & Loretz GmbH/ P... | Salicylic acid 50% (paraffin) | 19010901     | 1       |
| Caesar & Loretz GmbH/AHD   | Salicylic acid 50% (paraffin) | 20000459002  | 1       |
| Caesar & Loretz GmbH/Gehe  | Salicylic acid 50% (paraffin) | 19082701     | 2       |
| Caesar & Loretz GmbH/Gehe  | Salicylic acid 50% (paraffin) | 19082801     | 1       |
| Caesar & Loretz GmbH/Gehe  | Salicylic acid 50% (paraffin) | 19209302     | 1       |
| Caesar & Loretz GmbH/Gehe  | Salicylic acid 50% (paraffin) | 20000459002  | 1       |
| Caesar & Loretz GmbH/Gehe  | Salicylic acid 50% (paraffin) | 20000847003  | 1       |
| Caesar & Loretz GmbH/je... | Salicylic acid 50% (paraffin) | 20003023001  | 1       |
| Caesar & Loretz GmbH/Je... | Salicylic acid 50% (paraffin) | 8005713005   | 2       |
| Caesar & Loretz GmbH/Kehr  | Salicylic acid 50% (paraffin) | 21001617002  | 1       |
| Caesar & Loretz GmbH/Kr... | Salicylic acid 50% (paraffin) | 19167201     | 1       |
| Caesar & Loretz GmbH/No... | Salicylic acid 50% (paraffin) | 200002468001 | 1       |
| Caesar & Loretz GmbH/no... | Salicylic acid 50% (paraffin) | 20000459002  | 1       |
| Caesar & Loretz GmbH/No... | Salicylic acid 50% (paraffin) | 20000895001  | 1       |
| Caesar & Loretz GmbH/No... | Salicylic acid 50% (paraffin) | 20002468001  | 1       |
| Caesar & Loretz GmbH/Ph... | Salicylic acid 50% (paraffin) | 20001804002  | 1       |
| Caesar & Loretz GmbH/Ph... | Salicylic acid 50% (paraffin) | 19082701     | 1       |
| Caesar & Loretz GmbH/Ph... | Salicylic acid 50% (paraffin) | 1319A-01046  | 1       |
| Caesar & Loretz GmbH/Ph... | Salicylic acid 50% (paraffin) | 18286401     | 1       |
| Caesar & Loretz GmbH/Ph... | Salicylic acid 50% (paraffin) | 20001058001  | 1       |
| Caesar & Loretz GmbH/Ph... | Salicylic acid 50% (paraffin) | 20001803001  | 1       |
| Caesar & Loretz GmbH/Sa... | Salicylic acid 50% (paraffin) | 19082601     | 1       |
| Caesar & Loretz GmbH/Sa... | Salicylic acid 50% (paraffin) | 20000847002  | 1       |
| Caesar & Loretz GmbH/sp... | Salicylic acid 50% (paraffin) | 18286301     | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 15A281118    | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 17330802     | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 18114901     | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 18115101     | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 18211002     | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 18286301     | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 18286401     | 2       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 18286502     | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19010802     | 3       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19010901     | 8       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19082601     | 2       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19082701     | 12      |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19082801     | 6       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19167201     | 12      |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19167302     | 2       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19209302     | 10      |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 19274001     | 4       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 200001803001 | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20000459001  | 6       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20000459002  | 4       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20000847002  | 1       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20000847003  | 2       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20000895001  | 7       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20001058001  | 6       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20001325002  | 2       |
| Caesar & Loretz GmbH       | Salicylic acid 50% (paraffin) | 20001803001  | 4       |

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| Supplier                | Substance                     | Batch       | Spectra |
|-------------------------|-------------------------------|-------------|---------|
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 20001804002 | 1       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 20002467001 | 6       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 20002468001 | 1       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 20003023001 | 4       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 20003024002 | 5       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 20003516001 | 9       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 20003781002 | 3       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 21001617002 | 7       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 21001848001 | 5       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 21001849001 | 1       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 21002420001 | 4       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 21003003002 | 1       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 22001108001 | 1       |
| Caesar & Loretz GmbH    | Salicylic acid 50% (paraffin) | 6020091001  | 1       |
| Caesar & Loretz/ Noweda | Salicylic acid 50% (paraffin) | 17326201    | 1       |
| Caesar&Lorenz           | Salicylic acid 50% (paraffin) | 21001848001 | 1       |
| Caesar&Loretz GmbH      | Salicylic acid 50% (paraffin) | 15305901    | 1       |
| Caesar&Loretz GmbH      | Salicylic acid 50% (paraffin) | 17105801    | 1       |
| Caesar/Gehe             | Salicylic acid 50% (paraffin) | 20000459002 | 1       |
| Caesar und Loretz GmbH  | Salicylic acid 50% (paraffin) | 19082701    | 2       |
| Caleo                   | Salicylic acid 50% (paraffin) | 17261401    | 1       |
| Cealo/ AHD              | Salicylic acid 50% (paraffin) | 16121301    | 1       |
| Cealo                   | Salicylic acid 50% (paraffin) | 17172701    | 1       |
| Ceasar & Lorentz GmbH   | Salicylic acid 50% (paraffin) | 20000459002 | 1       |
| Celo/Sanacorp           | Salicylic acid 50% (paraffin) | 18034402    | 1       |
| DAC 2005                | Salicylic acid 50% (paraffin) | 4960200     | 1       |
| Defektur                | Salicylic acid 50% (paraffin) | 46/13       | 1       |
| Ebert & Jacobi          | Salicylic acid 50% (paraffin) | 18034301    | 1       |
| Ebert-Jacobi            | Salicylic acid 50% (paraffin) | 17105501    | 1       |
| Euro OTC                | Salicylic acid 50% (paraffin) | 11333801    | 1       |
| Euro OTC                | Salicylic acid 50% (paraffin) | 15305801    | 1       |
| Euro OTC                | Salicylic acid 50% (paraffin) | 17017401    | 1       |
| Euro OTC                | Salicylic acid 50% (paraffin) | 17105801    | 1       |
| Euro OTC                | Salicylic acid 50% (paraffin) | 17326201    | 1       |
| Fagron                  | Salicylic acid 50% (paraffin) | 15373301    | 1       |
| Fagron                  | Salicylic acid 50% (paraffin) | 17105801    | 2       |
| Fargon / AHD            | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Fiebig/Lamotte          | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Fiebig                  | Salicylic acid 50% (paraffin) | 18034402    | 1       |
| Fiebig                  | Salicylic acid 50% (paraffin) | 18286301    | 1       |
| Fiebig                  | Salicylic acid 50% (paraffin) | 19082701    | 1       |
| Fiebig                  | Salicylic acid 50% (paraffin) | 5763800     | 1       |
| Gehe / Henry Lamotte    | Salicylic acid 50% (paraffin) | 8005713005  | 2       |
| Gehe/Lamotte            | Salicylic acid 50% (paraffin) | 6004854001  | 1       |
| Gehe/Lamotte            | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| Gehe/Lamotte            | Salicylic acid 50% (paraffin) | 8005713005  | 2       |
| GEHE                    | Salicylic acid 50% (paraffin) | 10A110817   | 1       |
| Gehe                    | Salicylic acid 50% (paraffin) | 12228301    | 1       |
| Gehe                    | Salicylic acid 50% (paraffin) | 12305902    | 1       |
| Gehe                    | Salicylic acid 50% (paraffin) | 13278501    | 2       |
| GEHE                    | Salicylic acid 50% (paraffin) | 13A041017   | 1       |
| Gehe                    | Salicylic acid 50% (paraffin) | 17105501    | 2       |
| Gehe                    | Salicylic acid 50% (paraffin) | 17105801    | 3       |
| Gehe                    | Salicylic acid 50% (paraffin) | 17145401    | 2       |
| Gehe                    | Salicylic acid 50% (paraffin) | 17261301    | 1       |
| Gehe                    | Salicylic acid 50% (paraffin) | 18034201    | 2       |
| Gehe                    | Salicylic acid 50% (paraffin) | 18034301    | 1       |
| GEHE                    | Salicylic acid 50% (paraffin) | 18034301    | 1       |
| gehe                    | Salicylic acid 50% (paraffin) | 18034402    | 1       |
| Gehe                    | Salicylic acid 50% (paraffin) | 18034402    | 1       |

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| <b>Supplier</b>            | <b>Substance</b>              | <b>Batch</b>   | <b>Spectra</b> |
|----------------------------|-------------------------------|----------------|----------------|
| Gehe                       | Salicylic acid 50% (paraffin) | 18286301       | 1              |
| GEHE                       | Salicylic acid 50% (paraffin) | 18286502       | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 19010802       | 1              |
| GEHE                       | Salicylic acid 50% (paraffin) | 19010901       | 1              |
| GEHE                       | Salicylic acid 50% (paraffin) | 19082601       | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 19082801       | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 19274001       | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 20000459001    | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 20000847003    | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 20003023001    | 1              |
| GEHE                       | Salicylic acid 50% (paraffin) | 2A270217       | 1              |
| GEHE                       | Salicylic acid 50% (paraffin) | 3A050318       | 1              |
| GEHE                       | Salicylic acid 50% (paraffin) | 3A070417       | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 4313M-07018    | 1              |
| GEHE                       | Salicylic acid 50% (paraffin) | 4A050318       | 1              |
| Gehe                       | Salicylic acid 50% (paraffin) | 6001023001     | 1              |
| H. Lamotte/Gehe            | Salicylic acid 50% (paraffin) | 6004854001     | 1              |
| H. Lamotte/Gehe            | Salicylic acid 50% (paraffin) | 6007886001     | 1              |
| H. Lamotte/Gehe            | Salicylic acid 50% (paraffin) | 8004748001     | 1              |
| H. Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6010101001     | 1              |
| Henri Lamotte/Noweda       | Salicylic acid 50% (paraffin) | 6004854001     | 1              |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6020091001     | 1              |
| Henry Lamotte / Kehr       | Salicylic acid 50% (paraffin) | 6001023002     | 2              |
| Henry Lamotte / Noweda     | Salicylic acid 50% (paraffin) | 6001023002     | 1              |
| Henry Lamotte / Noweda     | Salicylic acid 50% (paraffin) | 6001862001     | 1              |
| henry Lamotte / Noweda     | Salicylic acid 50% (paraffin) | 6004854001     | 1              |
| henry Lamotte / Noweda     | Salicylic acid 50% (paraffin) | 6007886001     | 1              |
| Henry Lamotte / Noweda     | Salicylic acid 50% (paraffin) | 6009168001     | 1              |
| Henry Lamotte / Noweda     | Salicylic acid 50% (paraffin) | 6020091001     | 1              |
| Henry Lamotte / Sana       | Salicylic acid 50% (paraffin) | 5809400        | 1              |
| Henry Lamotte / Sanacorp   | Salicylic acid 50% (paraffin) | 8005713005     | 1              |
| Henry Lamotte / Jenne      | Salicylic acid 50% (paraffin) | 19(8004748001) | 1              |
| Henry Lamotte Gehe         | Salicylic acid 50% (paraffin) | 6020091001     | 1              |
| Henry Lamotte GmbH Bremen  | Salicylic acid 50% (paraffin) | 6020091001     | 1              |
| Henry Lamotte GmbH/ Now... | Salicylic acid 50% (paraffin) | 8004748001     | 4              |
| Henry Lamotte GmbH         | Salicylic acid 50% (paraffin) | 6010004001     | 2              |
| Henry Lamotte GmbH         | Salicylic acid 50% (paraffin) | 6020091001     | 1              |
| Henry Lamotte GmbH         | Salicylic acid 50% (paraffin) | 8005713005     | 3              |
| Henry Lamotte Noweda 6...  | Salicylic acid 50% (paraffin) | 8005713005     | 1              |
| henry lamotte oils / Al... | Salicylic acid 50% (paraffin) | 800478001      | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6004854001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6010101001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6007886001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6010102001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8005713005     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6020091001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8007615001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8005713005     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6010101001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8004748001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6010101001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6004854001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8004748001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8005713005     | 7              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8005713005     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6001023002     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6004854001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6009168001     | 1              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6020091001     | 2              |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 8007615001     | 1              |

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| Supplier                   | Substance                     | Batch               | Spectra |
|----------------------------|-------------------------------|---------------------|---------|
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 4960200             | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 5253300             | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 5375300             | 2       |
| HENRY LAMOTTE OILS GmbH    | Salicylic acid 50% (paraffin) | 5375300             | 3       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 5448100             | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 5763800             | 2       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 5809400             | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 5809400             | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6001023001          | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6001023002          | 1       |
| Henry Lamotte Oils GMBH    | Salicylic acid 50% (paraffin) | 6001862001/161014SV | 1       |
| Henry Lamotte Oils GMBH    | Salicylic acid 50% (paraffin) | 6001862001/170307SV | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6001862002          | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6001862002          | 4       |
| henry lamotte oils gmbh    | Salicylic acid 50% (paraffin) | 6004854001          | 2       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6004854001          | 4       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6007886001          | 1       |
| Henry Lamotte Oils GMBH    | Salicylic acid 50% (paraffin) | 6007886001          | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6009168001          | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6010004001          | 2       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6010101001          | 10      |
| Henry Lamotte Oils GMBH    | Salicylic acid 50% (paraffin) | 6010101001          | 2       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 6020091001          | 5       |
| HENRY LAMOTTE OILS GmbH    | Salicylic acid 50% (paraffin) | 6020091001          | 2       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 8004748001          | 7       |
| HENRY LAMOTTE OILS GmbH    | Salicylic acid 50% (paraffin) | 8004748001          | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 8005713005          | 5       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 8007615001          | 3       |
| HENRY LAMOTTE OILS GmbH    | Salicylic acid 50% (paraffin) | 8007615001          | 2       |
| Henry Lamotte Oils/ Gehe   | Salicylic acid 50% (paraffin) | 6010101001          | 1       |
| Henry Lamotte Oils/Ebert   | Salicylic acid 50% (paraffin) | 6010004001          | 2       |
| Henry Lamotte Oils/Gehe    | Salicylic acid 50% (paraffin) | 6010004001          | 1       |
| Henry Lamotte Oils/Noveda  | Salicylic acid 50% (paraffin) | 8004748001          | 2       |
| Henry Lamotte Oils/Noweda  | Salicylic acid 50% (paraffin) | 6007886002          | 2       |
| Henry Lamotte Oils/Sana... | Salicylic acid 50% (paraffin) | 6007886002          | 1       |
| Henry Lamotte Oils         | Salicylic acid 50% (paraffin) | 6001023002          | 1       |
| Henry Lamotte Oils         | Salicylic acid 50% (paraffin) | 6001862002          | 3       |
| Henry Lamotte Oils         | Salicylic acid 50% (paraffin) | 6009168001          | 1       |
| Henry Lamotte Oils         | Salicylic acid 50% (paraffin) | 8004748001          | 2       |
| Henry Lamotte Oils GMBH... | Salicylic acid 50% (paraffin) | 80047488001         | 1       |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 5763800             | 1       |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6001023001          | 1       |
| Henry Lamotte Oils GmbH... | Salicylic acid 50% (paraffin) | 6001862002          | 1       |
| Henry Lamotte Oils GmbH    | Salicylic acid 50% (paraffin) | 8004748001          | 1       |
| Henry Lamotte Phoenix      | Salicylic acid 50% (paraffin) | 8005713005          | 1       |
| Henry Lamotte/ AHD         | Salicylic acid 50% (paraffin) | 6010101001          | 1       |
| Henry Lamotte/ Alliance... | Salicylic acid 50% (paraffin) | 6001862002          | 1       |
| Henry Lamotte/ Alliance... | Salicylic acid 50% (paraffin) | 8004748001          | 1       |
| Henry Lamotte/ Anzag       | Salicylic acid 50% (paraffin) | 5065800             | 1       |
| Henry Lamotte/ Fiebig      | Salicylic acid 50% (paraffin) | 8007615001          | 1       |
| Henry Lamotte/ Gehe        | Salicylic acid 50% (paraffin) | 6010101001          | 1       |
| Henry Lamotte/ Gehe        | Salicylic acid 50% (paraffin) | 8005713005          | 1       |
| Henry Lamotte/ Noweda      | Salicylic acid 50% (paraffin) | 6001023001          | 1       |
| Henry Lamotte/ Sanacorp    | Salicylic acid 50% (paraffin) | 6009168001          | 1       |
| Henry Lamotte/AHD          | Salicylic acid 50% (paraffin) | 6020091001          | 1       |
| Henry Lamotte/Anzag        | Salicylic acid 50% (paraffin) | 17 (6009168001)     | 1       |
| Henry Lamotte/Anzag        | Salicylic acid 50% (paraffin) | 5253300             | 1       |
| Henry Lamotte/Anzag        | Salicylic acid 50% (paraffin) | 5448100             | 1       |
| Henry Lamotte/Anzag        | Salicylic acid 50% (paraffin) | 6004854001          | 1       |
| Henry Lamotte/Ebert        | Salicylic acid 50% (paraffin) | 6004854001          | 1       |

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| Supplier                   | Substance                     | Batch          | Spectra |
|----------------------------|-------------------------------|----------------|---------|
| Henry Lamotte/Gehe         | Salicylic acid 50% (paraffin) | 8005713005     | 2       |
| Henry Lamotte/Jenne        | Salicylic acid 50% (paraffin) | 16(6007886001) | 1       |
| Henry Lamotte/Kehr         | Salicylic acid 50% (paraffin) | 5809400        | 1       |
| Henry Lamotte/Kehr         | Salicylic acid 50% (paraffin) | 6004854001     | 1       |
| Henry Lamotte/L12          | Salicylic acid 50% (paraffin) | 3917822        | 1       |
| Henry Lamotte/L12          | Salicylic acid 50% (paraffin) | 6001023002     | 1       |
| Henry Lamotte/Noweda 02... | Salicylic acid 50% (paraffin) | 8005713005     | 1       |
| Henry Lamotte/Noweda       | Salicylic acid 50% (paraffin) | 6001862002     | 1       |
| Henry Lamotte/Noweda       | Salicylic acid 50% (paraffin) | 6004854001     | 4       |
| Henry Lamotte/Noweda       | Salicylic acid 50% (paraffin) | 6007886001     | 1       |
| Henry Lamotte/Phoenix      | Salicylic acid 50% (paraffin) | 17172701       | 2       |
| Henry Lamotte/Phoenix      | Salicylic acid 50% (paraffin) | 6001862001     | 1       |
| Henry Lamotte/Phoenix      | Salicylic acid 50% (paraffin) | 6007886002     | 1       |
| Henry Lamotte/Phoenix      | Salicylic acid 50% (paraffin) | 60101022001    | 1       |
| Henry Lamotte/Phoenix      | Salicylic acid 50% (paraffin) | 6020091001     | 2       |
| Henry Lamotte/Phoenix      | Salicylic acid 50% (paraffin) | 8004748001     | 2       |
| Henry Lamotte/Phönix       | Salicylic acid 50% (paraffin) | 6020091001     | 1       |
| Henry Lamotte/Phönix       | Salicylic acid 50% (paraffin) | 8004747001     | 1       |
| Henry Lamotte/Phönix       | Salicylic acid 50% (paraffin) | 8004748001     | 2       |
| Henry Lamotte/Phönix       | Salicylic acid 50% (paraffin) | 8005713005     | 1       |
| Henry Lamotte/Sanacorp     | Salicylic acid 50% (paraffin) | 5809400        | 1       |
| Henry Lamotte/Sanacorp     | Salicylic acid 50% (paraffin) | 6001023001     | 1       |
| Henry Lamotte/Sanacorp     | Salicylic acid 50% (paraffin) | 6010101001     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 4960200        | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 5253300        | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 5375300        | 2       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 5448100        | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 5763800        | 4       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 5809400        | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6001023001     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6001023002     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6001862002     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6004854001     | 4       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6007886001     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6007886002     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6009168001     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6010101001     | 1       |
| HENRY LAMOTTE              | Salicylic acid 50% (paraffin) | 6010101001     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 6020091001     | 8       |
| HENRY LAMOTTE              | Salicylic acid 50% (paraffin) | 6020091001     | 2       |
| henry Lamotte              | Salicylic acid 50% (paraffin) | 8004748001     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 8004748001     | 9       |
| HENRY LAMOTTE              | Salicylic acid 50% (paraffin) | 8004748001     | 1       |
| henry Lamotte              | Salicylic acid 50% (paraffin) | 8005713005     | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 8005713005     | 9       |
| HENRY LAMOTTE              | Salicylic acid 50% (paraffin) | 8005713005     | 2       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 800572130050   | 1       |
| Henry Lamotte              | Salicylic acid 50% (paraffin) | 8007615001     | 3       |
| Henry LamotteAlliance H... | Salicylic acid 50% (paraffin) | 8005713005     | 1       |
| HenryLamotte/Gehe          | Salicylic acid 50% (paraffin) | 6001862001     | 1       |
| HenryLamotte/Gehe          | Salicylic acid 50% (paraffin) | 6007886002     | 1       |
| HenryLamotte/noweda        | Salicylic acid 50% (paraffin) | 3716I-01046    | 1       |
| HenryLamotte/noweda        | Salicylic acid 50% (paraffin) | 6001023001     | 2       |
| HenryLamotte/Noweda        | Salicylic acid 50% (paraffin) | 6004854001     | 2       |
| HenryLamotte               | Salicylic acid 50% (paraffin) | 5763800        | 1       |
| HenryLamotte               | Salicylic acid 50% (paraffin) | 6001023001     | 1       |
| HenryLamotte               | Salicylic acid 50% (paraffin) | 6010101001     | 1       |
| Hochhaus-Apotheke          | Salicylic acid 50% (paraffin) | 16197302       | 1       |
| Ichthyol Gesellschaft/C... | Salicylic acid 50% (paraffin) | 18210903       | 1       |
| Kehr/Henry Lamotte         | Salicylic acid 50% (paraffin) | 5809400        | 1       |

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| Supplier                | Substance                     | Batch       | Spectra |
|-------------------------|-------------------------------|-------------|---------|
| Kehr                    | Salicylic acid 50% (paraffin) | 6007886002  | 1       |
| L12/Henry Lamotte       | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| L12                     | Salicylic acid 50% (paraffin) | 17105801    | 1       |
| L12                     | Salicylic acid 50% (paraffin) | 18034402    | 2       |
| L12                     | Salicylic acid 50% (paraffin) | 6001862001  | 1       |
| Lamotte / Phönix        | Salicylic acid 50% (paraffin) | 8004748001  | 1       |
| lamotte phönix          | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| Lamotte / AHC           | Salicylic acid 50% (paraffin) | 6004854001  | 1       |
| Lamotte / AHC           | Salicylic acid 50% (paraffin) | 8004748001  | 2       |
| Lamotte / Phoenix       | Salicylic acid 50% (paraffin) | 6009168001  | 2       |
| Lamotte / Phoenix       | Salicylic acid 50% (paraffin) | 6020091001  | 4       |
| Lamotte / Phoenix       | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Lamotte / Phönix        | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Lamotte / Sanacorp      | Salicylic acid 50% (paraffin) | 5763800     | 1       |
| Lamotte / Sanacorp      | Salicylic acid 50% (paraffin) | 6001862002  | 2       |
| Lamotte / Sanacorp      | Salicylic acid 50% (paraffin) | 6007886001  | 2       |
| Lamotte, Bremen/ Phönix | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Lamotte/ AHD            | Salicylic acid 50% (paraffin) | 6020091001  | 1       |
| Lamotte/ Jenne          | Salicylic acid 50% (paraffin) | 8005713005  | 2       |
| Lamotte/ Noweda         | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Lamotte/ Sanacorp       | Salicylic acid 50% (paraffin) | 6004854001  | 2       |
| Lamotte/ Sanacorp       | Salicylic acid 50% (paraffin) | 602009001   | 1       |
| Lamotte/ Sanacorp       | Salicylic acid 50% (paraffin) | 8004748001  | 1       |
| Lamotte/AHD             | Salicylic acid 50% (paraffin) | 6001862001  | 1       |
| Lamotte/AHD             | Salicylic acid 50% (paraffin) | 6004854001  | 3       |
| Lamotte/AHD             | Salicylic acid 50% (paraffin) | 6007886001  | 2       |
| Lamotte/AHD             | Salicylic acid 50% (paraffin) | 6009168001  | 2       |
| Lamotte/AHD             | Salicylic acid 50% (paraffin) | 6010101001  | 3       |
| Lamotte/AHD             | Salicylic acid 50% (paraffin) | 8004748001  | 3       |
| Lamotte/AHD             | Salicylic acid 50% (paraffin) | 8007615001  | 2       |
| Lamotte/Alliance        | Salicylic acid 50% (paraffin) | 6007886001  | 2       |
| Lamotte/alliance        | Salicylic acid 50% (paraffin) | 6007886002  | 1       |
| Lamotte/Alliance        | Salicylic acid 50% (paraffin) | 6010101001  | 1       |
| Lamotte/Alliance        | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Lamotte/Anzag           | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| Lamotte/Anzag           | Salicylic acid 50% (paraffin) | 60007886002 | 1       |
| Lamotte/Anzag           | Salicylic acid 50% (paraffin) | 6007886002  | 3       |
| Lamotte/Ebert           | Salicylic acid 50% (paraffin) | 6001862001  | 1       |
| Lamotte/Fiebig          | Salicylic acid 50% (paraffin) | 6020091001  | 1       |
| Lamotte/Gehe            | Salicylic acid 50% (paraffin) | 5763800     | 1       |
| Lamotte/Gehe            | Salicylic acid 50% (paraffin) | 6004854001  | 2       |
| Lamotte/Gehe            | Salicylic acid 50% (paraffin) | 6007886001  | 1       |
| Lamotte/Gehe            | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| Lamotte/K               | Salicylic acid 50% (paraffin) | 6001023001  | 1       |
| Lamotte/Kehr            | Salicylic acid 50% (paraffin) | 6004854001  | 1       |
| Lamotte/Kehr            | Salicylic acid 50% (paraffin) | 6010101001  | 1       |
| Lamotte/Kehr            | Salicylic acid 50% (paraffin) | 8004748001  | 2       |
| Lamotte/Nowed           | Salicylic acid 50% (paraffin) | 6010101001  | 1       |
| Lamotte/Noweda          | Salicylic acid 50% (paraffin) | 6004854001  | 2       |
| Lamotte/Noweda          | Salicylic acid 50% (paraffin) | 6009168001  | 2       |
| Lamotte/NOWEDA          | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| Lamotte/Otto            | Salicylic acid 50% (paraffin) | 8004748001  | 1       |
| Lamotte/PH              | Salicylic acid 50% (paraffin) | 6010101001  | 1       |
| Lamotte/PH              | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Lamotte/Phoenix         | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| Lamotte/Phoenix         | Salicylic acid 50% (paraffin) | 8004748001  | 1       |
| Lamotte/Phoenix         | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6001023001  | 2       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6001862002  | 1       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6004854001  | 3       |

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| Supplier                | Substance                     | Batch       | Spectra |
|-------------------------|-------------------------------|-------------|---------|
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6007886001  | 2       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6007886002  | 1       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| lamotte/phönix          | Salicylic acid 50% (paraffin) | 6010101001  | 2       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 6010101001  | 1       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 8004748001  | 2       |
| Lamotte/Phönix          | Salicylic acid 50% (paraffin) | 8007615001  | 1       |
| Lamotte/PX              | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| Lamotte/Sana            | Salicylic acid 50% (paraffin) | 6020091001  | 1       |
| Lamotte/Sanacorp(Grafi) | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| Lamotte/Sanacorp        | Salicylic acid 50% (paraffin) | 19209302    | 1       |
| Lamotte/Sanacorp        | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| Lamotte/Sanacorp        | Salicylic acid 50% (paraffin) | 6004854001  | 1       |
| Lamotte/Sanacorp        | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| LaMotte/Spangro         | Salicylic acid 50% (paraffin) | 6007886001  | 1       |
| Lamotte/VDL             | Salicylic acid 50% (paraffin) | 5375300     | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 5065800     | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 5375300     | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 5763800     | 1       |
| lamotte                 | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6001023001  | 8       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6001023002  | 3       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 60011862002 | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6001862001  | 2       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6001862002  | 9       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6004854001  | 2       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6007886001  | 2       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6007886002  | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6009168001  | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 6020091001  | 1       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 8004748001  | 4       |
| Lamotte                 | Salicylic acid 50% (paraffin) | 8005713005  | 3       |
| Linden-Apo              | Salicylic acid 50% (paraffin) | 2615M-01046 | 1       |
| Midas                   | Salicylic acid 50% (paraffin) | 17105501    | 1       |
| Midas                   | Salicylic acid 50% (paraffin) | 17261301    | 1       |
| Midas                   | Salicylic acid 50% (paraffin) | 18034201    | 1       |
| Midas                   | Salicylic acid 50% (paraffin) | 18286301    | 1       |
| Nachprüfung             | Salicylic acid 50% (paraffin) | AP210203-01 | 1       |
| Noweda / Lamotte Oil    | Salicylic acid 50% (paraffin) | 8005713005  | 1       |
| noweda / lamotte        | Salicylic acid 50% (paraffin) | 5809400     | 1       |
| Noweda 26.08.15         | Salicylic acid 50% (paraffin) | 15231801    | 1       |
| Noweda/Lamotte          | Salicylic acid 50% (paraffin) | 6004854001  | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 12201901    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 16276101    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 17105501    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 17326201    | 3       |
| Noweda                  | Salicylic acid 50% (paraffin) | 18034301    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 18115002    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 19167201    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 19274001    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 20000895001 | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 20001058001 | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 20001325002 | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 20001804002 | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 20003516001 | 2       |
| Noweda                  | Salicylic acid 50% (paraffin) | 6001023002  | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 6007886001  | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 6A230418    | 1       |
| Noweda                  | Salicylic acid 50% (paraffin) | 8005713005  | 1       |

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| Supplier                   | Substance                     | Batch          | Spectra |
|----------------------------|-------------------------------|----------------|---------|
| P. W. Beyvers GmbH         | Salicylic acid 50% (paraffin) | 17017301       | 1       |
| Pala                       | Salicylic acid 50% (paraffin) | 18034402       | 2       |
| Pala                       | Salicylic acid 50% (paraffin) | 19082801       | 1       |
| Phoenix 08.08.2018 9,...   | Salicylic acid 50% (paraffin) | 17326201       | 1       |
| Phoenix (PKH Halle)        | Salicylic acid 50% (paraffin) | 2A040313       | 1       |
| Phoenix 02.04.2019 9,90EUR | Salicylic acid 50% (paraffin) | 19010901       | 1       |
| Phoenix 18.09.2017         | Salicylic acid 50% (paraffin) | 17105801       | 1       |
| Phoenix/ Henry Lamotte     | Salicylic acid 50% (paraffin) | 6004854001     | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 15373101       | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 16A131217      | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 18114901       | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 19010901       | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 19082701       | 1       |
| phoenix                    | Salicylic acid 50% (paraffin) | 19082801       | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 19167201       | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 3090           | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 3381           | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 6007886001     | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 6007886002     | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 6010101001     | 1       |
| Phoenix                    | Salicylic acid 50% (paraffin) | 8004748001     | 1       |
| Phönix Gotha               | Salicylic acid 50% (paraffin) | 13052401       | 1       |
| Phönix Gotha               | Salicylic acid 50% (paraffin) | 14017601       | 1       |
| Phönix Gotha               | Salicylic acid 50% (paraffin) | 19167201       | 1       |
| Phönix                     | Salicylic acid 50% (paraffin) | 11274301       | 1       |
| Phönix                     | Salicylic acid 50% (paraffin) | 12201801       | 1       |
| Phönix                     | Salicylic acid 50% (paraffin) | 17261401       | 1       |
| PHÖNIX                     | Salicylic acid 50% (paraffin) | 17326301       | 2       |
| Phönix                     | Salicylic acid 50% (paraffin) | 20000895001    | 1       |
| PHÖNIX                     | Salicylic acid 50% (paraffin) | 20000895001    | 1       |
| Phönix                     | Salicylic acid 50% (paraffin) | 5375300        | 1       |
| Phönix                     | Salicylic acid 50% (paraffin) | 8007615001     | 3       |
| PHÖNIX                     | Salicylic acid 50% (paraffin) | ChB20003781002 | 1       |
| PhR Neidhardt              | Salicylic acid 50% (paraffin) | 17A131217      | 1       |
| PKH / 11                   | Salicylic acid 50% (paraffin) | 2A280116       | 1       |
| PKH GmbH/ Alliance Heal... | Salicylic acid 50% (paraffin) | 15A281118      | 1       |
| PKH GmbH                   | Salicylic acid 50% (paraffin) | 8A300819       | 1       |
| PKH Halle/Noweda           | Salicylic acid 50% (paraffin) | 9A171213       | 1       |
| PKH Halle/Phönix           | Salicylic acid 50% (paraffin) | 14A031115      | 1       |
| Röntgen                    | Salicylic acid 50% (paraffin) | 18286301       | 1       |
| sanacorb                   | Salicylic acid 50% (paraffin) | 16197401       | 2       |
| Sanacorp, 22.09.2016       | Salicylic acid 50% (paraffin) | 16197401       | 1       |
| SANACORP/ Lamotte          | Salicylic acid 50% (paraffin) | 8005713005     | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 1305202        | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 14108201       | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 14354101       | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 15247201       | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 15373301       | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 16121301       | 2       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 17145401       | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 17172702       | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 17261401       | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 18034301       | 2       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 20001058001    | 2       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 20002468001    | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 5809400        | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 6020091001     | 1       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 8004748001     | 2       |
| Sanacorp                   | Salicylic acid 50% (paraffin) | 8005713005     | 6       |

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| Supplier                   | Substance                     | Batch          | Spectra |
|----------------------------|-------------------------------|----------------|---------|
| SanacorpWE:18.10.17 EK...  | Salicylic acid 50% (paraffin) | 17172702       | 1       |
| WE:Sanacorp 29.10.2016 ... | Salicylic acid 50% (paraffin) | 1612401        | 1       |
| Wolf Apotheke              | Salicylic acid 50% (paraffin) | 18(6010101001) | 1       |

- 286 372 spectra from 1294 *Apo-Ident* customers from a total of 51 599 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Salicylic acid 50% (paraffin)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Salicylic acid 50% (paraffin)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 400           | 0              | 66 759        |
| Type B | 0              | 530           | 0              | 106 833       |
| Type C | 0              | 2335          | 2              | 286 372       |

The substance/substance group *Salicylic acid 50% (paraffin)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.5000 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.8679 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.9144 % (> 99.7861 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Salicylic acid 50% (paraffin)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance               | Distance in main model | Distance in second-stage model |
|-------------------------|------------------------|--------------------------------|
| Permethrin 25% solution | 111.64                 | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Salicylic acid 50% (paraffin)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30883     | 31903               | 1.73                         | 135.39                          |
| 30927     | 31727               | 5.77                         | 145.17                          |
| 31727     | 31727               | 0.00                         | 143.00                          |
| 31901     | 31901               | 0.00                         | 131.28                          |
| 31902     | 31902               | 0.00                         | 137.03                          |
| 31903     | 31903               | 0.00                         | 133.39                          |
| 32176     | 31727               | 4.79                         | 145.44                          |
| 32520     | 32520               | 0.00                         | 129.73                          |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Salicylic acid concentrate 10%, white paraffin basis**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 32310-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Salicylic acid concentrate 10%, white paraffin basis; Unguentum Acidi salicylici 10% c. Vaseline album

### Special notes

When selecting the *Salicylic acid concentrate 10%, white paraffin basis* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                            | Type A | Type B | Type C |
|------------------------------------------------------|--------|--------|--------|
| Salicylic acid concentrate 10%, white paraffin basis | 3      | 2      | 3      |

## Second-stage model

For differentiation of the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Salicylic acid c... | 20003377 | 35153     | 40      | 20201111*   |
| Caelo    | Salicylic acid c... | 21002592 | 35608     | 50      | 20210816*   |
| Caelo    | Salicylic acid c... | 21004058 | 35941     | 40      | 20220111*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 130 spectra of 3 reference samples from the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 029 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Salicylic acid concentrate 1... | 153947   | 32310     | 40      |
| Caelo    | Salicylic acid concentrate 1... | 22000796 | 36249     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 3 spectra from 3 *Apo-Ident* customers from 3 batches from the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Salicylic acid concentrate 1... | 21002592001 | 1       |
| Caelo    | Salicylic acid concentrate 1... | 21002592002 | 1       |
| Caelo    | Salicylic acid concentrate 1... | 21004058001 | 1       |

- 288 706 spectra from 1294 *Apo-Ident* customers from a total of 51 885 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Salicylic acid concentrate 10%, white paraffin basis* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 130           | 0              | 67 029        |
| <b>Type B</b> | 0              | 80            | 0              | 107 283       |
| <b>Type C</b> | 0              | 3             | 0              | 288 706       |

The substance/substance group *Salicylic acid concentrate 10%, white paraffin basis* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.3846 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6900 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                             | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------------------------|---------------------------|-----------------------------------|
| Metronidazole 25% in white petrolatum | 21.19                     | —                                 |
| Permethrin 25% solution               | 24.72                     | —                                 |
| Shea butter, refined                  | 35.21                     | —                                 |
| Pasta Cordes <sup>®</sup>             | 44.77                     | —                                 |
| Softisan <sup>®</sup> 378             | 49.14                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Salicylic acid concentrate 10%, white paraffin basis* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 35153     | 35153                  | 0.00                            | 57.74                              |
| 35608     | 35608                  | 0.00                            | 61.62                              |
| 35941     | 35941                  | 0.00                            | 63.20                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Salicylic acid concentrate 5%, white paraffin basis</b>       |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 32309-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Salicylic acid concentrate 5%, white paraffin basis; Unguentum Acidi salicylici 5% c. Vaselineum album

### Special notes

When selecting the *Salicylic acid concentrate 5%, white paraffin basis* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group                           | Type A | Type B | Type C |
|-----------------------------------------------------|--------|--------|--------|
| Salicylic acid concentrate 5%, white paraffin basis | 3      | 1      | 0      |

## Second-stage model

For differentiation of the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Salicylic acid c... | 191442   | 34800     | 40      | 20190529*   |
| Caelo    | Salicylic acid c... | 20003375 | 35152     | 40      | 20201111*   |
| Caelo    | Salicylic acid c... | 21003081 | 35810     | 50      | 20210922*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 130 spectra of 3 reference samples from the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 029 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis*.
- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance                       | Batch  | Sample ID | Spectra |
|----------|---------------------------------|--------|-----------|---------|
| Caelo    | Salicylic acid concentrate 5... | 153946 | 32309     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 0 spectra from 0 *Apo-Ident* customers from 0 batches from the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis*.
- Among them are spectra of independent samples from 0 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.
- 288 709 spectra from 1294 *Apo-Ident* customers from a total of 51 888 batches from a further 344 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Salicylic acid concentrate 5%, white paraffin basis* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 130           | 0              | 67 029        |
| <b>Type B</b> | 0              | 25            | 15             | 107 323       |
| <b>Type C</b> | 0              | 0             | 0              | 288 709       |

The substance/substance group *Salicylic acid concentrate 5%, white paraffin basis* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.3846 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 62.5000 % (> 55.0000 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6894 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Softisan <sup>®</sup> 378                 | 17.47                     | —                                 |
| Shea butter, refined                      | 18.10                     | —                                 |
| Paraffin, yellow                          | 24.74                     | —                                 |
| Metronidazole 25% in white petrolatum     | 24.74                     | —                                 |
| Wool alcohol ointment DAB                 | 25.47                     | —                                 |
| Paraffin, white                           | 27.07                     | —                                 |
| Permethrin 25% solution                   | 27.62                     | —                                 |
| Pasta Cordes <sup>®</sup>                 | 32.66                     | —                                 |
| Unguentum Cordes <sup>®</sup>             | 36.75                     | —                                 |
| Wool alcohol ointment SR with white pa... | 36.95                     | —                                 |
| Eye ointment, emulsifying DAC             | 38.09                     | —                                 |
| Eye paraffin                              | 38.20                     | —                                 |
| Wool alcohol ointment SR/DAC              | 41.50                     | —                                 |
| Hydrophilic ointment DAB                  | 44.17                     | —                                 |
| Salicylic acid concentrate 10%, white ... | 45.01                     | —                                 |
| Wool fat                                  | 45.26                     | —                                 |
| Macrogol 8 stearate type I                | 46.32                     | —                                 |
| Emulsifying hydrophobic base gel DAC      | 49.90                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Salicylic acid concentrate 5%, white paraffin basis* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 34800     | 34800                  | 0.00                            | 30.92                              |
| 35152     | 35152                  | 0.00                            | 28.63                              |
| 35810     | 35810                  | 0.00                            | 35.02                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Sodium laureth sulfate solution 27%</b>                       |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30936-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Sodium laureth sulfate solution 27%; Sodium laureth sulphate solution 27%; Solutio natrii laurylaethersulfurici 27 %

### Special notes

When selecting the *Sodium laureth sulfate solution 27%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| 978-3-7692-7517-9 | <i>European Pharmacopoeia 10th Edition, Basic Version 2020</i> [3] |
| Komm2.2.40        | <i>Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident</i> [4]           |
| AA004             | <i>Erstellung und Validierung eines IdentModul-Updates</i>         |

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group           | Type A | Type B | Type C |
|-------------------------------------|--------|--------|--------|
| Sodium laureth sulfate solution 27% | 9      | 5      | 43     |



## Second-stage model

For differentiation of the substance/substance group *Sodium laureth sulfate solution 27%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Sodium laureth sulfate solution 27%*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Sodium laureth s... | 12315211 | 30936     | 50      | 20121029    |
| Caelo    | Sodium laureth s... | 13069915 | 31114     | 39      | 20130402    |
| Caelo    | Sodium laureth s... | 14049902 | 31349     | 60      | 8930        |
| Caelo    | Sodium laureth s... | 161968   | 32696     | 30      | 20161010*   |
| Caelo    | Sodium laureth s... | 16196801 | 32818     | 30      | 20161010    |
| Caelo    | Sodium laureth s... | 163071   | 33090     | 40      | 20161121*   |
| Caelo    | Sodium laureth s... | 190124   | 34464     | 40      | 20190211*   |
| Caelo    | Sodium laureth s... | 190656   | 34633     | 40      | 20190510*   |
| Caelo    | Sodium laureth s... | 192336   | 34725     | 40      | 20190916*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 369 spectra of 9 reference samples from the substance/substance group *Sodium laureth sulfate solution 27%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 9 different batches.
- 66 790 spectra from a total of 1370 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- 270 spectra of 8 reference samples from the substance/substance group *Sodium laureth sulfate solution 27%*.
- Among them are spectra of independent samples from 5 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch       | Sample ID          | Spectra |
|----------|---------------------------------|-------------|--------------------|---------|
| Caelo    | Sodium laureth sulfate solut... | 171210      | 33335              | 40      |
| Caelo    | Sodium laureth sulfate solut... | 172233      | 33698              | 40      |
| Caelo    | Sodium laureth sulfate solut... | 20001653002 | 35134              | 40      |
| Caelo    | Sodium laureth sulfate solut... | 20004206    | 35253              | 40      |
| Caelo    | Sodium laureth sulfate solut... | 21002403    | 35722              | 50      |
| Caelo    | Sodium laureth sulfate solut... | 161968      | 32696 <sup>†</sup> | 10      |
| Caelo    | Sodium laureth sulfate solut... | 16196801    | 32818 <sup>†</sup> | 10      |
| Caelo    | Sodium laureth sulfate solut... | 172233      | 33883              | 40      |

- 107093 spectra from a total of 2494 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 107 spectra from 44 *Apo-Ident* customers from 46 batches from the substance/substance group *Sodium laureth sulfate solution 27%*.
- Among them are spectra of independent samples from 43 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance                       | Batch    | Spectra |
|----------|---------------------------------|----------|---------|
| Caelo    | Sodium laureth sulfate solut... | 11322611 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 12044307 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 12044308 | 4       |
| Caelo    | Sodium laureth sulfate solut... | 12315203 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 12315211 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 12341104 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 13069903 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 13069905 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 13069911 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 13241001 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 13241004 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 13241101 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 14049902 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 14049904 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 14197915 | 6       |
| Caelo    | Sodium laureth sulfate solut... | 14197916 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 14197920 | 1       |
| Caelo    | Sodium laureth sulfate solut... | 14355304 | 2       |

*continued on the next page*

<sup>†</sup>These spectra were recorded from material of the same package as the corresponding calibration spectra (*Type A*). Hence, these spectra are not independent and are not of *Type B*.

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caelo                      | Sodium laureth sulfate solut... | 14355308    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 14355310    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 14355314    | 8       |
| Caelo                      | Sodium laureth sulfate solut... | 14355315    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 15145004    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 15145010    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 15145017    | 5       |
| Caelo                      | Sodium laureth sulfate solut... | 16196801    | 2       |
| Caelo                      | Sodium laureth sulfate solut... | 16307104    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 16354801    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 17121002    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 17121004    | 7       |
| Caelo                      | Sodium laureth sulfate solut... | 17121005    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 17223302    | 4       |
| Caelo                      | Sodium laureth sulfate solut... | 17318601    | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 18118901    | 4       |
| Caelo                      | Sodium laureth sulfate solut... | 18199701    | 9       |
| Caelo                      | Sodium laureth sulfate solut... | 1901240     | 1       |
| Caelo                      | Sodium laureth sulfate solut... | 19065601    | 2       |
| Caelo                      | Sodium laureth sulfate solut... | 19065604    | 2       |
| Caelo                      | Sodium laureth sulfate solut... | 19233602    | 3       |
| Caelo                      | Sodium laureth sulfate solut... | 20001653002 | 3       |
| Caelo                      | Sodium laureth sulfate solut... | 20002775001 | 2       |
| Caelo                      | Sodium laureth sulfate solut... | 21002403005 | 2       |
| Caelo                      | Sodium laureth sulfate solut... | 2613M-01907 | 1       |
| Caesar & Loretz GmbH Hi... | Sodium laureth sulfate solut... | 14049913    | 1       |
| Caesar & Loretz GmbH, 4... | Sodium laureth sulfate solut... | 12315211    | 1       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 18199701    | 1       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 18199705    | 1       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 19012404    | 2       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 19065604    | 1       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 19233602    | 3       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 20001653002 | 1       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 20002775001 | 1       |
| Caesar & Loretz GmbH       | Sodium laureth sulfate solut... | 21002403005 | 1       |
| Phönix                     | Sodium laureth sulfate solut... | 14355314    | 1       |
| Sanacorp                   | Sodium laureth sulfate solut... | 14049902    | 1       |

- 288 602 spectra from 1294 *Apo-Ident* customers from a total of 51 843 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Sodium laureth sulfate solution 27%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Sodium laureth sulfate solution 27%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 369           | 0              | 66 790        |
| Type B | 0              | 253           | 17             | 107 093       |
| Type C | 0              | 105           | 2              | 288 602       |

The substance/substance group *Sodium laureth sulfate solution 27%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.3740 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 93.7037 % (> 92.5926 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 98.1308 % (> 95.3271 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Sodium laureth sulfate solution 27%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b>                           | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|--------------------------------------------|-------------------------------|---------------------------------------|
| Non-ionic hydrous liniment SR/DAC (NRF...  | 19.15                         | —                                     |
| Hydrated liniment SR/DAC (NRF p.40)        | 20.67                         | —                                     |
| Hydrophilic cream, non-ionic SR (NRF p...  | 22.91                         | —                                     |
| Hydrophilic cream, non-ionic without p...  | 28.48                         | —                                     |
| Glycolic acid 70%                          | 28.67                         | —                                     |
| Anionic hydrophilic cream without prese... | 30.43                         | —                                     |
| Anionic hydrophilic cream SR (NRF p.27)    | 32.21                         | —                                     |
| Wolff® base half-fat cream                 | 48.53                         | —                                     |
| Base cream, diluted                        | 49.61                         | —                                     |
| Gel Cordes®                                | 50.14                         | —                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Sodium laureth sulfate solution 27%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 30936            | 31349                      | 2.88                                | 26.64                                  |
| 31114            | 31349                      | 4.46                                | 25.04                                  |
| 31349            | 31349                      | 0.00                                | 23.46                                  |
| 32696            | 32696                      | 0.00                                | 19.72                                  |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 32818            | 33090                      | 2.34                                | 20.97                                  |
| 33090            | 33090                      | 0.00                                | 21.34                                  |
| 34464            | 34464                      | 0.00                                | 19.87                                  |
| 34633            | 34633                      | 0.00                                | 19.47                                  |
| 34725            | 34725                      | 0.00                                | 22.72                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Sodium-(s)-lactate solution 50%**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30136-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Sodium-(s)-lactate solution 50%; Natrii (s)-lactatis solutio 50%

### Special notes

When selecting the *Sodium-(s)-lactate solution 50%* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group       | Type A | Type B | Type C |
|---------------------------------|--------|--------|--------|
| Sodium-(s)-lactate solution 50% | 6      | 3      | 179    |

## Second-stage model

For differentiation of the substance/substance group *Sodium-(s)-lactate solution 50%* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Sodium-(s)-lactate solution 50%*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate        |
|----------|---------------------|----------|-----------|---------|--------------------|
| Caelo    | Sodium-(s)-lacta... | 12027310 | 30621     | 80      | 20120131           |
| Caelo    | Sodium-(s)-lacta... | 14039503 | 31321     | 40      | 20140207           |
| Caelo    | Sodium-(s)-lacta... | 16056201 | 32586     | 40      | 20160315           |
| Caelo    | Sodium-(s)-lacta... | 16056201 | 32839     | 40      | AR-17-FG-006366-01 |
| Caelo    | Sodium-(s)-lacta... | 16056201 | 32917     | 40      | 20160315           |
| Caelo    | Sodium-(s)-lacta... | 191667   | 34729     | 40      | 20190829*          |
| Caelo    | Sodium-(s)-lacta... | 21003097 | 35824     | 50      | 20210923*          |
| Caelo    | Sodium-(s)-lacta... | 21003096 | 35830     | 50      | 20210923*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 380 spectra of 8 reference samples from the substance/substance group *Sodium-(s)-lactate solution 50%*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 779 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Sodium-(s)-lactate solution 50%*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Sodium-(s)-lactate solution ... | 170977   | 33319     | 40      |
| Caelo    | Sodium-(s)-lactate solution ... | 173153   | 34231     | 40      |
| Caelo    | Sodium-(s)-lactate solution ... | 20000467 | 34996     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 1999 spectra from 849 *Apo-Ident* customers from 186 batches from the substance/substance group *Sodium-(s)-lactate solution 50%*.
- Among them are spectra of independent samples from 179 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance                       | Batch       | Spectra |
|---------------------|---------------------------------|-------------|---------|
|                     | Sodium-(s)-lactate solution ... | 14182904    | 2       |
| AHD 19.02.15        | Sodium-(s)-lactate solution ... | 14353202    | 1       |
| AHD                 | Sodium-(s)-lactate solution ... | 191667007   | 7       |
| AHD                 | Sodium-(s)-lactate solution ... | 1916679002  | 1       |
| Alliance H.         | Sodium-(s)-lactate solution ... | 18314501    | 1       |
| Alliance health     | Sodium-(s)-lactate solution ... | 14353205    | 1       |
| Alliance Healthcare | Sodium-(s)-lactate solution ... | 18135702    | 1       |
| Alliance            | Sodium-(s)-lactate solution ... | 191667006   | 1       |
| Anzag 27.02.2013    | Sodium-(s)-lactate solution ... | 12294603    | 1       |
| Anzag               | Sodium-(s)-lactate solution ... | 16056201    | 1       |
| Anzag               | Sodium-(s)-lactate solution ... | 18135803    | 1       |
| Anzag               | Sodium-(s)-lactate solution ... | 18314501    | 1       |
| Anzag               | Sodium-(s)-lactate solution ... | 21003221008 | 1       |
| Bombastus           | Sodium-(s)-lactate solution ... | 13111704    | 1       |
| Caelo               | Sodium-(s)-lactate solution ... |             | 3       |
| Caelo               | Sodium-(s)-lactate solution ... | 10/AKD7     | 1       |
| Caelo               | Sodium-(s)-lactate solution ... | 10094060    | 2       |
| Caelo               | Sodium-(s)-lactate solution ... | 11/AKD16    | 1       |
| Caelo               | Sodium-(s)-lactate solution ... | 11024001    | 1       |
| Caelo               | Sodium-(s)-lactate solution ... | 11024009    | 6       |
| Caelo               | Sodium-(s)-lactate solution ... | 11238701    | 4       |
| Caelo               | Sodium-(s)-lactate solution ... | 11238706    | 2       |
| Caelo               | Sodium-(s)-lactate solution ... | 11238707    | 2       |
| Caelo               | Sodium-(s)-lactate solution ... | 11238712    | 2       |
| Caelo               | Sodium-(s)-lactate solution ... | 12/18-M04   | 1       |
| Caelo               | Sodium-(s)-lactate solution ... | 12027301    | 1       |
| Caelo               | Sodium-(s)-lactate solution ... | 12027303    | 2       |
| Caelo               | Sodium-(s)-lactate solution ... | 12027310    | 1       |
| Caelo               | Sodium-(s)-lactate solution ... | 12180404    | 5       |
| Caelo               | Sodium-(s)-lactate solution ... | 12180406    | 2       |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Sodium-(s)-lactate solution ... | 12180407         | 7       |
| Caelo    | Sodium-(s)-lactate solution ... | 12180408         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 1218407          | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 12294603         | 7       |
| Caelo    | Sodium-(s)-lactate solution ... | 12294604         | 6       |
| Caelo    | Sodium-(s)-lactate solution ... | 12294605         | 6       |
| Caelo    | Sodium-(s)-lactate solution ... | 12294607         | 6       |
| Caelo    | Sodium-(s)-lactate solution ... | 12294610         | 5       |
| Caelo    | Sodium-(s)-lactate solution ... | 13111704         | 12      |
| Caelo    | Sodium-(s)-lactate solution ... | 13111705         | 5       |
| Caelo    | Sodium-(s)-lactate solution ... | 13111707         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 13267001         | 22      |
| Caelo    | Sodium-(s)-lactate solution ... | 13267002         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 13267003         | 7       |
| Caelo    | Sodium-(s)-lactate solution ... | 13267005         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 13267006         | 3       |
| Caelo    | Sodium-(s)-lactate solution ... | 13267009         | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 13330302         | 6       |
| Caelo    | Sodium-(s)-lactate solution ... | 13330303         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 13330304         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 13330305         | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 13330306         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 13330307         | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 13330308         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 133305           | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14011301         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14039503         | 15      |
| Caelo    | Sodium-(s)-lactate solution ... | 14039507         | 3       |
| Caelo    | Sodium-(s)-lactate solution ... | 14039508         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14039511         | 4       |
| Caelo    | Sodium-(s)-lactate solution ... | 1414Q03157       | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14182902         | 10      |
| Caelo    | Sodium-(s)-lactate solution ... | 14182903         | 3       |
| Caelo    | Sodium-(s)-lactate solution ... | 14182904         | 7       |
| Caelo    | Sodium-(s)-lactate solution ... | 14271901         | 18      |
| Caelo    | Sodium-(s)-lactate solution ... | 14271902         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14271903         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14271904         | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 14271905         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 14271906         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 14271907         | 7       |
| Caelo    | Sodium-(s)-lactate solution ... | 14271908         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 1435207          | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14353201         | 6       |
| Caelo    | Sodium-(s)-lactate solution ... | 14353202         | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 14353204         | 3       |
| Caelo    | Sodium-(s)-lactate solution ... | 14353205         | 21      |
| Caelo    | Sodium-(s)-lactate solution ... | 14353207         | 13      |
| Caelo    | Sodium-(s)-lactate solution ... | 14353208         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 14353210         | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 14A21-B10-295977 | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 1513505          | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 15135501         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 15135505         | 37      |
| Caelo    | Sodium-(s)-lactate solution ... | 15135508         | 2       |
| Caelo    | Sodium-(s)-lactate solution ... | 1525110          | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 15251101         | 65      |
| Caelo    | Sodium-(s)-lactate solution ... | 15251102         | 12      |
| Caelo    | Sodium-(s)-lactate solution ... | 15375805         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 15375806         | 30      |

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| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Sodium-(s)-lactate solution ... | 15375808             | 14      |
| Caelo    | Sodium-(s)-lactate solution ... | 1537806              | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 16056201             | 53      |
| Caelo    | Sodium-(s)-lactate solution ... | 16056201-20170704Ma1 | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 16056206             | 34      |
| Caelo    | Sodium-(s)-lactate solution ... | 16056207             | 6       |
| Caelo    | Sodium-(s)-lactate solution ... | 163210               | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 16321001             | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 16321002             | 23      |
| Caelo    | Sodium-(s)-lactate solution ... | 16321003             | 6       |
| Caelo    | Sodium-(s)-lactate solution ... | 16321004             | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 16321008             | 45      |
| Caelo    | Sodium-(s)-lactate solution ... | 16321009             | 5       |
| Caelo    | Sodium-(s)-lactate solution ... | 17097701             | 10      |
| Caelo    | Sodium-(s)-lactate solution ... | 17097704             | 73      |
| Caelo    | Sodium-(s)-lactate solution ... | 170977045365         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 17097708             | 12      |
| Caelo    | Sodium-(s)-lactate solution ... | 17097709             | 52      |
| Caelo    | Sodium-(s)-lactate solution ... | 170977095567         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 1731506              | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 17315301             | 73      |
| Caelo    | Sodium-(s)-lactate solution ... | 17315302             | 18      |
| Caelo    | Sodium-(s)-lactate solution ... | 17315306             | 95      |
| Caelo    | Sodium-(s)-lactate solution ... | 173153065758         | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 17315307             | 9       |
| Caelo    | Sodium-(s)-lactate solution ... | 17375301             | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 180135803            | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 181357002            | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 18135702             | 78      |
| Caelo    | Sodium-(s)-lactate solution ... | 18135702-N20190115Ma | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 18135802             | 13      |
| Caelo    | Sodium-(s)-lactate solution ... | 18135803             | 63      |
| Caelo    | Sodium-(s)-lactate solution ... | 18135806             | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 1814501              | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 18173903             | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 183145001            | 5       |
| Caelo    | Sodium-(s)-lactate solution ... | 18314501             | 70      |
| Caelo    | Sodium-(s)-lactate solution ... | 18314505             | 41      |
| Caelo    | Sodium-(s)-lactate solution ... | 18314506             | 12      |
| Caelo    | Sodium-(s)-lactate solution ... | 18314507             | 48      |
| Caelo    | Sodium-(s)-lactate solution ... | 18314508             | 3       |
| Caelo    | Sodium-(s)-lactate solution ... | 1831455              | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 183145501            | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 1831505              | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 19135702             | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 1916670006           | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 191667001            | 11      |
| Caelo    | Sodium-(s)-lactate solution ... | 191667002            | 40      |
| Caelo    | Sodium-(s)-lactate solution ... | 191667002P-200407-5  | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 191667006            | 53      |
| Caelo    | Sodium-(s)-lactate solution ... | 191667007            | 18      |
| Caelo    | Sodium-(s)-lactate solution ... | 19167006             | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 19667001             | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 20000467002          | 35      |
| Caelo    | Sodium-(s)-lactate solution ... | 20000467004          | 40      |
| Caelo    | Sodium-(s)-lactate solution ... | 20000467005          | 4       |
| Caelo    | Sodium-(s)-lactate solution ... | 20000467006          | 12      |
| Caelo    | Sodium-(s)-lactate solution ... | 2000467004           | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 2014U-03157          | 1       |
| Caelo    | Sodium-(s)-lactate solution ... | 20310511-1           | 1       |

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| Supplier                    | Substance                       | Batch         | Spectra |
|-----------------------------|---------------------------------|---------------|---------|
| Caelo                       | Sodium-(s)-lactate solution ... | 21000068002   | 18      |
| Caelo                       | Sodium-(s)-lactate solution ... | 21000068004   | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2100068002    | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2100322100002 | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 21003221001   | 9       |
| Caelo                       | Sodium-(s)-lactate solution ... | 21003221002   | 3       |
| Caelo                       | Sodium-(s)-lactate solution ... | 21003221006   | 2       |
| Caelo                       | Sodium-(s)-lactate solution ... | 21003221008   | 2       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2119I-03157   | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2415I-03157   | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2516A-03157   | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2804          | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2822          | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2889          | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 2918E-03157   | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 3041410       | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 3051805       | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 31070124      | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 3111Q-03157   | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 3351          | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 3429          | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 5(17315301)   | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 507213157     | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | 8705          | 1       |
| Caelo                       | Sodium-(s)-lactate solution ... | N-260313-3    | 1       |
| Caeol/Noweda                | Sodium-(s)-lactate solution ... | 18314507      | 1       |
| Caeol                       | Sodium-(s)-lactate solution ... | 18314507      | 2       |
| Caesar & Lorenz GmbH        | Sodium-(s)-lactate solution ... | 16056206      | 1       |
| Caesar & Lorenz GmbH        | Sodium-(s)-lactate solution ... | 177097704     | 1       |
| Caesar & Lorenz GmbH        | Sodium-(s)-lactate solution ... | 18314507      | 1       |
| Caesar & Lorenz GmbH        | Sodium-(s)-lactate solution ... | 71014/1       | 1       |
| Caesar & Loretz GmbH / ...  | Sodium-(s)-lactate solution ... | 16321008      | 1       |
| Caesar & Loretz GmbH / ...  | Sodium-(s)-lactate solution ... | 14271901      | 1       |
| Caesar & Loretz GmbH / ...  | Sodium-(s)-lactate solution ... | 191667006     | 1       |
| Caesar & Loretz GmbH / ...  | Sodium-(s)-lactate solution ... | 18314507      | 1       |
| Caesar & Loretz GmbH / ...  | Sodium-(s)-lactate solution ... | 18135702      | 2       |
| Caesar & Loretz GmbH / ...  | Sodium-(s)-lactate solution ... | 18314507      | 1       |
| Caesar & Loretz GmbH / F... | Sodium-(s)-lactate solution ... | 18314505      | 1       |
| Caesar & Loretz GmbH / G... | Sodium-(s)-lactate solution ... | 21000068002   | 1       |
| Caesar & Loretz GmbH / J... | Sodium-(s)-lactate solution ... | 20000467004   | 1       |
| Caesar & Loretz GmbH / K... | Sodium-(s)-lactate solution ... | 191667002     | 1       |
| Caesar & Loretz GmbH / K... | Sodium-(s)-lactate solution ... | 191667006     | 1       |
| Caesar & Loretz GmbH / K... | Sodium-(s)-lactate solution ... | 20000467002   | 1       |
| Caesar & Loretz GmbH / P... | Sodium-(s)-lactate solution ... | 18135806      | 1       |
| Caesar & Loretz GmbH/AEP    | Sodium-(s)-lactate solution ... | 18314501      | 1       |
| Caesar & Loretz GmbH/AEP    | Sodium-(s)-lactate solution ... | 191667006     | 1       |
| Caesar & Loretz GmbH/AHD    | Sodium-(s)-lactate solution ... | 18135803      | 1       |
| Caesar & Loretz GmbH/AHD    | Sodium-(s)-lactate solution ... | 18314505      | 1       |
| Caesar & Loretz GmbH/An...  | Sodium-(s)-lactate solution ... | 191667001     | 1       |
| Caesar & Loretz GmbH/Fi...  | Sodium-(s)-lactate solution ... | 18314505      | 1       |
| Caesar & Loretz GmbH/Gehe   | Sodium-(s)-lactate solution ... | 18314501      | 1       |
| Caesar & Loretz GmbH/gehe   | Sodium-(s)-lactate solution ... | 191667002     | 1       |
| Caesar & Loretz GmbH/Gehe   | Sodium-(s)-lactate solution ... | 191667006     | 1       |
| Caesar & Loretz GmbH/Gehe   | Sodium-(s)-lactate solution ... | 21000068002   | 1       |
| Caesar & Loretz GmbH/GEHE   | Sodium-(s)-lactate solution ... | 21003221006   | 1       |
| Caesar & Loretz GmbH/Ge...  | Sodium-(s)-lactate solution ... | 191667007     | 1       |
| Caesar & Loretz GmbH/Je...  | Sodium-(s)-lactate solution ... | 18135806      | 1       |
| Caesar & Loretz GmbH/Je...  | Sodium-(s)-lactate solution ... | 191667001     | 1       |
| Caesar & Loretz GmbH/Je...  | Sodium-(s)-lactate solution ... | 191667006     | 1       |
| Caesar & Loretz GmbH/Je...  | Sodium-(s)-lactate solution ... | 21000068002   | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Kehr  | Sodium-(s)-lactate solution ... | 21000068002 | 1       |
| Caesar & Loretz GmbH/Kr... | Sodium-(s)-lactate solution ... | 20000467004 | 2       |
| Caesar & Loretz GmbH/Ph... | Sodium-(s)-lactate solution ... | 18135803    | 1       |
| Caesar & Loretz GmbH/ph... | Sodium-(s)-lactate solution ... | 18314506    | 3       |
| Caesar & Loretz GmbH/Ph... | Sodium-(s)-lactate solution ... | 21000068002 | 1       |
| Caesar & Loretz GmbH/Ph... | Sodium-(s)-lactate solution ... | 21003221001 | 1       |
| Caesar & Loretz GmbH/Px    | Sodium-(s)-lactate solution ... | 18135803    | 1       |
| Caesar & Loretz GmbH/Sa... | Sodium-(s)-lactate solution ... | 18314501    | 1       |
| Caesar & Loretz GmbH/Sa... | Sodium-(s)-lactate solution ... | 191667002   | 1       |
| Caesar & Loretz GmbH/Sa... | Sodium-(s)-lactate solution ... | 20000467006 | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 14271901    | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 14353205    | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 17097704    | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18135702    | 5       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18135802    | 3       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18135803    | 4       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18135806    | 5       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 183145001   | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18314501    | 10      |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18314502    | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18314505    | 7       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18314506    | 2       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18314507    | 8       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18314508    | 3       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 18314509    | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 191667001   | 2       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 191667002   | 10      |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 191667005   | 1       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 191667006   | 6       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 191667007   | 5       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 20000467002 | 4       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 20000467004 | 6       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 20000467005 | 2       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 20000467006 | 8       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 21000068002 | 6       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 21003221001 | 3       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 21003221006 | 2       |
| Caesar & Loretz GmbH       | Sodium-(s)-lactate solution ... | 21003221008 | 1       |
| Caesar & Loretz Hilden     | Sodium-(s)-lactate solution ... | 18135702    | 2       |
| Caesar & Loretz Hilden     | Sodium-(s)-lactate solution ... | 18314505    | 1       |
| Caesar & Loretz Hilden     | Sodium-(s)-lactate solution ... | 191667002   | 1       |
| Caesar & Loretz/Gehe       | Sodium-(s)-lactate solution ... | 18314505    | 1       |
| Caesar & Loretz/Noweda     | Sodium-(s)-lactate solution ... | 15375806    | 1       |
| Caesar & Loretz/Sanacorp   | Sodium-(s)-lactate solution ... | 15251101    | 1       |
| Caesar & Loretz/Sanacorp   | Sodium-(s)-lactate solution ... | 17097708    | 1       |
| Caesar & Loretz            | Sodium-(s)-lactate solution ... | 16056206    | 1       |
| Caesar & Loretz            | Sodium-(s)-lactate solution ... | 16321002    | 1       |
| Caesar & Loretz            | Sodium-(s)-lactate solution ... | 17315301    | 1       |
| Caesar und Loretz GmbH     | Sodium-(s)-lactate solution ... | 17315301    | 1       |
| Caesar&Loretz GmbH/ San... | Sodium-(s)-lactate solution ... | 17097704    | 2       |
| Caesar&Loretz GmbH         | Sodium-(s)-lactate solution ... | 15375806    | 1       |
| Caesar&loretz,Phoenix      | Sodium-(s)-lactate solution ... | 14182902    | 1       |
| Caesar&Loretz              | Sodium-(s)-lactate solution ... | 15251101    | 1       |
| Caesar&LoretzGmbH, Phoe... | Sodium-(s)-lactate solution ... | 18135803    | 1       |
| Caesar/Lorenz              | Sodium-(s)-lactate solution ... | 12294610    | 1       |
| Caleo/ Noweda              | Sodium-(s)-lactate solution ... | 17315306    | 1       |
| Caleo/ Noweda              | Sodium-(s)-lactate solution ... | 18135803    | 1       |
| Cealo / Otto Geilenkirc... | Sodium-(s)-lactate solution ... | 18314505    | 2       |
| Cealo/Phönix               | Sodium-(s)-lactate solution ... | 17315301    | 1       |
| Cealo/Sanacorp             | Sodium-(s)-lactate solution ... | 18135803    | 1       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Ebert 02.08.2016           | Sodium-(s)-lactate solution ... | 15375808         | 1       |
| EuRho                      | Sodium-(s)-lactate solution ... | 18314501         | 1       |
| Euro OTC                   | Sodium-(s)-lactate solution ... |                  | 1       |
| Euro OTC                   | Sodium-(s)-lactate solution ... | 14039503         | 1       |
| Euro OTC                   | Sodium-(s)-lactate solution ... | 14271907         | 1       |
| Euro OTC                   | Sodium-(s)-lactate solution ... | 18135803         | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 12J18-M04        | 6       |
| Fagron                     | Sodium-(s)-lactate solution ... | 1311002383       | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 1317I-03157      | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 14/13            | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 14271901         | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 14271907         | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 1453202          | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 14A21-810-295977 | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 14A21-B10        | 4       |
| Fagron                     | Sodium-(s)-lactate solution ... | 14A21-B10-290492 | 2       |
| Fagron                     | Sodium-(s)-lactate solution ... | 14a21-b10-295977 | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | 17315301         | 1       |
| Fagron                     | Sodium-(s)-lactate solution ... | K40875122        | 1       |
| Fiebig                     | Sodium-(s)-lactate solution ... | 17315302         | 2       |
| Gehe 03.11.21 EK:11,58EUR  | Sodium-(s)-lactate solution ... | 211108NL         | 1       |
| Gehe 12.1.15               | Sodium-(s)-lactate solution ... | 14271907         | 1       |
| Gehe amax                  | Sodium-(s)-lactate solution ... | 15375806         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 10094060         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 13267009         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 15375808         | 2       |
| Gehe                       | Sodium-(s)-lactate solution ... | 16056206         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 16321003         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 17097701         | 2       |
| Gehe                       | Sodium-(s)-lactate solution ... | 17097708         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 17097709         | 2       |
| GEHE                       | Sodium-(s)-lactate solution ... | 17315301         | 1       |
| GEHE                       | Sodium-(s)-lactate solution ... | 17315306         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 1813502          | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 18135702         | 4       |
| GEHE                       | Sodium-(s)-lactate solution ... | 18135702         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 18135802         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 18135803         | 1       |
| GEHE                       | Sodium-(s)-lactate solution ... | 18135803         | 3       |
| Gehe                       | Sodium-(s)-lactate solution ... | 18314501         | 1       |
| GEHE                       | Sodium-(s)-lactate solution ... | 18314501         | 2       |
| Gehe                       | Sodium-(s)-lactate solution ... | 18314506         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 18314507         | 1       |
| Gehe                       | Sodium-(s)-lactate solution ... | 191667002        | 1       |
| Henry Lamotte Oils GmbH... | Sodium-(s)-lactate solution ... | 16056206         | 1       |
| Henry Lamotte Oils GmbH    | Sodium-(s)-lactate solution ... | 16321001         | 1       |
| Jenne                      | Sodium-(s)-lactate solution ... | 191667007        | 1       |
| Jenne                      | Sodium-(s)-lactate solution ... | 21000068002      | 1       |
| Kehr/Sanacorp              | Sodium-(s)-lactate solution ... | 17315301         | 1       |
| Kehr                       | Sodium-(s)-lactate solution ... | 17097709         | 1       |
| Klenk                      | Sodium-(s)-lactate solution ... | 13267001         | 1       |
| Klenk                      | Sodium-(s)-lactate solution ... | 18135702         | 1       |
| L30                        | Sodium-(s)-lactate solution ... | 17315301         | 1       |
| Lamotte/Phönix             | Sodium-(s)-lactate solution ... | 16056201         | 1       |
| Lamotte/Sanacorp           | Sodium-(s)-lactate solution ... | 17315301         | 1       |
| Noweda 18.05.2015          | Sodium-(s)-lactate solution ... | 14353205         | 1       |
| Noweda                     | Sodium-(s)-lactate solution ... | 12294604         | 1       |
| Noweda                     | Sodium-(s)-lactate solution ... | 13267001         | 1       |
| Noweda                     | Sodium-(s)-lactate solution ... | 17097704         | 2       |
| Noweda                     | Sodium-(s)-lactate solution ... | 17097709         | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Noweda                     | Sodium-(s)-lactate solution ... | 17315301    | 1       |
| Noweda                     | Sodium-(s)-lactate solution ... | 18135806    | 1       |
| Noweda                     | Sodium-(s)-lactate solution ... | 20000467002 | 1       |
| Noweda                     | Sodium-(s)-lactate solution ... | 20000467006 | 1       |
| Otto Fischar               | Sodium-(s)-lactate solution ... | 16056201    | 1       |
| Pharmachem/AHD             | Sodium-(s)-lactate solution ... | 17097704    | 1       |
| phoenix                    | Sodium-(s)-lactate solution ... | 14271901    | 2       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 14353210    | 1       |
| phoenix                    | Sodium-(s)-lactate solution ... | 15251101    | 2       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 15251101    | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 16056201    | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 17097704    | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 17315306    | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 17315307    | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 18135803    | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 18314501    | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 3110        | 1       |
| Phoenix                    | Sodium-(s)-lactate solution ... | 3240        | 1       |
| Phönix Gotha               | Sodium-(s)-lactate solution ... | K40875122   | 1       |
| Phönix, 20.09.2013         | Sodium-(s)-lactate solution ... | 13111705    | 1       |
| Phönix, Caesar&Loretz G... | Sodium-(s)-lactate solution ... | 18314506    | 1       |
| phönix                     | Sodium-(s)-lactate solution ... | 12180404/8  | 1       |
| Phönix                     | Sodium-(s)-lactate solution ... | 12180407    | 1       |
| Phönix                     | Sodium-(s)-lactate solution ... | 14271901    | 1       |
| Phonix                     | Sodium-(s)-lactate solution ... | 17097701    | 1       |
| Phönix                     | Sodium-(s)-lactate solution ... | 17097704    | 2       |
| Phönix                     | Sodium-(s)-lactate solution ... | 17315301    | 1       |
| Phönix                     | Sodium-(s)-lactate solution ... | 191667006   | 2       |
| Phönix                     | Sodium-(s)-lactate solution ... | 20000467004 | 1       |
| Phönix                     | Sodium-(s)-lactate solution ... | 20000467005 | 2       |
| phönix                     | Sodium-(s)-lactate solution ... | 9/AKD56     | 1       |
| PKH Halle                  | Sodium-(s)-lactate solution ... | 17315306    | 1       |
| Sanacorp/Caesar & Loret... | Sodium-(s)-lactate solution ... | 18135803    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 11/AKD13    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 12180407    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 14039508    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 14182902    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 14271902    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 14353210    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 15375806    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 16056206    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 17097708    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 17315301    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 18135702    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 18135802    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 183145001   | 2       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 18314501    | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 191667001   | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 191667007   | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 21003221001 | 1       |
| Sanacorp                   | Sodium-(s)-lactate solution ... | 21003221002 | 1       |

- 286 710 spectra from 1294 *Apo-Ident* customers from a total of 51 707 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).



## Validation results

The validation runs checked whether the substance/substance group *Sodium-(s)-lactate solution 50%* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Sodium-(s)-lactate solution 50%* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 380           | 0              | 66 779        |
| Type B | 0              | 120           | 0              | 107 243       |
| Type C | 0              | 1996          | 3              | 286 710       |

The substance/substance group *Sodium-(s)-lactate solution 50%* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.4211 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.8499 % (> 99.6998 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Sodium-(s)-lactate solution 50%* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                           | Distance in main model | Distance in second-stage model |
|-------------------------------------|------------------------|--------------------------------|
| Lotio Cordes®                       | 34.76                  | —                              |
| Liquorice juice purified, diluted   | 36.58                  | —                              |
| Hydrated liniment SR/DAC (NRF p.40) | 44.56                  | —                              |
| Condurango wine                     | 46.23                  | —                              |
| Base cream, diluted                 | 50.48                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Sodium-(s)-lactate solution 50%* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30621     | 32839               | 2.98                         | 35.51                           |
| 31321     | 32839               | 2.10                         | 37.20                           |
| 32586     | 34729               | 7.29                         | 45.96                           |
| 32839     | 32839               | 0.00                         | 37.24                           |
| 32917     | 32839               | 2.53                         | 34.76                           |
| 34729     | 34729               | 0.00                         | 40.55                           |
| 35824     | 35824               | 0.00                         | 37.63                           |
| 35830     | 35830               | 0.00                         | 35.79                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Soft ointment</b>                                             |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30896-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Soft ointment; Unguentum molle

### Special notes

When selecting the *Soft ointment* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Soft ointment             | 9      | 34     | 498    |

## Second-stage model

For differentiation of the substance/substance group *Soft ointment* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Soft ointment*:

| Supplier      | Substance     | Batch      | Sample ID | Spectra | Certificate        |
|---------------|---------------|------------|-----------|---------|--------------------|
| Caelo         | Soft ointment | 12353301   | 30896     | 80      | 20121218           |
| Caelo         | Soft ointment | 14080501   | 31452     | 40      | AR-15-FG-000142-01 |
| Caelo         | Soft ointment | 153768     | 31984     | 60      | 20151103*          |
| Caelo         | Soft ointment | 160833     | 32097     | 40      | 20160322*          |
| Caelo         | Soft ointment | 163134     | 32871     | 40      | 20161116*          |
| Caelo         | Soft ointment | 21000780   | 35342     | 40      | 20210310*          |
| Caelo         | Soft ointment | 21000781   | 35343     | 40      | 20210310*          |
| Henry Lamotte | Soft ointment | 5215100    | 30924     | 50      | 20111111           |
| Henry Lamotte | Soft ointment | 8005213003 | 34687     | 40      | 20190318           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 430 spectra of 9 reference samples from the substance/substance group *Soft ointment*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 9 different batches.
- 66 729 spectra from a total of 1370 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 1600 spectra of 38 reference samples from the substance/substance group *Soft ointment*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 34 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance     | Batch    | Sample ID | Spectra |
|-----------|---------------|----------|-----------|---------|
| Bombastus | Soft ointment | 21005256 | 36212     | 40      |
| Caelo     | Soft ointment | 153770   | 31985     | 60      |
| Caelo     | Soft ointment | 153772   | 31987     | 60      |
| Caelo     | Soft ointment | 160830   | 32094     | 40      |
| Caelo     | Soft ointment | 160831   | 32095     | 30      |
| Caelo     | Soft ointment | 160832   | 32096     | 40      |
| Caelo     | Soft ointment | 161463   | 32406     | 40      |
| Caelo     | Soft ointment | 161464   | 32407     | 40      |
| Caelo     | Soft ointment | 162452   | 32496     | 40      |
| Caelo     | Soft ointment | 162453   | 32497     | 40      |
| Caelo     | Soft ointment | 162454   | 32498     | 40      |
| Caelo     | Soft ointment | 162455   | 32499     | 40      |
| Caelo     | Soft ointment | 171969   | 33560     | 40      |
| Caelo     | Soft ointment | 171971   | 33561     | 40      |
| Caelo     | Soft ointment | 171972   | 33562     | 40      |
| Caelo     | Soft ointment | 172631   | 33748     | 40      |
| Caelo     | Soft ointment | 172632   | 33749     | 40      |
| Caelo     | Soft ointment | 180021   | 34012     | 40      |
| Caelo     | Soft ointment | 182012   | 34258     | 40      |
| Caelo     | Soft ointment | 182511   | 34356     | 40      |
| Caelo     | Soft ointment | 191915   | 34784     | 40      |
| Caelo     | Soft ointment | 190824   | 34785     | 40      |
| Caelo     | Soft ointment | 20001408 | 34964     | 40      |
| Caelo     | Soft ointment | 21000779 | 35341     | 40      |
| Caelo     | Soft ointment | 21000782 | 35344     | 40      |
| Caelo     | Soft ointment | 21000783 | 35345     | 40      |
| Caelo     | Soft ointment | 21002255 | 35863     | 50      |
| Caelo     | Soft ointment | 21002256 | 35864     | 50      |
| Caelo     | Soft ointment | 21002258 | 35865     | 50      |
| Caelo     | Soft ointment | 21002259 | 35866     | 50      |
| Caelo     | Soft ointment | 21002260 | 35867     | 50      |
| Caelo     | Soft ointment | 21003560 | 35921     | 40      |
| Caelo     | Soft ointment | 21003561 | 35922     | 10      |
| Caelo     | Soft ointment | 21003797 | 35923     | 10      |
| Caelo     | Soft ointment | 153768   | 31983     | 60      |
| Caelo     | Soft ointment | 153770   | 31986     | 60      |
| Caelo     | Soft ointment | 153772   | 31988     | 60      |
| Caelo     | Soft ointment | 172632   | 33750     | 40      |

- 105 763 spectra from a total of 2466 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 5153 spectra from 955 *Apo-Ident* customers from 514 batches from the substance/substance group *Soft ointment*.
- Among them are spectra of independent samples from 497 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance     | Batch            | Spectra |
|----------------------------|---------------|------------------|---------|
|                            | Soft ointment | 14007601         | 1       |
|                            | Soft ointment | 15059301         | 1       |
|                            | Soft ointment | 16G18-T02-035248 | 1       |
| AEP/Caaelo/19.06.20        | Soft ointment | 19305101         | 1       |
| AEP                        | Soft ointment | 19191501         | 1       |
| AHC/Lamotte                | Soft ointment | 8002875005       | 1       |
| AHC                        | Soft ointment | 19305101         | 1       |
| AHD 02.09.14 EK 5,03       | Soft ointment | 5691800          | 1       |
| AHD 17.11.14 EK 5,51       | Soft ointment | 13I24-T01-006925 | 1       |
| ahd/lamotte                | Soft ointment | 5789000          | 1       |
| AHD                        | Soft ointment | 17076601         | 1       |
| AHDE 03.06.2015            | Soft ointment | 14375602         | 2       |
| Ahde 20.11.17              | Soft ointment | 17076401         | 1       |
| AHL                        | Soft ointment | 6001368001       | 2       |
| AHL                        | Soft ointment | 8002320004       | 1       |
| ALH/ Henry                 | Soft ointment | 8002875006       | 1       |
| Allianc 03.02.15           | Soft ointment | 14375601         | 1       |
| Alliance Healthcare Hen... | Soft ointment | 8004399002       | 1       |
| Alliance Healthcare/Hed... | Soft ointment | 281897           | 1       |
| Alliance Healthcare        | Soft ointment | 14080201         | 1       |
| Alliance Healthcare        | Soft ointment | 18251101         | 2       |
| Alliance Healthcare        | Soft ointment | 20001409001      | 1       |
| Alliance Healthcare        | Soft ointment | 298070           | 1       |
| Alliance                   | Soft ointment | 18251101         | 1       |
| Allianz Healthcare 11.0... | Soft ointment | 14375602         | 1       |
| Allianz Healthcare         | Soft ointment | 19082302         | 1       |
| Allianz Healthcare         | Soft ointment | 19191602         | 1       |
| Allianz Healthcare         | Soft ointment | 19305101         | 1       |
| Alte Apotheke              | Soft ointment | 16146103         | 1       |
| Anzag 18.04.14 EK:3,87     | Soft ointment | 1324-T02-006929  | 1       |
| Anzag 23.01.2013           | Soft ointment | 12353301         | 1       |
| Anzag 27.6.17              | Soft ointment | 16313401         | 1       |
| Anzag 31.01.13 ek: 5,10EUR | Soft ointment | 12353201         | 1       |
| Anzag ek:5,12EUR 19.09.12  | Soft ointment | 12091402         | 1       |
| Anzag                      | Soft ointment | 15377101         | 1       |
| Anzag                      | Soft ointment | 16A21-T05-029597 | 1       |
| Anzag                      | Soft ointment | 17A03-T01-039997 | 1       |
| Anzag                      | Soft ointment | 18000135         | 1       |
| Anzag                      | Soft ointment | 18002039         | 1       |
| Anzag                      | Soft ointment | 267553           | 1       |
| Anzag                      | Soft ointment | 269470           | 1       |
| Anzag;21.03.15;3,53EUR     | Soft ointment | 14375601         | 1       |
| Anzag;27.10.14;3,28EUR     | Soft ointment | 14202301         | 1       |
| ApoAmKlini                 | Soft ointment | 1118Q-02542      | 2       |
| apomix                     | Soft ointment | 16146401         | 1       |
| BASF AG                    | Soft ointment | 291333           | 1       |
| Beiersdorf/Phoenix         | Soft ointment | 16313401         | 1       |
| Beiersdorf                 | Soft ointment | 16146301         | 1       |
| Berkel AHK                 | Soft ointment | 13387402         | 1       |
| Berkel AHK                 | Soft ointment | 14007601         | 1       |
| Berkel AHK                 | Soft ointment | 14202001         | 1       |
| Berkel AHK                 | Soft ointment | 14202201         | 2       |
| Bomastus                   | Soft ointment | 291333           | 1       |
| Bomastus                   | Soft ointment | 15377001         | 1       |
| Bomastus                   | Soft ointment | 16083001         | 1       |
| Bomastus                   | Soft ointment | 16083101         | 1       |
| Bomastus                   | Soft ointment | 16146301         | 1       |
| Bomastus                   | Soft ointment | 17000369         | 4       |
| Bomastus                   | Soft ointment | 17000370         | 7       |
| Bomastus                   | Soft ointment | 18000134         | 6       |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Soft ointment    | 18000135     | 3              |
| Bombastus       | Soft ointment    | 18000136     | 3              |
| Bombastus       | Soft ointment    | 18002038     | 8              |
| Bombastus       | Soft ointment    | 18002039     | 4              |
| Bombastus       | Soft ointment    | 18002040     | 5              |
| Bombastus       | Soft ointment    | 18002978     | 7              |
| Bombastus       | Soft ointment    | 18004473     | 2              |
| Bombastus       | Soft ointment    | 18004474     | 1              |
| Bombastus       | Soft ointment    | 18004475     | 12             |
| Bombastus       | Soft ointment    | 18006880     | 5              |
| Bombastus       | Soft ointment    | 18006881     | 2              |
| Bombastus       | Soft ointment    | 18006882     | 8              |
| Bombastus       | Soft ointment    | 18163001     | 2              |
| Bombastus       | Soft ointment    | 19002112     | 5              |
| Bombastus       | Soft ointment    | 19002113     | 3              |
| Bombastus       | Soft ointment    | 19002114     | 8              |
| Bombastus       | Soft ointment    | 19002576     | 3              |
| Bombastus       | Soft ointment    | 19003312     | 1              |
| Bombastus       | Soft ointment    | 19003313     | 7              |
| Bombastus       | Soft ointment    | 19005876     | 2              |
| Bombastus       | Soft ointment    | 19005877     | 1              |
| Bombastus       | Soft ointment    | 19005878     | 5              |
| Bombastus       | Soft ointment    | 19305101     | 1              |
| Bombastus       | Soft ointment    | 20001428     | 4              |
| Bombastus       | Soft ointment    | 20002930     | 6              |
| Bombastus       | Soft ointment    | 20004418     | 1              |
| Bombastus       | Soft ointment    | 20004419     | 2              |
| Bombastus       | Soft ointment    | 21002016     | 1              |
| Bombastus       | Soft ointment    | 21003962     | 1              |
| Bombastus       | Soft ointment    | 254399       | 1              |
| Bombastus       | Soft ointment    | 261106       | 1              |
| Bombastus       | Soft ointment    | 262274       | 1              |
| Bombastus       | Soft ointment    | 269468       | 1              |
| Bombastus       | Soft ointment    | 269469       | 1              |
| Bombastus       | Soft ointment    | 271430       | 1              |
| Bombastus       | Soft ointment    | 275422       | 4              |
| Bombastus       | Soft ointment    | 275424       | 1              |
| Bombastus       | Soft ointment    | 276854       | 1              |
| Bombastus       | Soft ointment    | 278047       | 1              |
| Bombastus       | Soft ointment    | 278048       | 2              |
| Bombastus       | Soft ointment    | 280166       | 2              |
| Bombastus       | Soft ointment    | 281897       | 1              |
| Bombastus       | Soft ointment    | 284056       | 1              |
| Bombastus       | Soft ointment    | 284057       | 1              |
| Bombastus       | Soft ointment    | 286012       | 7              |
| Bombastus       | Soft ointment    | 288013       | 4              |
| Bombastus       | Soft ointment    | 288702       | 1              |
| Bombastus       | Soft ointment    | 288704       | 7              |
| Bombastus       | Soft ointment    | 291333       | 3              |
| Bombastus       | Soft ointment    | 293336       | 3              |
| Bombastus       | Soft ointment    | 295313       | 4              |
| Bombastus       | Soft ointment    | 297077       | 9              |
| Bombastus       | Soft ointment    | 298069       | 1              |
| Bombastus       | Soft ointment    | 298070       | 3              |
| Bombastus       | Soft ointment    | 299869       | 9              |
| Bombastus       | Soft ointment    | 300642       | 1              |
| Bombastus       | Soft ointment    | 302326       | 1              |
| Bombastus       | Soft ointment    | 302327       | 6              |
| Bombastus       | Soft ointment    | 304546       | 1              |
| Bombastus       | Soft ointment    | 304548       | 7              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|-----------------|------------------|--------------|----------------|
| Bombastus       | Soft ointment    | 305449       | 7              |
| Bombastus       | Soft ointment    | 305450       | 5              |
| Bombastus       | Soft ointment    | 305451       | 4              |
| Bombastus       | Soft ointment    | 308038       | 2              |
| Bombastus       | Soft ointment    | 308039       | 4              |
| Bombastus       | Soft ointment    | 308040       | 5              |
| Bombastus       | Soft ointment    | 309726       | 2              |
| Bombastus       | Soft ointment    | 309727       | 8              |
| Bombastus       | Soft ointment    | 3099727      | 1              |
| Bombastus       | Soft ointment    | 5317100      | 1              |
| Bombastus       | Soft ointment    | 60089901     | 1              |
| Bombastus       | Soft ointment    | 6862381      | 2              |
| Bombastus       | Soft ointment    | 8002875005   | 1              |
| Caela           | Soft ointment    | 15376801     | 1              |
| Caeleo/ Krieger | Soft ointment    | 182021301    | 1              |
| Caelo           | Soft ointment    |              | 5              |
| Caelo           | Soft ointment    | 10(18002303) | 1              |
| Caelo           | Soft ointment    | 100/AKD7     | 1              |
| Caelo           | Soft ointment    | 101/AKD12    | 1              |
| Caelo           | Soft ointment    | 101/AKD13    | 1              |
| Caelo           | Soft ointment    | 10101801     | 1              |
| Caelo           | Soft ointment    | 10111201     | 1              |
| Caelo           | Soft ointment    | 10377201     | 1              |
| Caelo           | Soft ointment    | 1097697      | 2              |
| Caelo           | Soft ointment    | 1097763      | 2              |
| Caelo           | Soft ointment    | 11111        | 1              |
| Caelo           | Soft ointment    | 11132901     | 1              |
| Caelo           | Soft ointment    | 11256302     | 1              |
| Caelo           | Soft ointment    | 11256701     | 5              |
| Caelo           | Soft ointment    | 11282101     | 2              |
| Caelo           | Soft ointment    | 11282102     | 2              |
| Caelo           | Soft ointment    | 11282201     | 7              |
| Caelo           | Soft ointment    | 11282301     | 2              |
| Caelo           | Soft ointment    | 118282301    | 1              |
| Caelo           | Soft ointment    | 12045401     | 1              |
| Caelo           | Soft ointment    | 12045501     | 2              |
| Caelo           | Soft ointment    | 12045601     | 1              |
| Caelo           | Soft ointment    | 12045701     | 5              |
| Caelo           | Soft ointment    | 12045702     | 5              |
| Caelo           | Soft ointment    | 12091303     | 3              |
| Caelo           | Soft ointment    | 12091401     | 1              |
| Caelo           | Soft ointment    | 12091402     | 6              |
| Caelo           | Soft ointment    | 12091403     | 1              |
| Caelo           | Soft ointment    | 12194401     | 3              |
| Caelo           | Soft ointment    | 12194501     | 8              |
| Caelo           | Soft ointment    | 12194502     | 4              |
| Caelo           | Soft ointment    | 12194601     | 13             |
| Caelo           | Soft ointment    | 12194701     | 1              |
| Caelo           | Soft ointment    | 12353201     | 15             |
| Caelo           | Soft ointment    | 12353301     | 9              |
| Caelo           | Soft ointment    | 12353302     | 2              |
| Caelo           | Soft ointment    | 12353401     | 10             |
| Caelo           | Soft ointment    | 1253201      | 1              |
| Caelo           | Soft ointment    | 1294502      | 1              |
| Caelo           | Soft ointment    | 13053601     | 14             |
| Caelo           | Soft ointment    | 13053602     | 6              |
| Caelo           | Soft ointment    | 13053701     | 1              |
| Caelo           | Soft ointment    | 13053801     | 20             |
| Caelo           | Soft ointment    | 13053901     | 7              |
| Caelo           | Soft ointment    | 1314I-02542  | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------|------------------|----------------|
| Caelo           | Soft ointment    | 1314I2542        | 1              |
| Caelo           | Soft ointment    | 1319201          | 1              |
| Caelo           | Soft ointment    | 13192501         | 24             |
| Caelo           | Soft ointment    | 13192502         | 2              |
| Caelo           | Soft ointment    | 13192601         | 37             |
| Caelo           | Soft ointment    | 13192701         | 6              |
| Caelo           | Soft ointment    | 13192801         | 2              |
| Caelo           | Soft ointment    | 13192901         | 19             |
| Caelo           | Soft ointment    | 13192902         | 3              |
| Caelo           | Soft ointment    | 1324-T01-006925  | 1              |
| Caelo           | Soft ointment    | 13375402         | 11             |
| Caelo           | Soft ointment    | 13375501         | 14             |
| Caelo           | Soft ointment    | 13375503         | 2              |
| Caelo           | Soft ointment    | 13387402         | 19             |
| Caelo           | Soft ointment    | 13387403         | 3              |
| Caelo           | Soft ointment    | 14007301         | 24             |
| Caelo           | Soft ointment    | 14007302         | 2              |
| Caelo           | Soft ointment    | 14007402         | 3              |
| Caelo           | Soft ointment    | 14007501         | 12             |
| Caelo           | Soft ointment    | 14007601         | 31             |
| Caelo           | Soft ointment    | 1402201          | 1              |
| Caelo           | Soft ointment    | 14080101         | 1              |
| Caelo           | Soft ointment    | 14080201         | 15             |
| Caelo           | Soft ointment    | 14080301         | 5              |
| Caelo           | Soft ointment    | 14080501         | 9              |
| Caelo           | Soft ointment    | 14201801         | 3              |
| Caelo           | Soft ointment    | 14201901         | 7              |
| Caelo           | Soft ointment    | 14202001         | 17             |
| Caelo           | Soft ointment    | 14202011         | 1              |
| Caelo           | Soft ointment    | 1420220          | 1              |
| Caelo           | Soft ointment    | 14202201         | 24             |
| Caelo           | Soft ointment    | 14202301         | 38             |
| Caelo           | Soft ointment    | 14202302         | 8              |
| Caelo           | Soft ointment    | 1422001          | 1              |
| Caelo           | Soft ointment    | 14375601         | 18             |
| Caelo           | Soft ointment    | 14375602         | 29             |
| Caelo           | Soft ointment    | 14375603         | 1              |
| Caelo           | Soft ointment    | 14375801         | 9              |
| Caelo           | Soft ointment    | 14375901         | 10             |
| Caelo           | Soft ointment    | 1437591          | 1              |
| Caelo           | Soft ointment    | 150539301        | 1              |
| Caelo           | Soft ointment    | 15059301         | 23             |
| Caelo           | Soft ointment    | 15059401         | 14             |
| Caelo           | Soft ointment    | 15059402         | 2              |
| Caelo           | Soft ointment    | 15059501         | 1              |
| Caelo           | Soft ointment    | 15059601         | 6              |
| Caelo           | Soft ointment    | 15092014C        | 1              |
| Caelo           | Soft ointment    | 15204401         | 45             |
| Caelo           | Soft ointment    | 15204402         | 4              |
| Caelo           | Soft ointment    | 15204501         | 27             |
| Caelo           | Soft ointment    | 15204602         | 6              |
| Caelo           | Soft ointment    | 15204701         | 7              |
| Caelo           | Soft ointment    | 15204801         | 5              |
| Caelo           | Soft ointment    | 15376801         | 32             |
| Caelo           | Soft ointment    | 15376901         | 13             |
| Caelo           | Soft ointment    | 15377001         | 32             |
| Caelo           | Soft ointment    | 1537701          | 2              |
| Caelo           | Soft ointment    | 15377101         | 62             |
| Caelo           | Soft ointment    | 15377102         | 1              |
| Caelo           | Soft ointment    | 15e14-t01-022366 | 1              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-----------------|------------------|----------------------|----------------|
| Caelo           | Soft ointment    | 15E14-T02-022369     | 1              |
| Caelo           | Soft ointment    | 15108t02025891       | 1              |
| Caelo           | Soft ointment    | 16024401             | 1              |
| Caelo           | Soft ointment    | 1603001              | 1              |
| Caelo           | Soft ointment    | 16045301             | 1              |
| Caelo           | Soft ointment    | 160620UM             | 1              |
| Caelo           | Soft ointment    | 160830               | 1              |
| Caelo           | Soft ointment    | 16083001             | 45             |
| Caelo           | Soft ointment    | 16083002             | 40             |
| Caelo           | Soft ointment    | 16083003             | 2              |
| Caelo           | Soft ointment    | 16083101             | 38             |
| Caelo           | Soft ointment    | 16083301             | 9              |
| Caelo           | Soft ointment    | 161111UM/16146103    | 1              |
| Caelo           | Soft ointment    | 16146103             | 9              |
| Caelo           | Soft ointment    | 1614620              | 1              |
| Caelo           | Soft ointment    | 16146201             | 10             |
| Caelo           | Soft ointment    | 16146301             | 24             |
| Caelo           | Soft ointment    | 16146302             | 5              |
| Caelo           | Soft ointment    | 16146401             | 11             |
| Caelo           | Soft ointment    | 161465               | 1              |
| Caelo           | Soft ointment    | 16146502             | 35             |
| Caelo           | Soft ointment    | 161465025263         | 1              |
| Caelo           | Soft ointment    | 16146503             | 3              |
| Caelo           | Soft ointment    | 1624501              | 1              |
| Caelo           | Soft ointment    | 16245201             | 50             |
| Caelo           | Soft ointment    | 16245202             | 7              |
| Caelo           | Soft ointment    | 16245301             | 51             |
| Caelo           | Soft ointment    | 16245401             | 37             |
| Caelo           | Soft ointment    | 16245402             | 7              |
| Caelo           | Soft ointment    | 16245502             | 3              |
| Caelo           | Soft ointment    | 16245502-20170818Ma7 | 1              |
| Caelo           | Soft ointment    | 16313401             | 45             |
| Caelo           | Soft ointment    | 16313402             | 4              |
| Caelo           | Soft ointment    | 16313501             | 53             |
| Caelo           | Soft ointment    | 1631351              | 1              |
| Caelo           | Soft ointment    | 16A21T05029597       | 1              |
| Caelo           | Soft ointment    | 16A21-T05-029597     | 1              |
| Caelo           | Soft ointment    | 16F03-T02-033989     | 2              |
| Caelo           | Soft ointment    | 16G18-T02-035248     | 1              |
| Caelo           | Soft ointment    | 170318183            | 1              |
| Caelo           | Soft ointment    | 170509UM/16245202    | 1              |
| Caelo           | Soft ointment    | 1706401              | 1              |
| Caelo           | Soft ointment    | 17064402             | 1              |
| Caelo           | Soft ointment    | 17076051             | 1              |
| Caelo           | Soft ointment    | 17076301             | 17             |
| Caelo           | Soft ointment    | 170764               | 1              |
| Caelo           | Soft ointment    | 17076401             | 88             |
| Caelo           | Soft ointment    | 17076401/5440        | 1              |
| Caelo           | Soft ointment    | 170764015337         | 1              |
| Caelo           | Soft ointment    | 17076402             | 2              |
| Caelo           | Soft ointment    | 17076501             | 53             |
| Caelo           | Soft ointment    | 17076601             | 67             |
| Caelo           | Soft ointment    | 17076701             | 8              |
| Caelo           | Soft ointment    | 17076801             | 10             |
| Caelo           | Soft ointment    | 17076801-20171106Ma6 | 1              |
| Caelo           | Soft ointment    | 17076901             | 13             |
| Caelo           | Soft ointment    | 170769901            | 1              |
| Caelo           | Soft ointment    | 170926UM/17076301    | 1              |
| Caelo           | Soft ointment    | 17104902             | 1              |
| Caelo           | Soft ointment    | 17196901             | 4              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>         | <b>Spectra</b> |
|-----------------|------------------|----------------------|----------------|
| Caelo           | Soft ointment    | 17197101             | 13             |
| Caelo           | Soft ointment    | 17197102             | 17             |
| Caelo           | Soft ointment    | 17197103             | 5              |
| Caelo           | Soft ointment    | 17197103-20180112Ma6 | 1              |
| Caelo           | Soft ointment    | 17197201             | 15             |
| Caelo           | Soft ointment    | 17203101             | 1              |
| Caelo           | Soft ointment    | 17250908             | 1              |
| Caelo           | Soft ointment    | 1726201              | 1              |
| Caelo           | Soft ointment    | 17263101             | 72             |
| Caelo           | Soft ointment    | 17263201             | 99             |
| Caelo           | Soft ointment    | 172632015583         | 1              |
| Caelo           | Soft ointment    | 17263202             | 18             |
| Caelo           | Soft ointment    | 17263301             | 3              |
| Caelo           | Soft ointment    | 17263302             | 9              |
| Caelo           | Soft ointment    | 17263302-20180404Ma8 | 1              |
| Caelo           | Soft ointment    | 17A03-T01-039997     | 1              |
| Caelo           | Soft ointment    | 17H28-T03-047827     | 2              |
| Caelo           | Soft ointment    | 180002401            | 2              |
| Caelo           | Soft ointment    | 18001701             | 11             |
| Caelo           | Soft ointment    | 18001801             | 13             |
| Caelo           | Soft ointment    | 18001901             | 12             |
| Caelo           | Soft ointment    | 18001901-W20190115Ma | 1              |
| Caelo           | Soft ointment    | 18002001             | 18             |
| Caelo           | Soft ointment    | 18002101             | 15             |
| Caelo           | Soft ointment    | 18002201             | 3              |
| Caelo           | Soft ointment    | 18002302             | 26             |
| Caelo           | Soft ointment    | 18002303             | 13             |
| Caelo           | Soft ointment    | 18002320             | 1              |
| Caelo           | Soft ointment    | 18002401             | 90             |
| Caelo           | Soft ointment    | 18002501             | 70             |
| Caelo           | Soft ointment    | 1800251              | 1              |
| Caelo           | Soft ointment    | 180320UM/17263302    | 1              |
| Caelo           | Soft ointment    | 18051101             | 1              |
| Caelo           | Soft ointment    | 18061806             | 1              |
| Caelo           | Soft ointment    | 181016187            | 1              |
| Caelo           | Soft ointment    | 181102183            | 1              |
| Caelo           | Soft ointment    | 18121206             | 1              |
| Caelo           | Soft ointment    | 18140501             | 14             |
| Caelo           | Soft ointment    | 18140502             | 9              |
| Caelo           | Soft ointment    | 18140503             | 1              |
| Caelo           | Soft ointment    | 1814501              | 1              |
| Caelo           | Soft ointment    | 18152901             | 38             |
| Caelo           | Soft ointment    | 18162901             | 22             |
| Caelo           | Soft ointment    | 18163001             | 26             |
| Caelo           | Soft ointment    | 182011201            | 1              |
| Caelo           | Soft ointment    | 18201201             | 81             |
| Caelo           | Soft ointment    | 18201204             | 1              |
| Caelo           | Soft ointment    | 18201301             | 71             |
| Caelo           | Soft ointment    | 18201401             | 2              |
| Caelo           | Soft ointment    | 18201402             | 85             |
| Caelo           | Soft ointment    | 182014202            | 1              |
| Caelo           | Soft ointment    | 1821301              | 1              |
| Caelo           | Soft ointment    | 18251101             | 90             |
| Caelo           | Soft ointment    | 18251102             | 4              |
| Caelo           | Soft ointment    | 18251202             | 6              |
| Caelo           | Soft ointment    | 18251301             | 40             |
| Caelo           | Soft ointment    | 18251302             | 3              |
| Caelo           | Soft ointment    | 18521301             | 1              |
| Caelo           | Soft ointment    | 18E07-T09-055703     | 1              |
| Caelo           | Soft ointment    | 19000426001          | 7              |

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| Supplier | Substance     | Batch          | Spectra |
|----------|---------------|----------------|---------|
| Caelo    | Soft ointment | 1900044001     | 1       |
| Caelo    | Soft ointment | 19000444001    | 10      |
| Caelo    | Soft ointment | 19000445001    | 11      |
| Caelo    | Soft ointment | 19000446001    | 34      |
| Caelo    | Soft ointment | 1900046001     | 2       |
| Caelo    | Soft ointment | 1900446001     | 2       |
| Caelo    | Soft ointment | 19014902       | 1       |
| Caelo    | Soft ointment | 19015001       | 13      |
| Caelo    | Soft ointment | 19015020       | 1       |
| Caelo    | Soft ointment | 19015101       | 38      |
| Caelo    | Soft ointment | 19015102       | 10      |
| Caelo    | Soft ointment | 190152002      | 2       |
| Caelo    | Soft ointment | 19015202       | 57      |
| Caelo    | Soft ointment | 1905202        | 1       |
| Caelo    | Soft ointment | 19082301       | 23      |
| Caelo    | Soft ointment | 19082302       | 94      |
| Caelo    | Soft ointment | 19082401       | 57      |
| Caelo    | Soft ointment | 19082501       | 13      |
| Caelo    | Soft ointment | 1912A-02542    | 1       |
| Caelo    | Soft ointment | 19190701       | 1       |
| Caelo    | Soft ointment | 19191501       | 41      |
| Caelo    | Soft ointment | 19191601       | 5       |
| Caelo    | Soft ointment | 19191602       | 66      |
| Caelo    | Soft ointment | 19191603       | 1       |
| Caelo    | Soft ointment | 19191702       | 8       |
| Caelo    | Soft ointment | 19191801       | 8       |
| Caelo    | Soft ointment | 1919602        | 2       |
| Caelo    | Soft ointment | 192936001      | 47      |
| Caelo    | Soft ointment | 19305101       | 82      |
| Caelo    | Soft ointment | 1982401        | 1       |
| Caelo    | Soft ointment | 19B14T07064291 | 1       |
| Caelo    | Soft ointment | 200001408001   | 1       |
| Caelo    | Soft ointment | 200002174001   | 1       |
| Caelo    | Soft ointment | 200003575001   | 1       |
| Caelo    | Soft ointment | 20001408001    | 22      |
| Caelo    | Soft ointment | 20001409001    | 49      |
| Caelo    | Soft ointment | 2000149001     | 4       |
| Caelo    | Soft ointment | 20001641001    | 2       |
| Caelo    | Soft ointment | 20001642001    | 5       |
| Caelo    | Soft ointment | 200016641001   | 1       |
| Caelo    | Soft ointment | 200021         | 1       |
| Caelo    | Soft ointment | 20002174001    | 23      |
| Caelo    | Soft ointment | 20002175001    | 10      |
| Caelo    | Soft ointment | 20002175002    | 26      |
| Caelo    | Soft ointment | 2000217502     | 1       |
| Caelo    | Soft ointment | 20002176002    | 7       |
| Caelo    | Soft ointment | 20003574002    | 26      |
| Caelo    | Soft ointment | 20003575001    | 30      |
| Caelo    | Soft ointment | 2000357501     | 1       |
| Caelo    | Soft ointment | 20003576001    | 5       |
| Caelo    | Soft ointment | 20011702       | 1       |
| Caelo    | Soft ointment | 2001409001     | 3       |
| Caelo    | Soft ointment | 2002175002     | 1       |
| Caelo    | Soft ointment | 20170815-02542 | 1       |
| Caelo    | Soft ointment | 20230712-4     | 1       |
| Caelo    | Soft ointment | 21000779001    | 15      |
| Caelo    | Soft ointment | 21000780002    | 2       |
| Caelo    | Soft ointment | 21000781001    | 35      |
| Caelo    | Soft ointment | 21000782001    | 15      |
| Caelo    | Soft ointment | 21000783001    | 5       |

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| Supplier                   | Substance     | Batch       | Spectra |
|----------------------------|---------------|-------------|---------|
| Caelo                      | Soft ointment | 21002255001 | 4       |
| Caelo                      | Soft ointment | 21002258001 | 4       |
| Caelo                      | Soft ointment | 21002259001 | 1       |
| Caelo                      | Soft ointment | 21002260002 | 14      |
| Caelo                      | Soft ointment | 2100226002  | 1       |
| Caelo                      | Soft ointment | 21003560001 | 3       |
| Caelo                      | Soft ointment | 2100779001  | 1       |
| Caelo                      | Soft ointment | 2100781001  | 2       |
| Caelo                      | Soft ointment | 23061403    | 1       |
| Caelo                      | Soft ointment | 23101705    | 1       |
| Caelo                      | Soft ointment | 2513A-02542 | 1       |
| Caelo                      | Soft ointment | 26011904    | 1       |
| Caelo                      | Soft ointment | 2739        | 1       |
| Caelo                      | Soft ointment | 2820        | 1       |
| Caelo                      | Soft ointment | 284057      | 1       |
| Caelo                      | Soft ointment | 286011      | 1       |
| Caelo                      | Soft ointment | 29091804    | 1       |
| Caelo                      | Soft ointment | 299869      | 1       |
| Caelo                      | Soft ointment | 31031503    | 1       |
| Caelo                      | Soft ointment | 3213E2542   | 1       |
| Caelo                      | Soft ointment | 5011504     | 1       |
| Caelo                      | Soft ointment | 5081405     | 1       |
| Caelo                      | Soft ointment | 51123/1S1e  | 1       |
| Caelo                      | Soft ointment | 5448300     | 1       |
| Caelo                      | Soft ointment | 5789000     | 1       |
| Caelo                      | Soft ointment | 612212542   | 1       |
| Caelo                      | Soft ointment | 7051510     | 1       |
| Caelo                      | Soft ointment | 7071202     | 1       |
| Caelo                      | Soft ointment | 7076501     | 1       |
| Caelo                      | Soft ointment | 8002875005  | 1       |
| Caelo                      | Soft ointment | 8012014C    | 1       |
| Caelo                      | Soft ointment | 8012015C    | 1       |
| Caelo                      | Soft ointment | 8201402     | 1       |
| Caelo                      | Soft ointment | 92810389    | 1       |
| Caelo                      | Soft ointment | Caelo       | 1       |
| Caelo                      | Soft ointment | I3192502    | 1       |
| Caelo                      | Soft ointment | pzn01097763 | 1       |
| Caelo                      | Soft ointment | VFM002-1C   | 1       |
| Caeolo/Ahd                 | Soft ointment | 18201301    | 1       |
| Caeolo/Gehe                | Soft ointment | 17263201    | 2       |
| Caeolo/Phönix              | Soft ointment | 17076401    | 1       |
| Caeolo/Sanacorp            | Soft ointment | 18163001    | 1       |
| Caeolo/Sanacorp            | Soft ointment | 18251101    | 1       |
| Caeöo/Noweda               | Soft ointment | 17076401    | 1       |
| Caesar & Lorenz GmbH       | Soft ointment | 15376801    | 1       |
| Caesar & Lorenz GmbH       | Soft ointment | 18002302    | 1       |
| Caesar & Lorenz GmbH       | Soft ointment | 19191602    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 15204401    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 19082401    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 19191602    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 19082302    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 19015202    | 2       |
| Caesar & Loretz GmbH / ... | Soft ointment | 19191801    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 19015202    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 20001409001 | 2       |
| Caesar & Loretz GmbH / ... | Soft ointment | 18201201    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 18201301    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 18251301    | 1       |
| Caesar & Loretz GmbH / ... | Soft ointment | 19082401    | 3       |
| Caesar & Loretz GmbH /n... | Soft ointment | 19305101    | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH, 4... | Soft ointment    | 13053601     | 1              |
| Caesar & Loretz GmbH, P... | Soft ointment    | 18002501     | 1              |
| Caesar & Loretz GmbH, P... | Soft ointment    | 19305101     | 1              |
| Caesar & Loretz GmbH, Gehe | Soft ointment    | 20002174001  | 1              |
| Caesar & Loretz GmbH/ G... | Soft ointment    | 19000426001  | 1              |
| Caesar & Loretz GmbH/ G... | Soft ointment    | 19000445001  | 2              |
| Caesar & Loretz GmbH/ G... | Soft ointment    | 20001409001  | 1              |
| Caesar & Loretz GmbH/ G... | Soft ointment    | 20003574002  | 1              |
| Caesar & Loretz GmbH/ G... | Soft ointment    | 20003575001  | 1              |
| Caesar & Loretz GmbH/ G... | Soft ointment    | 20003576001  | 1              |
| Caesar & Loretz GmbH/ N... | Soft ointment    | 19082302     | 1              |
| Caesar & Loretz GmbH/ N... | Soft ointment    | 20001409001  | 1              |
| Caesar & Loretz GmbH/ P... | Soft ointment    | 19082301     | 1              |
| Caesar & Loretz GmbH/ P... | Soft ointment    | 19305101     | 1              |
| Caesar & Loretz GmbH/ P... | Soft ointment    | 6082302      | 1              |
| Caesar & Loretz GmbH/ S... | Soft ointment    | 19000446001  | 1              |
| Caesar & Loretz GmbH/AEP   | Soft ointment    | 21000781001  | 2              |
| Caesar & Loretz GmbH/AEP   | Soft ointment    | 21002260002  | 1              |
| Caesar & Loretz GmbH/Al... | Soft ointment    | 19082302     | 1              |
| Caesar & Loretz GmbH/Fi... | Soft ointment    | 192936001    | 1              |
| Caesar & Loretz GmbH/Fi... | Soft ointment    | 19082401     | 1              |
| Caesar & Loretz GmbH/Fi... | Soft ointment    | 18251301     | 2              |
| Caesar & Loretz GmbH/Gehe  | Soft ointment    | 18251101     | 1              |
| Caesar & Loretz GmbH/Gehe  | Soft ointment    | 19000444001  | 1              |
| Caesar & Loretz GmbH/Gehe  | Soft ointment    | 19015001     | 3              |
| Caesar & Loretz GmbH/Gehe  | Soft ointment    | 19191801     | 3              |
| Caesar & Loretz GmbH/Gehe  | Soft ointment    | 19305101     | 1              |
| Caesar & Loretz GmbH/Gehe  | Soft ointment    | 21002255001  | 1              |
| Caesar & Loretz GmbH/Ge... | Soft ointment    | 19015202     | 1              |
| Caesar & Loretz GmbH/Ge... | Soft ointment    | 19191501     | 1              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 19082302     | 1              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 19082401     | 1              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 19191501     | 1              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 192936001    | 4              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 20001409001  | 1              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 20003575001  | 2              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 21000781001  | 1              |
| Caesar & Loretz GmbH/Je... | Soft ointment    | 21002260002  | 1              |
| Caesar & Loretz GmbH/Kehr  | Soft ointment    | 19082301     | 1              |
| Caesar & Loretz GmbH/No... | Soft ointment    | 19000445001  | 1              |
| Caesar & Loretz GmbH/No... | Soft ointment    | 19015202     | 2              |
| Caesar & Loretz GmbH/No... | Soft ointment    | 19082401     | 1              |
| Caesar & Loretz GmbH/No... | Soft ointment    | 19305101     | 1              |
| Caesar & Loretz GmbH/No... | Soft ointment    | 20001409001  | 4              |
| Caesar & Loretz GmbH/No... | Soft ointment    | 21002260002  | 2              |
| Caesar & Loretz GmbH/No... | Soft ointment    | 20001642001  | 2              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 19191602     | 1              |
| Caesar & Loretz GmbH/ph... | Soft ointment    | 20003575001  | 1              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 21000779001  | 1              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 21003560001  | 1              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 19015001     | 1              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 19082401     | 1              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 19191501     | 2              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 192936001    | 1              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 19305101     | 2              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 20001409001  | 2              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 20003574002  | 2              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 20003575001  | 1              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 21000781001  | 2              |
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 21000782001  | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Caesar & Loretz GmbH/Ph... | Soft ointment    | 21003560001  | 1              |
| Caesar & Loretz GmbH/Sana  | Soft ointment    | 20002175001  | 1              |
| Caesar & Loretz GmbH/Sana  | Soft ointment    | 21002260002  | 2              |
| Caesar & Loretz GmbH/Sa... | Soft ointment    | 19082301     | 1              |
| Caesar & Loretz GmbH/Sa... | Soft ointment    | 19305101     | 2              |
| Caesar & Loretz GmbH/Sa... | Soft ointment    | 19082302     | 1              |
| Caesar & Loretz GmbH/Sa... | Soft ointment    | 20002174001  | 1              |
| Caesar & Loretz GmbH/Sa... | Soft ointment    | 20002175001  | 1              |
| Caesar & Loretz GmbH/Sa... | Soft ointment    | 20002175002  | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 18002401     | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 18152901     | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 18162901     | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 18163001     | 4              |
| Caesar & Loretz GmbH       | Soft ointment    | 18201201     | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 18201301     | 6              |
| Caesar & Loretz GmbH       | Soft ointment    | 18201402     | 3              |
| Caesar & Loretz GmbH       | Soft ointment    | 18251101     | 13             |
| Caesar & Loretz GmbH       | Soft ointment    | 18251202     | 2              |
| Caesar & Loretz GmbH       | Soft ointment    | 18251301     | 7              |
| Caesar & Loretz GmbH       | Soft ointment    | 18251302     | 2              |
| Caesar & Loretz GmbH       | Soft ointment    | 19000426001  | 5              |
| Caesar & Loretz GmbH       | Soft ointment    | 19000444001  | 7              |
| Caesar & Loretz GmbH       | Soft ointment    | 19000445001  | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 19000446001  | 8              |
| Caesar & Loretz GmbH       | Soft ointment    | 19015001     | 2              |
| Caesar & Loretz GmbH       | Soft ointment    | 19015101     | 11             |
| Caesar & Loretz GmbH       | Soft ointment    | 19015102     | 5              |
| Caesar & Loretz GmbH       | Soft ointment    | 19015202     | 17             |
| Caesar & Loretz GmbH       | Soft ointment    | 19082301     | 9              |
| Caesar & Loretz GmbH       | Soft ointment    | 19082302     | 26             |
| Caesar & Loretz GmbH       | Soft ointment    | 19082401     | 14             |
| Caesar & Loretz GmbH       | Soft ointment    | 19082501     | 2              |
| Caesar & Loretz GmbH       | Soft ointment    | 19191501     | 17             |
| Caesar & Loretz GmbH       | Soft ointment    | 19191601     | 8              |
| Caesar & Loretz GmbH       | Soft ointment    | 19191602     | 21             |
| Caesar & Loretz GmbH       | Soft ointment    | 19191603     | 2              |
| Caesar & Loretz GmbH       | Soft ointment    | 19191801     | 3              |
| Caesar & Loretz GmbH       | Soft ointment    | 192936001    | 19             |
| Caesar & Loretz GmbH       | Soft ointment    | 19305101     | 21             |
| Caesar & Loretz GmbH       | Soft ointment    | 20001408001  | 9              |
| Caesar & Loretz GmbH       | Soft ointment    | 20001409001  | 26             |
| Caesar & Loretz GmbH       | Soft ointment    | 20001641001  | 2              |
| Caesar & Loretz GmbH       | Soft ointment    | 20001642001  | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 20002174001  | 10             |
| Caesar & Loretz GmbH       | Soft ointment    | 20002175001  | 4              |
| Caesar & Loretz GmbH       | Soft ointment    | 20002175002  | 13             |
| Caesar & Loretz GmbH       | Soft ointment    | 20003574002  | 13             |
| Caesar & Loretz GmbH       | Soft ointment    | 20003575001  | 10             |
| Caesar & Loretz GmbH       | Soft ointment    | 20003575011  | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 20003576001  | 2              |
| Caesar & Loretz GmbH       | Soft ointment    | 21000779001  | 5              |
| Caesar & Loretz GmbH       | Soft ointment    | 21000780002  | 1              |
| Caesar & Loretz GmbH       | Soft ointment    | 21000781001  | 14             |
| Caesar & Loretz GmbH       | Soft ointment    | 21000782001  | 5              |
| Caesar & Loretz GmbH       | Soft ointment    | 21002255001  | 6              |
| Caesar & Loretz GmbH       | Soft ointment    | 21002258001  | 5              |
| Caesar & Loretz GmbH       | Soft ointment    | 21002260002  | 6              |
| Caesar & Loretz GmbH       | Soft ointment    | 21003560001  | 2              |
| Caesar & Loretz GmbH7Ge... | Soft ointment    | 19191601     | 1              |
| Caesar & Loretz Hilden/... | Soft ointment    | 18251202     | 1              |

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| <b>Supplier</b>              | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|------------------------------|------------------|------------------|----------------|
| Caesar & Loretz Hilden       | Soft ointment    | 18201201         | 1              |
| Caesar & Loretz Hilden       | Soft ointment    | 19000444001      | 1              |
| Caesar & Loretz Hilden       | Soft ointment    | 20001408001      | 1              |
| Caesar & Loretz              | Soft ointment    | 16245201         | 1              |
| Caesar & Loretz              | Soft ointment    | 19305101         | 1              |
| Caesar & Loretz              | Soft ointment    | 20003574002      | 1              |
| Caesar & Loretz GmbH         | Soft ointment    | 14080501         | 1              |
| Caesar u Loretz              | Soft ointment    | 13053601         | 1              |
| Caesar und Loretz GmbH       | Soft ointment    | 18201402         | 1              |
| Caesar und Loretz GmbH       | Soft ointment    | 19082302         | 1              |
| Caesar und Loretz            | Soft ointment    | 19191501         | 1              |
| caesar&lorenz GmbH,Phönix    | Soft ointment    | 12194502         | 1              |
| caesar&lorenz GmbH,Phönix    | Soft ointment    | 15959301         | 1              |
| Caesar&Loretz GmbH/Sana. . . | Soft ointment    | 14375602         | 1              |
| Caesar&lorenz,Phoenix        | Soft ointment    | 12045401         | 1              |
| Caesar&lorenz,Phoenix        | Soft ointment    | 12045501         | 1              |
| Caesar&lorenz,Phoenix        | Soft ointment    | 12091303         | 1              |
| Caesar&lorenz,Phoenix        | Soft ointment    | 12194502         | 1              |
| CaesaruLorenz/Ebert          | Soft ointment    | 15059401         | 2              |
| Caleo/ Noweda                | Soft ointment    | 18001801         | 1              |
| Caleo/Fiebig                 | Soft ointment    | 18002303         | 1              |
| Carlo/Phönix/5,40            | Soft ointment    | 19082302         | 1              |
| Cealo / Otto Geilenkirc. . . | Soft ointment    | 19082401         | 3              |
| Cealo / Otto Geilenkirc. . . | Soft ointment    | 19082501         | 1              |
| Cealo/Gehe                   | Soft ointment    | 18163001         | 1              |
| Cealo/Gehe                   | Soft ointment    | 19000446001      | 2              |
| Cealo/Noweda                 | Soft ointment    | 16313501         | 2              |
| Cealo/Sanacorp               | Soft ointment    | 15059301         | 1              |
| Cealo                        | Soft ointment    | 17076401         | 1              |
| Cealo                        | Soft ointment    | 19000444001      | 1              |
| Devesa                       | Soft ointment    | 16083001         | 1              |
| Ebert & Jacobi 19.07. . .    | Soft ointment    | 16083101         | 1              |
| Ebert & Jacobi               | Soft ointment    | 18002302         | 1              |
| Ebert & Jacobi               | Soft ointment    | 18162901         | 1              |
| Ebert & Jacobi               | Soft ointment    | 18163001         | 2              |
| Ebert & Jacobi               | Soft ointment    | 18201402         | 1              |
| Euro OTC                     | Soft ointment    | 13192902         | 1              |
| Euro OTC                     | Soft ointment    | 14080201         | 1              |
| Euro OTC                     | Soft ointment    | 14375602         | 1              |
| Euro OTC                     | Soft ointment    | 16083101         | 1              |
| Euro OTC                     | Soft ointment    | 16313401         | 1              |
| Euro OTC                     | Soft ointment    | 16313501         | 4              |
| Euro OTC                     | Soft ointment    | 17076601         | 1              |
| Euro OTC                     | Soft ointment    | 18001701         | 1              |
| Euro OTC                     | Soft ointment    | 18163001         | 1              |
| Euro OTC                     | Soft ointment    | 19015202         | 5              |
| Euro/ Phönix                 | Soft ointment    | 4517A-02542      | 1              |
| euro//Noweda                 | Soft ointment    | 18001901         | 1              |
| Euro/Phönix                  | Soft ointment    | 17076501         | 1              |
| Fagron                       | Soft ointment    | 12E23-T01        | 1              |
| Fagron                       | Soft ointment    | 12G09-T02        | 1              |
| Fagron                       | Soft ointment    | 1324-t03-006933  | 1              |
| Fagron                       | Soft ointment    | 13387402         | 1              |
| Fagron                       | Soft ointment    | 13A08-T12-000186 | 1              |
| Fagron                       | Soft ointment    | 13A08-T13-000189 | 1              |
| Fagron                       | Soft ointment    | 13C04-T04-0002   | 1              |
| Fagron                       | Soft ointment    | 13C04-T04-001709 | 3              |
| Fagron                       | Soft ointment    | 13C04-T04-001710 | 2              |
| Fagron                       | Soft ointment    | 13C04-T05        | 1              |
| Fagron                       | Soft ointment    | 13E13-T12-003670 | 3              |

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| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>      | <b>Spectra</b> |
|-----------------|------------------|-------------------|----------------|
| Fagron          | Soft ointment    | 13E13-T14-003679  | 1              |
| Fagron          | Soft ointment    | 13I24-T01-006925  | 2              |
| Fagron          | Soft ointment    | 13I24-T02-006930  | 1              |
| Fagron          | Soft ointment    | 13I24-T03-006933  | 1              |
| Fagron          | Soft ointment    | 13I24-T04-006936  | 1              |
| Fagron          | Soft ointment    | 13I24-T01-006925  | 1              |
| Fagron          | Soft ointment    | 14201901          | 1              |
| Fagron          | Soft ointment    | 14202301          | 1              |
| Fagron          | Soft ointment    | 14E16-T03-012547  | 1              |
| Fagron          | Soft ointment    | 14e16-t03-012548  | 1              |
| Fagron          | Soft ointment    | 14E16-T03-012548  | 1              |
| Fagron          | Soft ointment    | 15059601          | 1              |
| Fagron          | Soft ointment    | 15377001          | 1              |
| Fagron          | Soft ointment    | 15A30             | 1              |
| Fagron          | Soft ointment    | 15A30-T02-018955  | 5              |
| Fagron          | Soft ointment    | 15E14-T02-022369  | 2              |
| Fagron          | Soft ointment    | 15f24-t16-023904  | 1              |
| Fagron          | Soft ointment    | 15F24T16023904    | 1              |
| Fagron          | Soft ointment    | 15F24-T16-023904  | 6              |
| Fagron          | Soft ointment    | 15I08-T01-0205888 | 1              |
| Fagron          | Soft ointment    | 15I08-T01-025888  | 1              |
| Fagron          | Soft ointment    | 15I08-T02-025891  | 1              |
| Fagron          | Soft ointment    | 16245401          | 1              |
| Fagron          | Soft ointment    | 16a21-t05-029597  | 1              |
| Fagron          | Soft ointment    | 16A21-T05-029597  | 14             |
| Fagron          | Soft ointment    | 16A21-T06-029597  | 1              |
| Fagron          | Soft ointment    | 16F03-T01033986   | 1              |
| Fagron          | Soft ointment    | 16F03-T01-033986  | 2              |
| Fagron          | Soft ointment    | 16F03-T02-033989  | 1              |
| Fagron          | Soft ointment    | 16F03-T03-033992  | 4              |
| Fagron          | Soft ointment    | 16G18-T02-035247  | 3              |
| Fagron          | Soft ointment    | 16G18-T02-035248  | 7              |
| Fagron          | Soft ointment    | 16G18-T02-035249  | 2              |
| Fagron          | Soft ointment    | 16G18-T03-035249  | 1              |
| Fagron          | Soft ointment    | 17076401          | 1              |
| Fagron          | Soft ointment    | 17076501          | 1              |
| Fagron          | Soft ointment    | 17263101          | 2              |
| Fagron          | Soft ointment    | 17A03-T01_039997  | 1              |
| Fagron          | Soft ointment    | 17A03-T01-039997  | 8              |
| Fagron          | Soft ointment    | 17A03-T01-039998  | 3              |
| Fagron          | Soft ointment    | 17H28-T03-047827  | 5              |
| Fagron          | Soft ointment    | 18002001          | 1              |
| Fagron          | Soft ointment    | 18e07t09055703    | 1              |
| Fagron          | Soft ointment    | 18E07T09055703    | 2              |
| Fagron          | Soft ointment    | 18E07-T09-055703  | 15             |
| Fagron          | Soft ointment    | 18E07-T09-0557703 | 1              |
| Fagron          | Soft ointment    | 19B14-t07-064291  | 1              |
| Fagron          | Soft ointment    | 19B14-T07-064291  | 24             |
| Fagron          | Soft ointment    | 19J09             | 1              |
| Fagron          | Soft ointment    | 19J09-T08-072597  | 20             |
| Fagron          | Soft ointment    | 19J-09-T08-072597 | 1              |
| Fagron          | Soft ointment    | 19JogTo8-o72596   | 1              |
| Fagron          | Soft ointment    | 19Jog-To8-o72596  | 1              |
| Fagron          | Soft ointment    | 2004-T02-082540   | 1              |
| Fagron          | Soft ointment    | 20C19-T11-077799  | 1              |
| Fagron          | Soft ointment    | 20c19-T11-077800  | 1              |
| Fagron          | Soft ointment    | 20C19-T11-077800  | 8              |
| Fagron          | Soft ointment    | 20I04-T02-082540  | 1              |
| Fagron          | Soft ointment    | 2514M-02542       | 1              |
| Fagron          | Soft ointment    | 299868            | 1              |

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continued from previous page

| Supplier                   | Substance     | Batch            | Spectra |
|----------------------------|---------------|------------------|---------|
| Fagron                     | Soft ointment | 4113A-02542      | 1       |
| Fagron                     | Soft ointment | 5869200          | 1       |
| Fagron                     | Soft ointment | 701878-0002      | 1       |
| Fagron                     | Soft ointment | T02-0825400      | 3       |
| Fagron                     | Soft ointment | T0208254000      | 1       |
| Fagron                     | Soft ointment | T11-0777909      | 1       |
| Fagron                     | Soft ointment | T11-0778000      | 1       |
| Fagron                     | Soft ointment | T25-0864308      | 2       |
| Fargon/ Phönix             | Soft ointment | 16A21-t05-029597 | 1       |
| Fargon/ Phönix             | Soft ointment | 17A03-T01-039997 | 6       |
| fargon/Sanacorp            | Soft ointment | 12353301         | 1       |
| Fargon                     | Soft ointment | 16G18-T02-035247 | 1       |
| Fargon                     | Soft ointment | 20C19T11077800   | 1       |
| Fargron/ Noweda            | Soft ointment | 15A30-T02-018955 | 2       |
| Fiebig 32.01.13 ek:4,84EUR | Soft ointment | 5317100          | 1       |
| Fiebig                     | Soft ointment | 16245201         | 1       |
| Fiebig                     | Soft ointment | 16313401         | 1       |
| Fiebig                     | Soft ointment | 17197201         | 1       |
| Fiebig                     | Soft ointment | 17263201         | 2       |
| Fiebig                     | Soft ointment | 18162901         | 1       |
| Fiebig                     | Soft ointment | 18201301         | 2       |
| Fiebig                     | Soft ointment | 18201402         | 1       |
| Fiebig                     | Soft ointment | 18251101         | 3       |
| Finze                      | Soft ointment | 5215100          | 1       |
| Frau Brinn-Holtz           | Soft ointment | 1577001          | 1       |
| gehe 04.12.13              | Soft ointment | 13192601         | 1       |
| Gehe am 04.02.2014         | Soft ointment | 13387402         | 1       |
| Gehe am 25.02.14           | Soft ointment | 13375402         | 1       |
| Gehe/04.12.14              | Soft ointment | 12353301         | 1       |
| Gehe                       | Soft ointment | 14202301         | 1       |
| Gehe                       | Soft ointment | 14375901         | 1       |
| Gehe                       | Soft ointment | 15204401         | 1       |
| Gehe                       | Soft ointment | 15376901         | 2       |
| Gehe                       | Soft ointment | 16083002         | 1       |
| Gehe                       | Soft ointment | 16083301         | 1       |
| Gehe                       | Soft ointment | 16146103         | 1       |
| Gehe                       | Soft ointment | 16146302         | 1       |
| Gehe                       | Soft ointment | 16146401         | 1       |
| Gehe                       | Soft ointment | 16245201         | 1       |
| Gehe                       | Soft ointment | 16245202         | 1       |
| Gehe                       | Soft ointment | 16313402         | 2       |
| GEHE                       | Soft ointment | 16313501         | 1       |
| Gehe                       | Soft ointment | 17076401         | 1       |
| Gehe                       | Soft ointment | 17076402         | 1       |
| Gehe                       | Soft ointment | 17076901         | 1       |
| GEHE                       | Soft ointment | 17197102         | 1       |
| Gehe                       | Soft ointment | 1726301          | 1       |
| GEHE                       | Soft ointment | 17263101         | 1       |
| Gehe                       | Soft ointment | 180020001        | 1       |
| gehe                       | Soft ointment | 18002302         | 1       |
| Gehe                       | Soft ointment | 18002302         | 1       |
| GEHE                       | Soft ointment | 18002501         | 1       |
| GEHE                       | Soft ointment | 18152901         | 2       |
| Gehe                       | Soft ointment | 18201402         | 1       |
| Gehe                       | Soft ointment | 19000426001      | 1       |
| Gehe                       | Soft ointment | 19015101         | 1       |
| Gehe                       | Soft ointment | 200002176002     | 1       |
| Gehe                       | Soft ointment | 20c19t11077800   | 1       |
| Gehe                       | Soft ointment | 305449           | 1       |
| Gehe                       | Soft ointment | 5375800          | 1       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Geilenkirchen              | Soft ointment    | 19162901     | 1              |
| GUMO                       | Soft ointment    | 21002260002  | 1              |
| Gutenberg-Apotheke         | Soft ointment    | 5600500      | 3              |
| H.Lamotte / Anzag          | Soft ointment    | 5317100      | 1              |
| H.Lamotte                  | Soft ointment    | 8004399002   | 1              |
| Hedinger/Gehe              | Soft ointment    | 18140501     | 1              |
| Henra Lamotte              | Soft ointment    | 5321600      | 1              |
| Henry Lam./ Sanacorp       | Soft ointment    | 5215100      | 1              |
| Henry Lamotte Oils / Gehe  | Soft ointment    | 8002320003   | 1              |
| Henry Lamotte Oils GmbH... | Soft ointment    | 8002320003   | 2              |
| Henry Lamotte Oils GmbH... | Soft ointment    | 8004399002   | 1              |
| Henry Lamotte Oils GmbH... | Soft ointment    | 5448300      | 1              |
| Henry Lamotte Oils GmbH... | Soft ointment    | 5496100      | 2              |
| Henry Lamotte oils GmbH... | Soft ointment    | 5448300      | 1              |
| Henry Lamotte oils GmbH... | Soft ointment    | 5691000      | 1              |
| Henry Lamotte oils gmbh... | Soft ointment    | 8004399002   | 1              |
| Henry Lamotte Oils GmbH... | Soft ointment    | 8004399002   | 1              |
| Henry Lamotte Oils GmbH    | Soft ointment    | 5317100      | 3              |
| Henry Lamotte oils GmbH    | Soft ointment    | 5321600      | 2              |
| Henry Lamotte Oils GmbH    | Soft ointment    | 5496100      | 1              |
| Henry Lamotte Oils GMBH    | Soft ointment    | 5496100      | 1              |
| Henry Lamotte Oils GmbH    | Soft ointment    | 5600500      | 2              |
| Henry Lamotte Oils GmbH    | Soft ointment    | 5691800      | 1              |
| Henry Lamotte Oils GmbH    | Soft ointment    | 5789000      | 2              |
| Henry Lamotte Oils GmbH    | Soft ointment    | 6001368015   | 1              |
| HENRY LAMOTTE OILS GmbH    | Soft ointment    | 6001368015   | 2              |
| Henry Lamotte Oils GmbH    | Soft ointment    | 8002320003   | 2              |
| Henry lamotte Oils GmbH    | Soft ointment    | 802875005    | 1              |
| Henry Lamotte Oils/ Gehe   | Soft ointment    | 61580        | 1              |
| Henry Lamotte Oils         | Soft ointment    | 5317100      | 1              |
| Henry Lamotte Olis GmbH... | Soft ointment    | 5789000      | 3              |
| Henry Lamotte Olis GmbH... | Soft ointment    | 6001368015   | 2              |
| Henry Lamotte,Anzag        | Soft ointment    | 5189900      | 2              |
| Henry Lamotte,Phönix       | Soft ointment    | 5067500      | 1              |
| Henry Lamotte/ AHD         | Soft ointment    | 8002320003   | 1              |
| Henry Lamotte/Anzag        | Soft ointment    | 5448300      | 1              |
| Henry Lamotte/Anzag        | Soft ointment    | 6001368001   | 1              |
| Henry Lamotte/Anzag        | Soft ointment    | 6001368015   | 1              |
| Henry Lamotte/GEHE         | Soft ointment    | 5215100      | 1              |
| Henry Lamotte/GEHE         | Soft ointment    | 5317100      | 1              |
| Henry Lamotte/GEHE         | Soft ointment    | 5375800      | 1              |
| Henry Lamotte/Geilenkir... | Soft ointment    | 8002320003   | 1              |
| Henry Lamotte/Sanacorp     | Soft ointment    | 18251101     | 1              |
| Henry Lamotte              | Soft ointment    | 16245401     | 1              |
| Henry Lamotte              | Soft ointment    | 5067500      | 1              |
| Henry Lamotte              | Soft ointment    | 5317100      | 1              |
| Henry Lamotte              | Soft ointment    | 5789000      | 2              |
| Henry Lamotte              | Soft ointment    | 6001368001   | 1              |
| Henry Lamotte              | Soft ointment    | 6001368015   | 4              |
| Henry Lamotte              | Soft ointment    | 8002320004   | 1              |
| Henry Lamotte              | Soft ointment    | 8002875005   | 2              |
| HenryLamotte/Phoenix       | Soft ointment    | 5189900      | 1              |
| Heyl/Noweda                | Soft ointment    | 17197101     | 1              |
| Ichthyol-Gesellschaft C... | Soft ointment    | 15059401     | 1              |
| Ichthyol-Gesellschaft      | Soft ointment    | 16245201     | 1              |
| InfectoPharm/Noweda        | Soft ointment    | 15377001     | 1              |
| Kehr/Henry Lamotte         | Soft ointment    | 8004399002   | 1              |
| Kehr                       | Soft ointment    | 17076501     | 1              |
| Kehr                       | Soft ointment    | 18002302     | 1              |
| Kehr                       | Soft ointment    | 18140501     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Kehr                       | Soft ointment    | 18162901     | 1              |
| Klosterring                | Soft ointment    | 18251101     | 2              |
| Krieger am 16.08.2018      | Soft ointment    | 18002401     | 1              |
| Krieger/ Henry Lamotte     | Soft ointment    | 8002320003   | 1              |
| Lamotte / Anzag            | Soft ointment    | 8004399003   | 1              |
| Lamotte /Noweda            | Soft ointment    | 8002875005   | 2              |
| Lamotte GmbH               | Soft ointment    | 8002320003   | 1              |
| Lamotte/ Anzag             | Soft ointment    | 5375800      | 1              |
| Lamotte/ Anzag             | Soft ointment    | 5496100      | 1              |
| lamotte/AHD/23.03.20       | Soft ointment    | 8005213003   | 1              |
| Lamotte/AHD                | Soft ointment    | 8007236008   | 1              |
| Lamotte/Alliance           | Soft ointment    | 5691000      | 1              |
| Lamotte/Alliance           | Soft ointment    | 8002875005   | 1              |
| lamotte/anzag              | Soft ointment    | 5265300      | 2              |
| Lamotte/ANZAG              | Soft ointment    | 8004399002   | 5              |
| Lamotte/Anzag              | Soft ointment    | 8005213006   | 1              |
| Lamotte/Kehr               | Soft ointment    | 5789000      | 1              |
| Lamotte/Kehr               | Soft ointment    | 5869200      | 1              |
| Lamotte/Kehr               | Soft ointment    | 6001368001   | 1              |
| Lamotte/Kehr               | Soft ointment    | 6001368015   | 2              |
| Lamotte/Kehr               | Soft ointment    | 8002320004   | 1              |
| lamotte/Kehr               | Soft ointment    | 8002875005   | 1              |
| Lamotte/Krieger/20.05.2... | Soft ointment    | 5496100      | 1              |
| Lamotte/Noweda             | Soft ointment    | 8002320004   | 2              |
| Lamotte/Noweda             | Soft ointment    | 8002875006   | 5              |
| Lamotte/Noweda             | Soft ointment    | 80028755006  | 1              |
| Lamotte/Noweda             | Soft ointment    | 8004399003   | 4              |
| Lamotte/Noweda             | Soft ointment    | 8005213006   | 2              |
| Lamotte/Phoenix            | Soft ointment    | 18201201     | 1              |
| Lamotte/Sana               | Soft ointment    | 8004399002   | 1              |
| Lamotte/Sanacorp           | Soft ointment    | 8002875005   | 3              |
| Lamotte/Sanacorp           | Soft ointment    | 8005213003   | 2              |
| Lamotte                    | Soft ointment    | 5215100      | 1              |
| Lamotte                    | Soft ointment    | 5375800      | 1              |
| Lamotte                    | Soft ointment    | 5448300      | 1              |
| Lamotte                    | Soft ointment    | 5789000      | 3              |
| Lamotte                    | Soft ointment    | 8002875005   | 1              |
| lamotte7anzag              | Soft ointment    | 5294600      | 1              |
| Midas                      | Soft ointment    | 17076401     | 1              |
| Midas                      | Soft ointment    | 17197201     | 1              |
| Midas                      | Soft ointment    | 18002001     | 1              |
| Noveda                     | Soft ointment    | 19015001     | 1              |
| Noweda 01.04.2022          | Soft ointment    | 21002258001  | 1              |
| Noweda                     | Soft ointment    | 11133001     | 1              |
| Noweda                     | Soft ointment    | 11256701     | 1              |
| Noweda                     | Soft ointment    | 14007601     | 1              |
| Noweda                     | Soft ointment    | 15059301     | 1              |
| Noweda                     | Soft ointment    | 15376901     | 2              |
| Noweda                     | Soft ointment    | 15377001     | 2              |
| Noweda                     | Soft ointment    | 16245202     | 1              |
| Noweda                     | Soft ointment    | 16313402     | 1              |
| Noweda                     | Soft ointment    | 17076401     | 1              |
| Noweda                     | Soft ointment    | 17263201     | 1              |
| Noweda                     | Soft ointment    | 17263202     | 2              |
| Noweda                     | Soft ointment    | 18001901     | 1              |
| Noweda                     | Soft ointment    | 18002040     | 1              |
| Noweda                     | Soft ointment    | 18002101     | 1              |
| Noweda                     | Soft ointment    | 18004473     | 1              |
| Noweda                     | Soft ointment    | 18251202     | 1              |
| Noweda                     | Soft ointment    | 19002114     | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|------------------|------------------|----------------|
| Noweda                     | Soft ointment    | 19015102         | 1              |
| Noweda                     | Soft ointment    | 19082302         | 3              |
| Noweda                     | Soft ointment    | 19082401         | 1              |
| Noweda                     | Soft ointment    | 19082501         | 1              |
| Noweda                     | Soft ointment    | 192936001        | 1              |
| Noweda                     | Soft ointment    | 19305101         | 2              |
| Noweda                     | Soft ointment    | 20001409001      | 1              |
| Noweda                     | Soft ointment    | 20001428         | 1              |
| Noweda                     | Soft ointment    | 20002175002      | 1              |
| Noweda                     | Soft ointment    | 20003574002      | 1              |
| Noweda                     | Soft ointment    | 60089901         | 1              |
| Noweda                     | Soft ointment    | 8002875005       | 3              |
| Pharmachem/Phoenix         | Soft ointment    | 305451           | 1              |
| Phoenix 08.08.2018 6,39EUR | Soft ointment    | 18000136         | 1              |
| PHOENIX 10.03.2014         | Soft ointment    | 14007302         | 1              |
| Phoenix 19.06.2017 6,21EUR | Soft ointment    | 17A03-T01-039997 | 1              |
| Phoenix/Cealo              | Soft ointment    | 17263201         | 1              |
| Phoenix                    | Soft ointment    | 12045701         | 1              |
| Phoenix                    | Soft ointment    | 13192601         | 1              |
| Phoenix                    | Soft ointment    | 13387403         | 1              |
| Phoenix                    | Soft ointment    | 14007601         | 1              |
| Phoenix                    | Soft ointment    | 16083002         | 1              |
| Phoenix                    | Soft ointment    | 16313501         | 1              |
| phoenix                    | Soft ointment    | 17076401         | 1              |
| Phoenix                    | Soft ointment    | 17197102         | 1              |
| Phoenix                    | Soft ointment    | 17263201         | 1              |
| Phoenix                    | Soft ointment    | 19015202         | 2              |
| Phoenix                    | Soft ointment    | 19082301         | 1              |
| Phoenix                    | Soft ointment    | 19082401         | 2              |
| Phoenix                    | Soft ointment    | 20001409001      | 1              |
| Phoenix                    | Soft ointment    | 20003574002      | 1              |
| Phoenix                    | Soft ointment    | 21000779001      | 1              |
| Phoenix                    | Soft ointment    | 21000781001      | 2              |
| phoenix                    | Soft ointment    | 297077           | 1              |
| Phoenix                    | Soft ointment    | 3084             | 1              |
| Phönix Gotha               | Soft ointment    | 271425           | 1              |
| Phönix Gotha               | Soft ointment    | 278046           | 1              |
| Phönix Gotha               | Soft ointment    | 286010           | 1              |
| Phönix Gotha               | Soft ointment    | 291331           | 1              |
| Phönix                     | Soft ointment    | 11256301         | 1              |
| phönix                     | Soft ointment    | 12194701         | 1              |
| Phönix                     | Soft ointment    | 13053801         | 1              |
| Phönix                     | Soft ointment    | 13192901         | 1              |
| Phönix                     | Soft ointment    | 14264301         | 1              |
| phönix                     | Soft ointment    | 16083001         | 1              |
| phönix                     | Soft ointment    | 16083002         | 1              |
| Phönix                     | Soft ointment    | 16245201         | 1              |
| Phönix                     | Soft ointment    | 17000370         | 1              |
| phönix                     | Soft ointment    | 17076401         | 1              |
| Phönix                     | Soft ointment    | 17076401         | 1              |
| Phönix                     | Soft ointment    | 17197101         | 1              |
| Phönix                     | Soft ointment    | 17197201         | 1              |
| Phönix                     | Soft ointment    | 18002401         | 1              |
| Phönix                     | Soft ointment    | 18201301         | 1              |
| Phönix                     | Soft ointment    | 18201402         | 1              |
| Phönix                     | Soft ointment    | 19015202         | 1              |
| Phönix                     | Soft ointment    | 19191602         | 2              |
| Phönix                     | Soft ointment    | 19305101         | 1              |
| Phönix                     | Soft ointment    | 20001409001      | 2              |
| Phönix                     | Soft ointment    | 20003575001      | 1              |

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continued from previous page

| Supplier                  | Substance     | Batch            | Spectra |
|---------------------------|---------------|------------------|---------|
| Phönix                    | Soft ointment | 3154             | 1       |
| Px/Phoenix                | Soft ointment | 18002501         | 1       |
| Sana 18.12.14 EK 5,39     | Soft ointment | 14202201         | 1       |
| sanacoro                  | Soft ointment | 15376801         | 1       |
| Sanacorp 19.01.15 EK 5,39 | Soft ointment | 14202001         | 1       |
| Sanacorp Noweda           | Soft ointment | 20001409001      | 1       |
| Sanacorp                  | Soft ointment | 100/AKD10        | 1       |
| Sanacorp                  | Soft ointment | 12194501         | 1       |
| Sanacorp                  | Soft ointment | 13192701         | 1       |
| Sanacorp                  | Soft ointment | 13192901         | 1       |
| Sanacorp                  | Soft ointment | 13375402         | 1       |
| Sanacorp                  | Soft ointment | 14080301         | 2       |
| sanacorp                  | Soft ointment | 14202301         | 1       |
| Sanacorp                  | Soft ointment | 14202302         | 1       |
| Sanacorp                  | Soft ointment | 14375801         | 2       |
| Sanacorp                  | Soft ointment | 15059301         | 1       |
| Sanacorp                  | Soft ointment | 15376801         | 1       |
| Sanacorp                  | Soft ointment | 16245201         | 1       |
| Sanacorp                  | Soft ointment | 16313501         | 1       |
| Sanacorp                  | Soft ointment | 17076401         | 3       |
| Sanacorp                  | Soft ointment | 17076501         | 1       |
| Sanacorp                  | Soft ointment | 17076801         | 1       |
| Sanacorp                  | Soft ointment | 17197102         | 1       |
| Sanacorp                  | Soft ointment | 17263201         | 2       |
| Sanacorp                  | Soft ointment | 17H28-T03-047827 | 8       |
| Sanacorp                  | Soft ointment | 18002302         | 1       |
| Sanacorp                  | Soft ointment | 18002501         | 2       |
| Sanacorp                  | Soft ointment | 18152901         | 2       |
| Sanacorp                  | Soft ointment | 18162901         | 1       |
| Sanacorp                  | Soft ointment | 18163001         | 1       |
| Sanacorp                  | Soft ointment | 18201402         | 3       |
| Sanacorp                  | Soft ointment | 18251101         | 1       |
| Sanacorp                  | Soft ointment | 18251301         | 2       |
| Sanacorp                  | Soft ointment | 19015202         | 2       |
| Sanacorp                  | Soft ointment | 19082401         | 4       |
| Sanacorp                  | Soft ointment | 19191501         | 1       |
| Sanacorp                  | Soft ointment | 19191601         | 1       |
| Sanacorp                  | Soft ointment | 192936001        | 3       |
| Sanacorp                  | Soft ointment | 19305101         | 2       |
| Sanacorp                  | Soft ointment | 94/AKD1          | 1       |
| Sanacorp                  | Soft ointment | 96/AKD3          | 1       |
| Sanacorp                  | Soft ointment | 97/AKD4          | 1       |
| SanacorpWE:28.01.2017 ... | Soft ointment | 16245201         | 1       |
| Spangropharm              | Soft ointment | 20001409001      | 1       |
| THC Rezeptur-Set          | Soft ointment | 17076401         | 1       |
| VDL                       | Soft ointment | 14202301         | 1       |
| Wolf-Apotheke             | Soft ointment | 16083101         | 1       |

- 283 556 spectra from 1294 *Apo-Ident* customers from a total of 51 388 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Soft ointment* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all

relevant spectra of the various substances were compared with *Soft ointment* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 430           | 0              | 66 729        |
| <b>Type B</b> | 0              | 1600          | 0              | 105 763       |
| <b>Type C</b> | 0              | 5047          | 106            | 283 556       |

The substance/substance group *Soft ointment* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.6047 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.6250 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 97.9429 % (> 97.8847 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Soft ointment* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in main model | Distance in second-stage model |
|-------------------|------------------------|--------------------------------|
| Macrogols 300     | 43.39                  | —                              |
| Lanolin DAB       | 49.57                  | —                              |
| Macrogol ointment | 54.70                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Soft ointment* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30896     | 31984               | 5.19                         | 91.89                           |
| 30924     | 31984               | 7.35                         | 99.19                           |
| 31452     | 31452               | 0.00                         | 91.39                           |
| 31984     | 31984               | 0.00                         | 91.90                           |
| 32097     | 32097               | 0.00                         | 89.00                           |
| 32871     | 32871               | 0.00                         | 91.46                           |
| 34687     | 31984               | 4.65                         | 88.56                           |
| 35342     | 35342               | 0.00                         | 91.40                           |
| 35343     | 35343               | 0.00                         | 92.17                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Softisan® 378 / Wool fat**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30743-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Softisan® 378 / Wool fat; Adeps lanae; Softisan® 378; Wool fat

### Special notes

When selecting the *Softisan® 378 / Wool fat* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Softisan® 378 / Wool fat  | 16     | 14     | 831    |

## Second-stage model

For differentiation of the substance/substance group *Softisan*<sup>®</sup> 378 / *Wool fat* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Softisan*<sup>®</sup> 378 / *Wool fat*:

| Supplier      | Substance                        | Batch            | Sample ID | Spectra | Certificate        |
|---------------|----------------------------------|------------------|-----------|---------|--------------------|
| Caelo         | <i>Softisan</i> <sup>®</sup> 378 | 13370104         | 31472     | 40      | 20131119           |
| Caelo         | <i>Softisan</i> <sup>®</sup> 378 | 14301114         | 32298     | 40      | 20141118           |
| Fagron        | <i>Softisan</i> <sup>®</sup> 378 | 12K27-N05        | 30887     | 60      | 20121204           |
| Fagron        | <i>Softisan</i> <sup>®</sup> 378 | 13D26-N12        | 31117     | 40      | 1407632            |
| Fagron        | <i>Softisan</i> <sup>®</sup> 378 | 15G20-B10-326361 | 32964     | 40      | 1704407            |
| Fagron        | <i>Softisan</i> <sup>®</sup> 378 | 20F25-F02-371909 | 35145     | 40      | 20200713           |
| Caelo         | Wool fat                         | 12122403         | 30743     | 40      | 20120514           |
| Caelo         | Wool fat                         | 14086904         | 31479     | 40      | 20140321           |
| Caelo         | Wool fat                         | 15050902         | 31742     | 60      | 20150223           |
| Caelo         | Wool fat                         | 15198802         | 31952     | 60      | 20150625           |
| Euro OTC      | Wool fat                         | 1403023-01       | 31533     | 60      | AR-14-FG-012696-01 |
| Euro OTC      | Wool fat                         | 1502024-01       | 31743     | 60      | AR-16-FG-003762-01 |
| Euro OTC      | Wool fat                         | 1601040          | 31847     | 60      | 20160127*          |
| Euro OTC      | Wool fat                         | 2201039          | 36044     | 40      | 20220209*          |
| Henry Lamotte | Wool fat                         | 5320900          | 30925     | 40      | 20120608           |
| Henry Lamotte | Wool fat                         | 8003158002       | 33939     | 40      | 20170628           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 760 spectra of 16 reference samples from the substance/substance group *Softisan*<sup>®</sup> 378 / *Wool fat*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 16 different batches.
- 66 399 spectra from a total of 1363 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

*Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 650 spectra of 16 reference samples from the substance/substance group *Softisan*<sup>®</sup> 378 / *Wool fat*.
- Among them are spectra of independent samples from 14 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance                        | Batch       | Sample ID | Spectra |
|-----------|----------------------------------|-------------|-----------|---------|
| Caelo     | <i>Softisan</i> <sup>®</sup> 378 | 162686      | 33078     | 40      |
| Caelo     | <i>Softisan</i> <sup>®</sup> 378 | 191862005   | 35130     | 40      |
| Caelo     | <i>Softisan</i> <sup>®</sup> 378 | 21000299007 | 35816     | 50      |
| Bombastus | <i>Wool fat</i>                  | 21004702    | 36187     | 40      |
| Caelo     | <i>Wool fat</i>                  | 152923      | 31998     | 40      |
| Caelo     | <i>Wool fat</i>                  | 16221907    | 33111     | 40      |
| Caelo     | <i>Wool fat</i>                  | 173075      | 34017     | 40      |
| Euro OTC  | <i>Wool fat</i>                  | 1607001     | 32459     | 40      |
| Euro OTC  | <i>Wool fat</i>                  | 1701051     | 33245     | 40      |
| Euro OTC  | <i>Wool fat</i>                  | 1807008-01  | 34212     | 40      |
| Euro OTC  | <i>Wool fat</i>                  | 1907027     | 34660     | 40      |
| Euro OTC  | <i>Wool fat</i>                  | 2003065     | 34835     | 40      |
| Euro OTC  | <i>Wool fat</i>                  | 2008027     | 35082     | 40      |
| Euro OTC  | <i>Wool fat</i>                  | 2101040     | 35248     | 40      |
| Caelo     | <i>Softisan</i> <sup>®</sup> 378 | 14301114    | 32299     | 40      |
| Caelo     | <i>Softisan</i> <sup>®</sup> 378 | 162686      | 33101     | 40      |

- 106 713 spectra from a total of 2486 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 7107 spectra from 1076 *Apo-Ident* customers from 850 batches from the substance/substance group *Softisan*<sup>®</sup> 378 / *Wool fat*.
- Among them are spectra of independent samples from 828 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                    | Substance                        | Batch      | Spectra |
|-----------------------------|----------------------------------|------------|---------|
|                             | <i>Wool fat</i>                  | 17307506   | 1       |
| 11.05.20/AHD/Bionorica      | <i>Softisan</i> <sup>®</sup> 378 | 132321     | 1       |
| 24.01.20/Gehe/Bionorica     | <i>Softisan</i> <sup>®</sup> 378 | 130243     | 1       |
| Aallianc. Healthc. / TH...  | <i>Softisan</i> <sup>®</sup> 378 | 98561      | 7       |
| Aallianc. Healthc. / Bio... | <i>Softisan</i> <sup>®</sup> 378 | 113358     | 4       |
| Aallianc. Healthc. / Bio... | <i>Softisan</i> <sup>®</sup> 378 | 9999113358 | 1       |
| ACM                         | <i>Wool fat</i>                  | KNC1879J13 | 2       |
| AEP                         | <i>Wool fat</i>                  | 18314704   | 2       |

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| Supplier                    | Substance     | Batch            | Spectra |
|-----------------------------|---------------|------------------|---------|
| AHC                         | Wool fat      | 1000010937       | 1       |
| AHC                         | Wool fat      | 1000012826       | 4       |
| AHD 29.01.15 EK 7,67        | Wool fat      | 14238006         | 1       |
| AHD                         | Wool fat      | 14238002         | 2       |
| AHD                         | Softisan® 378 | 17I07-B01-338745 | 1       |
| AHD                         | Softisan® 378 | 17I07-B01-340337 | 1       |
| AHD                         | Softisan® 378 | 17J06-B01-349162 | 1       |
| AHD                         | Wool fat      | 18224303         | 1       |
| AHD                         | Softisan® 378 | 18G30-B05-355402 | 1       |
| AHD                         | Softisan® 378 | 18G-B05-358235   | 1       |
| AHD                         | Softisan® 378 | 701203-0001      | 1       |
| AHD;15.12.14;4,82EUR        | Wool fat      | 14238002         | 2       |
| AHD;9.7.15; 4,78EUR         | Wool fat      | 15050902         | 1       |
| AHDE 19,05.,2015            | Wool fat      | 14238002         | 1       |
| Allianc. Health. / Bion...  | Softisan® 378 | 109704           | 2       |
| Allianc. Health. / Bion...  | Softisan® 378 | 118060           | 3       |
| Allianc. Health. / Bion...  | Softisan® 378 | 130243           | 1       |
| Allianc. Health. / THC ...  | Softisan® 378 | 92456            | 1       |
| Alliance Health 26.02.2...  | Wool fat      | 18224302         | 3       |
| Alliance Health.14.08.2...  | Softisan® 378 |                  | 1       |
| Alliance Healthcare         | Softisan® 378 | 103897           | 1       |
| Alliance Healthcare         | Softisan® 378 | 109704           | 2       |
| Alliance Healthcare         | Softisan® 378 | 113358           | 4       |
| Alliance Healthcare         | Wool fat      | 12224404         | 1       |
| Alliance Healthcare         | Wool fat      | 13039403         | 1       |
| Alliance Healthcare         | Softisan® 378 | 132321           | 2       |
| Alliance Healthcare         | Wool fat      | 17248106         | 1       |
| Alliance Healthcare         | Wool fat      | 17307507         | 1       |
| Alliance Healthcare         | Wool fat      | 19100504         | 1       |
| Alliance Healthcare         | Wool fat      | 19100506         | 1       |
| Alliance healthcare         | Wool fat      | 5528000          | 1       |
| Alliance Healthcare         | Wool fat      | 8004748003       | 2       |
| Alliance/                   | Wool fat      | 1000010937       | 2       |
| Alliance/Henry Lamotte      | Wool fat      | 8004748002       | 1       |
| Alliance/Lamotte 05.03...   | Wool fat      | 8004134002       | 1       |
| Alliance/Lamotte 22.10...   | Wool fat      | 8004748003       | 1       |
| Alliance                    | Softisan® 378 | 145521           | 1       |
| Allianz Healthcare 22.0...  | Wool fat      | 14238008         | 1       |
| Alte Apotheke               | Wool fat      | 16221904         | 1       |
| Anzag , Stuttgart           | Softisan® 378 | 118060           | 1       |
| Anzag 25.02.13 ek: 14,44EUR | Wool fat      | 5264700          | 1       |
| Anzag/13.02.2013            | Wool fat      | 12122403         | 1       |
| Anzag/Beiersdorf            | Wool fat      | 15050902         | 1       |
| Anzag                       | Wool fat      | 1000015311       | 2       |
| Anzag                       | Wool fat      | 1000016943       | 1       |
| Anzag                       | Wool fat      | 100015311        | 1       |
| Anzag                       | Wool fat      | 15050903         | 1       |
| Anzag                       | Wool fat      | 15050906         | 1       |
| Anzag                       | Wool fat      | 15198804         | 1       |
| Anzag                       | Wool fat      | 16003905         | 1       |
| Anzag                       | Wool fat      | 16044302         | 1       |
| Anzag                       | Wool fat      | 19100504         | 1       |
| Anzag                       | Wool fat      | 5375400          | 2       |
| Anzag                       | Wool fat      | 8002112003       | 1       |
| Anzag                       | Wool fat      | 8002320010       | 1       |
| Anzag                       | Wool fat      | 8002760003       | 1       |
| Anzag                       | Wool fat      | 8003158003       | 3       |
| Apo Ident/ Noweda           | Wool fat      | 18139302         | 2       |
| apomix                      | Wool fat      | 17248103         | 1       |
| apomix                      | Wool fat      | 311019           | 1       |

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| Supplier                   | Substance                 | Batch      | Spectra |
|----------------------------|---------------------------|------------|---------|
| Aponorm                    | Wool fat                  | 17307502   | 1       |
| Bergchemie                 | Wool fat                  | 14086904   | 1       |
| Berkel AHK                 | Wool fat                  | 14086905   | 1       |
| Bionorica / Alliance He... | Softisan <sup>®</sup> 378 | 109779     | 3       |
| Bionorica / Alliance       | Softisan <sup>®</sup> 378 | 103897     | 1       |
| Bionorica / Alliance       | Softisan <sup>®</sup> 378 | 107075     | 1       |
| Bionorica / Alliance       | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica / Alliance       | Softisan <sup>®</sup> 378 | 132321     | 1       |
| Bionorica / Alliance       | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica / Fiebig         | Softisan <sup>®</sup> 378 | 133396     | 3       |
| Bionorica / Phönix         | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica / Phönix         | Softisan <sup>®</sup> 378 | 137208     | 1       |
| Bionorica Ethics / Alli... | Softisan <sup>®</sup> 378 | 118060     | 3       |
| Bionorica Ethics / Alli... | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica ethics / Kehr    | Softisan <sup>®</sup> 378 | 118060     | 2       |
| Bionorica ethics / VDL     | Softisan <sup>®</sup> 378 | 107075     | 1       |
| Bionorica ethics /AHD      | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica ethics /Sanac... | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica Ethics/ Allia... | Softisan <sup>®</sup> 378 | 132321     | 1       |
| Bionorica ethics/ Allia... | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica ethics/ Fiebig   | Softisan <sup>®</sup> 378 | 103897     | 4       |
| Bionorica Ethics/ Noweda   | Softisan <sup>®</sup> 378 | 98561      | 1       |
| Bionorica Ethics/ Ph       | Softisan <sup>®</sup> 378 | 113358     | 4       |
| Bionorica ethics/Allian... | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica ethics/Allian... | Wool fat                  | 8004134015 | 1       |
| Bionorica ethics/GEHE      | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica ethics/Gehe      | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica ethics/Gehe      | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica ethics/Gehe      | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica ethics/Gehe      | Softisan <sup>®</sup> 378 | 138485     | 1       |
| Bionorica ethics/Gehe      | Softisan <sup>®</sup> 378 | 3115001    | 1       |
| Bionorica ethics/Holder... | Softisan <sup>®</sup> 378 | 132321     | 1       |
| Bionorica ethics/Noweda    | Softisan <sup>®</sup> 378 | 107075     | 1       |
| Bionorica Ethics/Noweda    | Softisan <sup>®</sup> 378 | 130243     | 2       |
| Bionorica ethics/Phoenix   | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica Ethics/Phoenix   | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica ethics/Phoenix   | Softisan <sup>®</sup> 378 | 138485     | 4       |
| Bionorica Ethics/Phönix    | Softisan <sup>®</sup> 378 | 113358     | 2       |
| Bionorica ethics/Phönix    | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica ethics/Phönix    | Softisan <sup>®</sup> 378 | 130243     | 2       |
| Bionorica ethics/Phönix    | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica Ethics/Sanacorp  | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 1070075    | 1       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 109779     | 1       |
| Bionorica Ethics           | Softisan <sup>®</sup> 378 | 109779     | 1       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 113358     | 2       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 118060     | 6       |
| Bionorica Ethics           | Softisan <sup>®</sup> 378 | 118060     | 2       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 130243     | 5       |
| Bionorica Ethics           | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 132321     | 2       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 138485     | 2       |
| Bionorica Ethics           | Softisan <sup>®</sup> 378 | 145521     | 2       |
| Bionorica ethics           | Softisan <sup>®</sup> 378 | 95076      | 1       |
| Bionorica SE Neumarkt      | Softisan <sup>®</sup> 378 | 132321     | 1       |
| Bionorica SE Neumarkt      | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica SE/Sanacorp      | Softisan <sup>®</sup> 378 | 118060     | 2       |
| Bionorica SE               | Softisan <sup>®</sup> 378 | 107075     | 1       |
| Bionorica SE               | Softisan <sup>®</sup> 378 | 113358     | 2       |
| Bionorica SE               | Softisan <sup>®</sup> 378 | 130243     | 1       |

continued on the next page

continued from previous page

| Supplier                  | Substance                 | Batch      | Spectra |
|---------------------------|---------------------------|------------|---------|
| Bionorica SE              | Softisan <sup>®</sup> 378 | 1526729    | 1       |
| Bionorica/ AHD            | Softisan <sup>®</sup> 378 | 130243     | 2       |
| Bionorica/ Alliance       | Softisan <sup>®</sup> 378 | 132321     | 1       |
| Bionorica/ Allianve       | Softisan <sup>®</sup> 378 | 118060     | 2       |
| Bionorica/ Noweda         | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica/ Noweda         | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica/ Sanacorp       | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica/ Sanacorp       | Softisan <sup>®</sup> 378 | 151571     | 1       |
| Bionorica/AHD             | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica/Alliance Health | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica/Alliance Health | Softisan <sup>®</sup> 378 | 1300243    | 1       |
| Bionorica/Alliance        | Softisan <sup>®</sup> 378 | 109779     | 1       |
| Bionorica/Alliance        | Softisan <sup>®</sup> 378 | 118060     | 2       |
| Bionorica/Anzag           | Softisan <sup>®</sup> 378 | 118060     | 4       |
| Bionorica/Anzag           | Softisan <sup>®</sup> 378 | 130243     | 3       |
| Bionorica/Anzag           | Softisan <sup>®</sup> 378 | 132321     | 1       |
| Bionorica/Anzag           | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica/Anzag           | Softisan <sup>®</sup> 378 | 138485     | 1       |
| Bionorica/Direkt          | Softisan <sup>®</sup> 378 | 113358     | 2       |
| Bionorica/Ebert           | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica/Fiebig          | Softisan <sup>®</sup> 378 | 109778     | 1       |
| Bionorica/Fiebig          | Softisan <sup>®</sup> 378 | 109779     | 3       |
| Bionorica/Fiebig          | Softisan <sup>®</sup> 378 | 113358     | 2       |
| Bionorica/Fiebig          | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica/Fiebig          | Softisan <sup>®</sup> 378 | 138485     | 3       |
| Bionorica/GEHE/20.06.19   | Softisan <sup>®</sup> 378 | 118060     | 2       |
| Bionorica/Gehe            | Softisan <sup>®</sup> 378 | 107075     | 1       |
| Bionorica/Gehe            | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica/Gehe            | Softisan <sup>®</sup> 378 | 138485     | 1       |
| Bionorica/Gehe            | Softisan <sup>®</sup> 378 | 75850      | 3       |
| Bionorica/Kehr            | Softisan <sup>®</sup> 378 | 103897     | 1       |
| Bionorica/Kehr            | Softisan <sup>®</sup> 378 | 107075     | 1       |
| Bionorica/Krieger         | Softisan <sup>®</sup> 378 | 109779     | 1       |
| Bionorica/Noweda          | Softisan <sup>®</sup> 378 | 103897     | 2       |
| Bionorica/Noweda          | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica/Noweda          | Wool fat                  | 129878     | 1       |
| Bionorica/Noweda          | Softisan <sup>®</sup> 378 | 98561      | 1       |
| Bionorica/Phoenix         | Softisan <sup>®</sup> 378 | 107075     | 1       |
| Bionorica/Phoenix         | Softisan <sup>®</sup> 378 | 11806      | 1       |
| Bionorica/Phoenix         | Softisan <sup>®</sup> 378 | 118060     | 1       |
| Bionorica/Phoenix         | Softisan <sup>®</sup> 378 | 130243     | 1       |
| Bionorica/Phoenix         | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica/phoenix         | Softisan <sup>®</sup> 378 | 318E-02911 | 1       |
| Bionorica/Phönix          | Softisan <sup>®</sup> 378 | 112894     | 1       |
| Bionorica/Phönix          | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica/Phönix          | Softisan <sup>®</sup> 378 | 95076      | 1       |
| Bionorica/Sanacorp        | Softisan <sup>®</sup> 378 | 113358     | 1       |
| Bionorica/Sanacorp        | Softisan <sup>®</sup> 378 | 118060     | 1       |
| bionorica/sanacorp        | Softisan <sup>®</sup> 378 | 130243     | 2       |
| Bionorica/Sanacorp        | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica                 | Softisan <sup>®</sup> 378 | 107075     | 4       |
| Bionorica                 | Softisan <sup>®</sup> 378 | 109778     | 4       |
| Bionorica                 | Softisan <sup>®</sup> 378 | 109779     | 9       |
| Bionorica                 | Softisan <sup>®</sup> 378 | 113358     | 20      |
| Bionorica                 | Softisan <sup>®</sup> 378 | 118060     | 16      |
| Bionorica                 | Softisan <sup>®</sup> 378 | 130243     | 10      |
| Bionorica                 | Softisan <sup>®</sup> 378 | 132321     | 2       |
| Bionorica                 | Softisan <sup>®</sup> 378 | 133396     | 1       |
| Bionorica                 | Softisan <sup>®</sup> 378 | 138485     | 4       |
| Bionorica                 | Softisan <sup>®</sup> 378 | 156729     | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                 | Batch            | Spectra |
|----------------------------|---------------------------|------------------|---------|
| Bionorica                  | Softisan <sup>®</sup> 378 | keinevorhanden   | 1       |
| BionoricaEthics / GEHE     | Softisan <sup>®</sup> 378 | 130243           | 1       |
| BionoricaEthics / Phöni... | Softisan <sup>®</sup> 378 | 133396           | 1       |
| Bionoricaethics/Anzag      | Softisan <sup>®</sup> 378 | 133396           | 2       |
| Bionoricaethics/Gehe       | Softisan <sup>®</sup> 378 | 118060           | 1       |
| Bionoroca/Noweda           | Softisan <sup>®</sup> 378 | 138485           | 1       |
| Bionoroca/Noweda           | Softisan <sup>®</sup> 378 | 20F25-F02        | 2       |
| Bionoroca/Noweda           | Softisan <sup>®</sup> 378 | F02-3733408      | 1       |
| Bobastus/Noweda            | Wool fat                  | 279840           | 1       |
| Bomastus direkt            | Wool fat                  | 60081303         | 1       |
| Bombastos                  | Wool fat                  | 305553           | 1       |
| Bombastus                  | Wool fat                  | 14147902         | 1       |
| Bombastus                  | Wool fat                  | 16221907         | 1       |
| Bombastus                  | Wool fat                  | 16345104         | 1       |
| Bombastus                  | Wool fat                  | 17000437         | 6       |
| Bombastus                  | Wool fat                  | 17002018         | 1       |
| Bombastus                  | Wool fat                  | 17002020         | 2       |
| Bombastus                  | Wool fat                  | 17248107         | 1       |
| Bombastus                  | Wool fat                  | 17307503         | 1       |
| Bombastus                  | Softisan <sup>®</sup> 378 | 17816-806-331749 | 1       |
| Bombastus                  | Softisan <sup>®</sup> 378 | 17B16-B06-331749 | 1       |
| Bombastus                  | Wool fat                  | 180003425        | 1       |
| Bombastus                  | Wool fat                  | 18002043         | 5       |
| Bombastus                  | Wool fat                  | 18002044         | 3       |
| Bombastus                  | Wool fat                  | 18003425         | 2       |
| Bombastus                  | Wool fat                  | 18003426         | 10      |
| Bombastus                  | Wool fat                  | 18005684         | 6       |
| Bombastus                  | Wool fat                  | 18029902         | 1       |
| Bombastus                  | Wool fat                  | 19002210         | 8       |
| Bombastus                  | Wool fat                  | 19005540         | 1       |
| Bombastus                  | Wool fat                  | 19005541         | 3       |
| Bombastus                  | Wool fat                  | 19006596         | 2       |
| Bombastus                  | Wool fat                  | 20001036         | 2       |
| Bombastus                  | Wool fat                  | 20002146         | 2       |
| Bombastus                  | Wool fat                  | 20003386         | 2       |
| Bombastus                  | Wool fat                  | 2003386          | 1       |
| Bombastus                  | Wool fat                  | 21002381         | 1       |
| Bombastus                  | Wool fat                  | 254683           | 1       |
| Bombastus                  | Wool fat                  | 260535           | 1       |
| Bombastus                  | Wool fat                  | 267377           | 2       |
| Bombastus                  | Wool fat                  | 268668           | 2       |
| Bombastus                  | Wool fat                  | 271419           | 2       |
| Bombastus                  | Wool fat                  | 272421           | 1       |
| Bombastus                  | Wool fat                  | 272422           | 1       |
| Bombastus                  | Wool fat                  | 273197           | 1       |
| Bombastus                  | Wool fat                  | 275701           | 3       |
| Bombastus                  | Wool fat                  | 275888           | 2       |
| Bombastus                  | Wool fat                  | 275889           | 3       |
| Bombastus                  | Wool fat                  | 277470           | 1       |
| Bombastus                  | Wool fat                  | 279840           | 1       |
| Bombastus                  | Wool fat                  | 280167           | 2       |
| Bombastus                  | Wool fat                  | 281849           | 1       |
| Bombastus                  | Wool fat                  | 281850           | 3       |
| Bombastus                  | Wool fat                  | 283526           | 3       |
| Bombastus                  | Wool fat                  | 286361           | 1       |
| Bombastus                  | Wool fat                  | 286362           | 3       |
| Bombastus                  | Wool fat                  | 288711           | 2       |
| Bombastus                  | Wool fat                  | 288712           | 4       |
| Bombastus                  | Wool fat                  | 290878           | 1       |
| Bombastus                  | Wool fat                  | 290972           | 1       |

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continued from previous page

| Supplier                   | Substance     | Batch          | Spectra |
|----------------------------|---------------|----------------|---------|
| Bombastus                  | Wool fat      | 291336         | 2       |
| Bombastus                  | Wool fat      | 291339         | 1       |
| Bombastus                  | Wool fat      | 294438         | 3       |
| Bombastus                  | Wool fat      | 295371         | 1       |
| Bombastus                  | Wool fat      | 296321         | 4       |
| Bombastus                  | Wool fat      | 297572         | 2       |
| Bombastus                  | Wool fat      | 299568         | 1       |
| Bombastus                  | Wool fat      | 299653         | 3       |
| Bombastus                  | Wool fat      | 301843         | 1       |
| Bombastus                  | Wool fat      | 301844         | 2       |
| Bombastus                  | Softisan® 378 | 302709         | 1       |
| Bombastus                  | Wool fat      | 303926         | 3       |
| Bombastus                  | Wool fat      | 303927         | 1       |
| Bombastus                  | Wool fat      | 303928         | 9       |
| Bombastus                  | Wool fat      | 303929         | 1       |
| Bombastus                  | Wool fat      | 305552         | 5       |
| Bombastus                  | Wool fat      | 305553         | 8       |
| Bombastus                  | Wool fat      | 308893         | 3       |
| Bombastus                  | Wool fat      | 308894         | 3       |
| Bombastus                  | Wool fat      | 311019         | 2       |
| Bombastus                  | Wool fat      | 5763900        | 1       |
| Bombastus                  | Wool fat      | 60081303       | 1       |
| C.P.M Contract Pharma G... | Softisan® 378 | 113358         | 3       |
| Caelo                      | Wool fat      |                | 5       |
| Caelo                      | Wool fat      | 1000           | 1       |
| Caelo                      | Softisan® 378 | 10310003       | 1       |
| Caelo                      | Softisan® 378 | 10310008       | 1       |
| Caelo                      | Softisan® 378 | 103897         | 8       |
| Caelo                      | Softisan® 378 | 107075         | 2       |
| Caelo                      | Softisan® 378 | 1081408        | 1       |
| Caelo                      | Wool fat      | 1094641        | 2       |
| Caelo                      | Wool fat      | 11031302       | 1       |
| Caelo                      | Wool fat      | 11041312036703 | 1       |
| Caelo                      | Wool fat      | 11097402       | 1       |
| Caelo                      | Softisan® 378 | 11121304       | 1       |
| Caelo                      | Wool fat      | 11203902       | 2       |
| Caelo                      | Wool fat      | 11203903       | 1       |
| Caelo                      | Wool fat      | 11261102       | 1       |
| Caelo                      | Wool fat      | 11261103       | 1       |
| Caelo                      | Wool fat      | 11261106       | 2       |
| Caelo                      | Softisan® 378 | 113358         | 1       |
| Caelo                      | Softisan® 378 | 11359302       | 1       |
| Caelo                      | Wool fat      | 1167701        | 1       |
| Caelo                      | Softisan® 378 | 118060         | 6       |
| Caelo                      | Wool fat      | 12006702       | 1       |
| Caelo                      | Wool fat      | 12015603       | 6       |
| Caelo                      | Wool fat      | 12015604       | 3       |
| Caelo                      | Wool fat      | 12015605       | 5       |
| Caelo                      | Wool fat      | 12036702       | 4       |
| Caelo                      | Wool fat      | 12036703       | 7       |
| Caelo                      | Wool fat      | 12036704       | 6       |
| Caelo                      | Softisan® 378 | 12051807       | 1       |
| Caelo                      | Wool fat      | 1206702        | 1       |
| Caelo                      | Wool fat      | 1206703        | 1       |
| Caelo                      | Wool fat      | 12074501       | 2       |
| Caelo                      | Wool fat      | 12074502       | 4       |
| Caelo                      | Wool fat      | 12091301       | 1       |
| Caelo                      | Wool fat      | 1212204        | 1       |
| Caelo                      | Wool fat      | 12122403       | 10      |
| Caelo                      | Wool fat      | 12122404       | 17      |

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| <b>Supplier</b> | <b>Substance</b>          | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------|--------------|----------------|
| Caelo           | Wool fat                  | 12122406     | 7              |
| Caelo           | Wool fat                  | 1213E-01056  | 1              |
| Caelo           | Wool fat                  | 12224402     | 1              |
| Caelo           | Wool fat                  | 12224403     | 4              |
| Caelo           | Wool fat                  | 12224404     | 18             |
| Caelo           | Wool fat                  | 12224405     | 15             |
| Caelo           | Wool fat                  | 1231802      | 1              |
| Caelo           | Wool fat                  | 12321801     | 2              |
| Caelo           | Wool fat                  | 12321802     | 9              |
| Caelo           | Wool fat                  | 12321803     | 12             |
| Caelo           | Wool fat                  | 12321805     | 9              |
| Caelo           | Wool fat                  | 12321807     | 2              |
| Caelo           | Wool fat                  | 1267201      | 2              |
| Caelo           | Wool fat                  | 13011801     | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 13012703     | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 13012704     | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 13012707     | 5              |
| Caelo           | Wool fat                  | 1303403      | 1              |
| Caelo           | Wool fat                  | 13039402     | 15             |
| Caelo           | Wool fat                  | 13039403     | 27             |
| Caelo           | Wool fat                  | 13039405     | 10             |
| Caelo           | Wool fat                  | 13081206     | 1              |
| Caelo           | Wool fat                  | 1309211056   | 1              |
| Caelo           | Wool fat                  | 1309405      | 1              |
| Caelo           | Wool fat                  | 13094902     | 2              |
| Caelo           | Wool fat                  | 13094903     | 13             |
| Caelo           | Wool fat                  | 13094904     | 1              |
| Caelo           | Wool fat                  | 13094905     | 18             |
| Caelo           | Wool fat                  | 1321305      | 1              |
| Caelo           | Wool fat                  | 1321307      | 1              |
| Caelo           | Wool fat                  | 1321308      | 1              |
| Caelo           | Wool fat                  | 13213104     | 17             |
| Caelo           | Wool fat                  | 13213105     | 8              |
| Caelo           | Wool fat                  | 13213106     | 16             |
| Caelo           | Wool fat                  | 13213107     | 19             |
| Caelo           | Wool fat                  | 13213108     | 19             |
| Caelo           | Wool fat                  | 132131104    | 1              |
| Caelo           | Wool fat                  | 13303208     | 1              |
| Caelo           | Wool fat                  | 13306203     | 12             |
| Caelo           | Wool fat                  | 13306204     | 7              |
| Caelo           | Wool fat                  | 13306205     | 8              |
| Caelo           | Wool fat                  | 13306206     | 21             |
| Caelo           | Wool fat                  | 13306207     | 17             |
| Caelo           | Wool fat                  | 13306208     | 15             |
| Caelo           | Wool fat                  | 133062707    | 1              |
| Caelo           | Wool fat                  | 1336205      | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 13370102     | 2              |
| Caelo           | Softisan <sup>®</sup> 378 | 13370104     | 3              |
| Caelo           | Softisan <sup>®</sup> 378 | 13370112     | 1              |
| Caelo           | Wool fat                  | 13389202     | 1              |
| Caelo           | Wool fat                  | 13398201     | 15             |
| Caelo           | Wool fat                  | 13398202     | 8              |
| Caelo           | Wool fat                  | 13398291     | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 13H22-N01    | 1              |
| Caelo           | Wool fat                  | 14022014A    | 1              |
| Caelo           | Wool fat                  | 140713c      | 1              |
| Caelo           | Wool fat                  | 14086902     | 1              |
| Caelo           | Wool fat                  | 14086903     | 19             |
| Caelo           | Wool fat                  | 14086904     | 13             |
| Caelo           | Wool fat                  | 14086905     | 18             |

*continued on the next page*

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>          | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|---------------------------|------------------|----------------|
| Caelo           | Wool fat                  | 14086906         | 21             |
| Caelo           | Wool fat                  | 14086907         | 8              |
| Caelo           | Softisan <sup>®</sup> 378 | 14101712         | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 14111312         | 1              |
| Caelo           | Wool fat                  | 14111402         | 1              |
| Caelo           | Wool fat                  | 14121204         | 1              |
| Caelo           | Wool fat                  | 14147901         | 14             |
| Caelo           | Wool fat                  | 14147902         | 22             |
| Caelo           | Wool fat                  | 14147903         | 20             |
| Caelo           | Wool fat                  | 14147905         | 1              |
| Caelo           | Wool fat                  | 1423006          | 1              |
| Caelo           | Wool fat                  | 14238001         | 2              |
| Caelo           | Wool fat                  | 14238002         | 11             |
| Caelo           | Wool fat                  | 14238003         | 11             |
| Caelo           | Wool fat                  | 14238004         | 15             |
| Caelo           | Wool fat                  | 14238005         | 8              |
| Caelo           | Wool fat                  | 14238006         | 17             |
| Caelo           | Wool fat                  | 14238007         | 8              |
| Caelo           | Wool fat                  | 14238008         | 23             |
| Caelo           | Wool fat                  | 14238009         | 19             |
| Caelo           | Wool fat                  | 14238010         | 6              |
| Caelo           | Wool fat                  | 142383           | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 14301103         | 2              |
| Caelo           | Softisan <sup>®</sup> 378 | 14301104         | 2              |
| Caelo           | Softisan <sup>®</sup> 378 | 14301112         | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 14301113         | 1              |
| Caelo           | Wool fat                  | 14304501         | 24             |
| Caelo           | Wool fat                  | 14304502         | 17             |
| Caelo           | Wool fat                  | 14304504         | 8              |
| Caelo           | Wool fat                  | 1434502          | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 14F11B04         | 1              |
| Caelo           | Wool fat                  | 15031401         | 1              |
| Caelo           | Wool fat                  | 15041306         | 1              |
| Caelo           | Wool fat                  | 1505090          | 1              |
| Caelo           | Wool fat                  | 15050902         | 11             |
| Caelo           | Wool fat                  | 15050903         | 17             |
| Caelo           | Wool fat                  | 15050904         | 16             |
| Caelo           | Wool fat                  | 15050906         | 18             |
| Caelo           | Wool fat                  | 1505906          | 1              |
| Caelo           | Wool fat                  | 15071705         | 1              |
| Caelo           | Wool fat                  | 151458402        | 1              |
| Caelo           | Wool fat                  | 15158401         | 29             |
| Caelo           | Wool fat                  | 15158402         | 50             |
| Caelo           | Wool fat                  | 15158404         | 1              |
| Caelo           | Wool fat                  | 15158405         | 26             |
| Caelo           | Wool fat                  | 1518401          | 1              |
| Caelo           | Wool fat                  | 1518405          | 2              |
| Caelo           | Wool fat                  | 15198802         | 24             |
| Caelo           | Wool fat                  | 15198803         | 27             |
| Caelo           | Wool fat                  | 15198804         | 22             |
| Caelo           | Wool fat                  | 15292309         | 5              |
| Caelo           | Wool fat                  | 15292311         | 5              |
| Caelo           | Wool fat                  | 15292313         | 1              |
| Caelo           | Wool fat                  | 15292316         | 20             |
| Caelo           | Wool fat                  | 15421401         | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 15G20-B10-310231 | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 15G20-B10-311893 | 2              |
| Caelo           | Softisan <sup>®</sup> 378 | 15G20-B10-316518 | 2              |
| Caelo           | Softisan <sup>®</sup> 378 | 15G20B10320309   | 1              |
| Caelo           | Softisan <sup>®</sup> 378 | 15gb10326361     | 1              |

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continued from previous page

| Supplier | Substance                 | Batch            | Spectra |
|----------|---------------------------|------------------|---------|
| Caelo    | Wool fat                  | 160003901        | 1       |
| Caelo    | Wool fat                  | 16003901         | 37      |
| Caelo    | Wool fat                  | 16003902         | 40      |
| Caelo    | Wool fat                  | 16003905         | 22      |
| Caelo    | Softisan <sup>®</sup> 378 | 16010402         | 2       |
| Caelo    | Softisan <sup>®</sup> 378 | 16010408         | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 16010417         | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 16021507         | 1       |
| Caelo    | Wool fat                  | 1603211056       | 1       |
| Caelo    | Wool fat                  | 1604303          | 1       |
| Caelo    | Wool fat                  | 16044302         | 64      |
| Caelo    | Wool fat                  | 16044303         | 33      |
| Caelo    | Wool fat                  | 16044304         | 1       |
| Caelo    | Wool fat                  | 16044306         | 9       |
| Caelo    | Wool fat                  | 16051701         | 1       |
| Caelo    | Wool fat                  | 16102013D        | 1       |
| Caelo    | Wool fat                  | 16121308         | 1       |
| Caelo    | Wool fat                  | 1613001          | 1       |
| Caelo    | Wool fat                  | 1613006          | 1       |
| Caelo    | Wool fat                  | 161630           | 1       |
| Caelo    | Wool fat                  | 16163001         | 30      |
| Caelo    | Wool fat                  | 16163002         | 26      |
| Caelo    | Wool fat                  | 16163005         | 1       |
| Caelo    | Wool fat                  | 16163006         | 33      |
| Caelo    | Wool fat                  | 16221902         | 27      |
| Caelo    | Wool fat                  | 16221903         | 28      |
| Caelo    | Wool fat                  | 16221904         | 46      |
| Caelo    | Wool fat                  | 16221905         | 16      |
| Caelo    | Wool fat                  | 16221906         | 16      |
| Caelo    | Wool fat                  | 16221907         | 67      |
| Caelo    | Wool fat                  | 16221907/1160117 | 1       |
| Caelo    | Wool fat                  | 16267201         | 64      |
| Caelo    | Wool fat                  | 16267203         | 2       |
| Caelo    | Wool fat                  | 16267204         | 16      |
| Caelo    | Softisan <sup>®</sup> 378 | 16268605         | 2       |
| Caelo    | Softisan <sup>®</sup> 378 | 16268606         | 3       |
| Caelo    | Softisan <sup>®</sup> 378 | 16268611         | 4       |
| Caelo    | Wool fat                  | 16328201         | 1       |
| Caelo    | Wool fat                  | 16345104         | 95      |
| Caelo    | Wool fat                  | 163451045377     | 1       |
| Caelo    | Wool fat                  | 16345106         | 13      |
| Caelo    | Wool fat                  | 16345107         | 24      |
| Caelo    | Wool fat                  | 16345108         | 1       |
| Caelo    | Wool fat                  | 164(17307505)    | 1       |
| Caelo    | Wool fat                  | 165(17307505)    | 1       |
| Caelo    | Wool fat                  | 166(18029903)    | 1       |
| Caelo    | Wool fat                  | 167(18139302)    | 1       |
| Caelo    | Wool fat                  | 168(18224304)    | 1       |
| Caelo    | Wool fat                  | 169(18314702)    | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17/06-B01-350967 | 1       |
| Caelo    | Wool fat                  | 170(18314702)    | 1       |
| Caelo    | Wool fat                  | 17000437         | 1       |
| Caelo    | Wool fat                  | 1701051-01       | 1       |
| Caelo    | Wool fat                  | 17037503         | 1       |
| Caelo    | Wool fat                  | 17111802         | 1       |
| Caelo    | Wool fat                  | 17129301         | 1       |
| Caelo    | Wool fat                  | 1713             | 1       |
| Caelo    | Wool fat                  | 171339301        | 2       |
| Caelo    | Wool fat                  | 1713901          | 2       |
| Caelo    | Wool fat                  | 1713903          | 2       |

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| Supplier | Substance                 | Batch                | Spectra |
|----------|---------------------------|----------------------|---------|
| Caelo    | Wool fat                  | 17139301             | 59      |
| Caelo    | Wool fat                  | 17139301-20171106Ma4 | 1       |
| Caelo    | Wool fat                  | 17139302             | 14      |
| Caelo    | Wool fat                  | 17139303             | 61      |
| Caelo    | Wool fat                  | 1713931              | 1       |
| Caelo    | Wool fat                  | 1716701              | 1       |
| Caelo    | Wool fat                  | 171677001            | 1       |
| Caelo    | Wool fat                  | 17167701             | 31      |
| Caelo    | Wool fat                  | 17167702             | 13      |
| Caelo    | Wool fat                  | 17167704             | 22      |
| Caelo    | Wool fat                  | 171677045622         | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17247103             | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17247107             | 2       |
| Caelo    | Softisan <sup>®</sup> 378 | 17247109             | 2       |
| Caelo    | Softisan <sup>®</sup> 378 | 17247112             | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17247114             | 1       |
| Caelo    | Wool fat                  | 17248102             | 1       |
| Caelo    | Wool fat                  | 17248103             | 71      |
| Caelo    | Wool fat                  | 17248104             | 41      |
| Caelo    | Wool fat                  | 17248105             | 21      |
| Caelo    | Wool fat                  | 17248106             | 11      |
| Caelo    | Wool fat                  | 17248107             | 30      |
| Caelo    | Wool fat                  | 17248109             | 1       |
| Caelo    | Wool fat                  | 172488107            | 1       |
| Caelo    | Wool fat                  | 17278103             | 1       |
| Caelo    | Wool fat                  | 17284103             | 1       |
| Caelo    | Wool fat                  | 173057506            | 1       |
| Caelo    | Wool fat                  | 1730750              | 1       |
| Caelo    | Wool fat                  | 17307501             | 18      |
| Caelo    | Wool fat                  | 17307502             | 33      |
| Caelo    | Wool fat                  | 173075025782         | 1       |
| Caelo    | Wool fat                  | 17307503             | 31      |
| Caelo    | Wool fat                  | 17307505             | 20      |
| Caelo    | Wool fat                  | 17307506             | 57      |
| Caelo    | Wool fat                  | 17307507             | 71      |
| Caelo    | Wool fat                  | 17307508             | 32      |
| Caelo    | Wool fat                  | 1730757              | 1       |
| Caelo    | Wool fat                  | 17307902             | 1       |
| Caelo    | Wool fat                  | 17307906             | 1       |
| Caelo    | Wool fat                  | 1739301              | 1       |
| Caelo    | Wool fat                  | 17428107             | 1       |
| Caelo    | Wool fat                  | 1767704              | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17I07-B01            | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17I07-B01-340337     | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17J06-B01-348073     | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 17J06-B01-349162     | 1       |
| Caelo    | Wool fat                  | 180029902            | 1       |
| Caelo    | Wool fat                  | 18003426             | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 18011302             | 1       |
| Caelo    | Wool fat                  | 18021502             | 1       |
| Caelo    | Wool fat                  | 18029901             | 11      |
| Caelo    | Wool fat                  | 18029902             | 34      |
| Caelo    | Wool fat                  | 18029903             | 3       |
| Caelo    | Wool fat                  | 18029905             | 2       |
| Caelo    | Wool fat                  | 18029908             | 1       |
| Caelo    | Wool fat                  | 18041503             | 1       |
| Caelo    | Wool fat                  | 18049003             | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 18062005             | 1       |
| Caelo    | Wool fat                  | 180808184            | 1       |
| Caelo    | Wool fat                  | 181139305            | 1       |

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| Supplier | Substance                 | Batch                | Spectra |
|----------|---------------------------|----------------------|---------|
| Caelo    | Wool fat                  | 18131302             | 1       |
| Caelo    | Wool fat                  | 18133902             | 1       |
| Caelo    | Wool fat                  | 18139202             | 1       |
| Caelo    | Wool fat                  | 181393007            | 1       |
| Caelo    | Wool fat                  | 18139302             | 36      |
| Caelo    | Wool fat                  | 18139303             | 24      |
| Caelo    | Wool fat                  | 18139304             | 29      |
| Caelo    | Wool fat                  | 18139305             | 38      |
| Caelo    | Wool fat                  | 18139306             | 32      |
| Caelo    | Wool fat                  | 18139306-W20181115Ma | 1       |
| Caelo    | Wool fat                  | 18139307             | 30      |
| Caelo    | Wool fat                  | 18139308             | 38      |
| Caelo    | Softisan <sup>®</sup> 378 | 18146401             | 13      |
| Caelo    | Softisan <sup>®</sup> 378 | 18146404             | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 18146406             | 4       |
| Caelo    | Softisan <sup>®</sup> 378 | 18146408             | 4       |
| Caelo    | Softisan <sup>®</sup> 378 | 18146409             | 9       |
| Caelo    | Wool fat                  | 18168701             | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 18179716             | 1       |
| Caelo    | Wool fat                  | 18224204             | 1       |
| Caelo    | Wool fat                  | 182243006            | 1       |
| Caelo    | Wool fat                  | 18224301             | 40      |
| Caelo    | Wool fat                  | 18224302             | 77      |
| Caelo    | Wool fat                  | 18224304             | 25      |
| Caelo    | Wool fat                  | 18224305             | 68      |
| Caelo    | Wool fat                  | 18224306             | 18      |
| Caelo    | Wool fat                  | 18262601             | 1       |
| Caelo    | Wool fat                  | 18314702             | 13      |
| Caelo    | Wool fat                  | 18314703             | 27      |
| Caelo    | Wool fat                  | 18314704             | 18      |
| Caelo    | Wool fat                  | 19000845001          | 49      |
| Caelo    | Wool fat                  | 19000845002          | 20      |
| Caelo    | Wool fat                  | 19000845003          | 1       |
| Caelo    | Wool fat                  | 19000845004          | 26      |
| Caelo    | Wool fat                  | 1900084501           | 1       |
| Caelo    | Wool fat                  | 190008545001         | 1       |
| Caelo    | Wool fat                  | 190008845001         | 1       |
| Caelo    | Wool fat                  | 19021801             | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 19021811             | 1       |
| Caelo    | Wool fat                  | 19043401             | 13      |
| Caelo    | Wool fat                  | 19043402             | 11      |
| Caelo    | Wool fat                  | 19043405             | 27      |
| Caelo    | Wool fat                  | 190550306            | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 190556106            | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 190560102            | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 19056102             | 18      |
| Caelo    | Softisan <sup>®</sup> 378 | 19056106             | 20      |
| Caelo    | Softisan <sup>®</sup> 378 | 19056108             | 5       |
| Caelo    | Softisan <sup>®</sup> 378 | 19056196             | 1       |
| Caelo    | Wool fat                  | 191005004            | 1       |
| Caelo    | Wool fat                  | 19100501             | 1       |
| Caelo    | Wool fat                  | 19100502             | 56      |
| Caelo    | Wool fat                  | 19100504             | 64      |
| Caelo    | Wool fat                  | 19100504P-190923-2   | 1       |
| Caelo    | Wool fat                  | 19100504P-191004-4   | 1       |
| Caelo    | Wool fat                  | 19100504P-191022-3   | 1       |
| Caelo    | Wool fat                  | 19100505             | 27      |
| Caelo    | Wool fat                  | 19100506             | 43      |
| Caelo    | Wool fat                  | 19100506P-191227-2   | 1       |
| Caelo    | Wool fat                  | 19100507             | 19      |

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| Supplier | Substance     | Batch               | Spectra |
|----------|---------------|---------------------|---------|
| Caelo    | Wool fat      | 19100508            | 9       |
| Caelo    | Wool fat      | 19139305            | 1       |
| Caelo    | Wool fat      | 1914M1056           | 1       |
| Caelo    | Wool fat      | 19165701P-200319-6  | 1       |
| Caelo    | Wool fat      | 1917460             | 1       |
| Caelo    | Wool fat      | 191746005           | 1       |
| Caelo    | Wool fat      | 19174603            | 16      |
| Caelo    | Wool fat      | 19174604            | 34      |
| Caelo    | Wool fat      | 19174605            | 52      |
| Caelo    | Wool fat      | 191774605           | 1       |
| Caelo    | Softisan® 378 | 191862002           | 18      |
| Caelo    | Softisan® 378 | 191862003           | 1       |
| Caelo    | Softisan® 378 | 191862005           | 14      |
| Caelo    | Softisan® 378 | 191862007           | 1       |
| Caelo    | Softisan® 378 | 1918622005          | 1       |
| Caelo    | Softisan® 378 | 1918862002          | 1       |
| Caelo    | Wool fat      | 192611001           | 1       |
| Caelo    | Wool fat      | 192611002           | 1       |
| Caelo    | Wool fat      | 192611003           | 28      |
| Caelo    | Wool fat      | 192611004           | 44      |
| Caelo    | Wool fat      | 192611004P-200507-5 | 1       |
| Caelo    | Wool fat      | 192611005           | 48      |
| Caelo    | Wool fat      | 19261105            | 2       |
| Caelo    | Wool fat      | 200001316003        | 1       |
| Caelo    | Wool fat      | 200001836004        | 1       |
| Caelo    | Wool fat      | 20000968001         | 41      |
| Caelo    | Wool fat      | 20000968002         | 12      |
| Caelo    | Wool fat      | 20000968004         | 20      |
| Caelo    | Wool fat      | 20000968007         | 20      |
| Caelo    | Wool fat      | 200018360002        | 1       |
| Caelo    | Wool fat      | 20001836001         | 20      |
| Caelo    | Wool fat      | 20001836002         | 25      |
| Caelo    | Wool fat      | 20001836004         | 25      |
| Caelo    | Wool fat      | 20001836005         | 22      |
| Caelo    | Wool fat      | 20001836006         | 14      |
| Caelo    | Softisan® 378 | 20001844001         | 9       |
| Caelo    | Softisan® 378 | 20001844003         | 19      |
| Caelo    | Softisan® 378 | 20001844006         | 8       |
| Caelo    | Wool fat      | 20002793001         | 12      |
| Caelo    | Wool fat      | 20002793002         | 8       |
| Caelo    | Wool fat      | 20002793003         | 3       |
| Caelo    | Wool fat      | 20003438002         | 1       |
| Caelo    | Wool fat      | 20003738002         | 22      |
| Caelo    | Wool fat      | 20003738004         | 11      |
| Caelo    | Wool fat      | 20003738005         | 11      |
| Caelo    | Wool fat      | 20003738006         | 25      |
| Caelo    | Wool fat      | 20003738007         | 20      |
| Caelo    | Wool fat      | 20003738008         | 5       |
| Caelo    | Wool fat      | 2000378006          | 1       |
| Caelo    | Wool fat      | 2001836004          | 2       |
| Caelo    | Wool fat      | 2002793002          | 1       |
| Caelo    | Wool fat      | 2003738006          | 1       |
| Caelo    | Softisan® 378 | 20101804            | 1       |
| Caelo    | Wool fat      | 20160727Ma6         | 1       |
| Caelo    | Wool fat      | 2061509             | 1       |
| Caelo    | Softisan® 378 | 209602              | 1       |
| Caelo    | Softisan® 378 | 21000299002         | 16      |
| Caelo    | Softisan® 378 | 21000299007         | 4       |
| Caelo    | Softisan® 378 | 21000299010         | 1       |
| Caelo    | Softisan® 378 | 21000299013         | 1       |

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| Supplier | Substance                 | Batch          | Spectra |
|----------|---------------------------|----------------|---------|
| Caelo    | Softisan <sup>®</sup> 378 | 2100029910     | 1       |
| Caelo    | Wool fat                  | 21000775004    | 1       |
| Caelo    | Wool fat                  | 21000775005    | 2       |
| Caelo    | Wool fat                  | 21000775007    | 6       |
| Caelo    | Wool fat                  | 21000775008    | 10      |
| Caelo    | Wool fat                  | 21000775009    | 13      |
| Caelo    | Wool fat                  | 2100077503     | 1       |
| Caelo    | Wool fat                  | 21002094002    | 3       |
| Caelo    | Wool fat                  | 21002094004    | 1       |
| Caelo    | Wool fat                  | 21002094005    | 1       |
| Caelo    | Wool fat                  | 21003136005    | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 21031310       | 1       |
| Caelo    | Wool fat                  | 21071502       | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 21071707       | 1       |
| Caelo    | Wool fat                  | 2113U01056     | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 21C19-F03      | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 22062015B      | 1       |
| Caelo    | Wool fat                  | 22091801       | 1       |
| Caelo    | Wool fat                  | 23012015A      | 1       |
| Caelo    | Wool fat                  | 23021709       | 1       |
| Caelo    | Wool fat                  | 23041801       | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 23051811       | 1       |
| Caelo    | Wool fat                  | 23091704       | 1       |
| Caelo    | Wool fat                  | 23101703       | 1       |
| Caelo    | Wool fat                  | 24051801       | 1       |
| Caelo    | Wool fat                  | 24422111203903 | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 25041804       | 1       |
| Caelo    | Wool fat                  | 2516A-01056    | 1       |
| Caelo    | Wool fat                  | 26061205       | 1       |
| Caelo    | Wool fat                  | 27091204       | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 27091306       | 1       |
| Caelo    | Wool fat                  | 27211926115    | 1       |
| Caelo    | Wool fat                  | 2751           | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 28031401       | 1       |
| Caelo    | Wool fat                  | 2814U-01056    | 1       |
| Caelo    | Wool fat                  | 2818           | 1       |
| Caelo    | Wool fat                  | 286362         | 1       |
| Caelo    | Wool fat                  | 29041407       | 1       |
| Caelo    | Wool fat                  | 29061802       | 1       |
| Caelo    | Wool fat                  | 291339         | 1       |
| Caelo    | Wool fat                  | 294643         | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 3/2017         | 1       |
| Caelo    | Wool fat                  | 30101311       | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 3071201        | 1       |
| Caelo    | Wool fat                  | 308893         | 1       |
| Caelo    | Wool fat                  | 31011302       | 1       |
| Caelo    | Wool fat                  | 311201702      | 1       |
| Caelo    | Wool fat                  | 3112U-01056    | 1       |
| Caelo    | Wool fat                  | 316E-01056     | 1       |
| Caelo    | Wool fat                  | 3246           | 1       |
| Caelo    | Wool fat                  | 3320           | 1       |
| Caelo    | Wool fat                  | 3513U-01056    | 1       |
| Caelo    | Wool fat                  | 3x13398202     | 1       |
| Caelo    | Wool fat                  | 4013Q1056      | 1       |
| Caelo    | Wool fat                  | 4032015A       | 1       |
| Caelo    | Softisan <sup>®</sup> 378 | 4041501        | 1       |
| Caelo    | Wool fat                  | 4061402        | 1       |
| Caelo    | Wool fat                  | 4101404        | 1       |
| Caelo    | Wool fat                  | 412062-1-P     | 1       |
| Caelo    | Wool fat                  | 419A-01056     | 1       |

continued on the next page

*continued from previous page*

| Supplier                   | Substance                 | Batch       | Spectra |
|----------------------------|---------------------------|-------------|---------|
| Caelo                      | Wool fat                  | 46/AKD3     | 1       |
| Caelo                      | Wool fat                  | 4817A-01056 | 1       |
| Caelo                      | Wool fat                  | 5052014A    | 1       |
| Caelo                      | Wool fat                  | 5081406     | 1       |
| Caelo                      | Wool fat                  | 51198803    | 1       |
| Caelo                      | Wool fat                  | 5163200     | 1       |
| Caelo                      | Wool fat                  | 5211E-01056 | 1       |
| Caelo                      | Wool fat                  | 5212Q-01056 | 1       |
| Caelo                      | Wool fat                  | 5253400     | 1       |
| Caelo                      | Wool fat                  | 5264700     | 3       |
| Caelo                      | Wool fat                  | 5375400     | 2       |
| Caelo                      | Wool fat                  | 5520800     | 4       |
| Caelo                      | Wool fat                  | 5528000     | 1       |
| Caelo                      | Wool fat                  | 5650500     | 1       |
| Caelo                      | Wool fat                  | 5690800     | 1       |
| Caelo                      | Wool fat                  | 5727500     | 1       |
| Caelo                      | Wool fat                  | 5763900     | 2       |
| Caelo                      | Softisan <sup>®</sup> 378 | 57657       | 1       |
| Caelo                      | Wool fat                  | 5860600     | 1       |
| Caelo                      | Wool fat                  | 6001861002  | 2       |
| Caelo                      | Wool fat                  | 6102014C    | 1       |
| Caelo                      | Softisan <sup>®</sup> 378 | 610789      | 1       |
| Caelo                      | Wool fat                  | 6111212     | 1       |
| Caelo                      | Wool fat                  | 612211056   | 1       |
| Caelo                      | Wool fat                  | 6221903     | 1       |
| Caelo                      | Wool fat                  | 7051401     | 1       |
| Caelo                      | Softisan <sup>®</sup> 378 | 73059       | 1       |
| Caelo                      | Wool fat                  | 75798803    | 1       |
| Caelo                      | Wool fat                  | 8002112001  | 1       |
| Caelo                      | Wool fat                  | 8002144001  | 4       |
| Caelo                      | Wool fat                  | 8002760001  | 2       |
| Caelo                      | Wool fat                  | 8002760002  | 6       |
| Caelo                      | Wool fat                  | 8003158001  | 2       |
| Caelo                      | Wool fat                  | 8003158002  | 2       |
| Caelo                      | Wool fat                  | 8003158003  | 5       |
| Caelo                      | Wool fat                  | 8004134001  | 1       |
| Caelo                      | Wool fat                  | 8004134002  | 1       |
| Caelo                      | Wool fat                  | 8004134003  | 7       |
| Caelo                      | Wool fat                  | 8004134015  | 2       |
| Caelo                      | Wool fat                  | 8004748002  | 3       |
| Caelo                      | Wool fat                  | 8011509     | 1       |
| Caelo                      | Wool fat                  | 8061304     | 1       |
| Caelo                      | Wool fat                  | 82325376    | 1       |
| Caelo                      | Wool fat                  | 83147041    | 1       |
| Caelo                      | Wool fat                  | 90008450021 | 1       |
| Caelo                      | Wool fat                  | 9011901     | 1       |
| Caelo                      | Wool fat                  | 9041706     | 1       |
| Caelo                      | Softisan <sup>®</sup> 378 | 98561       | 1       |
| Caelo                      | Wool fat                  | AKD17       | 1       |
| Caelo                      | Wool fat                  | CHB19100506 | 1       |
| Caesa / Alliance Health... | Wool fat                  | 18139305    | 1       |
| Caesa / Alliance Health... | Wool fat                  | 20003738007 | 1       |
| Caesar & Lorenz GmbH       | Wool fat                  | 19100504    | 1       |
| Caesar & Loretz GmbH / ... | Wool fat                  | 20003738004 | 1       |
| Caesar & Loretz GmbH / ... | Wool fat                  | 19000845001 | 1       |
| Caesar & Loretz GmbH / ... | Wool fat                  | 17139303    | 1       |
| Caesar & Loretz GmbH / ... | Wool fat                  | 18139306    | 1       |
| Caesar & Loretz GmbH / ... | Wool fat                  | 192611003   | 1       |
| Caesar & Loretz GmbH / ... | Wool fat                  | 20000968001 | 2       |
| Caesar & Loretz GmbH / ... | Wool fat                  | 19100504    | 1       |

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| <b>Supplier</b>            | <b>Substance</b>          | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------------|--------------|----------------|
| Caesar & Loretz GmbH / ... | Wool fat                  | 18224301     | 1              |
| Caesar & Loretz GmbH Hi... | Wool fat                  | 16163001     | 1              |
| Caesar & Loretz GmbH, 4... | Wool fat                  | 12036703     | 1              |
| Caesar & Loretz GmbH, 4... | Wool fat                  | 13039402     | 1              |
| Caesar & Loretz GmbH, P... | Wool fat                  | 20001836002  | 1              |
| Caesar & Loretz GmbH/ A... | Wool fat                  | 20000968001  | 1              |
| Caesar & Loretz GmbH/ G... | Wool fat                  | 19000845004  | 1              |
| Caesar & Loretz GmbH/ G... | Softisan <sup>®</sup> 378 | 191862005    | 1              |
| Caesar & Loretz GmbH/ G... | Wool fat                  | 20001836001  | 1              |
| Caesar & Loretz GmbH/ N... | Wool fat                  | 192611003    | 1              |
| Caesar & Loretz GmbH/ P... | Wool fat                  | 21000775009  | 1              |
| Caesar & Loretz GmbH/ P... | Wool fat                  | 21002094005  | 1              |
| Caesar & Loretz GmbH/AEP   | Wool fat                  | 20002793001  | 1              |
| Caesar & Loretz GmbH/AHD   | Wool fat                  | 18224305     | 1              |
| Caesar & Loretz GmbH/An... | Wool fat                  | 19043405     | 1              |
| Caesar & Loretz GmbH/Fi... | Wool fat                  | 18314704     | 1              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 18224305     | 1              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 18224306     | 1              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 19000845001  | 2              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 19000845002  | 1              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 19043405     | 1              |
| Caesar & Loretz GmbH/Gehe  | Softisan <sup>®</sup> 378 | 19056106     | 1              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 19100502     | 2              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 19174604     | 2              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 19174605     | 1              |
| Caesar & Loretz GmbH/Gehe  | Softisan <sup>®</sup> 378 | 191862002    | 1              |
| Caesar & Loretz GmbH/Gehe  | Softisan <sup>®</sup> 378 | 191862005    | 1              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 192611004    | 1              |
| Caesar & Loretz GmbH/GEHE  | Wool fat                  | 20001836004  | 2              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 20001836006  | 1              |
| Caesar & Loretz GmbH/Gehe  | Softisan <sup>®</sup> 378 | 20001844006  | 2              |
| Caesar & Loretz GmbH/Gehe  | Wool fat                  | 20002793002  | 1              |
| Caesar & Loretz GmbH/GEHE  | Wool fat                  | 20003738006  | 1              |
| Caesar & Loretz GmbH/GEHE  | Softisan <sup>®</sup> 378 | 21000299010  | 1              |
| Caesar & Loretz GmbH/Ge... | Wool fat                  | 18314704     | 1              |
| Caesar & Loretz GmbH/Ge... | Wool fat                  | 19100507     | 1              |
| Caesar & Loretz GmbH/Gö... | Wool fat                  | 19100506     | 1              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 1000012825   | 1              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 18139304     | 1              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 19000845004  | 1              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 19174604     | 1              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 192611004    | 3              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 20002793002  | 2              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 20003738002  | 1              |
| Caesar & Loretz GmbH/Je... | Wool fat                  | 20003738006  | 1              |
| Caesar & Loretz GmbH/Kr... | Wool fat                  | 19100502     | 1              |
| Caesar & Loretz GmbH/Kr... | Wool fat                  | 19100507     | 1              |
| Caesar & Loretz GmbH/Mi... | Wool fat                  | 19100504     | 1              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 18224306     | 1              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 18314704     | 1              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 19000845001  | 1              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 19000845004  | 1              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 19100502     | 2              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 19100506     | 2              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 19100507     | 1              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 19174603     | 1              |
| Caesar & Loretz GmbH/No... | Softisan <sup>®</sup> 378 | 1918620002   | 2              |
| Caesar & Loretz GmbH/No... | Softisan <sup>®</sup> 378 | 191862002    | 2              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 20000968001  | 1              |
| Caesar & Loretz GmbH/No... | Wool fat                  | 20001836002  | 2              |

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| Supplier                   | Substance     | Batch       | Spectra |
|----------------------------|---------------|-------------|---------|
| Caesar & Loretz GmbH/No... | Wool fat      | 20002793001 | 1       |
| Caesar & Loretz GmbH/No... | Wool fat      | 20003738002 | 1       |
| Caesar & Loretz GmbH/Ph... | Wool fat      | 19100508    | 1       |
| Caesar & Loretz GmbH/Ph... | Wool fat      | 20000968007 | 1       |
| Caesar & Loretz GmbH/Ph... | Wool fat      | 20000968002 | 1       |
| Caesar & Loretz GmbH/Ph... | Wool fat      | 20001836002 | 1       |
| Caesar & Loretz GmbH/Ph... | Wool fat      | 20001836005 | 2       |
| Caesar & Loretz GmbH/Ph... | Wool fat      | 20003738002 | 1       |
| Caesar & Loretz GmbH/Ph... | Wool fat      | 20003738007 | 2       |
| Caesar & Loretz GmbH/Sana  | Wool fat      | 1900084501  | 1       |
| Caesar & Loretz GmbH/Sa... | Wool fat      | 19174603    | 1       |
| Caesar & Loretz GmbH/Sa... | Wool fat      | 20000968002 | 1       |
| Caesar & Loretz GmbH/Sa... | Wool fat      | 20000968007 | 1       |
| Caesar & Loretz GmbH/Sa... | Wool fat      | 20001836004 | 2       |
| Caesar & Loretz GmbH/Sa... | Wool fat      | 20002793003 | 1       |
| Caesar & Loretz GmbH/Sa... | Softisan® 378 | 21000299010 | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 1000010939  | 3       |
| Caesar & Loretz GmbH       | Wool fat      | 12036703    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 12122403    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 13213104    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 13306205    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 14086903    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 14238002    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 14304501    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 15050902    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 15050903    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 16345106    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 17139301    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 17248103    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 17248105    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 17307502    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 17307507    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 18029902    | 2       |
| Caesar & Loretz GmbH       | Wool fat      | 18139302    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 18139303    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 18139304    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 18139305    | 4       |
| Caesar & Loretz GmbH       | Wool fat      | 18139308    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 18224301    | 3       |
| Caesar & Loretz GmbH       | Wool fat      | 18224302    | 7       |
| Caesar & Loretz GmbH       | Wool fat      | 18224304    | 4       |
| Caesar & Loretz GmbH       | Wool fat      | 18224305    | 15      |
| Caesar & Loretz GmbH       | Wool fat      | 18224306    | 2       |
| Caesar & Loretz GmbH       | Wool fat      | 18314702    | 6       |
| Caesar & Loretz GmbH       | Wool fat      | 18314703    | 12      |
| Caesar & Loretz GmbH       | Wool fat      | 18314704    | 8       |
| Caesar & Loretz GmbH       | Wool fat      | 19000845001 | 24      |
| Caesar & Loretz GmbH       | Wool fat      | 19000845002 | 2       |
| Caesar & Loretz GmbH       | Wool fat      | 19000845003 | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 19000845004 | 2       |
| Caesar & Loretz GmbH       | Wool fat      | 19043401    | 7       |
| Caesar & Loretz GmbH       | Wool fat      | 19043402    | 3       |
| Caesar & Loretz GmbH       | Wool fat      | 19043405    | 5       |
| Caesar & Loretz GmbH       | Wool fat      | 19043406    | 2       |
| Caesar & Loretz GmbH       | Softisan® 378 | 19056102    | 2       |
| Caesar & Loretz GmbH       | Softisan® 378 | 19056106    | 4       |
| Caesar & Loretz GmbH       | Softisan® 378 | 19056108    | 4       |
| Caesar & Loretz GmbH       | Wool fat      | 19100501    | 1       |
| Caesar & Loretz GmbH       | Wool fat      | 19100502    | 2       |
| Caesar & Loretz GmbH       | Wool fat      | 19100504    | 16      |

*continued on the next page*

continued from previous page

| Supplier                     | Substance                 | Batch       | Spectra |
|------------------------------|---------------------------|-------------|---------|
| Caesar & Loretz GmbH         | Wool fat                  | 19100505    | 17      |
| Caesar & Loretz GmbH         | Wool fat                  | 19100506    | 18      |
| Caesar & Loretz GmbH         | Wool fat                  | 19100507    | 3       |
| Caesar & Loretz GmbH         | Wool fat                  | 19100508    | 5       |
| Caesar & Loretz GmbH         | Wool fat                  | 19174603    | 8       |
| Caesar & Loretz GmbH         | Wool fat                  | 19174604    | 3       |
| Caesar & Loretz GmbH         | Wool fat                  | 19174605    | 15      |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 191862002   | 1       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 191862005   | 4       |
| Caesar & Loretz GmbH         | Wool fat                  | 192611002   | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 192611003   | 4       |
| Caesar & Loretz GmbH         | Wool fat                  | 192611004   | 3       |
| Caesar & Loretz GmbH         | Wool fat                  | 192611005   | 10      |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 19A30-B04   | 3       |
| Caesar & Loretz GmbH         | Wool fat                  | 20000968001 | 9       |
| Caesar & Loretz GmbH         | Wool fat                  | 20000968002 | 2       |
| Caesar & Loretz GmbH         | Wool fat                  | 20000968004 | 4       |
| Caesar & Loretz GmbH         | Wool fat                  | 20000968007 | 4       |
| Caesar & Loretz GmbH         | Wool fat                  | 20001836001 | 6       |
| Caesar & Loretz GmbH         | Wool fat                  | 20001836002 | 12      |
| Caesar & Loretz GmbH         | Wool fat                  | 20001836004 | 12      |
| Caesar & Loretz GmbH         | Wool fat                  | 20001836005 | 5       |
| Caesar & Loretz GmbH         | Wool fat                  | 20001836006 | 5       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 20001844003 | 1       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 20001844006 | 6       |
| Caesar & Loretz GmbH         | Wool fat                  | 20002793001 | 12      |
| Caesar & Loretz GmbH         | Wool fat                  | 20002793002 | 3       |
| Caesar & Loretz GmbH         | Wool fat                  | 20002793003 | 3       |
| Caesar & Loretz GmbH         | Wool fat                  | 20003738002 | 10      |
| Caesar & Loretz GmbH         | Wool fat                  | 20003738004 | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 20003738005 | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 20003738006 | 14      |
| Caesar & Loretz GmbH         | Wool fat                  | 20003738007 | 5       |
| Caesar & Loretz GmbH         | Wool fat                  | 20003738008 | 1       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 21000299002 | 2       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 21000299007 | 1       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 21000299010 | 3       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 21000299013 | 1       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | 21000299014 | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 21000775004 | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 21000775005 | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 21000775007 | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 21000775008 | 1       |
| Caesar & Loretz GmbH         | Wool fat                  | 21000775009 | 7       |
| Caesar & Loretz GmbH         | Wool fat                  | 21002094002 | 2       |
| Caesar & Loretz GmbH         | Wool fat                  | 21003136005 | 1       |
| Caesar & Loretz GmbH         | Softisan <sup>®</sup> 378 | F01-3758208 | 1       |
| Caesar & Loretz Hilden       | Wool fat                  | 18224305    | 1       |
| Caesar & Loretz/AHD          | Wool fat                  | 19000845001 | 2       |
| Caesar & Loretz/Geilenk. ... | Wool fat                  | 20001836004 | 1       |
| Caesar & Loretz/Geilenk. ... | Wool fat                  | 20002793001 | 1       |
| Caesar & Loretz/Noweda       | Wool fat                  | 16345104    | 1       |
| Caesar & Loretz              | Wool fat                  | 16221903    | 1       |
| Caesar & Loretz              | Wool fat                  | 17307502    | 1       |
| Caesar & Loretz              | Wool fat                  | 18139306    | 1       |
| Caesar & Loretz              | Wool fat                  | 20002793001 | 1       |
| Caesar L / Sanacorp          | Softisan <sup>®</sup> 378 | 19056102    | 1       |
| Caesar und Loretz GmbH       | Wool fat                  | 17167701    | 1       |
| Caesar und Loretz GmbH       | Wool fat                  | 17307507    | 1       |
| Caesar&Lorenz                | Wool fat                  | 20003738006 | 1       |

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| Supplier                     | Substance     | Batch            | Spectra |
|------------------------------|---------------|------------------|---------|
| Caesar&Loretz GmbH,Phön. . . | Wool fat      | 16267201         | 2       |
| Caesar&Loretz GmbH/Anzag     | Wool fat      | 13213105         | 1       |
| Caesar&Loretz GmbH/Fiebig    | Wool fat      | 16345104         | 1       |
| Caesar&Loretz GmbH/Gehe      | Wool fat      | 19100506         | 1       |
| Caesar&Loretz GmbH           | Wool fat      | 16003901         | 1       |
| Caesar&Loretz,AHC            | Wool fat      | 14238002         | 1       |
| Caesar&Loretz/Alliance       | Wool fat      | 17307507         | 1       |
| Caesar&Loretz/Noweda         | Wool fat      | 15198802         | 1       |
| Caesar&Loretz                | Wool fat      | 15050903         | 1       |
| Caesar&Loretz                | Wool fat      | 15198802         | 1       |
| caesar                       | Wool fat      | 14304501         | 1       |
| caesar                       | Wool fat      | 16044302         | 1       |
| Caeser und Loretz GmbH       | Wool fat      | 18314704         | 1       |
| Caleo/ Noweda                | Wool fat      | 17307507         | 1       |
| Caleo/ Noweda                | Wool fat      | 18029902         | 1       |
| Caleo                        | Wool fat      | 15050903         | 1       |
| Cealo/ AHD                   | Wool fat      | 18314703         | 1       |
| Cealo/Gehe                   | Wool fat      | 17248104         | 2       |
| Cealo/Gehe                   | Wool fat      | 17307506         | 1       |
| Cealo/Gehe                   | Wool fat      | 18029902         | 1       |
| Cealo/Sanacorp               | Wool fat      | 16221905         | 2       |
| Cealo/Sanacorp               | Wool fat      | 20003738002      | 2       |
| cealo                        | Wool fat      | 18224302         | 3       |
| cesar&lorentz/Phönix         | Wool fat      | 12321805         | 1       |
| chaelo/gehe                  | Wool fat      | 17248103         | 1       |
| Chiesi                       | Wool fat      | 17139301         | 1       |
| Cordes                       | Wool fat      | 11203908         | 1       |
| Delta Apotheke               | Wool fat      | 18139306         | 2       |
| Delta                        | Softisan® 378 | 17J06-B01-525706 | 2       |
| E Plus                       | Wool fat      | 17002020         | 1       |
| Eigenproduktion              | Wool fat      | 16003901         | 1       |
| EuRho/Sanacorp               | Wool fat      | 8003158001       | 1       |
| EuRho                        | Wool fat      | 15198803         | 1       |
| EuRho                        | Wool fat      | 18139305         | 1       |
| Euro OTC                     | Wool fat      |                  | 1       |
| Euro OTC                     | Wool fat      | 1000010938       | 2       |
| Euro OTC                     | Wool fat      | 10829902         | 1       |
| Euro OTC                     | Wool fat      | 1305037-01       | 1       |
| Euro OTC                     | Wool fat      | 13398201         | 1       |
| Euro OTC                     | Wool fat      | 1403023-01       | 1       |
| Euro OTC                     | Wool fat      | 14147902         | 1       |
| Euro OTC                     | Wool fat      | 14238007         | 1       |
| Euro OTC                     | Wool fat      | 1502024-01       | 2       |
| Euro OTC                     | Wool fat      | 16003905         | 1       |
| Euro OTC                     | Wool fat      | 1601040-01       | 2       |
| Euro OTC                     | Wool fat      | 1607001-01       | 1       |
| Euro OTC                     | Wool fat      | 16221903         | 3       |
| Euro OTC                     | Wool fat      | 16345104         | 1       |
| Euro OTC                     | Wool fat      | 16345107         | 1       |
| Euro OTC                     | Wool fat      | 17002019         | 1       |
| Euro OTC                     | Wool fat      | 1701051-01       | 2       |
| Euro OTC                     | Wool fat      | 1701051-02       | 1       |
| Euro OTC                     | Wool fat      | 1709021-01       | 1       |
| Euro OTC                     | Wool fat      | 17248103         | 1       |
| Euro OTC                     | Wool fat      | 17307501         | 1       |
| Euro OTC                     | Wool fat      | 1807008-01       | 2       |
| Euro OTC                     | Wool fat      | 1907027          | 1       |
| Euro OTC                     | Wool fat      | 1907027-01       | 4       |
| Euro OTC                     | Wool fat      | 2003065-01       | 2       |
| Euro OTC                     | Wool fat      | 2010016-01       | 1       |

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| Supplier         | Substance                 | Batch             | Spectra |
|------------------|---------------------------|-------------------|---------|
| Euro OTC         | Wool fat                  | 301843            | 1       |
| Euro OTC         | Wool fat                  | 8003158001        | 1       |
| Euro OTC         | Wool fat                  | 8004748002        | 1       |
| Euro/Phönix      | Softisan <sup>®</sup> 378 | 103897            | 1       |
| EuRoh/ Gehe      | Wool fat                  | 18224302          | 1       |
| Europharm / Gehe | Wool fat                  | 18029901          | 1       |
| Fagro            | Softisan <sup>®</sup> 378 | 19A30-B04         | 4       |
| Fagro            | Softisan <sup>®</sup> 378 | 19K04-F06-367115  | 1       |
| Fagro            | Softisan <sup>®</sup> 378 | F02-3719009       | 1       |
| Fagro            | Softisan <sup>®</sup> 378 | F06-3671106       | 2       |
| Fagron           | Softisan <sup>®</sup> 378 | 102940            | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 10A30-B04-362347  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 11520             | 2       |
| Fagron           | Wool fat                  | 11L07-T01         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 12/24-N01         | 1       |
| Fagron           | Wool fat                  | 12H31-T01         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 12I24-N01         | 1       |
| Fagron           | Wool fat                  | 12K07-T51-00357   | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 12K27-N05         | 1       |
| Fagron           | Wool fat                  | 13094903          | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 138485            | 2       |
| Fagron           | Softisan <sup>®</sup> 378 | 13B11-N01         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 13D26-N02         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 13D26-N12         | 9       |
| Fagron           | Softisan <sup>®</sup> 378 | 13H22-N01         | 5       |
| Fagron           | Softisan <sup>®</sup> 378 | 13H22-N01         | 1       |
| Fagron           | Wool fat                  | 14086906          | 1       |
| Fagron           | Wool fat                  | 14304502          | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 145521            | 1       |
| Fagron           | Wool fat                  | 14B14-T03         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 14F11-B04         | 3       |
| Fagron           | Softisan <sup>®</sup> 378 | 14F11B04-296083   | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 14F11-B04-296083  | 3       |
| Fagron           | Softisan <sup>®</sup> 378 | 14F11-B04-299298  | 8       |
| Fagron           | Wool fat                  | 15050904          | 1       |
| Fagron           | Wool fat                  | 15158402          | 2       |
| Fagron           | Wool fat                  | 15B27-T27-023866  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-10-316518   | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10         | 2       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10_316518  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10-310231  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10-311893  | 2       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10-316518  | 2       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10-320309  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10-525116  | 3       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10-525272  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 15G20-B10-525379  | 2       |
| Fagron           | Softisan <sup>®</sup> 378 | 17/07-B01-340337  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 170828            | 1       |
| Fagron           | Wool fat                  | 17248106          | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 17816-806         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 17B16-B06         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 17B16-B06-331749  | 2       |
| Fagron           | Softisan <sup>®</sup> 378 | 17B16-B06-333147  | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 17B16-B06-334707  | 3       |
| Fagron           | Softisan <sup>®</sup> 378 | 17B16-B06-525441  | 3       |
| Fagron           | Softisan <sup>®</sup> 378 | 17F15-B05         | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 17F15-B05-336058  | 4       |
| Fagron           | Softisan <sup>®</sup> 378 | 17F-15-B05-336058 | 1       |
| Fagron           | Softisan <sup>®</sup> 378 | 17F15-B05-336059  | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                 | Batch                      | Spectra |
|----------|---------------------------|----------------------------|---------|
| Fagron   | Softisan <sup>®</sup> 378 | 17F15-B05-525528           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17I07-B01-338745           | 4       |
| Fagron   | Softisan <sup>®</sup> 378 | 17I07-B01-340337           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17I07-B01-525611           | 5       |
| Fagron   | Wool fat                  | 17I08-T03-051241           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01                  | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-342646           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-342646           | 4       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-346209           | 6       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-348073           | 4       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06B01349162             | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-349162           | 7       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06B01350967             | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-350967           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-525706           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-525718           | 7       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-525795           | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 17J06-B01-525822           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 17I07-B01-340337           | 1       |
| Fagron   | Wool fat                  | 18029902                   | 1       |
| Fagron   | Wool fat                  | 18139308                   | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 1814640                    | 1       |
| Fagron   | Wool fat                  | 18224302                   | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30                      | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05                  | 4       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-352747           | 5       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-355402           | 5       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-356281           | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-358235           | 7       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-3582535          | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-525839           | 4       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-525949           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 18G30-B05-52839            | 1       |
| Fagron   | Wool fat                  | 18L21-T06-062805           | 1       |
| Fagron   | Wool fat                  | 19000845001                | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 190230702                  | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 190902908                  | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19430-B04-364125           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-804-364125           | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04                  | 4       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-36234            | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-362346           | 11      |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30B04-362347            | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-362347           | 12      |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-362348           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-362349           | 3       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-362349und-362346 | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-364125           | 14      |
| Fagron   | Softisan <sup>®</sup> 378 | 19A-30-B04-364125          | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04526060            | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-526060           | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-526093           | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 19A30-B04-526134           | 1       |
| Fagron   | Softisan <sup>®</sup> 378 | 19D25-B04                  | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 19K04-F06                  | 6       |
| Fagron   | Softisan <sup>®</sup> 378 | 19K04-F06-367115           | 6       |
| Fagron   | Softisan <sup>®</sup> 378 | 19K04-F06-367116           | 4       |
| Fagron   | Softisan <sup>®</sup> 378 | 19K04-F06-367117           | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 19K04-F06-369505           | 2       |
| Fagron   | Softisan <sup>®</sup> 378 | 209602                     | 4       |

continued on the next page

continued from previous page

| Supplier        | Substance                 | Batch            | Spectra |
|-----------------|---------------------------|------------------|---------|
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02        | 7       |
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02-371909 | 10      |
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02-371910 | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02-373348 | 3       |
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02-526335 | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02-526369 | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02-373348 | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 20J12-F01        | 2       |
| Fagron          | Softisan <sup>®</sup> 378 | 20J12-F01-374642 | 7       |
| Fagron          | Softisan <sup>®</sup> 378 | 21C19-F03        | 5       |
| Fagron          | Softisan <sup>®</sup> 378 | 21C19-F03-377530 | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 21C19-F03-377531 | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 21C19-F03-377532 | 4       |
| Fagron          | Softisan <sup>®</sup> 378 | 21J22-B10-219883 | 2       |
| Fagron          | Softisan <sup>®</sup> 378 | 2715E-02911      | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 2910             | 2       |
| Fagron          | Softisan <sup>®</sup> 378 | 20F25-F02-371909 | 2       |
| Fagron          | Softisan <sup>®</sup> 378 | 303624           | 2       |
| Fagron          | Softisan <sup>®</sup> 378 | 311662           | 2       |
| Fagron          | Softisan <sup>®</sup> 378 | 505717           | 3       |
| Fagron          | Softisan <sup>®</sup> 378 | 514E-02911       | 1       |
| Fagron          | Wool fat                  | 5264700          | 1       |
| Fagron          | Wool fat                  | 6001861002       | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 708826           | 1       |
| Fagron          | Wool fat                  | 8002112002       | 1       |
| Fagron          | Wool fat                  | 8004748002       | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 806859           | 3       |
| Fagron          | Softisan <sup>®</sup> 378 | 812878           | 6       |
| Fagron          | Softisan <sup>®</sup> 378 | 8927             | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | 904887           | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | F02-3719009      | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | F03-3775300      | 1       |
| Fagron          | Softisan <sup>®</sup> 378 | F03-3775302      | 2       |
| Fagron          | Wool fat                  | L04187           | 1       |
| Fagron          | Wool fat                  | L04369           | 1       |
| Fargon          | Softisan <sup>®</sup> 378 | 17I07-B01-338745 | 1       |
| Fargon          | Softisan <sup>®</sup> 378 | 17I07-B01-525611 | 1       |
| Fargon          | Softisan <sup>®</sup> 378 | 17I07-B01-525611 | 1       |
| Fiebig/lamotte  | Wool fat                  | 8002760003       | 2       |
| Fiebig/lamotte  | Wool fat                  | 8003158003       | 1       |
| Fiebig          | Wool fat                  | 16003902         | 1       |
| Fiebig          | Wool fat                  | 16345106         | 1       |
| Fiebig          | Wool fat                  | 17167702         | 1       |
| Fiebig          | Wool fat                  | 17248104         | 1       |
| Fiebig          | Wool fat                  | 18139302         | 1       |
| Fiebig          | Wool fat                  | 18139305         | 1       |
| Fiebig          | Wool fat                  | 18224304         | 3       |
| Fiebig          | Wool fat                  | 18314702         | 1       |
| Fiebig          | Wool fat                  | 1839302          | 1       |
| Fiebig          | Wool fat                  | 19000845001      | 1       |
| Fiebig          | Wool fat                  | 8002760003       | 2       |
| Finze           | Wool fat                  | 5264700          | 2       |
| Fragon          | Softisan <sup>®</sup> 378 | 17F15-B05-525528 | 1       |
| Gatt-Koller     | Wool fat                  | 1803528          | 1       |
| Gatt-Koller     | Wool fat                  | 1803868          | 1       |
| Gatt-Koller     | Wool fat                  | 1804107          | 1       |
| Gehe / Lamotte  | Wool fat                  | 8002760002       | 1       |
| Gehe 02.05.19   | Wool fat                  | 18224306         | 1       |
| GEHE 02.12.2014 | Wool fat                  | 5528000          | 1       |
| Gehe 26.2.14    | Wool fat                  | 13306205         | 2       |

continued on the next page



continued from previous page

| Supplier               | Substance                 | Batch       | Spectra |
|------------------------|---------------------------|-------------|---------|
| gehe henry             | Wool fat                  | 1000012824  | 1       |
| Gehe Kassel 09.02.2015 | Softisan <sup>®</sup> 378 | 75850       | 1       |
| Gehe/ Lamotte          | Wool fat                  | 5375400     | 1       |
| Gehe/Bionorica         | Softisan <sup>®</sup> 378 | 118060      | 1       |
| Gehe/Henry Lamotte     | Wool fat                  | 8004748002  | 1       |
| Gehe/L10               | Wool fat                  | 18314702    | 1       |
| Gehe/Lamotte           | Wool fat                  | 8002112002  | 3       |
| Gehe/Lamotte           | Wool fat                  | 8002760002  | 1       |
| Gehe/Lamotte           | Wool fat                  | 8003158002  | 1       |
| Gehe                   | Wool fat                  | 12036703    | 2       |
| Gehe                   | Wool fat                  | 12224404    | 1       |
| Gehe                   | Wool fat                  | 1230113     | 1       |
| Gehe                   | Wool fat                  | 13039403    | 1       |
| Gehe                   | Softisan <sup>®</sup> 378 | 133396      | 2       |
| Gehe                   | Softisan <sup>®</sup> 378 | 138485      | 1       |
| GEHE                   | Wool fat                  | 14086903    | 1       |
| Gehe                   | Wool fat                  | 14147901    | 1       |
| Gehe                   | Wool fat                  | 15050902    | 1       |
| Gehe                   | Wool fat                  | 15050903    | 1       |
| Gehe                   | Softisan <sup>®</sup> 378 | 157870      | 1       |
| Gehe                   | Wool fat                  | 16003901    | 1       |
| Gehe                   | Wool fat                  | 16044306    | 1       |
| Gehe                   | Wool fat                  | 16163001    | 1       |
| Gehe                   | Wool fat                  | 16163006    | 1       |
| GEHE                   | Wool fat                  | 16163006    | 1       |
| GEHE                   | Wool fat                  | 16221902    | 1       |
| GEHE                   | Wool fat                  | 16221905    | 2       |
| Gehe                   | Wool fat                  | 16221906    | 1       |
| Gehe                   | Wool fat                  | 16221907    | 3       |
| Gehe                   | Wool fat                  | 16267201    | 1       |
| Gehe                   | Wool fat                  | 16345104    | 2       |
| Gehe                   | Wool fat                  | 16345107    | 1       |
| Gehe                   | Wool fat                  | 17139301    | 2       |
| Gehe                   | Wool fat                  | 17139303    | 1       |
| Gehe                   | Wool fat                  | 17167702    | 1       |
| Gehe                   | Wool fat                  | 17167704    | 1       |
| Gehe                   | Wool fat                  | 17248104    | 1       |
| Gehe                   | Wool fat                  | 17248105    | 1       |
| Gehe                   | Wool fat                  | 17307502    | 1       |
| Gehe                   | Wool fat                  | 17307505    | 1       |
| Gehe                   | Wool fat                  | 17307506    | 3       |
| GEHE                   | Wool fat                  | 17307508    | 1       |
| GEHE                   | Softisan <sup>®</sup> 378 | 17B16-B06   | 1       |
| GEHE                   | Wool fat                  | 18029902    | 1       |
| GEHE                   | Wool fat                  | 18029903    | 1       |
| Gehe                   | Wool fat                  | 18139302    | 1       |
| GEHE                   | Wool fat                  | 18139302    | 1       |
| Gehe                   | Wool fat                  | 18139303    | 2       |
| Gehe                   | Wool fat                  | 18139305    | 2       |
| Gehe                   | Wool fat                  | 18139307    | 1       |
| Gehe                   | Softisan <sup>®</sup> 378 | 18146401    | 1       |
| Gehe                   | Wool fat                  | 18224301    | 2       |
| GEHE                   | Wool fat                  | 18314702    | 1       |
| Gehe                   | Wool fat                  | 19000845001 | 2       |
| Gehe                   | Wool fat                  | 19000845002 | 1       |
| GEHE                   | Wool fat                  | 19043405    | 1       |
| Gehe                   | Wool fat                  | 19100504    | 1       |
| GEHE                   | Wool fat                  | 19100505    | 2       |
| gehe                   | Wool fat                  | 19100506    | 1       |
| Gehe                   | Wool fat                  | 19100507    | 1       |

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| Supplier                    | Substance                 | Batch       | Spectra |
|-----------------------------|---------------------------|-------------|---------|
| Gehe                        | Wool fat                  | 19174605    | 1       |
| Gehe                        | Wool fat                  | 192611004   | 4       |
| Gehe                        | Wool fat                  | 1928611004  | 1       |
| Gehe                        | Wool fat                  | 20001836001 | 2       |
| Gehe                        | Wool fat                  | 21000775007 | 1       |
| Gehe                        | Wool fat                  | 5375400     | 2       |
| Gehe                        | Wool fat                  | 5763900     | 1       |
| Gehe                        | Wool fat                  | 5787700     | 1       |
| Gehe                        | Wool fat                  | 5860600     | 1       |
| Gehe                        | Wool fat                  | 5908900     | 1       |
| Gehe                        | Wool fat                  | 5909000     | 1       |
| Gehe                        | Wool fat                  | 6001861002  | 2       |
| Gehe                        | Wool fat                  | 8002112002  | 4       |
| Gehe                        | Wool fat                  | 8002320010  | 3       |
| Gehe                        | Softisan <sup>®</sup> 378 | 9477689     | 1       |
| GUMO                        | Softisan <sup>®</sup> 378 | 132321      | 1       |
| GUMO                        | Wool fat                  | 19000845004 | 1       |
| GUMO                        | Softisan <sup>®</sup> 378 | 21C19-F03   | 1       |
| H. Lamotte/Alliance         | Wool fat                  | 1000016942  | 1       |
| H. Lamotte                  | Wool fat                  | 8003158002  | 1       |
| Hedinger/4                  | Wool fat                  | 18224304    | 1       |
| Hedinger                    | Wool fat                  | 11261105    | 2       |
| Hedinger                    | Wool fat                  | 17307508    | 1       |
| Hennry Lamotte Oils Gmb...  | Wool fat                  | 1000012824  | 3       |
| Hennry Lamotte Oils Gmb...  | Wool fat                  | 8004748003  | 1       |
| Hennry Lamotte/Krieger      | Wool fat                  | 6001861002  | 2       |
| Henri Lamotte /Krieger      | Wool fat                  | 8004748002  | 1       |
| Henry Lamotte Oils GmbH ... | Wool fat                  | 8004134002  | 1       |
| Henry Lamotte Oils GmbH ... | Wool fat                  | 8004748003  | 1       |
| Henry Lamotte Oils GmbH ... | Wool fat                  | 1000010938  | 1       |
| henry lamott/ Krieger       | Wool fat                  | 1000010939  | 1       |
| henry lamott/ Krieger       | Wool fat                  | 8004748002  | 1       |
| Henry Lamotte / 107         | Wool fat                  | 1000010938  | 1       |
| Henry Lamotte / 2           | Wool fat                  | 1000012824  | 1       |
| Henry Lamotte / AHD         | Wool fat                  | 1000010938  | 1       |
| HENRY LAMOTTE / Anzag       | Wool fat                  | 1000012826  | 2       |
| Henry Lamotte / Anzag       | Wool fat                  | 5650500     | 1       |
| Henry Lamotte / Anzag       | Wool fat                  | 5690800     | 3       |
| Henry Lamotte / Jenne       | Wool fat                  | 8004134002  | 1       |
| Henry Lamotte / Jenne       | Wool fat                  | 8004134015  | 1       |
| Henry Lamotte / Noweda      | Wool fat                  | 5909000     | 6       |
| Henry Lamotte / Noweda      | Wool fat                  | 6001861002  | 2       |
| Henry Lamotte / Noweda      | Wool fat                  | 8002112002  | 1       |
| Henry Lamotte / Noweda      | Wool fat                  | 8003158002  | 1       |
| Henry Lamotte / Noweda      | Wool fat                  | 8004134015  | 1       |
| Henry Lamotte / Phoenix     | Wool fat                  | 5860600     | 2       |
| Henry Lamotte / Phoenix     | Wool fat                  | 5909000     | 1       |
| Henry Lamotte / Phoenix     | Wool fat                  | 6001861002  | 1       |
| Henry Lamotte / Phoenix     | Wool fat                  | 8002112002  | 1       |
| Henry Lamotte / Sanacorp    | Wool fat                  | 8003158001  | 1       |
| Henry Lamotte / Sanacorp    | Wool fat                  | 8003158002  | 1       |
| Henry Lamotte / Sanacorp    | Wool fat                  | 8004134001  | 1       |
| HENRY LAMOTTE /Anzag        | Wool fat                  | 8003158003  | 1       |
| HENRY LAMOTTE /Anzag        | Wool fat                  | 8004134003  | 3       |
| HENRY LAMOTTE /Anzag        | Wool fat                  | 8004748004  | 2       |
| Henry Lamotte /Noweda       | Wool fat                  | 8002112002  | 2       |
| Henry Lamotte /Noweda       | Wool fat                  | 8004134015  | 3       |
| Henry Lamotte /Phoenix      | Wool fat                  | 8003158002  | 1       |
| HENRY LAMOTTE /Phönix       | Wool fat                  | 1000010937  | 2       |
| Henry Lamotte GmbH          | Wool fat                  | 1000010938  | 3       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>        | <b>Spectra</b> |
|----------------------------|------------------|---------------------|----------------|
| Henry Lamotte GmbH         | Wool fat         | 8002112002          | 1              |
| Henry Lamotte GmbH         | Wool fat         | 8002760002          | 1              |
| Henry Lamotte GmbH         | Wool fat         | 8003158002          | 4              |
| Henry Lamotte GmbH         | Wool fat         | 8004134002          | 3              |
| Henry Lamotte GmbH         | Wool fat         | 8004134015          | 1              |
| Henry Lamotte Oils / Gehe  | Wool fat         | 8002144001          | 1              |
| Henry Lamotte Oils / GEHE  | Wool fat         | 8004748004          | 1              |
| Henry Lamotte Oils / No... | Wool fat         | 5763900             | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002112002          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002320010          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8003158002          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004134002          | 2              |
| Henry Lamotte Oils GmbH... | Wool fat         | 1000012824          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 1000012824          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 1000012824          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 180109AL/8003158003 | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 180320AL/8003158003 | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002144001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004134002          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004134001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 1000012824          | 2              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004748002          | 1              |
| Henry Lamotte Oils GMBH... | Wool fat         | 170303AL/800232001  | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 5528000             | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002144001          | 2              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8003158002          | 4              |
| Henry Lamotte Oils GmbH... | Wool fat         | 1000010939          | 2              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004134001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004134002          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002144001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002760001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8003158002          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004748002          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 1000016400          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 6001861001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002112002          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002144001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 1000010939          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 5908900             | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002144001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8003158001          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 5787700             | 3              |
| Henry Lamotte Oils GmbH... | Wool fat         | 6001861002          | 5              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8002320010          | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8003158002          | 4              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004748003          | 2              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004134002          | 4              |
| Henry Lamotte Oils GmbH... | Wool fat         | 5520800             | 1              |
| Henry Lamotte Oils GmbH... | Wool fat         | 8004748003          | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         |                     | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 1000010938          | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 1000010938          | 4              |
| Henry Lamotte Oils GMBH    | Wool fat         | 1000010939          | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 1000012825          | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 1000012825          | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 100001285           | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 1000015310          | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 1000016400          | 3              |
| Henry Lamotte Oils GMBH    | Wool fat         | 160915ALA           | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| Henry Lamotte oils GmbH    | Wool fat         | 17248106     | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5264700      | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5448200      | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5528000      | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5650500      | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 56908000     | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5763900      | 6              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5860600      | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5908900      | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5909000      | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5909000      | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 5909100      | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 6001861001   | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 6001861002   | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8002112002   | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8002112002   | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8002144001   | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8002320010   | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8002320010   | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8002760001   | 4              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8002760002   | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8003158001   | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8003158002   | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8003158002   | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8004134001   | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8004134002   | 2              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8004134015   | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8004134015   | 3              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8004748002   | 1              |
| Henry Lamotte Oils GmbH    | Wool fat         | 8004748003   | 2              |
| henry lamotte oils GmbH/N  | Wool fat         | 5908900      | 1              |
| Henry Lamotte Oils/ Gehe   | Wool fat         | 5520800      | 2              |
| Henry Lamotte Oils/ Gehe   | Wool fat         | 8002760002   | 1              |
| Henry Lamotte Oils/ Now... | Wool fat         | 8002144001   | 2              |
| Henry Lamotte Oils/ Now... | Wool fat         | 8004748004   | 2              |
| Henry Lamotte Oils/ San... | Wool fat         | 8002112002   | 1              |
| Henry Lamotte Oils/Fiebig  | Wool fat         | 8003158002   | 3              |
| Henry Lamotte Oils/Fiebig  | Wool fat         | 8004134002   | 1              |
| Henry Lamotte Oils/Gehe    | Wool fat         | 1000010939   | 1              |
| Henry Lamotte Oils/Noweda  | Wool fat         | 1000012826   | 4              |
| Henry Lamotte Oils/Noweda  | Wool fat         | 6001861002   | 1              |
| Henry Lamotte Oils/Noweda  | Wool fat         | 8002112002   | 1              |
| Henry Lamotte Oils/Noweda  | Wool fat         | 8004748003   | 1              |
| Henry Lamotte Oils/Phönix  | Wool fat         | 6001861001   | 1              |
| Henry Lamotte Oils/Sana... | Wool fat         | 1000010937   | 2              |
| Henry Lamotte Oils/Sana... | Wool fat         | 5320900      | 1              |
| Henry Lamotte Oils/Sana... | Wool fat         | 8004134002   | 1              |
| HENRY LAMOTTE OILS         | Wool fat         | 10000010938  | 1              |
| Henry Lamotte Oils         | Wool fat         | 1000010937   | 1              |
| Henry Lamotte Oils         | Wool fat         | 1000010939   | 1              |
| Henry Lamotte Oils         | Wool fat         | 1000012824   | 2              |
| HENRY LAMOTTE OILS         | Wool fat         | 1000012825   | 3              |
| Henry Lamotte Oils         | Wool fat         | 1000012826   | 1              |
| Henry Lamotte Oils         | Wool fat         | 5198200      | 2              |
| Henry Lamotte Oils         | Wool fat         | 5253400      | 1              |
| henry lamotte oils         | Wool fat         | 5264700      | 1              |
| Henry Lamotte Oils         | Wool fat         | 5264700      | 1              |
| Henry Lamotte Oils         | Wool fat         | 5448200      | 3              |
| Henry Lamotte Oils         | Wool fat         | 5520800      | 1              |
| Henry Lamotte Oils         | Wool fat         | 5528000      | 1              |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>    | <b>Spectra</b> |
|----------------------------|------------------|-----------------|----------------|
| Henry Lamotte Oils         | Wool fat         | 5787700         | 1              |
| henry lamotte oils         | Wool fat         | 6001861002      | 1              |
| Henry Lamotte Oils         | Wool fat         | 6001861002      | 2              |
| henry lamotte oils         | Wool fat         | 6991861002      | 1              |
| Henry Lamotte Oils         | Wool fat         | 8002320010      | 2              |
| Henry Lamotte Oils         | Wool fat         | 8003158001      | 1              |
| Henry Lamotte Oils         | Wool fat         | 8003158002      | 1              |
| Henry Lamotte Oils         | Wool fat         | 8004134001      | 1              |
| Henry Lamotte Oils         | Wool fat         | 8004748002      | 2              |
| Henry Lamotte Oils         | Wool fat         | 8004748004      | 1              |
| Henry Lamotte Olis GmbH... | Wool fat         | 5528000         | 1              |
| Henry Lamotte Olis GmbH... | Wool fat         | 5650500         | 1              |
| Henry Lamotte Olis GmbH... | Wool fat         | 1000012824      | 3              |
| Henry Lamotte Olis GmbH... | Wool fat         | 8004134001      | 1              |
| Henry Lamotte Olis GmbH... | Wool fat         | 8004748002      | 2              |
| Henry Lamotte Olis GmbH    | Wool fat         | 8003158001      | 1              |
| Henry Lamotte/ Alliance    | Wool fat         | 8002320010      | 1              |
| Henry Lamotte/ Anzag       | Wool fat         | 8003158003      | 1              |
| Henry Lamotte/ Gehe        | Wool fat         | 5908900         | 1              |
| Henry Lamotte/ Krieger     | Wool fat         | 8002112002      | 1              |
| Henry Lamotte/ Krieger     | Wool fat         | 8002760002      | 1              |
| Henry Lamotte/ Krieger     | Wool fat         | 8003158002      | 1              |
| Henry Lamotte/ Krieger     | Wool fat         | 8004134002      | 1              |
| Henry lamotte/ Noweda      | Wool fat         | 1000015311      | 4              |
| Henry Lamotte/ Noweda      | Wool fat         | 8002320010      | 7              |
| Henry Lamotte/ Noweda      | Wool fat         | 8003158002      | 3              |
| Henry Lamotte/ Noweda      | Wool fat         | 80041340002     | 1              |
| Henry Lamotte/ Phoenix     | Wool fat         | 8002320010      | 1              |
| henry lamotte/ Phöinix     | Wool fat         | 1000012824      | 1              |
| Henry Lamotte/ Phönix      | Wool fat         | 1000010938      | 1              |
| Henry Lamotte/ Phönix      | Wool fat         | 6001861002      | 3              |
| Henry Lamotte/ Phönix      | Wool fat         | 8002112002      | 1              |
| Henry Lamotte/ Phönix      | Wool fat         | 8003158002      | 2              |
| Henry Lamotte/ Phönix      | Wool fat         | 8004134002      | 1              |
| Henry Lamotte/ Sanacorp    | Wool fat         | 1000010939      | 2              |
| Henry Lamotte/ Sanacorp    | Wool fat         | 1000012824      | 1              |
| HENRY LAMOTTE/1            | Wool fat         | 8004134001      | 1              |
| HENRY LAMOTTE/1            | Wool fat         | 80041748002     | 1              |
| Henry Lamotte/AHD          | Wool fat         | 10000100939     | 1              |
| Henry Lamotte/AHD          | Wool fat         | 1000010937      | 2              |
| Henry Lamotte/AHD          | Wool fat         | 1000010939      | 5              |
| Henry Lamotte/AHD          | Wool fat         | 8004134001      | 1              |
| Henry Lamotte/Alliance     | Wool fat         | 1000010939      | 1              |
| Henry Lamotte/Alliance     | Wool fat         | 8002144002      | 1              |
| Henry Lamotte/Alliance     | Wool fat         | 8002320011      | 1              |
| Henry Lamotte/Alliance     | Wool fat         | 8002760001      | 1              |
| Henry Lamotte/Anzag        | Wool fat         | 1000015310      | 2              |
| Henry Lamotte/Anzag        | Wool fat         | 2908900         | 1              |
| Henry Lamotte/Anzag        | Wool fat         | 5908900         | 1              |
| Henry Lamotte/Anzag        | Wool fat         | 6001861001      | 1              |
| Henry Lamotte/Anzag        | Wool fat         | 8002112001      | 3              |
| Henry Lamotte/Anzag        | Wool fat         | 8002144001      | 1              |
| Henry Lamotte/Anzag        | Wool fat         | 800244001       | 1              |
| Henry Lamotte/Gehe         | Wool fat         | 1000010939      | 2              |
| henry lamotte/gehe         | Wool fat         | 16345104        | 1              |
| Henry Lamotte/GEHE         | Wool fat         | 5375400         | 1              |
| Henry Lamotte/Gehe         | Wool fat         | 8004134015      | 1              |
| Henry Lamotte/Jenne        | Wool fat         | 1000010939      | 1              |
| Henry Lamotte/Jenne        | Wool fat         | 163(8003158003) | 1              |
| Henry Lamotte/Jenne        | Wool fat         | 8002144001      | 1              |

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| Supplier               | Substance | Batch      | Spectra |
|------------------------|-----------|------------|---------|
| Henry Lamotte/Kehr     | Wool fat  | 1000010939 | 5       |
| Henry Lamotte/Kehr     | Wool fat  | 1000012824 | 2       |
| Henry Lamotte/Kehr     | Wool fat  | 5860700    | 1       |
| Henry Lamotte/Kehr     | Wool fat  | 5909000    | 2       |
| Henry Lamotte/Kehr     | Wool fat  | 8004748002 | 1       |
| Henry Lamotte/Noweda   | Wool fat  | 1000010938 | 1       |
| Henry Lamotte/Noweda   | Wool fat  | 1000010939 | 1       |
| Henry Lamotte/Noweda   | Wool fat  | 1000012825 | 2       |
| Henry Lamotte/Noweda   | Wool fat  | 1000015310 | 2       |
| Henry Lamotte/Noweda   | Wool fat  | 5520800    | 1       |
| Henry Lamotte/Noweda   | Wool fat  | 5787700    | 1       |
| Henry Lamotte/Noweda   | Wool fat  | 8002112002 | 2       |
| Henry Lamotte/Noweda   | Wool fat  | 8002144001 | 1       |
| Henry Lamotte/Noweda   | Wool fat  | 8002320010 | 3       |
| Henry Lamotte/Noweda   | Wool fat  | 8002760001 | 3       |
| Henry Lamotte/Noweda   | Wool fat  | 8003158002 | 1       |
| Henry Lamotte/Noweda   | Wool fat  | 8004748002 | 2       |
| Henry Lamotte/Phoenix  | Wool fat  | 1000010938 | 1       |
| Henry lamotte/Phoenix  | Wool fat  | 1000010939 | 1       |
| Henry Lamotte/Phoenix  | Wool fat  | 8002112002 | 1       |
| Henry Lamotte/Phoenix  | Wool fat  | 8003158002 | 5       |
| Henry Lamotte/Phoenix  | Wool fat  | 8004134002 | 2       |
| Henry Lamotte/Phoenix  | Wool fat  | 802760002  | 1       |
| Henry Lamotte/Phönix   | Wool fat  | 1000010938 | 2       |
| Henry Lamotte/Phönix   | Wool fat  | 1000010939 | 1       |
| Henry Lamotte/Phönix   | Wool fat  | 6001861002 | 1       |
| Henry Lamotte/Phönix   | Wool fat  | 8002320010 | 1       |
| Henry Lamotte/Phönix   | Wool fat  | 8004134002 | 1       |
| Henry Lamotte/Phönix   | Wool fat  | 8004748002 | 1       |
| Henry Lamotte/Phönix   | Wool fat  | 8004748003 | 4       |
| Henry Lamotte/Sana     | Wool fat  | 5908900    | 1       |
| Henry Lamotte/Sana     | Wool fat  | 8002144001 | 2       |
| Henry Lamotte/Sana     | Wool fat  | 8002760001 | 1       |
| Henry Lamotte/Sana     | Wool fat  | 8003158001 | 1       |
| Henry Lamotte/Sanacorp | Wool fat  | 1000010938 | 2       |
| Henry Lamotte/Sanacorp | Wool fat  | 5528000    | 1       |
| Henry Lamotte/Sanacorp | Wool fat  | 5727500    | 2       |
| Henry Lamotte/Sanacorp | Wool fat  | 5909000    | 2       |
| Henry Lamotte/Sanacorp | Wool fat  | 5909100    | 5       |
| Henry Lamotte/Sanacorp | Wool fat  | 60160      | 1       |
| Henry Lamotte/Sanacorp | Wool fat  | 8002760002 | 2       |
| Henry Lamotte/Sanacorp | Wool fat  | 8004134001 | 1       |
| Henry Lamotte/VDL      | Wool fat  | 8002112002 | 1       |
| Henry Lamotte/VDL      | Wool fat  | 8002144002 | 1       |
| Henry Lamotte          | Wool fat  | 1000010937 | 1       |
| Henry Lamotte          | Wool fat  | 1000010938 | 7       |
| HENRY LAMOTTE          | Wool fat  | 1000010938 | 2       |
| Henry Lamotte          | Wool fat  | 1000010939 | 4       |
| Henry Lamotte          | Wool fat  | 1000012824 | 2       |
| Henry Lamotte          | Wool fat  | 1000012825 | 6       |
| Henry Lamotte          | Wool fat  | 2002112002 | 1       |
| Henry Lamotte          | Wool fat  | 5264700    | 1       |
| Henry Lamotte          | Wool fat  | 5448200    | 4       |
| Henry Lamotte          | Wool fat  | 5520800    | 1       |
| Henry Lamotte          | Wool fat  | 5528000    | 1       |
| Henry Lamotte          | Wool fat  | 55908900   | 1       |
| Henry Lamotte          | Wool fat  | 5650500    | 2       |
| Henry Lamotte          | Wool fat  | 5690800    | 3       |
| Henry Lamotte          | Wool fat  | 5763900    | 2       |
| Henry Lamotte          | Wool fat  | 5860600    | 3       |

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| Supplier                   | Substance     | Batch      | Spectra |
|----------------------------|---------------|------------|---------|
| Henry Lamotte              | Wool fat      | 5908900    | 2       |
| Henry Lamotte              | Wool fat      | 5909000    | 2       |
| Henry Lamotte              | Wool fat      | 59090000   | 1       |
| Henry Lamotte              | Wool fat      | 6001861001 | 1       |
| Henry Lamotte              | Wool fat      | 6001861002 | 3       |
| Henry Lamotte              | Wool fat      | 6001861003 | 1       |
| Henry Lamotte              | Wool fat      | 8002112001 | 2       |
| Henry Lamotte              | Wool fat      | 8002112002 | 4       |
| Henry Lamotte              | Wool fat      | 8002144001 | 6       |
| Henry Lamotte              | Wool fat      | 8002320010 | 3       |
| Henry Lamotte              | Wool fat      | 8002760001 | 2       |
| Henry Lamotte              | Wool fat      | 8002760002 | 5       |
| Henry Lamotte              | Wool fat      | 8002760003 | 2       |
| Henry Lamotte              | Wool fat      | 8003158001 | 5       |
| Henry Lamotte              | Wool fat      | 8003158002 | 4       |
| HENRY LAMOTTE              | Wool fat      | 8003158002 | 1       |
| Henry Lamotte              | Wool fat      | 8003158003 | 1       |
| Henry Lamotte              | Wool fat      | 8004134001 | 1       |
| Henry Lamotte              | Wool fat      | 8004134002 | 5       |
| HENRY LAMOTTE              | Wool fat      | 8004134002 | 1       |
| Henry Lamotte              | Wool fat      | 8004134003 | 7       |
| Henry Lamotte              | Wool fat      | 8004134015 | 2       |
| Henry Lamotte              | Wool fat      | 8004748002 | 5       |
| Henry Lamotte              | Wool fat      | 8004748003 | 3       |
| Henry Lamotte              | Wool fat      | 8004748004 | 3       |
| Henry LamotteOlis GmbH/... | Wool fat      | 8003158001 | 1       |
| Henry Lamotte-Phönix       | Wool fat      | 8002144001 | 1       |
| Henry LamotteSanacorp      | Wool fat      | 8004134001 | 1       |
| Henry/alliance             | Wool fat      | 8004748004 | 2       |
| Henry/Anzag                | Wool fat      | 8004748004 | 2       |
| Henry/Phönix               | Wool fat      | 1000012826 | 1       |
| HenryLamotte/Gehe          | Wool fat      | 1000010938 | 2       |
| HenryLamotte/Gehe          | Wool fat      | 8002112002 | 1       |
| HenryLamotte/Gehe          | Wool fat      | 8003158002 | 1       |
| HenryLamotte/Gehe          | Wool fat      | 8004134002 | 2       |
| HenryLamotte/Gehe          | Wool fat      | 8004134015 | 1       |
| HenryLamotte               | Wool fat      | 5528000    | 1       |
| HenryLamotte               | Wool fat      | 5860700    | 1       |
| HenryLamotte               | Wool fat      | 5909100    | 2       |
| HenryLamotte               | Wool fat      | 8002320011 | 1       |
| HenryLamotte               | Wool fat      | 8003158003 | 1       |
| Henty Lamotte Oils/ Gehe   | Wool fat      | 1000010939 | 1       |
| Heyl/Noweda                | Wool fat      | 17248103   | 1       |
| Hubertus Apotheke          | Wool fat      | 165221907  | 1       |
| Hubertus Apotheke          | Wool fat      | 29022016   | 1       |
| Ichthyol ges               | Wool fat      | 8002112001 | 1       |
| Ichthyol/Sanacorp          | Wool fat      | 5448200    | 7       |
| Ichthyol-Gesellschaft      | Wool fat      | 16221907   | 2       |
| Ichthyol-Gesellschaft      | Wool fat      | 8004748002 | 1       |
| IOI/Noweda                 | Softisan® 378 | 19K04-F06  | 1       |
| IOI/Noweda                 | Softisan® 378 | 21C19-F03  | 1       |
| IOI/Noweda                 | Softisan® 378 | 2910       | 1       |
| IOI/Noweda                 | Softisan® 378 | 812878     | 3       |
| IOI/Phoenix                | Softisan® 378 | 19A30-B04  | 1       |
| Jenne                      | Wool fat      | 17248104   | 2       |
| Jenne                      | Wool fat      | 17248106   | 1       |
| Jenne                      | Wool fat      | 17307506   | 2       |
| Jenne                      | Wool fat      | 18139303   | 1       |
| Kehr / Lamotte             | Wool fat      | 8002320010 | 4       |
| Kehr/Henry Lamotte         | Wool fat      | 8004748002 | 2       |

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| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b>       | <b>Spectra</b> |
|----------------------------|------------------|--------------------|----------------|
| Kehr                       | Wool fat         | 17248103           | 1              |
| Klosterring                | Wool fat         | 17139303           | 1              |
| Kögl                       | Wool fat         | 1701216            | 1              |
| Kögl                       | Wool fat         | 1702222            | 1              |
| Kögl                       | Wool fat         | 1800576            | 1              |
| Kögl                       | Wool fat         | 20172116           | 1              |
| Kögl                       | Wool fat         | 402411160317       | 1              |
| Kögl                       | Wool fat         | 402411165016       | 1              |
| Kögl                       | Wool fat         | 4024111650317      | 1              |
| Kögl                       | Wool fat         | 474001171017       | 1              |
| Krieger/ Lamotte           | Wool fat         | 8002760003         | 2              |
| Krieger                    | Wool fat         | 16345106           | 1              |
| Krieger                    | Wool fat         | 8003158003         | 1              |
| Krieger                    | Wool fat         | 8004748003         | 1              |
| L12                        | Wool fat         | 16345106           | 1              |
| L12                        | Wool fat         | 17139303           | 1              |
| Lamotte / Phönix           | Wool fat         | 8004134001         | 1              |
| Lamotte / Alliance Heal... | Wool fat         | 8002144001         | 1              |
| Lamotte / Gehe             | Wool fat         | 5763900            | 1              |
| Lamotte Noweda             | Wool fat         | 1000010938         | 1              |
| Lamotte Noweda             | Wool fat         | 8004134002         | 3              |
| Lamotte Noweda             | Wool fat         | 8004134015         | 1              |
| Lamotte Sanacorp           | Wool fat         | 5264700            | 1              |
| Lamotte Sanacorp           | Wool fat         | 5448200            | 1              |
| Lamotte Sanacorp           | Wool fat         | 8002760002         | 2              |
| Lamotte/ Gehe              | Wool fat         | 8002760002         | 1              |
| Lamotte/ Noweda            | Wool fat         | 1000010938         | 3              |
| Lamotte/ Noweda            | Wool fat         | 8004748003         | 1              |
| lamotte/ Phoenix           | Wool fat         | 8002320011         | 1              |
| Lamotte/ Sanacorp          | Wool fat         | 1000010938         | 2              |
| Lamotte/ Sanacorp          | Wool fat         | 5198200            | 2              |
| Lamotte/ Sanacorp          | Wool fat         | 59099000           | 1              |
| Lamotte/ Sanacorp          | Wool fat         | 8002320010         | 1              |
| Lamotte/ Sanacorp          | Wool fat         | 8003158002         | 1              |
| Lamotte/ Sanacorp          | Wool fat         | 8004134002         | 1              |
| Lamotte/ Sanacorp          | Wool fat         | 8004134015         | 1              |
| Lamotte/ Sanacorp          | Wool fat         | 8004748002         | 1              |
| Lamotte/AHD                | Wool fat         | 10000010937        | 1              |
| Lamotte/AHD                | Wool fat         | 1000010938         | 2              |
| Lamotte/AHD                | Wool fat         | 1000012824         | 2              |
| Lamotte/AHD                | Wool fat         | 8002760001         | 1              |
| Lamotte/AHD                | Wool fat         | 8003158001         | 2              |
| Lamotte/AHD                | Wool fat         | 8004134015         | 1              |
| Lamotte/Alliance 08.0...   | Wool fat         | 1000012825         | 1              |
| Lamotte/Alliance 22.07.21  | Wool fat         | 1000015310         | 2              |
| Lamotte/Alliance Health... | Wool fat         | 8003158002         | 2              |
| Lamotte/Alliance           | Wool fat         | 8003158002         | 1              |
| Lamotte/Alliance           | Wool fat         | 8003158003         | 5              |
| lamotte/anzag              | Wool fat         | 5264700            | 1              |
| Lamotte/Anzag              | Wool fat         | 5264700-3384310110 | 1              |
| Lamotte/Anzag              | Wool fat         | 6001861001         | 2              |
| lamotte/anzag              | Wool fat         | 6001861003         | 1              |
| Lamotte/Ebert              | Wool fat         | 5787700            | 1              |
| Lamotte/Ebert              | Wool fat         | 6001861002         | 2              |
| Lamotte/Ebert              | Wool fat         | 8002112002         | 2              |
| Lamotte/Ebert              | Wool fat         | 8002760002         | 1              |
| Lamotte/Fiebig 24.07.2020  | Wool fat         | 1000010938         | 1              |
| Lamotte/Fiebig             | Wool fat         | 1000012825         | 1              |
| Lamotte/Fiebig             | Wool fat         | 5528000            | 1              |
| Lamotte/Fiebig             | Wool fat         | 5787700            | 1              |

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| <b>Supplier</b>          | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|--------------------------|------------------|--------------|----------------|
| Lamotte/Fiebig           | Wool fat         | 5860600      | 1              |
| Lamotte/Fiebig           | Wool fat         | 5909000      | 2              |
| Lamotte/Fiebig           | Wool fat         | 8002112002   | 1              |
| Lamotte/Fiebig           | Wool fat         | 8004748002   | 1              |
| Lamotte/Gehe             | Wool fat         | 1000010939   | 1              |
| Lamotte/gehe             | Wool fat         | 5528000      | 1              |
| Lamotte/Gehe             | Wool fat         | 5909000      | 1              |
| Lamotte/Gehe             | Wool fat         | 8002112002   | 1              |
| Lamotte/Gehe             | Wool fat         | 8002320011   | 1              |
| Lamotte/Jenne 30.10.2014 | Wool fat         | 5528000      | 1              |
| Lamotte/Jenne            | Wool fat         | 5909000      | 1              |
| Lamotte/Jenne            | Wool fat         | 8004748003   | 1              |
| Lamotte/Kehr             | Wool fat         | 1000010938   | 2              |
| Lamotte/Kehr             | Wool fat         | 1000012824   | 2              |
| Lamotte/Krieger          | Wool fat         | 5264700      | 2              |
| Lamotte/Now              | Wool fat         | 8003158002   | 1              |
| Lamotte/Now              | Wool fat         | 8004134002   | 1              |
| Lamotte/Nowed            | Wool fat         | 5520800      | 1              |
| Lamotte/Noweda           | Wool fat         | 1000010939   | 1              |
| Lamotte/Noweda           | Wool fat         | 1000012824   | 1              |
| Lamotte/Noweda           | Wool fat         | 1000015310   | 1              |
| Lamotte/Noweda           | Wool fat         | 5860700      | 1              |
| Lamotte/Noweda           | Wool fat         | 8002112002   | 1              |
| Lamotte/Noweda           | Wool fat         | 8002144002   | 2              |
| Lamotte/Noweda           | Wool fat         | 8002320010   | 2              |
| Lamotte/Noweda           | Wool fat         | 8002760002   | 1              |
| Lamotte/Noweda           | Wool fat         | 8004134001   | 1              |
| Lamotte/Noweda           | Wool fat         | 8004134002   | 2              |
| Lamotte/Noweda           | Wool fat         | 8004134015   | 1              |
| Lamotte/Otto             | Wool fat         | 5264700      | 1              |
| Lamotte/Otto             | Wool fat         | 5375400      | 3              |
| Lamotte/Otto             | Wool fat         | 5787700      | 1              |
| Lamotte/Phoenix          | Wool fat         | 1000010938   | 1              |
| Lamotte/Phoenix          | Wool fat         | 5448200      | 1              |
| lamotte/Phoenix          | Wool fat         | 8003158001   | 2              |
| Lamotte/Phoenix          | Wool fat         | 8003158002   | 2              |
| Lamotte/Phoenix          | Wool fat         | 800413001    | 1              |
| Lamotte/Phoenix          | Wool fat         | 8004134001   | 1              |
| Lamotte/Phoenix          | Wool fat         | 8004134015   | 1              |
| Lamotte/Phoenix          | Wool fat         | 8004748002   | 1              |
| Lamotte/Phönix           | Wool fat         | 1000010938   | 11             |
| Lamotte/Phönix           | Wool fat         | 5650500      | 1              |
| Lamotte/Phönix           | Wool fat         | 8002760003   | 2              |
| Lamotte/Phönix           | Wool fat         | 8003158001   | 1              |
| Lamotte/Phönix           | Wool fat         | 8004134001   | 2              |
| Lamotte/Phönix           | Wool fat         | 8004134015   | 2              |
| Lamotte/Phönix           | Wool fat         | 8004748003   | 2              |
| Lamotte/Sanacorp         | Wool fat         | 5253400      | 1              |
| Lamotte/Sanacorp         | Wool fat         | 5448200      | 1              |
| Lamotte/Sanacorp         | Wool fat         | 5520800      | 1              |
| Lamotte/Sanacorp         | Wool fat         | 5787700      | 1              |
| Lamotte/Sanacorp         | Wool fat         | 5860700      | 4              |
| Lamotte/Sanacorp         | Wool fat         | 6001861002   | 2              |
| Lamotte/Sanacorp         | Wool fat         | 8002112003   | 2              |
| Lamotte/Sanacorp         | Wool fat         | 8004134002   | 1              |
| Lamotte/Sanacorp         | Wool fat         | 8004134015   | 2              |
| Lamotte/Spangro          | Wool fat         | 8003158002   | 1              |
| Lamotte                  | Wool fat         | 10000010938  | 1              |
| Lamotte                  | Wool fat         | 1000010939   | 3              |
| Lamotte                  | Wool fat         | 1000012824   | 1              |

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| <b>Supplier</b>            | <b>Substance</b>          | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|---------------------------|------------------|----------------|
| Lamotte                    | Wool fat                  | 1000015309       | 1              |
| Lamotte                    | Wool fat                  | 100010939        | 1              |
| Lamotte                    | Wool fat                  | 100012824        | 1              |
| Lamotte                    | Wool fat                  | 5198200          | 1              |
| Lamotte                    | Wool fat                  | 5320900          | 1              |
| Lamotte                    | Wool fat                  | 5375400          | 2              |
| Lamotte                    | Wool fat                  | 5448400          | 1              |
| Lamotte                    | Wool fat                  | 5528000          | 2              |
| Lamotte                    | Wool fat                  | 5650500          | 2              |
| Lamotte                    | Wool fat                  | 590900           | 1              |
| Lamotte                    | Wool fat                  | 5909000          | 1              |
| Lamotte                    | Wool fat                  | 6001861001       | 4              |
| Lamotte                    | Wool fat                  | 6001861002       | 2              |
| Lamotte                    | Wool fat                  | 8002112001       | 1              |
| Lamotte                    | Wool fat                  | 8002112002       | 4              |
| Lamotte                    | Wool fat                  | 8002112003       | 1              |
| Lamotte                    | Wool fat                  | 8002144001       | 4              |
| Lamotte                    | Wool fat                  | 8002320010       | 3              |
| Lamotte                    | Wool fat                  | 8002320011       | 1              |
| lamotte                    | Wool fat                  | 8002760001       | 1              |
| Lamotte                    | Wool fat                  | 8002760001       | 1              |
| Lamotte                    | Wool fat                  | 8002760002       | 2              |
| lamotte                    | Wool fat                  | 800315001        | 1              |
| lamotte                    | Wool fat                  | 8003158001       | 2              |
| Lamotte                    | Wool fat                  | 8003158002       | 5              |
| lamotte                    | Wool fat                  | 8004134001       | 1              |
| Lamotte                    | Wool fat                  | 8004134002       | 2              |
| lamotte                    | Wool fat                  | 8004748002       | 1              |
| Lamotte                    | Wool fat                  | 8004748002       | 2              |
| Midas                      | Wool fat                  | 17307507         | 1              |
| Midas                      | Wool fat                  | 18139302         | 1              |
| Nachprüfung                | Wool fat                  | AP210716-17      | 1              |
| Noweda/ 18.06.12 Caela     | Wool fat                  | 12015605         | 1              |
| Noweda/Caesar & Loretz ... | Wool fat                  | 15198802         | 1              |
| noweda/lamotte             | Wool fat                  | 5763900          | 1              |
| Noweda                     | Wool fat                  | 1000012824       | 2              |
| Noweda                     | Softisan <sup>®</sup> 378 | 109704           | 1              |
| Noweda                     | Wool fat                  | 11203903         | 2              |
| Noweda                     | Wool fat                  | 12036702         | 1              |
| Noweda                     | Wool fat                  | 12224404         | 4              |
| Noweda                     | Wool fat                  | 13213107         | 1              |
| noweda                     | Wool fat                  | 13398202         | 1              |
| Noweda                     | Wool fat                  | 14086905         | 1              |
| Noweda                     | Wool fat                  | 16003901         | 1              |
| Noweda                     | Wool fat                  | 16267201         | 2              |
| Noweda                     | Wool fat                  | 16345104         | 1              |
| Noweda                     | Wool fat                  | 16345107         | 1              |
| Noweda                     | Wool fat                  | 17139303         | 1              |
| Noweda                     | Wool fat                  | 17167702         | 1              |
| Noweda                     | Wool fat                  | 17248103         | 1              |
| Noweda                     | Wool fat                  | 17248104         | 2              |
| Noweda                     | Softisan <sup>®</sup> 378 | 17B16-B06-331749 | 1              |
| Noweda                     | Wool fat                  | 18029901         | 1              |
| Noweda                     | Wool fat                  | 18139306         | 1              |
| Noweda                     | Wool fat                  | 18224305         | 1              |
| Noweda                     | Wool fat                  | 1836005          | 1              |
| Noweda                     | Wool fat                  | 19000845004      | 1              |
| Noweda                     | Wool fat                  | 19043401         | 1              |
| Noweda                     | Wool fat                  | 19174605         | 3              |
| Noweda                     | Wool fat                  | 192611005        | 2              |

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| Supplier                   | Substance     | Batch            | Spectra |
|----------------------------|---------------|------------------|---------|
| Noweda                     | Wool fat      | 20003738007      | 1       |
| Noweda                     | Softisan® 378 | 2012060444       | 1       |
| Noweda                     | Wool fat      | 5375400          | 1       |
| Noweda                     | Wool fat      | 5448200          | 1       |
| Noweda                     | Wool fat      | 5787700          | 2       |
| Noweda                     | Wool fat      | 8004134001       | 1       |
| Noweeda                    | Wool fat      | 19174604         | 1       |
| NW/ Lamotte                | Wool fat      | 5375400          | 1       |
| Phoenix 02.07.2018 5,...   | Wool fat      | 18029902         | 1       |
| Phoenix / Bionorica Ethi   | Softisan® 378 | 103897           | 2       |
| Phoenix / Bionorica Ethi   | Softisan® 378 | 109779           | 2       |
| Phoenix / Bionorica Ethi   | Softisan® 378 | 113358           | 4       |
| Phoenix 06.02.2019         | Wool fat      | 18139305         | 1       |
| Phoenix 13.08.19 5,76EUR   | Wool fat      | 19043405         | 1       |
| Phoenix 25.07.2017 5,59EUR | Wool fat      | 16345104         | 1       |
| Phoenix 27.05.2014         | Wool fat      | 13306207         | 1       |
| Phoenix Goettin            | Softisan® 378 | 2013091014       | 2       |
| Phoenix/Henry Lamotte O... | Wool fat      | 1000010939       | 1       |
| Phoenix/Henry-Lamotte      | Wool fat      | 1000012824       | 1       |
| Phoenix                    | Wool fat      | 1000010939       | 2       |
| Phoenix                    | Wool fat      | 1000012824       | 1       |
| Phoenix                    | Wool fat      | 1000016400       | 2       |
| Phoenix                    | Wool fat      | 13039403         | 1       |
| Phoenix                    | Wool fat      | 13398201         | 1       |
| Phoenix                    | Wool fat      | 13398202         | 1       |
| Phoenix                    | Wool fat      | 15292316         | 1       |
| Phoenix                    | Wool fat      | 16221907         | 1       |
| Phoenix                    | Wool fat      | 17248103         | 1       |
| Phoenix                    | Wool fat      | 17248104         | 1       |
| Phoenix                    | Wool fat      | 17248109         | 1       |
| Phoenix                    | Wool fat      | 17307503         | 1       |
| Phoenix                    | Softisan® 378 | 17107-B01-340337 | 1       |
| Phoenix                    | Wool fat      | 18224305         | 1       |
| Phoenix                    | Wool fat      | 19000845001      | 1       |
| Phoenix                    | Wool fat      | 19043405         | 2       |
| Phoenix                    | Softisan® 378 | 200351604        | 1       |
| Phoenix                    | Softisan® 378 | 200721705        | 1       |
| Phoenix                    | Wool fat      | 21000775005      | 1       |
| Phoenix                    | Wool fat      | 3092             | 1       |
| Phoenix                    | Wool fat      | 5216400          | 1       |
| Phoenix                    | Wool fat      | 5375400          | 2       |
| phoenix                    | Wool fat      | 8003158002       | 2       |
| Phönix/Bionorica           | Softisan® 378 | 109778           | 2       |
| Phönix/Bionorica           | Softisan® 378 | 118060           | 1       |
| Phönix/Fagon               | Wool fat      | 16163002         | 1       |
| Phönix/Phönix              | Wool fat      | 16221907         | 1       |
| Phönix                     | Wool fat      | 13213104         | 1       |
| Phönix                     | Wool fat      | 13306205         | 1       |
| Phönix                     | Wool fat      | 1336206          | 1       |
| Phönix                     | Wool fat      | 153620001        | 1       |
| Phönix                     | Wool fat      | 16003905         | 1       |
| Phönix                     | Wool fat      | 16221906         | 1       |
| Phönix                     | Wool fat      | 16221907         | 1       |
| Phönix                     | Wool fat      | 16267201         | 1       |
| Phönix                     | Wool fat      | 17139303         | 1       |
| PHÖNIX                     | Wool fat      | 17167701         | 1       |
| PHÖNIX                     | Wool fat      | 1728105          | 1       |
| Phönix                     | Wool fat      | 18003426         | 1       |
| Phonix                     | Wool fat      | 18139302         | 1       |
| Phönix                     | Wool fat      | 18139303         | 1       |

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| Supplier                  | Substance                 | Batch            | Spectra |
|---------------------------|---------------------------|------------------|---------|
| Phönix                    | Wool fat                  | 18139305         | 3       |
| Phönix                    | Wool fat                  | 18314703         | 1       |
| Phönix                    | Wool fat                  | 19100502         | 1       |
| Phönix                    | Wool fat                  | 19100507         | 2       |
| Phönix                    | Wool fat                  | 192611005        | 1       |
| Phönix                    | Softisan <sup>®</sup> 378 | 19A30-B04-362347 | 1       |
| Phönix                    | Softisan <sup>®</sup> 378 | 19K04-F06        | 1       |
| Phönix                    | Softisan <sup>®</sup> 378 | 19K04-F06-369505 | 2       |
| PHÖNIX                    | Wool fat                  | 20000968004      | 1       |
| PHÖNIX                    | Wool fat                  | 20003738007      | 1       |
| Phönix                    | Softisan <sup>®</sup> 378 | 20F25-F02-371910 | 1       |
| Phönix                    | Wool fat                  | 308894           | 2       |
| Phönix                    | Wool fat                  | 3172             | 1       |
| Phönix                    | Wool fat                  | 5100700          | 1       |
| Phönix                    | Wool fat                  | 5520800          | 1       |
| phönix                    | Wool fat                  | 8002112001       | 2       |
| phönix                    | Wool fat                  | 8002112002       | 1       |
| phönix                    | Wool fat                  | 8002144001       | 2       |
| Phönix                    | Wool fat                  | 8004134001       | 1       |
| Phönix                    | Softisan <sup>®</sup> 378 | 904887           | 1       |
| Post Apotheke             | Wool fat                  | 17307506         | 1       |
| Purren Apotheke           | Wool fat                  | 11261106         | 1       |
| Sana 31.01.17             | Wool fat                  | 16267201         | 1       |
| Sanacorp EK:8,10 EUR...   | Wool fat                  | 16345107         | 2       |
| Sanacorp                  | Softisan <sup>®</sup> 378 | 12A18-N11        | 1       |
| Sanacorp 14.11.19 EK 4,93 | Wool fat                  | 19100506         | 1       |
| Sanacorp Ulm              | Wool fat                  | 19100502         | 1       |
| Sanacorp/ Lamotte         | Wool fat                  | 1000012825       | 1       |
| Sanacorp/ Lamotte         | Wool fat                  | 100010938        | 1       |
| Sanacorp/ Lamotte         | Wool fat                  | 8003158002       | 1       |
| Sanacorp/ Lamotte         | Wool fat                  | 8004134002       | 1       |
| Sanacorp                  | Wool fat                  |                  | 1       |
| Sanacorp                  | Wool fat                  | 12122404         | 3       |
| Sanacorp                  | Wool fat                  | 12224405         | 1       |
| Sanacorp                  | Wool fat                  | 13039405         | 1       |
| Sanacorp                  | Wool fat                  | 13213104         | 1       |
| Sanacorp                  | Wool fat                  | 13306206         | 1       |
| Sanacorp                  | Wool fat                  | 13398202         | 1       |
| Sanacorp                  | Wool fat                  | 14086904         | 1       |
| Sanacorp                  | Wool fat                  | 14147901         | 1       |
| Sanacorp                  | Wool fat                  | 14238004         | 1       |
| Sanacorp                  | Wool fat                  | 14238009         | 1       |
| Sanacorp                  | Wool fat                  | 14304502         | 1       |
| Sanacorp                  | Wool fat                  | 16044303         | 1       |
| Sanacorp                  | Wool fat                  | 16221906         | 1       |
| Sanacorp                  | Wool fat                  | 17139301         | 2       |
| Sanacorp                  | Wool fat                  | 17139303         | 1       |
| Sanacorp                  | Wool fat                  | 17167702         | 1       |
| Sanacorp                  | Wool fat                  | 17248103         | 1       |
| Sanacorp                  | Wool fat                  | 17307505         | 2       |
| Sanacorp                  | Wool fat                  | 18139305         | 1       |
| Sanacorp                  | Wool fat                  | 18139307         | 1       |
| Sanacorp                  | Wool fat                  | 18224302         | 1       |
| Sanacorp                  | Wool fat                  | 19000845001      | 2       |
| Sanacorp                  | Wool fat                  | 19043405         | 1       |
| Sanacorp                  | Wool fat                  | 19100502         | 2       |
| Sanacorp                  | Wool fat                  | 19100504         | 2       |
| Sanacorp                  | Wool fat                  | 19100506         | 2       |
| Sanacorp                  | Wool fat                  | 192611004        | 3       |
| Sanacorp                  | Wool fat                  | 192611005        | 4       |

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| Supplier                   | Substance                 | Batch            | Spectra |
|----------------------------|---------------------------|------------------|---------|
| Sanacorp                   | Softisan <sup>®</sup> 378 | 19K04-F06-367118 | 1       |
| Sanacorp                   | Softisan <sup>®</sup> 378 | 19K04-F06-526271 | 1       |
| sanacorp                   | Wool fat                  | 20000968001      | 1       |
| Sanacorp                   | Softisan <sup>®</sup> 378 | 3/AKD1           | 1       |
| Sanacorp                   | Wool fat                  | 46/AKD1          | 1       |
| Sanacorp                   | Wool fat                  | 46/AKD6          | 1       |
| Sanacorp                   | Wool fat                  | 5448200          | 3       |
| Sanacorp                   | Wool fat                  | 8002320010       | 1       |
| Sanacorp                   | Wool fat                  | 8003158002       | 7       |
| Sanacorp                   | Wool fat                  | 8004134002       | 1       |
| Sanacorp                   | Wool fat                  | 8004134015       | 1       |
| Sanacorp                   | Wool fat                  | 8004748002       | 1       |
| Sanaorp                    | Wool fat                  | 305553           | 1       |
| Sanocorp WE:18.04.16 EK... | Wool fat                  | 16003902         | 2       |
| Spectrum Therapeutics G... | Softisan <sup>®</sup> 378 | 157870           | 1       |
| Spectrum Therapeutics G... | Softisan <sup>®</sup> 378 | 158455           | 2       |
| Spectrum Therapeutics      | Softisan <sup>®</sup> 378 | 145521           | 1       |
| Spirig (Galderma)          | Wool fat                  | 16044302         | 1       |
| THC Pharm /Anzag           | Softisan <sup>®</sup> 378 | 132321           | 1       |
| THC Pharm GmbH/ Phönix     | Softisan <sup>®</sup> 378 | 132321           | 1       |
| THC Pharm GmbH             | Softisan <sup>®</sup> 378 | 113358           | 1       |
| THC Pharm/                 | Softisan <sup>®</sup> 378 |                  | 1       |
| THC Pharm/Alliance         | Softisan <sup>®</sup> 378 | 98561            | 1       |
| THC Pharm/Noweda           | Softisan <sup>®</sup> 378 | 113358           | 1       |
| THC Pharm                  | Softisan <sup>®</sup> 378 | 1180600          | 1       |
| THC Pharma / Phoenix       | Softisan <sup>®</sup> 378 | 103897           | 2       |
| THC Pharma/Krieger         | Softisan <sup>®</sup> 378 | 118060           | 1       |
| THC Pharma/Phönix          | Softisan <sup>®</sup> 378 | 95076            | 1       |
| THC Pharma                 | Softisan <sup>®</sup> 378 |                  | 1       |
| THC Pharma                 | Softisan <sup>®</sup> 378 | 103897           | 1       |
| THC Pharma                 | Softisan <sup>®</sup> 378 | 88154            | 1       |
| THC Pharma                 | Softisan <sup>®</sup> 378 | 92456            | 1       |
| THC Pharma                 | Softisan <sup>®</sup> 378 | 98561            | 1       |
| Thc                        | Softisan <sup>®</sup> 378 | 2012060444       | 1       |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 109704           | 5       |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 113358           | 14      |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 118060           | 14      |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 132321           | 10      |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 132321-4         | 1       |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 133396           | 1       |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 18060            | 1       |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | 7685001          | 1       |
| THC-Pharma                 | Softisan <sup>®</sup> 378 | VK290818-3       | 1       |
| VDL 17.04.14;Preis 4,50    | Wool fat                  |                  | 1       |
| vdl                        | Wool fat                  | 12224404         | 1       |

- 281 602 spectra from 1294 *Apo-Ident* customers from a total of 51 061 batches from a further 342 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Softisan<sup>®</sup> 378 / Wool fat* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Softisan<sup>®</sup> 378 / Wool*

*fat* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 760           | 0              | 66 399        |
| <b>Type B</b> | 0              | 650           | 0              | 106 613       |
| <b>Type C</b> | 0              | 7041          | 66             | 281 595       |

The substance/substance group *Softisan*<sup>®</sup> 378 / *Wool fat* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.2105 %) |
| <b>Type B</b> | 100.0000 % (> 99.9674 %) | 100.0000 % (> 99.0769 %) |
| <b>Type C</b> | 100.0000 % (> 99.6865 %) | 99.0713 % (> 99.0291 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Softisan*<sup>®</sup> 378 / *Wool fat* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Shea butter, refined                      | 13.41                  | —                              |
| Emulsifying hydrophobic base gel DAC      | 14.48                  | —                              |
| Pasta Cordes <sup>®</sup>                 | 16.27                  | —                              |
| Paraffin, yellow                          | 16.37                  | —                              |
| Hydrophobic base gel DAC                  | 18.29                  | —                              |
| Softisan <sup>®</sup> 649                 | 20.08                  | —                              |
| Wool alcohol ointment DAB                 | 20.93                  | —                              |
| Paraffin, white                           | 21.25                  | —                              |
| Laurel oil                                | 25.47                  | —                              |
| Isopropyl palmitate                       | 26.31                  | —                              |
| Paraffin, light liquid                    | 26.75                  | —                              |
| Triglycerides, medium-chain               | 27.43                  | —                              |
| Wool alcohol ointment SR with white pa... | 27.58                  | —                              |
| Squalane                                  | 28.90                  | —                              |
| Olive oil, native                         | 29.33                  | —                              |
| Eye ointment, emulsifying DAC             | 29.48                  | —                              |
| Camphor ointment                          | 29.84                  | —                              |
| Permethrin 25% solution                   | 31.73                  | —                              |
| Unguentum Cordes <sup>®</sup>             | 31.88                  | —                              |
| Paraffin, liquid                          | 32.49                  | —                              |
| Hydrophilic ointment DAB                  | 32.70                  | —                              |
| Peanut oil, refined                       | 33.05                  | —                              |
| Apricot kernel oil, refined               | 33.75                  | —                              |

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| Substanz                               | Distance in<br>main model | Distance in<br>second-stage model |
|----------------------------------------|---------------------------|-----------------------------------|
| Wool alcohol ointment SR/DAC           | 33.97                     | —                                 |
| Triglycerol diisostearate              | 34.27                     | —                                 |
| 2-ethylhexyl laurate                   | 35.93                     | —                                 |
| Eye paraffin                           | 36.03                     | —                                 |
| Isopropyl myristate                    | 37.12                     | —                                 |
| Decyl oleate                           | 37.15                     | —                                 |
| Metronidazole 25% in white petrolatum  | 37.32                     | —                                 |
| Abwaschbare Salbengrundlage (NRF S.31) | 39.78                     | —                                 |
| Avocado oil, refined                   | 39.91                     | —                                 |
| Macrogol 8 stearate type I             | 44.71                     | —                                 |
| Jojoba Oil, native                     | 49.80                     | —                                 |
| Soy lecithin, liquid                   | 55.48                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Softisan*® 378 / *Wool fat* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30743     | 31743                  | 5.02                            | 19.26                              |
| 30887     | 31117                  | 7.75                            | 15.36                              |
| 30925     | 31847                  | 5.65                            | 18.12                              |
| 31117     | 31117                  | 0.00                            | 14.11                              |
| 31472     | 31117                  | 3.94                            | 13.60                              |
| 31479     | 31743                  | 2.04                            | 16.27                              |
| 31533     | 31533                  | 0.00                            | 17.54                              |
| 31742     | 31743                  | 3.38                            | 18.55                              |
| 31743     | 31743                  | 0.00                            | 17.72                              |
| 31847     | 31847                  | 0.00                            | 19.06                              |
| 31952     | 31743                  | 1.78                            | 18.21                              |
| 32298     | 31117                  | 2.62                            | 14.05                              |
| 32964     | 32964                  | 0.00                            | 18.12                              |
| 33939     | 31743                  | 3.54                            | 18.85                              |
| 35145     | 32964                  | 5.26                            | 20.76                              |
| 36044     | 36044                  | 0.00                            | 19.68                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Softisan® 649**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30770-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Softisan® 649

### Special notes

When selecting the *Softisan® 649* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Softisan® 649             | 3      | 3      | 16     |

## Second-stage model

For differentiation of the substance/substance group *Softisan*<sup>®</sup> 649 the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Softisan*<sup>®</sup> 649:

| Supplier | Substance                        | Batch            | Sample ID | Spectra | Certificate |
|----------|----------------------------------|------------------|-----------|---------|-------------|
| Fagron   | <i>Softisan</i> <sup>®</sup> 649 | 12I10-N12        | 30770     | 40      | 1407601     |
| Fagron   | <i>Softisan</i> <sup>®</sup> 649 | 15E13-B01-307859 | 31699     | 60      | 20150527    |
| Fagron   | <i>Softisan</i> <sup>®</sup> 649 | 20F12-F02-374973 | 35462     | 40      | 20200724    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 140 spectra of 3 reference samples from the substance/substance group *Softisan*<sup>®</sup> 649. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 67 019 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a †. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 117 spectra of 3 reference samples from the substance/substance group *Softisan*<sup>®</sup> 649.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                        | Batch            | Sample ID | Spectra |
|----------|----------------------------------|------------------|-----------|---------|
| Fagron   | <i>Softisan</i> <sup>®</sup> 649 | 13C19-N03        | 31118     | 37      |
| Fagron   | <i>Softisan</i> <sup>®</sup> 649 | 16H30-B03-325618 | 33249     | 40      |
| Fagron   | <i>Softisan</i> <sup>®</sup> 649 | 18H13-B02-352761 | 34273     | 40      |

- 107 246 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 33 spectra from 22 *Apo-Ident* customers from 16 batches from the substance/substance group *Softisan® 649*.
- Among them are spectra of independent samples from 16 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance     | Batch            | Spectra |
|----------------------------|---------------|------------------|---------|
| Apotheke Leutenberg/ No... | Softisan® 649 | 801297           | 1       |
| Apotheke Leutenberg/AHD    | Softisan® 649 | 605218           | 1       |
| Apotheke Leutenberg/All... | Softisan® 649 | 801297           | 1       |
| Apotheke Leutenberg        | Softisan® 649 | 605218           | 1       |
| Apotheke Leutenberg        | Softisan® 649 | 801297           | 1       |
| Caelo                      | Softisan® 649 | 150430           | 1       |
| Caelo                      | Softisan® 649 | 17K16-B06-345556 | 1       |
| Cremer Oleo GmbH           | Softisan® 649 | 150430           | 1       |
| cremer oleo GmbH           | Softisan® 649 | 703250           | 1       |
| Cremer Oleo/Anzag          | Softisan® 649 | 150430           | 1       |
| Cremer Oleo/Anzag          | Softisan® 649 | 409134           | 1       |
| Cremer Oleo/Sanacorp       | Softisan® 649 | 703250           | 1       |
| Cremer Oleo                | Softisan® 649 | 150430           | 2       |
| Cremer Oleo                | Softisan® 649 | 605218           | 1       |
| Cremer Oleo                | Softisan® 649 | 703250           | 1       |
| Cremer                     | Softisan® 649 | 605218           | 1       |
| Fa. Cremer Oleon GmbH      | Softisan® 649 | 9041803          | 1       |
| Fagron                     | Softisan® 649 | 105945           | 1       |
| Fagron                     | Softisan® 649 | 130905-60-1      | 1       |
| Fagron                     | Softisan® 649 | 15E13-B01-315602 | 1       |
| Fagron                     | Softisan® 649 | 16H30-B03-325618 | 1       |
| Fagron                     | Softisan® 649 | 18H13-B02-352761 | 1       |
| Fagron                     | Softisan® 649 | 20F12-F02-372309 | 1       |
| Fagron                     | Softisan® 649 | 503154           | 1       |
| Fagron                     | Softisan® 649 | 708279           | 1       |
| IOI Oleo GmbH              | Softisan® 649 | 810328           | 1       |
| Nordmann, Rassmann GmbH... | Softisan® 649 | 810328           | 1       |
| Noweda /938705 / IOI Ol... | Softisan® 649 | 801297           | 1       |
| Oleo/Sanacorp              | Softisan® 649 | 801297           | 1       |
| Oleochemical               | Softisan® 649 | 801297           | 1       |
| Oleochemicals              | Softisan® 649 | 605218           | 1       |
| Pharmachem                 | Softisan® 649 | 605218           | 1       |

- 288 676 spectra from 1294 *Apo-Ident* customers from a total of 51 872 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Softisan*<sup>®</sup> 649 can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Softisan*<sup>®</sup> 649 and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 140           | 0              | 67 019        |
| Type B | 0              | 117           | 0              | 107 246       |
| Type C | 0              | 33            | 0              | 288 676       |

The substance/substance group *Softisan*<sup>®</sup> 649 can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9806 %) | 100.0000 % (> 95.7143 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 94.8718 %) |
| Type C | 100.0000 % (> 99.6873 %) | 100.0000 % (> 81.8182 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Softisan*<sup>®</sup> 649 in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                              | Distance in main model | Distance in second-stage model |
|----------------------------------------|------------------------|--------------------------------|
| Pasta Cordes <sup>®</sup>              | 23.96                  | —                              |
| Softisan <sup>®</sup> 378              | 25.31                  | —                              |
| Triglycerol diisostearate              | 26.22                  | —                              |
| Shea butter, refined                   | 27.85                  | —                              |
| Wool fat                               | 34.63                  | —                              |
| Hydrophilic ointment DAB               | 41.03                  | —                              |
| Castor oil, refined                    | 41.67                  | —                              |
| Permethrin 25% solution                | 42.90                  | —                              |
| Paraffin, yellow                       | 43.14                  | —                              |
| Castor oil, virgin                     | 43.62                  | —                              |
| Macrogol 8 stearate type I             | 45.28                  | —                              |
| Abwaschbare Salbengrundlage (NRF S.31) | 47.44                  | —                              |
| Emulsifying hydrophobic base gel DAC   | 49.85                  | —                              |
| Laurel oil                             | 50.78                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Softisan*<sup>®</sup> 649 is separated from critical neighbours in a second-stage model,

all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30770     | 30770               | 0.00                         | 29.22                           |
| 31699     | 30770               | 9.94                         | 25.31                           |
| 35462     | 30770               | 5.45                         | 28.21                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Sorbitan trioleate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31031-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Sorbitan trioleate; Sorbitani trioleas

### Special notes

When selecting the *Sorbitan trioleate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Sorbitan trioleate        | 6      | 2      | 38     |



## Second-stage model

For differentiation of the substance/substance group *Sorbitan trioleate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Sorbitan trioleate*:

| Supplier | Substance          | Batch    | Sample ID | Spectra | Certificate |
|----------|--------------------|----------|-----------|---------|-------------|
| Caelo    | Sorbitan trioleate | 12171410 | 31031     | 40      | 1407273     |
| Caelo    | Sorbitan trioleate | 13317202 | 31130     | 40      | 20131017    |
| Caelo    | Sorbitan trioleate | 13317212 | 31459     | 60      | 20131017    |
| Caelo    | Sorbitan trioleate | 15337406 | 33441     | 40      | 20151110    |
| Caelo    | Sorbitan trioleate | 190812   | 34467     | 40      | 20190510*   |
| Caelo    | Sorbitan trioleate | 20001766 | 35301     | 40      | 20200727*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 260 spectra of 6 reference samples from the substance/substance group *Sorbitan trioleate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 899 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Sorbitan trioleate*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance          | Batch    | Sample ID | Spectra |
|----------|--------------------|----------|-----------|---------|
| Caelo    | Sorbitan trioleate | 17056001 | 33461     | 40      |
| Caelo    | Sorbitan trioleate | 180779   | 34080     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 119 spectra from 57 *Apo-Ident* customers from 42 batches from the substance/substance group *Sorbitan trioleate*.
- Among them are spectra of independent samples from 38 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance          | Batch       | Spectra |
|----------|--------------------|-------------|---------|
| AHD      | Sorbitan trioleate | 20001766001 | 1       |
| Caelo    | Sorbitan trioleate | 10109108    | 1       |
| Caelo    | Sorbitan trioleate | 11117102    | 1       |
| Caelo    | Sorbitan trioleate | 11284601    | 1       |
| Caelo    | Sorbitan trioleate | 11284603    | 1       |
| Caelo    | Sorbitan trioleate | 11284607    | 1       |
| Caelo    | Sorbitan trioleate | 11284608    | 1       |
| Caelo    | Sorbitan trioleate | 12171405    | 1       |
| Caelo    | Sorbitan trioleate | 12171408    | 3       |
| Caelo    | Sorbitan trioleate | 1217408     | 1       |
| Caelo    | Sorbitan trioleate | 13317204    | 1       |
| Caelo    | Sorbitan trioleate | 13317209    | 2       |
| Caelo    | Sorbitan trioleate | 13317212    | 5       |
| Caelo    | Sorbitan trioleate | 13317213    | 1       |
| Caelo    | Sorbitan trioleate | 14218202    | 1       |
| Caelo    | Sorbitan trioleate | 14218205    | 1       |
| Caelo    | Sorbitan trioleate | 15064901    | 1       |
| Caelo    | Sorbitan trioleate | 15064903    | 2       |
| Caelo    | Sorbitan trioleate | 15064905    | 2       |
| Caelo    | Sorbitan trioleate | 15064908    | 1       |
| Caelo    | Sorbitan trioleate | 15064909    | 1       |
| Caelo    | Sorbitan trioleate | 15182502    | 2       |
| Caelo    | Sorbitan trioleate | 15337403    | 4       |
| Caelo    | Sorbitan trioleate | 15337404    | 5       |
| Caelo    | Sorbitan trioleate | 15337405    | 3       |
| Caelo    | Sorbitan trioleate | 15337406    | 3       |
| Caelo    | Sorbitan trioleate | 17056001    | 7       |
| Caelo    | Sorbitan trioleate | 17056004    | 7       |
| Caelo    | Sorbitan trioleate | 18039701    | 3       |
| Caelo    | Sorbitan trioleate | 180779      | 1       |
| Caelo    | Sorbitan trioleate | 18077905    | 9       |
| Caelo    | Sorbitan trioleate | 18077906    | 5       |
| Caelo    | Sorbitan trioleate | 18077908    | 4       |
| Caelo    | Sorbitan trioleate | 18077909    | 8       |
| Caelo    | Sorbitan trioleate | 1877905     | 1       |
| Caelo    | Sorbitan trioleate | 190812      | 2       |

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| Supplier                   | Substance          | Batch       | Spectra |
|----------------------------|--------------------|-------------|---------|
| Caelo                      | Sorbitan trioleate | 19081203    | 4       |
| Caelo                      | Sorbitan trioleate | 20001766    | 1       |
| Caelo                      | Sorbitan trioleate | 20001766001 | 1       |
| Caelo                      | Sorbitan trioleate | 20001766002 | 1       |
| Caelo                      | Sorbitan trioleate | 20004095004 | 2       |
| Caelo                      | Sorbitan trioleate | 2001766001  | 1       |
| Caesar & Lorenz GmbH       | Sorbitan trioleate | 15337404    | 1       |
| Caesar & Lorenz GmbH       | Sorbitan trioleate | 17056004    | 1       |
| Caesar & Lorenz GmbH       | Sorbitan trioleate | 20001766001 | 1       |
| Caesar & Loretz GmbH/No... | Sorbitan trioleate | 19081203    | 1       |
| Caesar & Loretz GmbH/No... | Sorbitan trioleate | 20004095004 | 1       |
| Caesar & Loretz GmbH       | Sorbitan trioleate | 19081203    | 2       |
| Caesar & Loretz GmbH       | Sorbitan trioleate | 12171405    | 1       |
| Caesar&Loretz GmbH         | Sorbitan trioleate | 15064903    | 1       |
| Caesar&Loretz GmbH         | Sorbitan trioleate | 20001766002 | 1       |
| Caesar/Lorenz              | Sorbitan trioleate | 13317210    | 1       |
| Euro OTC                   | Sorbitan trioleate | 15064903    | 1       |
| Gehe                       | Sorbitan trioleate | 12171408    | 1       |
| GEHE                       | Sorbitan trioleate | 15337404    | 1       |
| GEHE                       | Sorbitan trioleate | 17056001    | 1       |

- 288 590 spectra from 1294 *Apo-Ident* customers from a total of 51 846 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Sorbitan trioleate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Sorbitan trioleate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 260           | 0              | 66 899        |
| <b>Type B</b> | 0              | 79            | 1              | 107 283       |
| <b>Type C</b> | 0              | 112           | 7              | 288 590       |

The substance/substance group *Sorbitan trioleate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.6923 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 98.7500 % (> 95.0000 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 94.1176 % (> 91.5966 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to

exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Sorbitan trioleate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                         | Distance in<br>main model | Distance in<br>second-stage model |
|-----------------------------------|---------------------------|-----------------------------------|
| Almond oil, refined               | 13.13                     | —                                 |
| Apricot kernel oil, refined       | 18.81                     | —                                 |
| Castor oil, virgin                | 19.32                     | —                                 |
| Castor oil, refined               | 24.22                     | —                                 |
| Avocado oil, refined              | 25.24                     | —                                 |
| Olive oil, native                 | 25.49                     | —                                 |
| Soy lecithin, liquid              | 25.67                     | —                                 |
| Sorbitan- and glycerol monooleate | 28.08                     | —                                 |
| Laurel oil                        | 28.77                     | —                                 |
| Peanut oil, refined               | 30.27                     | —                                 |
| Rapeseed oil, refined             | 30.66                     | —                                 |
| Sesame oil, refined               | 31.14                     | —                                 |
| Shea butter, refined              | 32.50                     | —                                 |
| Soy oil, refined                  | 35.91                     | —                                 |
| Oleyl oleate (stabilised)         | 36.37                     | —                                 |
| Pumpkin seed oil, pressed         | 36.87                     | —                                 |
| Sunflower oil, refined            | 37.09                     | —                                 |
| Wheatgerm oil, refined            | 38.52                     | —                                 |
| Grape seed oil, refined           | 39.36                     | —                                 |
| Decyl oleate                      | 39.67                     | —                                 |
| Softisan® 649                     | 40.46                     | —                                 |
| Corn oil, refined                 | 42.14                     | —                                 |
| Safflower oil, refined type I     | 43.58                     | —                                 |
| Triglycerol diisostearate         | 45.78                     | —                                 |
| Jobba Oil, native                 | 48.15                     | —                                 |
| Pasta Cordes®                     | 52.66                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Sorbitan trioleate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31031     | 31031                  | 0.00                            | 21.79                              |
| 31130     | 34467                  | 3.88                            | 24.85                              |
| 31459     | 34467                  | 3.90                            | 23.85                              |

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| <b>Sample ID</b> | <b>Reference<br/>sample ID</b> | <b>Distance to<br/>reference sample</b> | <b>Distance to<br/>next foreign sample</b> |
|------------------|--------------------------------|-----------------------------------------|--------------------------------------------|
| 33441            | 34467                          | 5.06                                    | 24.91                                      |
| 34467            | 34467                          | 0.00                                    | 27.27                                      |
| 35301            | 35301                          | 0.00                                    | 28.64                                      |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Spearmint oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30668-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Spearmint oil; Menthae crispae aetheroleum

### Special notes

When selecting the *Spearmint oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Spearmint oil             | 6      | 3      | 23     |

## Second-stage model

For differentiation of the substance/substance group *Spearmint oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Spearmint oil*:

| Supplier | Substance     | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------|----------|-----------|---------|-------------|
| Caelo    | Spearmint oil | 11346805 | 30668     | 40      | 20111206    |
| Caelo    | Spearmint oil | 13363904 | 31303     | 40      | 1407357     |
| Caelo    | Spearmint oil | 13363904 | 31419     | 60      | 20131118    |
| Caelo    | Spearmint oil | 181837   | 34446     | 40      | 20180628*   |
| Caelo    | Spearmint oil | 191137   | 34447     | 40      | 20190430*   |
| Caelo    | Spearmint oil | 181935   | 34448     | 40      | 20180718*   |
| Caelo    | Spearmint oil | 192456   | 34709     | 40      | 20190927*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 300 spectra of 7 reference samples from the substance/substance group *Spearmint oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 859 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Spearmint oil*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance     | Batch  | Sample ID | Spectra |
|----------|---------------|--------|-----------|---------|
| Caelo    | Spearmint oil | 161284 | 32205     | 40      |
| Caelo    | Spearmint oil | 172396 | 33912     | 40      |
| Caelo    | Spearmint oil | 191961 | 34621     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 37 spectra from 19 *Apo-Ident* customers from 24 batches from the substance/substance group *Spearmint oil*.
- Among them are spectra of independent samples from 23 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance     | Batch        | Spectra |
|----------|---------------|--------------|---------|
| Caelo    | Spearmint oil | 12206910     | 1       |
| Caelo    | Spearmint oil | 12206913     | 1       |
| Caelo    | Spearmint oil | 13093402     | 1       |
| Caelo    | Spearmint oil | 14147608     | 2       |
| Caelo    | Spearmint oil | 150013904    | 1       |
| Caelo    | Spearmint oil | 15013909     | 1       |
| Caelo    | Spearmint oil | 15013921     | 1       |
| Caelo    | Spearmint oil | 16128403     | 1       |
| Caelo    | Spearmint oil | 16128404     | 1       |
| Caelo    | Spearmint oil | 16128405     | 3       |
| Caelo    | Spearmint oil | 16128408     | 1       |
| Caelo    | Spearmint oil | 16128409     | 1       |
| Caelo    | Spearmint oil | 17239602     | 2       |
| Caelo    | Spearmint oil | 17239605     | 1       |
| Caelo    | Spearmint oil | 17239608     | 1       |
| Caelo    | Spearmint oil | 18183704     | 2       |
| Caelo    | Spearmint oil | 19113703     | 3       |
| Caelo    | Spearmint oil | 192456003    | 1       |
| Caelo    | Spearmint oil | 200000369003 | 1       |
| Caelo    | Spearmint oil | 20000369003  | 2       |
| Caelo    | Spearmint oil | 25062015B    | 1       |
| Caelo    | Spearmint oil | 38/17        | 1       |
| Caelo    | Spearmint oil | 16128402     | 1       |
| L12      | Spearmint oil | 16128405     | 1       |
| L12      | Spearmint oil | 17239602     | 1       |
| Noweda   | Spearmint oil | 11346805     | 1       |
| Sanacorp | Spearmint oil | 13093402     | 1       |
| Sanacorp | Spearmint oil | 16128409     | 1       |
| Sanacorp | Spearmint oil | 17239602     | 1       |

- 288 672 spectra from 1294 *Apo-Ident* customers from a total of 51 864 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Spearmint oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Spearmint oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 300           | 0              | 66 859        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 36            | 1              | 288 672       |

The substance/substance group *Spearmint oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6873 %) | 97.2973 % (> 89.1892 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Spearmint oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance         | Distance in main model | Distance in second-stage model |
|-------------------|------------------------|--------------------------------|
| Caraway oil       | 19.63                  | —                              |
| Dwarf pine oil    | 24.06                  | —                              |
| Bergamot oil      | 44.57                  | —                              |
| Juniper oil       | 49.16                  | —                              |
| Bitter orange oil | 53.64                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Spearmint oil* is separated from critical neighbours in a second-stage model,

all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30668     | 31303               | 12.06                        | 38.67                           |
| 31303     | 31303               | 0.00                         | 39.45                           |
| 31419     | 34447               | 3.01                         | 41.57                           |
| 34446     | 34446               | 0.00                         | 40.74                           |
| 34447     | 34447               | 0.00                         | 38.80                           |
| 34448     | 34448               | 0.00                         | 37.83                           |
| 34709     | 34709               | 0.00                         | 38.39                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Spirit of ether</b>                                           |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30707-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Spirit of ether; Spiritus aethereus

### Special notes

When selecting the *Spirit of ether* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Spirit of ether           | 4      | 2      | 9      |



## Second-stage model

For differentiation of the substance/substance group *Spirit of ether* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Spirit of ether*:

| Supplier | Substance       | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------------|----------|-----------|---------|-------------|
| Caelo    | Spirit of ether | 12074603 | 30707     | 40      | 20120320    |
| Caelo    | Spirit of ether | 13131805 | 31207     | 40      | 1403111     |
| Caelo    | Spirit of ether | 181156   | 34065     | 40      | 20180427*   |
| Caelo    | Spirit of ether | 191998   | 34703     | 40      | 20190731*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 160 spectra of 4 reference samples from the substance/substance group *Spirit of ether*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 999 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Spirit of ether*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance       | Batch    | Sample ID | Spectra |
|----------|-----------------|----------|-----------|---------|
| Caelo    | Spirit of ether | 15442201 | 32566     | 40      |
| Caelo    | Spirit of ether | 15442203 | 33218     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 15 spectra from 6 *Apo-Ident* customers from 11 batches from the substance/substance group *Spirit of ether*.
- Among them are spectra of independent samples from 9 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance       | Batch    | Spectra |
|-----------|-----------------|----------|---------|
| Caelo     | Spirit of ether | 11375509 | 1       |
| Caelo     | Spirit of ether | 11375512 | 1       |
| Caelo     | Spirit of ether | 12074603 | 2       |
| Caelo     | Spirit of ether | 13131805 | 2       |
| Caelo     | Spirit of ether | 13131807 | 1       |
| Caelo     | Spirit of ether | 14339701 | 1       |
| Caelo     | Spirit of ether | 14339702 | 2       |
| Caelo     | Spirit of ether | 14339707 | 1       |
| Caelo     | Spirit of ether | 18115603 | 1       |
| Caelo     | Spirit of ether | 19199801 | 1       |
| Gehe      | Spirit of ether | 15442203 | 1       |
| Gepepharm | Spirit of ether | 15442203 | 1       |

- 288 694 spectra from 1294 *Apo-Ident* customers from a total of 51 877 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Spirit of ether* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Spirit of ether* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 160           | 0              | 66 999        |
| <b>Type B</b> | 0              | 80            | 0              | 107 283       |
| <b>Type C</b> | 0              | 14            | 1              | 288 694       |

The substance/substance group *Spirit of ether* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | <b>Specificity</b>       | <b>Recognition rate</b>  |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.2500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6876 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Spirit of ether* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| <b>Substance</b> | <b>Distance in main model</b> | <b>Distance in second-stage model</b> |
|------------------|-------------------------------|---------------------------------------|
| Dexpanthenol     | 78.64                         | –                                     |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Spirit of ether* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 30707            | 34065                      | 5.48                                | 131.69                                 |
| 31207            | 31207                      | 0.00                                | 141.92                                 |
| 34065            | 34065                      | 0.00                                | 135.97                                 |
| 34703            | 34703                      | 0.00                                | 133.00                                 |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Spirit soap**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30546-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Spirit soap; Spiritus saponatus

### Special notes

When selecting the *Spirit soap* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Spirit soap               | 4      | 3      | 61     |

## Second-stage model

For differentiation of the substance/substance group *Spirit soap* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Spirit soap*:

| Supplier | Substance   | Batch    | Sample ID | Spectra | Certificate |
|----------|-------------|----------|-----------|---------|-------------|
| Caelo    | Spirit soap | 12247110 | 31153     | 40      | 1403401     |
| Caelo    | Spirit soap | 13278409 | 31393     | 40      | 20130829    |
| Caelo    | Spirit soap | 16130209 | 33443     | 40      | 20160510    |
| Caelo    | Spirit soap | 16130209 | 33456     | 40      | 20160510    |
| Caelo    | Spirit soap | 173045   | 33893     | 40      | 20171204*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 200 spectra of 5 reference samples from the substance/substance group *Spirit soap*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 959 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group *Spirit soap*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance   | Batch    | Sample ID | Spectra |
|----------|-------------|----------|-----------|---------|
| Caelo    | Spirit soap | 182955   | 34332     | 40      |
| Caelo    | Spirit soap | 183012   | 34333     | 40      |
| Caelo    | Spirit soap | 21002991 | 35845     | 50      |

- 107 233 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 154 spectra from 65 *Apo-Ident* customers from 64 batches from the substance/substance group *Spirit soap*.
- Among them are spectra of independent samples from 60 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier              | Substance   | Batch    | Spectra |
|-----------------------|-------------|----------|---------|
| AHD                   | Spirit soap | 16130209 | 1       |
| AHD                   | Spirit soap | 17304502 | 1       |
| AHD                   | Spirit soap | 18295503 | 1       |
| AHD                   | Spirit soap | 18295504 | 1       |
| Anzag 8.10.14 EK 4.88 | Spirit soap | 13278403 | 1       |
| Anzag                 | Spirit soap | 13278409 | 1       |
| Caelo                 | Spirit soap | 10121303 | 1       |
| Caelo                 | Spirit soap | 11051704 | 1       |
| Caelo                 | Spirit soap | 12121402 | 1       |
| Caelo                 | Spirit soap | 12247102 | 1       |
| Caelo                 | Spirit soap | 12247104 | 2       |
| Caelo                 | Spirit soap | 12247105 | 2       |
| Caelo                 | Spirit soap | 12247107 | 1       |
| Caelo                 | Spirit soap | 12247108 | 7       |
| Caelo                 | Spirit soap | 12247109 | 2       |
| Caelo                 | Spirit soap | 12247110 | 7       |
| Caelo                 | Spirit soap | 13278402 | 4       |
| Caelo                 | Spirit soap | 13278403 | 8       |
| Caelo                 | Spirit soap | 13278405 | 3       |
| Caelo                 | Spirit soap | 13278408 | 2       |
| Caelo                 | Spirit soap | 13278409 | 6       |
| Caelo                 | Spirit soap | 14212703 | 1       |
| Caelo                 | Spirit soap | 14212705 | 1       |
| Caelo                 | Spirit soap | 14212706 | 6       |
| Caelo                 | Spirit soap | 14212710 | 1       |
| Caelo                 | Spirit soap | 14212712 | 1       |
| Caelo                 | Spirit soap | 14212714 | 1       |
| Caelo                 | Spirit soap | 14212716 | 1       |
| Caelo                 | Spirit soap | 14364901 | 2       |
| Caelo                 | Spirit soap | 14364902 | 4       |
| Caelo                 | Spirit soap | 14364904 | 3       |
| Caelo                 | Spirit soap | 14364905 | 1       |
| Caelo                 | Spirit soap | 14364906 | 6       |
| Caelo                 | Spirit soap | 14364907 | 2       |
| Caelo                 | Spirit soap | 14364909 | 1       |

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| Supplier             | Substance   | Batch       | Spectra |
|----------------------|-------------|-------------|---------|
| Caelo                | Spirit soap | 16069902    | 1       |
| Caelo                | Spirit soap | 16130201    | 4       |
| Caelo                | Spirit soap | 16130202    | 4       |
| Caelo                | Spirit soap | 16130204    | 4       |
| Caelo                | Spirit soap | 16130205    | 3       |
| Caelo                | Spirit soap | 16130207    | 3       |
| Caelo                | Spirit soap | 16130209    | 2       |
| Caelo                | Spirit soap | 17304501    | 2       |
| Caelo                | Spirit soap | 17304502    | 2       |
| Caelo                | Spirit soap | 17304503    | 3       |
| Caelo                | Spirit soap | 17304504    | 1       |
| Caelo                | Spirit soap | 17304507    | 2       |
| Caelo                | Spirit soap | 17304508    | 1       |
| Caelo                | Spirit soap | 1730453     | 1       |
| Caelo                | Spirit soap | 1829505     | 1       |
| Caelo                | Spirit soap | 182955001   | 1       |
| Caelo                | Spirit soap | 182955002   | 1       |
| Caelo                | Spirit soap | 18295501    | 1       |
| Caelo                | Spirit soap | 18295502    | 4       |
| Caelo                | Spirit soap | 18295503    | 4       |
| Caelo                | Spirit soap | 18295504    | 2       |
| Caelo                | Spirit soap | 18295507    | 1       |
| Caelo                | Spirit soap | 19011801    | 1       |
| Caelo                | Spirit soap | 21002991001 | 1       |
| Caelo                | Spirit soap | 27072013    | 1       |
| Caelo                | Spirit soap | 2712Q-02323 | 1       |
| Caelo                | Spirit soap | 3091306     | 1       |
| Caelo                | Spirit soap | 3913U-02323 | 1       |
| Caelo                | Spirit soap | 6081516     | 1       |
| Caelo                | Spirit soap | 7071805     | 1       |
| Caelo                | Spirit soap | 7111804     | 1       |
| Caelo                | Spirit soap | 9031501     | 1       |
| Caelo                | Spirit soap | 9172002     | 1       |
| Caesar & Loretz GmbH | Spirit soap | 16130209    | 1       |
| Caesar & Loretz GmbH | Spirit soap | 18295501    | 1       |
| Caesar & Loretz GmbH | Spirit soap | 18295502    | 1       |
| Caesar & Loretz GmbH | Spirit soap | 18295503    | 1       |
| Caesar&Lorenz        | Spirit soap | 14364906    | 1       |
| Cealo                | Spirit soap | 20000743002 | 1       |
| Fagron               | Spirit soap | 16130201    | 1       |
| GEHE                 | Spirit soap | 17304502    | 1       |
| Hänseler             | Spirit soap |             | 1       |
| Sanacorp             | Spirit soap | 12247102    | 1       |

- 288 555 spectra from 1294 *Apo-Ident* customers from a total of 51 825 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Spirit soap* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Spirit soap* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table



breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 200           | 0              | 66 959        |
| <b>Type B</b> | 0              | 130           | 0              | 107 233       |
| <b>Type C</b> | 0              | 153           | 1              | 288 555       |

The substance/substance group *Spirit soap* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.3506 % (> 97.4026 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Spirit soap* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance             | Distance in main model | Distance in second-stage model |
|-----------------------|------------------------|--------------------------------|
| Camphor spirit        | 39.79                  | –                              |
| Isopropyl alcohol 70% | 41.57                  | –                              |
| Glycolic acid 70%     | 88.85                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Spirit soap* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31153     | 31153               | 0.00                         | 36.98                           |
| 31393     | 31153               | 3.22                         | 37.91                           |
| 33443     | 31153               | 7.21                         | 36.49                           |

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| <b>Sample ID</b> | <b>Reference<br/>sample ID</b> | <b>Distance to<br/>reference sample</b> | <b>Distance to<br/>next foreign sample</b> |
|------------------|--------------------------------|-----------------------------------------|--------------------------------------------|
| 33456            | 31153                          | 2.94                                    | 38.02                                      |
| 33893            | 33893                          | 0.00                                    | 40.97                                      |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Spruce needle oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31414-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Spruce needle oil; Piceae aetheroleum

### Special notes

When selecting the *Spruce needle oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Spruce needle oil         | 3      | 2      | 25     |

## Second-stage model

For differentiation of the substance/substance group *Spruce needle oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Spruce needle oil*:

| Supplier | Substance         | Batch       | Sample ID | Spectra | Certificate |
|----------|-------------------|-------------|-----------|---------|-------------|
| Caelo    | Spruce needle oil | 13152004    | 31414     | 40      | 1412281     |
| Caelo    | Spruce needle oil | 13152004    | 31618     | 60      | 20130617    |
| Caelo    | Spruce needle oil | 14348607    | 31787     | 60      | 20141202    |
| Caelo    | Spruce needle oil | 19000518006 | 35165     | 40      | 2104234     |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 200 spectra of 4 reference samples from the substance/substance group *Spruce needle oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 3 different batches.
- 66 959 spectra from a total of 1376 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Spruce needle oil*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance         | Batch  | Sample ID | Spectra |
|----------|-------------------|--------|-----------|---------|
| Caelo    | Spruce needle oil | 163511 | 33095     | 40      |
| Caelo    | Spruce needle oil | 171966 | 33682     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 74 spectra from 35 *Apo-Ident* customers from 26 batches from the substance/substance group *Spruce needle oil*.
- Among them are spectra of independent samples from 25 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance         | Batch        | Spectra |
|----------------------------|-------------------|--------------|---------|
| Apotheker Bauer & Cie      | Spruce needle oil | 91697-89-1   | 1       |
| Caelo                      | Spruce needle oil | 13389508     | 1       |
| Caelo                      | Spruce needle oil | 14348607     | 1       |
| Caelo                      | Spruce needle oil | 15380402     | 2       |
| Caelo                      | Spruce needle oil | 15418201     | 1       |
| Caelo                      | Spruce needle oil | 15418209     | 1       |
| Caelo                      | Spruce needle oil | 15418210     | 2       |
| Caelo                      | Spruce needle oil | 16351102     | 2       |
| Caelo                      | Spruce needle oil | 17196601     | 11      |
| Caelo                      | Spruce needle oil | 17196602     | 6       |
| Caelo                      | Spruce needle oil | 18129709     | 3       |
| Caelo                      | Spruce needle oil | 18129710     | 7       |
| Caelo                      | Spruce needle oil | 19000518012  | 1       |
| Caelo                      | Spruce needle oil | 19000518013  | 1       |
| Caelo                      | Spruce needle oil | 1900518010   | 1       |
| Caelo                      | Spruce needle oil | 3071717      | 1       |
| Caelo                      | Spruce needle oil | 3323         | 1       |
| Caelo                      | Spruce needle oil | 8051802      | 1       |
| Caesar & Loretz GmbH/Je... | Spruce needle oil | 18129710     | 3       |
| Caesar & Loretz GmbH/Ph... | Spruce needle oil | 18129703     | 1       |
| Caesar & Loretz GmbH/Sa... | Spruce needle oil | 17196601     | 1       |
| Caesar & Loretz GmbH       | Spruce needle oil | 17196602     | 2       |
| Caesar & Loretz GmbH       | Spruce needle oil | 17196603     | 2       |
| Caesar & Loretz GmbH       | Spruce needle oil | 18129703     | 3       |
| Caesar & Loretz GmbH       | Spruce needle oil | 18129704     | 2       |
| Caesar & Loretz GmbH       | Spruce needle oil | 18129709     | 1       |
| Caesar & Loretz GmbH       | Spruce needle oil | 18129710     | 1       |
| Caesar & Loretz GmbH       | Spruce needle oil | 19000518010  | 1       |
| Fiebig                     | Spruce needle oil | 1716601      | 1       |
| Fiebig                     | Spruce needle oil | 17196601     | 7       |
| Gehe                       | Spruce needle oil | 15380403     | 1       |
| Gehe                       | Spruce needle oil | 15418209     | 1       |
| Nachprüfung                | Spruce needle oil | 2914A-02006  | 1       |
| Sanacorp                   | Spruce needle oil | 17196601     | 1       |
| Taoasis                    | Spruce needle oil | 22336-122331 | 1       |

- 288 635 spectra from 1294 *Apo-Ident* customers from a total of 51 862 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#),

the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Spruce needle oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Spruce needle oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 200           | 0              | 66 959        |
| <b>Type B</b> | 0              | 80            | 0              | 107 283       |
| <b>Type C</b> | 0              | 73            | 1              | 288 635       |

The substance/substance group *Spruce needle oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.0000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6872 %) | 98.6486 % (> 94.5946 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Spruce needle oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance        | Distance in main model | Distance in second-stage model |
|------------------|------------------------|--------------------------------|
| Sage oil         | 12.75                  | —                              |
| Turpentine oil   | 24.79                  | —                              |
| Eucalyptus oil   | 29.36                  | —                              |
| Myrtle oil       | 34.94                  | —                              |
| Juniper wood oil | 35.05                  | —                              |
| Rosemary oil     | 36.83                  | —                              |
| Dwarf pine oil   | 41.94                  | —                              |
| Cineole          | 43.74                  | —                              |
| Cypress oil      | 52.76                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Spruce needle oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31414     | 31414               | 0.00                         | 20.58                           |
| 31618     | 31414               | 2.09                         | 19.26                           |
| 31787     | 31414               | 5.45                         | 19.62                           |
| 35165     | 35165               | 0.00                         | 26.84                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Squalane**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31327-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Squalane; Squalanum

### Special notes

When selecting the *Squalane* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Squalane                  | 5      | 1      | 3      |

## Second-stage model

For differentiation of the substance/substance group *Squalane* the following second-stage model is used:

- [Submodel 06](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Squalane*:

| Supplier | Substance | Batch    | Sample ID | Spectra | Certificate |
|----------|-----------|----------|-----------|---------|-------------|
| Caelo    | Squalane  | 13202603 | 31327     | 40      | 1504359     |
| Caelo    | Squalane  | 13202603 | 31328     | 40      | 20130809    |
| Caelo    | Squalane  | 13202603 | 31329     | 40      | 20130809    |
| Caelo    | Squalane  | 14330704 | 32075     | 40      | 9465        |
| Caelo    | Squalane  | 16030504 | 32302     | 40      | 20160205    |
| Caelo    | Squalane  | 171380   | 33317     | 40      | 20170609*   |
| Caelo    | Squalane  | 19232102 | 34684     | 40      | 20190923    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 280 spectra of 7 reference samples from the substance/substance group *Squalane*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 879 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 40 spectra of 1 reference samples from the substance/substance group *Squalane*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 1 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance | Batch    | Sample ID | Spectra |
|----------|-----------|----------|-----------|---------|
| Caelo    | Squalane  | 17138001 | 33422     | 40      |

- 107 323 spectra from a total of 2500 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 4 spectra from 2 *Apo-Ident* customers from 4 batches from the substance/substance group *Squalane*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier        | Substance | Batch     | Spectra |
|-----------------|-----------|-----------|---------|
| Caelo           | Squalane  | 16030504  | 1       |
| Euro OTC        | Squalane  | 316001302 | 1       |
| L12             | Squalane  | 117001301 | 1       |
| Spinnrad/Noweda | Squalane  | 116001301 | 1       |

- 288 705 spectra from 1294 *Apo-Ident* customers from a total of 51 884 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Squalane* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Squalane* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 280           | 0              | 66 879        |
| <b>Type B</b> | 0              | 40            | 0              | 107 323       |
| <b>Type C</b> | 0              | 3             | 1              | 288 705       |

The substance/substance group *Squalane* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 97.8571 %) |
| Type B | 100.0000 % (> 99.9677 %) | 100.0000 % (> 85.0000 %) |
| Type C | 100.0000 % (> 99.6893 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Squalane* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Triglycerides, medium-chain               | 14.32                  | —                              |
| Wool fat                                  | 17.67                  | —                              |
| 2-ethylhexyl laurate                      | 20.22                  | 74.66                          |
| Hydrophobic base gel DAC                  | 22.62                  | —                              |
| Emulsifying hydrophobic base gel DAC      | 22.93                  | —                              |
| Softisan <sup>®</sup> 649                 | 30.56                  | —                              |
| Camphor ointment                          | 32.97                  | —                              |
| Paraffin, light liquid                    | 34.70                  | —                              |
| Apricot kernel oil, refined               | 35.58                  | —                              |
| Peanut oil, refined                       | 35.98                  | —                              |
| Laurel oil                                | 36.12                  | —                              |
| Pasta Cordes <sup>®</sup>                 | 37.02                  | —                              |
| Olive oil, native                         | 37.80                  | —                              |
| Decyl oleate                              | 39.19                  | —                              |
| Shea butter, refined                      | 39.45                  | —                              |
| Guaiazulene 25%, water-soluble            | 41.92                  | —                              |
| Avocado oil, refined                      | 45.63                  | —                              |
| Isopropyl palmitate                       | 45.95                  | —                              |
| Sesame oil, refined                       | 48.14                  | —                              |
| Rapeseed oil, refined                     | 48.20                  | —                              |
| Soy lecithin, liquid                      | 48.86                  | —                              |
| Paraffin, liquid                          | 48.94                  | —                              |
| Isopropyl myristate                       | 51.55                  | —                              |
| :                                         | :                      | :                              |
| Wool alcohol cream SR                     | >50                    | 41.71                          |
| Base cream DAC                            | >50                    | 62.34                          |
| Eucerin <sup>®</sup> cum Aqua             | >50                    | 63.13                          |
| Non-ionic hydrophil ointment              | >50                    | 67.52                          |
| Wool alcohol cream DAB                    | >50                    | 80.37                          |
| Lanette <sup>®</sup> ointment (conserved) | >50                    | 91.29                          |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Squalane* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31327     | 31327               | 0.00                         | 14.54                           |
| 31328     | 31327               | 1.07                         | 14.29                           |
| 31329     | 31327               | 1.81                         | 14.52                           |
| 32075     | 32075               | 0.00                         | 15.62                           |
| 32302     | 32075               | 2.91                         | 14.02                           |
| 33317     | 33317               | 0.00                         | 15.98                           |
| 34684     | 31327               | 5.67                         | 15.13                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

IdentModule 2.4-2022-04

Validated substance/substance group **Syrups**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30753-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

## Relevant substance names

Syrups; Althae sirupus (konserviert); Cherry syrup (conserved); Fennel honey (conserved); Ipecacuanha syrup (NRF 19.1); Marshmallow syrup (conserved); Mel foeniculi (konserviert); Raspberry syrup (conserved); Ribwort plantain syrup (conserved); Sirupus cerasi (konserviert); Sirupus ipecacuanhae; Sirupus plantaginis lanceolatae; Sirupus rubi idaei; Sirupus simplex; Sorbitol, liquid (non crystallising); Sorbitolum liquidum non cristallisabile; Sugar syrup DAB

## Special notes

When selecting the *Syrups* substance/substance group, the following information is displayed to the user:

*no information*

## Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

## Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

## Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Syrups                    | 44     | 60     | 937    |

## Second-stage model

For differentiation of the substance/substance group *Syrups* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Syrups*:

| Supplier | Substance           | Batch     | Sample ID | Spectra | Certificate |
|----------|---------------------|-----------|-----------|---------|-------------|
| Caelo    | Cherry syrup (co... | 13278301  | 31155     | 40      | 1402568     |
| Caelo    | Cherry syrup (co... | 14034503  | 31359     | 60      | 20140131    |
| Caelo    | Cherry syrup (co... | 163453    | 33099     | 40      | 20161221*   |
| Caelo    | Fennel honey (co... | 12247203  | 30900     | 60      | 1402574     |
| Caelo    | Fennel honey (co... | 14045202  | 31598     | 60      | 20140317    |
| Caelo    | Fennel honey (co... | 181580    | 34233     | 40      | 20180704*   |
| Caelo    | Fennel honey (co... | 192389    | 34734     | 40      | 20190918*   |
| Caelo    | Fennel honey (co... | 21001359  | 35552     | 60      | 20210507*   |
| apomix   | Ipecacuanha syru... | 03A171016 | 33420     | 40      | 20161019    |
| apomix   | Ipecacuanha syru... | 02A200616 | 33421     | 40      | 20160627    |
| apomix   | Ipecacuanha syru... | 02A200420 | 35290     | 40      | 20201027    |
| Fagron   | Ipecacuanha syru... | 13G23-M02 | 31181     | 40      | 1404013     |
| Fagron   | Ipecacuanha syru... | 02B200616 | 33263     | 40      | 20160627    |
| Caelo    | Marshmallow syru... | 12067103  | 30753     | 40      | 20120312    |
| Caelo    | Marshmallow syru... | 12303106  | 31147     | 40      | 1404662     |
| Caelo    | Marshmallow syru... | 13410907  | 31365     | 40      | 20140318    |
| Caelo    | Marshmallow syru... | 161233    | 32210     | 40      | 20160427*   |
| Caelo    | Marshmallow syru... | 171283    | 33331     | 40      | 20170511*   |
| Caelo    | Marshmallow syru... | 190100    | 34477     | 40      | 20190206*   |
| Caelo    | Marshmallow syru... | 192181    | 34664     | 40      | 20190819*   |
| Caelo    | Raspberry syrup ... | 13122003  | 31051     | 40      | 1402567     |
| Caelo    | Raspberry syrup ... | 14114303  | 31467     | 60      | 20140411    |
| Euro OTC | Raspberry syrup ... | 1508015   | 31773     | 60      | 20150814*   |
| Euro OTC | Raspberry syrup ... | 1511024   | 31802     | 60      | 20150511*   |
| Euro OTC | Raspberry syrup ... | 1605008   | 32284     | 40      | 20160513*   |
| Euro OTC | Raspberry syrup ... | 1701022   | 32984     | 40      | 20170126*   |
| Euro OTC | Raspberry syrup ... | 2010023   | 35138     | 40      | 20201111*   |
| Caelo    | Ribwort plantain... | 11380011  | 30897     | 60      | 20120112    |
| Caelo    | Ribwort plantain... | 13152307  | 31218     | 40      | 1404663     |
| Caelo    | Ribwort plantain... | 182898    | 34329     | 40      | 20181211*   |
| Caelo    | Ribwort plantain... | 191483    | 34600     | 40      | 20190618*   |
| Caelo    | Sorbitol, liquid... | 12124910  | 30870     | 40      | 20120525    |
| Caelo    | Sorbitol, liquid... | 13060206  | 31124     | 40      | 20130306    |
| Caelo    | Sorbitol, liquid... | 14034706  | 31353     | 60      | 8780        |
| Caelo    | Sorbitol, liquid... | 21003914  | 36065     | 40      | 20220210*   |
| Euro OTC | Sorbitol, liquid... | 1604020   | 32277     | 40      | 20160511*   |
| Euro OTC | Sorbitol, liquid... | 1702011   | 33228     | 40      | 20170220*   |
| Euro OTC | Sorbitol, liquid... | 2003010   | 34831     | 40      | 20200318*   |
| apomix   | Sugar syrup DAB     | 73A101013 | 31175     | 40      | 1403164     |
| apomix   | Sugar syrup DAB     | 30A130617 | 33505     | 40      | 20170616    |
| apomix   | Sugar syrup DAB     | 31A030619 | 34526     | 40      | 20190603    |
| Caelo    | Sugar syrup DAB     | 14134301  | 31355     | 60      | 20140514    |
| Caelo    | Sugar syrup DAB     | 153348    | 31877     | 60      | 20151014*   |
| Caelo    | Sugar syrup DAB     | 20003766  | 35164     | 40      | 20201208*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 1980 spectra of 44 reference samples from the substance/substance group *Syrups*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 44 different batches.
- 65 179 spectra from a total of 1335 batches from further 221 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 2559 spectra of 61 reference samples from the substance/substance group *Syrups*.
- Among them are spectra of independent samples from 60 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                     | Batch       | Sample ID | Spectra |
|----------|-------------------------------|-------------|-----------|---------|
| Caelo    | Cherry syrup (conserved)      | 16345303    | 33837     | 40      |
| Caelo    | Cherry syrup (conserved)      | 173511      | 33891     | 40      |
| Caelo    | Cherry syrup (conserved)      | 20003552001 | 35748     | 50      |
| Caelo    | Fennel honey (conserved)      | 16039406    | 33153     | 40      |
| Caelo    | Fennel honey (conserved)      | 190514      | 34454     | 40      |
| apomix   | Ipecacuanha syrup (NRF 19.1)  | 03B291118   | 34527     | 40      |
| apomix   | Ipecacuanha syrup (NRF 19.1)  | 02B120422   | 36230     | 39      |
| Fagron   | Ipecacuanha syrup (NRF 19.1)  | 01A070817   | 33642     | 40      |
| Caelo    | Marshmallow syrup (conserved) | 160775      | 32215     | 40      |
| Caelo    | Marshmallow syrup (conserved) | 162136      | 32335     | 40      |
| Caelo    | Marshmallow syrup (conserved) | 21001213010 | 35739     | 50      |
| Caelo    | Raspberry syrup (conserved)   | 161516      | 32213     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 163454      | 33092     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 171284      | 33332     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 181909      | 34222     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 190098      | 34476     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 191533      | 34626     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 192399      | 34706     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 21000519    | 35300     | 40      |
| Caelo    | Raspberry syrup (conserved)   | 22000543    | 36171     | 40      |

*continued on the next page*

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

continued from previous page

| Supplier | Substance                       | Batch       | Sample ID | Spectra |
|----------|---------------------------------|-------------|-----------|---------|
| Euro OTC | Raspberry syrup (conserved)     | 1603007     | 32193     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1608003     | 32705     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1610026     | 32833     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1705037     | 33450     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1709003     | 33660     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1712004     | 33930     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1803009     | 34092     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1807026     | 34190     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1810021     | 34299     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1901049     | 34432     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 1908010     | 34696     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 2003067     | 34829     | 40      |
| Euro OTC | Raspberry syrup (conserved)     | 2108008     | 35623     | 50      |
| Caelo    | Ribwort plantain syrup (cons... | 16335301    | 33457     | 40      |
| Caelo    | Ribwort plantain syrup (cons... | 18078901    | 34048     | 40      |
| Caelo    | Ribwort plantain syrup (cons... | 21001214004 | 35841     | 50      |
| Caelo    | Sorbitol, liquid (non crista... | 160788      | 32217     | 40      |
| Caelo    | Sorbitol, liquid (non crista... | 173054      | 33895     | 40      |
| Caelo    | Sorbitol, liquid (non crista... | 190223      | 34462     | 40      |
| Caelo    | Sorbitol, liquid (non crista... | 192342      | 34733     | 40      |
| Euro OTC | Sorbitol, liquid (non crista... | 1802020     | 34006     | 40      |
| Euro OTC | Sorbitol, liquid (non crista... | 1804019     | 34182     | 40      |
| Euro OTC | Sorbitol, liquid (non crista... | 1905010     | 34492     | 40      |
| Euro OTC | Sorbitol, liquid (non crista... | 2003063     | 34833     | 40      |
| Euro OTC | Sorbitol, liquid (non crista... | 2204017     | 36282     | 40      |
| apomix   | Sugar syrup DAB                 | 35A120422   | 36243     | 40      |
| Caelo    | Sugar syrup DAB                 | 170581      | 33126     | 40      |
| Caelo    | Sugar syrup DAB                 | 181757      | 34246     | 40      |
| Caelo    | Sugar syrup DAB                 | 182278      | 34247     | 40      |
| Caelo    | Sugar syrup DAB                 | 182964      | 34314     | 40      |
| Caelo    | Sugar syrup DAB                 | 21000066    | 35316     | 40      |
| Caelo    | Sugar syrup DAB                 | 21000067    | 35317     | 40      |
| Caelo    | Sugar syrup DAB                 | 21002020    | 35664     | 50      |
| Caelo    | Sugar syrup DAB                 | 21002120    | 35665     | 50      |
| Caelo    | Sugar syrup DAB                 | 21002664    | 35666     | 50      |
| Caelo    | Sugar syrup DAB                 | 21002665    | 35667     | 50      |
| Caelo    | Sugar syrup DAB                 | 21002898    | 35790     | 50      |
| Caelo    | Sugar syrup DAB                 | 21002899    | 35791     | 50      |
| Caelo    | Sugar syrup DAB                 | 21003410    | 35894     | 50      |
| Caelo    | Sugar syrup DAB                 | 21003411    | 35895     | 50      |
| Caelo    | Ribwort plantain syrup (cons... | 16335301    | 33458     | 40      |

- 104 804 spectra from a total of 2441 batches from further 343 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 3020 spectra from 535 *Apo-Ident* customers from 963 batches from the substance/substance group *Syrups*.
- Among them are spectra of independent samples from 929 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| A.H.D.                     | Raspberry syrup (conserved)     | 12367602    | 2       |
| ACM                        | Marshmallow syrup (conserved)   | 1015        | 1       |
| AHD                        | Raspberry syrup (conserved)     | 13122001    | 1       |
| Alliance H.                | Sugar syrup DAB                 | 37/A030616  | 1       |
| Alliance health            | Sugar syrup DAB                 | 11A280115   | 1       |
| Alliance Healthcare        | Sorbitol, liquid (non crista... | 19163403    | 1       |
| AMH Niemann GmbH & Co. KG  | Sugar syrup DAB                 | 11A250321   | 1       |
| AMH Niemann GmbH & Co.K... | Sugar syrup DAB                 | 33A170516   | 1       |
| AMH Niemann GmbH & Co.K... | Sugar syrup DAB                 | 7A250116    | 1       |
| AMH Niemann GmbH & Co.KG   | Sugar syrup DAB                 | 22A130315   | 1       |
| AMH Niemann GmbH / Sana... | Sugar syrup DAB                 | 49A290716   | 1       |
| AMH Niemann GmbH/ Gehe     | Sugar syrup DAB                 | 80A261118   | 1       |
| AMH Niemann GmbH/Noweda    | Sugar syrup DAB                 | 33A190617   | 2       |
| AMH Niemann GmbH/Noweda    | Sugar syrup DAB                 | 65A141117   | 2       |
| AMH Niemann GmbH           | Sugar syrup DAB                 | 30A200415   | 1       |
| AMH Niemann GmbH           | Sugar syrup DAB                 | 50A020715   | 1       |
| AMH Niemann GmbH           | Sugar syrup DAB                 | 70A051015   | 1       |
| AMH Niemann GmbH           | Sugar syrup DAB                 | 74A241014   | 1       |
| AMH Niemann GmbH           | Sugar syrup DAB                 | 85A261115   | 1       |
| AMH Niemann/Sanacorp       | Sugar syrup DAB                 | 23A280318   | 1       |
| AMH Niemann/Sanacorp       | Sugar syrup DAB                 | 78A221118   | 1       |
| AMH Niemann                | Sugar syrup DAB                 | 1A130114    | 1       |
| AMH Niemann                | Sugar syrup DAB                 | 63A211119   | 1       |
| Anzag 13.11.12             | Raspberry syrup (conserved)     | 12283101    | 1       |
| Anzag 17.01.2013           | Sugar syrup DAB                 | 88A051212   | 1       |
| Anzag 25.01.2013           | Sugar syrup DAB                 | 71A091012   | 1       |
| Anzag 31.10.12             | Raspberry syrup (conserved)     | 1205001-01  | 1       |
| Anzag/ PKH Halle           | Sugar syrup DAB                 | 15A080319   | 1       |
| Anzag                      | Cherry syrup (conserved)        | 11291603    | 1       |
| Anzag                      | Sorbitol, liquid (non crista... | 120701201   | 1       |
| Anzag                      | Raspberry syrup (conserved)     | 1306006-01  | 1       |
| Anzag                      | Sugar syrup DAB                 | 44A260612   | 1       |
| Anzag                      | Sugar syrup DAB                 | 58A210813   | 1       |
| apo ident                  | Sorbitol, liquid (non crista... | 1702011-02  | 1       |
| apo-ident/Phönix           | Sorbitol, liquid (non crista... | 1702011-02  | 1       |
| apo-ident                  | Sorbitol, liquid (non crista... | 1804019-01  | 1       |
| Apom/Noweda                | Sugar syrup DAB                 | 28A010617   | 1       |
| apomix                     | Sugar syrup DAB                 |             | 1       |
| apomix                     | Sugar syrup DAB                 | 10A110321   | 1       |
| apomix                     | Sugar syrup DAB                 | 10A3000113  | 1       |
| apomix                     | Sugar syrup DAB                 | 11121305    | 1       |
| apomix                     | Sugar syrup DAB                 | 1116E-02263 | 1       |
| apomix                     | Sugar syrup DAB                 | 1118Q-02263 | 1       |
| apomix                     | Sugar syrup DAB                 | 11A060213   | 1       |
| apomix                     | Sugar syrup DAB                 | 11A120216   | 3       |
| apomix                     | Sugar syrup DAB                 | 11A190218   | 4       |
| apomix                     | Sugar syrup DAB                 | 11A250321   | 3       |
| apomix                     | Sugar syrup DAB                 | 11A280115   | 2       |
| apomix                     | Sugar syrup DAB                 | 12A010212   | 1       |
| apomix                     | Sugar syrup DAB                 | 12A060220   | 1       |
| apomix                     | Sugar syrup DAB                 | 12A120219   | 2       |
| apomix                     | Sugar syrup DAB                 | 12A190218   | 1       |
| apomix                     | Sugar syrup DAB                 | 13101405    | 1       |
| apomix                     | Sugar syrup DAB                 | 1314I-02263 | 1       |
| apomix                     | Sugar syrup DAB                 | 13A060220   | 1       |
| apomix                     | Sugar syrup DAB                 | 13A080421   | 7       |
| apomix                     | Sugar syrup DAB                 | 13A150216   | 1       |
| apomix                     | Sugar syrup DAB                 | 13A150219   | 1       |
| apomix                     | Sugar syrup DAB                 | 13A200217   | 4       |
| apomix                     | Sugar syrup DAB                 | 13A290115   | 1       |

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| Supplier | Substance                    | Batch       | Spectra |
|----------|------------------------------|-------------|---------|
| apomix   | Sugar syrup DAB              | 14A150216   | 1       |
| apomix   | Sugar syrup DAB              | 14A190219   | 1       |
| apomix   | Sugar syrup DAB              | 14a200217   | 1       |
| apomix   | Sugar syrup DAB              | 1515Q-02263 | 1       |
| apomix   | Sugar syrup DAB              | 15A080319   | 2       |
| apomix   | Sugar syrup DAB              | 15A100215   | 1       |
| apomix   | Sugar syrup DAB              | 15A200317   | 2       |
| apomix   | Sugar syrup DAB              | 16A200317   | 1       |
| apomix   | Sugar syrup DAB              | 16A210213   | 1       |
| apomix   | Sugar syrup DAB              | 17A030314   | 1       |
| apomix   | Sugar syrup DAB              | 17A060318   | 1       |
| apomix   | Sugar syrup DAB              | 17A250220   | 4       |
| apomix   | Sugar syrup DAB              | 17A270213   | 1       |
| apomix   | Sugar syrup DAB              | 18081517    | 1       |
| apomix   | Sugar syrup DAB              | 18095601    | 3       |
| apomix   | Sugar syrup DAB              | 18A030314   | 2       |
| apomix   | Sugar syrup DAB              | 18A190521   | 3       |
| apomix   | Sugar syrup DAB              | 19A040314   | 1       |
| apomix   | Sugar syrup DAB              | 19A150517   | 3       |
| apomix   | Sugar syrup DAB              | 19A260220   | 3       |
| apomix   | Ipecacuanha syrup (NRF 19.1) | 1A070817    | 1       |
| apomix   | Sugar syrup DAB              | 1A130116    | 2       |
| apomix   | Sugar syrup DAB              | 1A140113    | 1       |
| apomix   | Sugar syrup DAB              | 1A140115    | 1       |
| apomix   | Sugar syrup DAB              | 1A160118    | 4       |
| apomix   | Ipecacuanha syrup (NRF 19.1) | 1A190320    | 1       |
| apomix   | Sugar syrup DAB              | 20021307    | 1       |
| apomix   | Sugar syrup DAB              | 20A120318   | 3       |
| apomix   | Sugar syrup DAB              | 20A200521   | 1       |
| apomix   | Sugar syrup DAB              | 20A270215   | 1       |
| apomix   | Sugar syrup DAB              | 20A280213   | 1       |
| apomix   | Sugar syrup DAB              | 2112I-02263 | 1       |
| apomix   | Sugar syrup DAB              | 214050314   | 1       |
| apomix   | Sugar syrup DAB              | 21A010313   | 2       |
| apomix   | Sugar syrup DAB              | 21A050314   | 3       |
| apomix   | Sugar syrup DAB              | 21A090322   | 2       |
| apomix   | Sugar syrup DAB              | 21A130315   | 1       |
| apomix   | Sugar syrup DAB              | 21A130320   | 1       |
| apomix   | Sugar syrup DAB              | 21A160517   | 2       |
| apomix   | Sugar syrup DAB              | 22A050314   | 1       |
| apomix   | Sugar syrup DAB              | 22A100419   | 1       |
| apomix   | Sugar syrup DAB              | 22A140320   | 4       |
| apomix   | Sugar syrup DAB              | 22A170316   | 3       |
| apomix   | Sugar syrup DAB              | 23081202    | 1       |
| apomix   | Sugar syrup DAB              | 23A140320   | 5       |
| apomix   | Sugar syrup DAB              | 23A140320   | 1       |
| apomix   | Sugar syrup DAB              | 23A180316   | 1       |
| apomix   | Sugar syrup DAB              | 23A280318   | 1       |
| apomix   | Sugar syrup DAB              | 23A290517   | 3       |
| apomix   | Sugar syrup DAB              | 24041801    | 1       |
| apomix   | Sugar syrup DAB              | 24A110419   | 2       |
| apomix   | Sugar syrup DAB              | 24A180316   | 2       |
| apomix   | Sugar syrup DAB              | 24A190320   | 3       |
| apomix   | Sugar syrup DAB              | 24A280318   | 1       |
| apomix   | Sugar syrup DAB              | 25A080415   | 1       |
| apomix   | Sugar syrup DAB              | 25A110313   | 1       |
| apomix   | Sugar syrup DAB              | 25A170314   | 1       |
| apomix   | Sugar syrup DAB              | 25A190320   | 1       |
| apomix   | Sugar syrup DAB              | 25A200412   | 1       |
| apomix   | Sugar syrup DAB              | 25a310517   | 1       |

continued on the next page



continued from previous page

| Supplier | Substance       | Batch     | Spectra |
|----------|-----------------|-----------|---------|
| apomix   | Sugar syrup DAB | 25A310517 | 2       |
| apomix   | Sugar syrup DAB | 26011907  | 1       |
| apomix   | Sugar syrup DAB | 26090418  | 1       |
| apomix   | Sugar syrup DAB | 26A080415 | 1       |
| apomix   | Sugar syrup DAB | 26A09418  | 1       |
| apomix   | Sugar syrup DAB | 26A200320 | 3       |
| apomix   | Sugar syrup DAB | 27A090418 | 4       |
| apomix   | Sugar syrup DAB | 27A110416 | 3       |
| apomix   | Sugar syrup DAB | 27A160519 | 2       |
| apomix   | Sugar syrup DAB | 27A200313 | 1       |
| apomix   | Sugar syrup DAB | 27A200320 | 1       |
| apomix   | Sugar syrup DAB | 27A220621 | 1       |
| apomix   | Sugar syrup DAB | 28A010617 | 7       |
| apomix   | Sugar syrup DAB | 28A110416 | 1       |
| apomix   | Sugar syrup DAB | 28A270519 | 3       |
| apomix   | Sugar syrup DAB | 28A275019 | 1       |
| apomix   | Sugar syrup DAB | 29A060721 | 6       |
| apomix   | Sugar syrup DAB | 29A130617 | 2       |
| apomix   | Sugar syrup DAB | 29A15020  | 1       |
| apomix   | Sugar syrup DAB | 29A150420 | 2       |
| apomix   | Sugar syrup DAB | 29A190416 | 1       |
| apomix   | Sugar syrup DAB | 29A220313 | 1       |
| apomix   | Sugar syrup DAB | 2A110122  | 1       |
| apomix   | Sugar syrup DAB | 2A130114  | 1       |
| apomix   | Sugar syrup DAB | 2A130116  | 3       |
| apomix   | Sugar syrup DAB | 2A180121  | 4       |
| apomix   | Sugar syrup DAB | 30A150420 | 3       |
| apomix   | Sugar syrup DAB | 30A190416 | 1       |
| apomix   | Sugar syrup DAB | 30A200415 | 3       |
| apomix   | Sugar syrup DAB | 31A030619 | 4       |
| apomix   | Sugar syrup DAB | 31A300418 | 1       |
| apomix   | Sugar syrup DAB | 32A020719 | 2       |
| apomix   | Sugar syrup DAB | 32A080520 | 1       |
| apomix   | Sugar syrup DAB | 32A120413 | 1       |
| apomix   | Sugar syrup DAB | 32A240415 | 2       |
| apomix   | Sugar syrup DAB | 33A020719 | 1       |
| apomix   | Sugar syrup DAB | 33A080520 | 5       |
| apomix   | Sugar syrup DAB | 33A170516 | 1       |
| apomix   | Sugar syrup DAB | 33A190617 | 1       |
| apomix   | Sugar syrup DAB | 34A240413 | 1       |
| apomix   | Sugar syrup DAB | 34A300518 | 5       |
| apomix   | Sugar syrup DAB | 35A070414 | 1       |
| apomix   | Sugar syrup DAB | 35a200617 | 1       |
| apomix   | Sugar syrup DAB | 35A200617 | 1       |
| apomix   | Sugar syrup DAB | 35A250512 | 1       |
| apomix   | Sugar syrup DAB | 35A300516 | 4       |
| apomix   | Sugar syrup DAB | 35A310518 | 4       |
| apomix   | Sugar syrup DAB | 36A140414 | 1       |
| apomix   | Sugar syrup DAB | 36A170719 | 1       |
| apomix   | Sugar syrup DAB | 36A200617 | 7       |
| apomix   | Sugar syrup DAB | 37A030616 | 2       |
| apomix   | Sugar syrup DAB | 37A03616  | 1       |
| apomix   | Sugar syrup DAB | 37A220515 | 1       |
| apomix   | Sugar syrup DAB | 37A240413 | 2       |
| apomix   | Sugar syrup DAB | 38A010618 | 1       |
| apomix   | Sugar syrup DAB | 38A030717 | 1       |
| apomix   | Sugar syrup DAB | 38A130620 | 1       |
| apomix   | Sugar syrup DAB | 38A180719 | 1       |
| apomix   | Sugar syrup DAB | 38A180821 | 1       |
| apomix   | Sugar syrup DAB | 39A010819 | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                    | Batch       | Spectra |
|----------|------------------------------|-------------|---------|
| apomix   | Sugar syrup DAB              | 39A050614   | 3       |
| apomix   | Sugar syrup DAB              | 39A260620   | 2       |
| apomix   | Sugar syrup DAB              | 39A310821   | 5       |
| apomix   | Sugar syrup DAB              | 3a150116    | 1       |
| apomix   | Sugar syrup DAB              | 3A150116    | 2       |
| apomix   | Sugar syrup DAB              | 3A150120    | 3       |
| apomix   | Ipecacuanha syrup (NRF 19.1) | 3A170915    | 1       |
| apomix   | Sugar syrup DAB              | 3A180118    | 6       |
| apomix   | Sugar syrup DAB              | 3A210119    | 4       |
| apomix   | Sugar syrup DAB              | 40A010720   | 1       |
| apomix   | Sugar syrup DAB              | 40A010819   | 4       |
| apomix   | Sugar syrup DAB              | 40A040618   | 2       |
| apomix   | Sugar syrup DAB              | 40A290515   | 2       |
| apomix   | Sugar syrup DAB              | 41A010720   | 5       |
| apomix   | Sugar syrup DAB              | 41A040716   | 3       |
| apomix   | Sugar syrup DAB              | 41A120522   | 1       |
| apomix   | Sugar syrup DAB              | 41A120615   | 1       |
| apomix   | Sugar syrup DAB              | 41A230513   | 1       |
| apomix   | Sugar syrup DAB              | 41A310717   | 1       |
| apomix   | Sugar syrup DAB              | 42A120615   | 1       |
| apomix   | Sugar syrup DAB              | 43A040613   | 2       |
| apomix   | Sugar syrup DAB              | 43A070817   | 1       |
| apomix   | Sugar syrup DAB              | 43A110716   | 3       |
| apomix   | Sugar syrup DAB              | 43a180618   | 1       |
| apomix   | Sugar syrup DAB              | 43A180618   | 2       |
| apomix   | Sugar syrup DAB              | 43A260612   | 1       |
| apomix   | Sugar syrup DAB              | 44A040718   | 4       |
| apomix   | Sugar syrup DAB              | 44A050820   | 1       |
| apomix   | Sugar syrup DAB              | 44A070817   | 2       |
| apomix   | Sugar syrup DAB              | 44A110716   | 1       |
| apomix   | Sugar syrup DAB              | 44A220921   | 1       |
| apomix   | Sugar syrup DAB              | 45A040718   | 2       |
| apomix   | Sugar syrup DAB              | 45A050613   | 2       |
| apomix   | Sugar syrup DAB              | 45A050819   | 2       |
| apomix   | Sugar syrup DAB              | 45A050820   | 1       |
| apomix   | Sugar syrup DAB              | 45A210817   | 2       |
| apomix   | Sugar syrup DAB              | 46A030712   | 1       |
| apomix   | Sugar syrup DAB              | 46A130718   | 2       |
| apomix   | Sugar syrup DAB              | 46A140819   | 2       |
| apomix   | Sugar syrup DAB              | 46A180716   | 3       |
| apomix   | Sugar syrup DAB              | 47A050712   | 3       |
| apomix   | Sugar syrup DAB              | 47A120613   | 1       |
| apomix   | Sugar syrup DAB              | 47A130718   | 1       |
| apomix   | Sugar syrup DAB              | 47A220817   | 1       |
| apomix   | Sugar syrup DAB              | 48A010715   | 1       |
| apomix   | Sugar syrup DAB              | 48A160718   | 2       |
| apomix   | Sugar syrup DAB              | 48A210714   | 2       |
| apomix   | Sugar syrup DAB              | 49A020715   | 2       |
| apomix   | Sugar syrup DAB              | 49A100712   | 1       |
| apomix   | Sugar syrup DAB              | 49A220714   | 1       |
| apomix   | Sugar syrup DAB              | 49A290716   | 4       |
| apomix   | Sugar syrup DAB              | 4A010221    | 8       |
| apomix   | Sugar syrup DAB              | 50A020715   | 1       |
| apomix   | Sugar syrup DAB              | 50A030919   | 3       |
| apomix   | Sugar syrup DAB              | 50A240817   | 8       |
| apomix   | Sugar syrup DAB              | 50A290716   | 2       |
| apomix   | Sugar syrup DAB              | 51A010816   | 1       |
| apomix   | Sugar syrup DAB              | 51A090713   | 1       |
| apomix   | Sugar syrup DAB              | 51A170718   | 2       |
| apomix   | Sugar syrup DAB              | 5218Q-02263 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance       | Batch                | Spectra |
|----------|-----------------|----------------------|---------|
| apomix   | Sugar syrup DAB | 52A110917            | 4       |
| apomix   | Sugar syrup DAB | 53A080920            | 1       |
| apomix   | Sugar syrup DAB | 53A120816            | 3       |
| apomix   | Sugar syrup DAB | 53A300718            | 3       |
| apomix   | Sugar syrup DAB | 54A011020            | 1       |
| apomix   | Sugar syrup DAB | 55A011020            | 5       |
| apomix   | Sugar syrup DAB | 55A130814            | 3       |
| apomix   | Sugar syrup DAB | 55A180712            | 2       |
| apomix   | Sugar syrup DAB | 55a220816            | 1       |
| apomix   | Sugar syrup DAB | 55A310715            | 1       |
| apomix   | Sugar syrup DAB | 56A021020            | 1       |
| apomix   | Sugar syrup DAB | 56A041017            | 1       |
| apomix   | Sugar syrup DAB | 56A071019            | 1       |
| apomix   | Sugar syrup DAB | 56A151221            | 2       |
| apomix   | Sugar syrup DAB | 56A160813            | 1       |
| apomix   | Sugar syrup DAB | 56A220816            | 4       |
| apomix   | Sugar syrup DAB | 56A310715            | 1       |
| apomix   | Sugar syrup DAB | 57A131017            | 1       |
| apomix   | Sugar syrup DAB | 57A140814            | 1       |
| apomix   | Sugar syrup DAB | 57A180816            | 4       |
| apomix   | Sugar syrup DAB | 57A260815            | 2       |
| apomix   | Sugar syrup DAB | 58A190816            | 1       |
| apomix   | Sugar syrup DAB | 58A19816             | 1       |
| apomix   | Sugar syrup DAB | 58A260815            | 1       |
| apomix   | Sugar syrup DAB | 58A270712            | 1       |
| apomix   | Sugar syrup DAB | 59A010914            | 1       |
| apomix   | Sugar syrup DAB | 59A030812            | 1       |
| apomix   | Sugar syrup DAB | 59A070814            | 1       |
| apomix   | Sugar syrup DAB | 59A270815            | 1       |
| apomix   | Sugar syrup DAB | 59A290818            | 3       |
| apomix   | Sugar syrup DAB | 5A180117             | 4       |
| apomix   | Sugar syrup DAB | 5A210113             | 1       |
| apomix   | Sugar syrup DAB | 5A220115             | 1       |
| apomix   | Sugar syrup DAB | 60A020914            | 1       |
| apomix   | Sugar syrup DAB | 60A120916            | 2       |
| apomix   | Sugar syrup DAB | 617Q-02263           | 1       |
| apomix   | Sugar syrup DAB | 62A190916            | 6       |
| apomix   | Sugar syrup DAB | 62A221020            | 2       |
| apomix   | Sugar syrup DAB | 62A260918            | 4       |
| apomix   | Sugar syrup DAB | 63A061117            | 5       |
| apomix   | Sugar syrup DAB | 63A211119            | 5       |
| apomix   | Sugar syrup DAB | 63A260916            | 4       |
| apomix   | Sugar syrup DAB | 64A050913            | 1       |
| apomix   | Sugar syrup DAB | 64A211119            | 1       |
| apomix   | Sugar syrup DAB | 65A041016            | 1       |
| apomix   | Sugar syrup DAB | 65a141117            | 1       |
| apomix   | Sugar syrup DAB | 65A141117            | 1       |
| apomix   | Sugar syrup DAB | 66A101018            | 2       |
| apomix   | Sugar syrup DAB | 66A110913            | 1       |
| apomix   | Sugar syrup DAB | 66A110913-3442311102 | 1       |
| apomix   | Sugar syrup DAB | 66a141117            | 1       |
| apomix   | Sugar syrup DAB | 66A141117            | 3       |
| apomix   | Sugar syrup DAB | 66A160914            | 2       |
| apomix   | Sugar syrup DAB | 66A210912            | 1       |
| apomix   | Sugar syrup DAB | 67A101018            | 2       |
| apomix   | Sugar syrup DAB | 67A121120            | 6       |
| apomix   | Sugar syrup DAB | 67A131016            | 4       |
| apomix   | Sugar syrup DAB | 67A231219            | 9       |
| apomix   | Sugar syrup DAB | 67A240912            | 1       |
| apomix   | Sugar syrup DAB | 67A271117            | 8       |

continued on the next page

continued from previous page

| Supplier | Substance       | Batch      | Spectra |
|----------|-----------------|------------|---------|
| apomix   | Sugar syrup DAB | 68A121120  | 4       |
| apomix   | Sugar syrup DAB | 68A131016  | 1       |
| apomix   | Sugar syrup DAB | 68A230914  | 1       |
| apomix   | Sugar syrup DAB | 68A231219  | 2       |
| apomix   | Sugar syrup DAB | 68A241018  | 3       |
| apomix   | Sugar syrup DAB | 68A250915  | 1       |
| apomix   | Sugar syrup DAB | 68A281117  | 1       |
| apomix   | Sugar syrup DAB | 69A161120  | 2       |
| apomix   | Sugar syrup DAB | 69A241018  | 5       |
| apomix   | Sugar syrup DAB | 6A020221   | 1       |
| apomix   | Sugar syrup DAB | 6A050218   | 1       |
| apomix   | Sugar syrup DAB | 70328/4Hk  | 1       |
| apomix   | Sugar syrup DAB | 70A051118  | 1       |
| apomix   | Sugar syrup DAB | 70A281117  | 3       |
| apomix   | Sugar syrup DAB | 71A031116  | 1       |
| apomix   | Sugar syrup DAB | 71A091015  | 5       |
| apomix   | Sugar syrup DAB | 71A291117  | 1       |
| apomix   | Sugar syrup DAB | 72A041116  | 3       |
| apomix   | Sugar syrup DAB | 72A081118  | 2       |
| apomix   | Sugar syrup DAB | 72A091015  | 3       |
| apomix   | Sugar syrup DAB | 72A181120  | 2       |
| apomix   | Sugar syrup DAB | 73A101013  | 1       |
| apomix   | Sugar syrup DAB | 73A301120  | 1       |
| apomix   | Sugar syrup DAB | 74A151015  | 1       |
| apomix   | Sugar syrup DAB | 74A151118  | 1       |
| apomix   | Sugar syrup DAB | 74A241014  | 2       |
| apomix   | Sugar syrup DAB | 75A151118  | 3       |
| apomix   | Sugar syrup DAB | 76A061114  | 1       |
| apomix   | Sugar syrup DAB | 76A231015  | 3       |
| apomix   | Sugar syrup DAB | 76A301012  | 1       |
| apomix   | Sugar syrup DAB | 77A261015  | 1       |
| apomix   | Sugar syrup DAB | 78A221118  | 3       |
| apomix   | Sugar syrup DAB | 79A241116  | 1       |
| apomix   | Sugar syrup DAB | 7A230115   | 2       |
| apomix   | Sugar syrup DAB | 7A230117   | 2       |
| apomix   | Sugar syrup DAB | 7A250116   | 1       |
| apomix   | Sugar syrup DAB | 7A270120   | 3       |
| apomix   | Sugar syrup DAB | 7A2710120  | 1       |
| apomix   | Sugar syrup DAB | 7A310114   | 1       |
| apomix   | Sugar syrup DAB | 80A261118  | 3       |
| apomix   | Sugar syrup DAB | 81A-081112 | 1       |
| apomix   | Sugar syrup DAB | 81A161115  | 5       |
| apomix   | Sugar syrup DAB | 81A251114  | 1       |
| apomix   | Sugar syrup DAB | 83A151216  | 2       |
| apomix   | Sugar syrup DAB | 83A191115  | 1       |
| apomix   | Sugar syrup DAB | 84A231216  | 1       |
| apomix   | Sugar syrup DAB | 85A191113  | 1       |
| apomix   | Sugar syrup DAB | 85A261115  | 1       |
| apomix   | Sugar syrup DAB | 86A051214  | 1       |
| apomix   | Sugar syrup DAB | 86A271216  | 2       |
| apomix   | Sugar syrup DAB | 87A051214  | 1       |
| apomix   | Sugar syrup DAB | 87A071215  | 1       |
| apomix   | Sugar syrup DAB | 88A121214  | 2       |
| apomix   | Sugar syrup DAB | 88A12124   | 1       |
| apomix   | Sugar syrup DAB | 89A111215  | 1       |
| apomix   | Sugar syrup DAB | 8A010219   | 2       |
| apomix   | Sugar syrup DAB | 8A070218   | 2       |
| apomix   | Sugar syrup DAB | 8A230117   | 2       |
| apomix   | Sugar syrup DAB | 93A111213  | 2       |
| apomix   | Sugar syrup DAB | 93A231214  | 2       |

continued on the next page

continued from previous page

| Supplier         | Substance                       | Batch                    | Spectra |
|------------------|---------------------------------|--------------------------|---------|
| apomix           | Sugar syrup DAB                 | 93A271212                | 1       |
| apomix           | Sugar syrup DAB                 | 94A281212                | 1       |
| apomix           | Sugar syrup DAB                 | 95A111213                | 1       |
| apomix           | Sugar syrup DAB                 | 96A161213                | 1       |
| apomix           | Sugar syrup DAB                 | 99A201213                | 1       |
| apomix           | Sugar syrup DAB                 | 9A030214                 | 2       |
| apomix           | Sugar syrup DAB                 | 9A250117                 | 1       |
| apomix           | Sugar syrup DAB                 | 9A280116                 | 2       |
| apomix           | Sugar syrup DAB                 | 9A280120                 | 1       |
| apomix           | Sugar syrup DAB                 | 9A290113                 | 1       |
| apomix           | Ipecacuanha syrup (NRF 19.1)    | 01A090218                | 1       |
| apomix           | Sugar syrup DAB                 | o9A030214                | 1       |
| Apommix-Sanacorp | Sugar syrup DAB                 | 51A090713-3399310141     | 1       |
| Bionorica Ethics | Raspberry syrup (conserved)     | 1908010-01CH30055811/001 | 1       |
| Bombastus        | Sugar syrup DAB                 | 30A190416                | 2       |
| Bombastus        | Sugar syrup DAB                 | 82A151216                | 1       |
| Caelo            | Marshmallow syrup (conserved)   | 1(19010003)              | 1       |
| Caelo            | Raspberry syrup (conserved)     | 1081201                  | 1       |
| Caelo            | Cherry syrup (conserved)        | 109212258                | 1       |
| Caelo            | Raspberry syrup (conserved)     | 11021405                 | 1       |
| Caelo            | Raspberry syrup (conserved)     | 11031705                 | 1       |
| Caelo            | Raspberry syrup (conserved)     | 1105022-01               | 1       |
| Caelo            | Cherry syrup (conserved)        | 11168902                 | 1       |
| Caelo            | Raspberry syrup (conserved)     | 11169003                 | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 11255613                 | 1       |
| Caelo            | Raspberry syrup (conserved)     | 11291404                 | 1       |
| Caelo            | Marshmallow syrup (conserved)   | 1155101                  | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 12/18-N09                | 1       |
| Caelo            | Raspberry syrup (conserved)     | 12038501                 | 1       |
| Caelo            | Raspberry syrup (conserved)     | 12038502                 | 2       |
| Caelo            | Sorbitol, liquid (non crista... | 1207012-01               | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 1207012-02               | 2       |
| Caelo            | Raspberry syrup (conserved)     | 1210004-01               | 1       |
| Caelo            | Raspberry syrup (conserved)     | 12121203                 | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 12124903                 | 2       |
| Caelo            | Sorbitol, liquid (non crista... | 12124906                 | 2       |
| Caelo            | Sorbitol, liquid (non crista... | 12124908                 | 2       |
| Caelo            | Sorbitol, liquid (non crista... | 12124912                 | 4       |
| Caelo            | Sorbitol, liquid (non crista... | 12124914                 | 5       |
| Caelo            | Raspberry syrup (conserved)     | 12161705                 | 4       |
| Caelo            | Raspberry syrup (conserved)     | 12283101                 | 2       |
| Caelo            | Raspberry syrup (conserved)     | 12283103                 | 2       |
| Caelo            | Marshmallow syrup (conserved)   | 12303101                 | 1       |
| Caelo            | Marshmallow syrup (conserved)   | 12303106                 | 2       |
| Caelo            | Sugar syrup DAB                 | 123456                   | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 123456789                | 1       |
| Caelo            | Ribwort plantain syrup (cons... | 12347501                 | 1       |
| Caelo            | Ribwort plantain syrup (cons... | 12347506                 | 2       |
| Caelo            | Cherry syrup (conserved)        | 12367501                 | 2       |
| Caelo            | Raspberry syrup (conserved)     | 12367602                 | 7       |
| Caelo            | Raspberry syrup (conserved)     | 1302026-01               | 3       |
| Caelo            | Raspberry syrup (conserved)     | 13051501                 | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 13060203                 | 5       |
| Caelo            | Sorbitol, liquid (non crista... | 13060204                 | 5       |
| Caelo            | Sorbitol, liquid (non crista... | 13060206                 | 2       |
| Caelo            | Sorbitol, liquid (non crista... | 13060211                 | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 1309026-01               | 1       |
| Caelo            | Sorbitol, liquid (non crista... | 13102003                 | 1       |
| Caelo            | Raspberry syrup (conserved)     | 13122001                 | 10      |
| Caelo            | Raspberry syrup (conserved)     | 13122002                 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Raspberry syrup (conserved)     | 13122003   | 2       |
| Caelo    | Ribwort plantain syrup (cons... | 13152304   | 1       |
| Caelo    | Ribwort plantain syrup (cons... | 13152305   | 4       |
| Caelo    | Marshmallow syrup (conserved)   | 13152307   | 2       |
| Caelo    | Ribwort plantain syrup (cons... | 13152308   | 3       |
| Caelo    | Fennel honey (conserved)        | 13152605   | 1       |
| Caelo    | Fennel honey (conserved)        | 13152606   | 1       |
| Caelo    | Fennel honey (conserved)        | 13152608   | 1       |
| Caelo    | Cherry syrup (conserved)        | 13166201   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 13194301   | 6       |
| Caelo    | Raspberry syrup (conserved)     | 13194302   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 13212908   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 13212909   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 13212910   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 13233801   | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 13233803   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 13233807   | 4       |
| Caelo    | Sorbitol, liquid (non crista... | 13233808   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 13233810   | 6       |
| Caelo    | Cherry syrup (conserved)        | 13278301   | 2       |
| Caelo    | Raspberry syrup (conserved)     | 13338001   | 10      |
| Caelo    | Raspberry syrup (conserved)     | 13393601   | 3       |
| Caelo    | Raspberry syrup (conserved)     | 13393602   | 4       |
| Caelo    | Marshmallow syrup (conserved)   | 13410904   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 13410908   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 13410909   | 1       |
| Caelo    | Sugar syrup DAB                 | 13A1502216 | 1       |
| Caelo    | Ipecacuanha syrup (NRF 19.1)    | 13G23-M02  | 1       |
| Caelo    | Sugar syrup DAB                 | 14024001   | 1       |
| Caelo    | Cherry syrup (conserved)        | 14034502   | 2       |
| Caelo    | Cherry syrup (conserved)        | 14034503   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 14034702   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 14034706   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 140903901  | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 14102602   | 2       |
| Caelo    | Raspberry syrup (conserved)     | 14114302   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14114303   | 3       |
| Caelo    | Raspberry syrup (conserved)     | 14114304   | 7       |
| Caelo    | Raspberry syrup (conserved)     | 14114305   | 3       |
| Caelo    | Raspberry syrup (conserved)     | 14114306   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 1412031-01 | 1       |
| Caelo    | Ribwort plantain syrup (cons... | 14125702   | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 14169401   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 14169403   | 4       |
| Caelo    | Sorbitol, liquid (non crista... | 14169404   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 14169409   | 2       |
| Caelo    | Sugar syrup DAB                 | 14189101   | 1       |
| Caelo    | Sugar syrup DAB                 | 14189102   | 2       |
| Caelo    | Raspberry syrup (conserved)     | 14243401   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14243403   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14243405   | 4       |
| Caelo    | Sugar syrup DAB                 | 14246001   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 14298101   | 7       |
| Caelo    | Sorbitol, liquid (non crista... | 14298102   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 14298105   | 1       |
| Caelo    | Sugar syrup DAB                 | 14299801   | 4       |
| Caelo    | Sugar syrup DAB                 | 14337004   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 14364803   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 14364804   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 14364805   | 1       |

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continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Cherry syrup (conserved)        | 14371001   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14371104   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14371105   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14371106   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14371107   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 14371108   | 1       |
| Caelo    | Sugar syrup DAB                 | 15049102   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 15051312   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 15071302   | 1       |
| Caelo    | Ribwort plantain syrup (cons... | 15076003   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 15076005   | 3       |
| Caelo    | Sugar syrup DAB                 | 15092001   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 151102401  | 1       |
| Caelo    | Sugar syrup DAB                 | 15117002   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 15149201   | 3       |
| Caelo    | Raspberry syrup (conserved)     | 15149202   | 3       |
| Caelo    | Raspberry syrup (conserved)     | 15149205   | 10      |
| Caelo    | Cherry syrup (conserved)        | 15149402   | 3       |
| Caelo    | Sugar syrup DAB                 | 15150602   | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 15159301   | 6       |
| Caelo    | Sorbitol, liquid (non crista... | 15159302   | 6       |
| Caelo    | Sorbitol, liquid (non crista... | 15175301   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 15175306   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 15175307   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 15175309   | 5       |
| Caelo    | Sorbitol, liquid (non crista... | 15175310   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 15175311   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 1519302    | 1       |
| Caelo    | Sugar syrup DAB                 | 15315201   | 2       |
| Caelo    | Raspberry syrup (conserved)     | 15320801   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 15320803   | 8       |
| Caelo    | Raspberry syrup (conserved)     | 15320804   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 15320813   | 1       |
| Caelo    | Sugar syrup DAB                 | 15334802   | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 15418604   | 2       |
| Caelo    | Marshmallow syrup (conserved)   | 15418605   | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 15418606   | 1       |
| Caelo    | Sugar syrup DAB                 | 15427102   | 6       |
| Caelo    | Sorbitol, liquid (non crista... | 15437900   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 15437906   | 6       |
| Caelo    | Sorbitol, liquid (non crista... | 15437907   | 2       |
| Caelo    | Marshmallow syrup (conserved)   | 1548604    | 1       |
| Caelo    | Raspberry syrup (conserved)     | 16003601   | 14      |
| Caelo    | Ribwort plantain syrup (cons... | 16029002   | 2       |
| Caelo    | Ribwort plantain syrup (cons... | 16029005   | 1       |
| Caelo    | Ribwort plantain syrup (cons... | 16029007   | 1       |
| Caelo    | Ribwort plantain syrup (cons... | 16029009   | 8       |
| Caelo    | Cherry syrup (conserved)        | 16029301   | 7       |
| Caelo    | Fennel honey (conserved)        | 16039406   | 2       |
| Caelo    | Marshmallow syrup (conserved)   | 16077502   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 16078803   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 16078806   | 7       |
| Caelo    | Sorbitol, liquid (non crista... | 16078807   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 16078808   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 16078810   | 8       |
| Caelo    | Sorbitol, liquid (non crista... | 16078811   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 16078814   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 1608003-01 | 2       |
| Caelo    | Sugar syrup DAB                 | 16091501   | 6       |
| Caelo    | Raspberry syrup (conserved)     | 161002601  | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Marshmallow syrup (conserved)   | 16123301   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 16123305   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 1615101    | 1       |
| Caelo    | Raspberry syrup (conserved)     | 16151601   | 11      |
| Caelo    | Sugar syrup DAB                 | 161879     | 1       |
| Caelo    | Sugar syrup DAB                 | 16187902   | 6       |
| Caelo    | Cherry syrup (conserved)        | 16195502   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 16213606   | 2       |
| Caelo    | Marshmallow syrup (conserved)   | 16213607   | 1       |
| Caelo    | Sugar syrup DAB                 | 162140     | 1       |
| Caelo    | Sugar syrup DAB                 | 16214002   | 5       |
| Caelo    | Sugar syrup DAB                 | 16214101   | 7       |
| Caelo    | Ribwort plantain syrup (cons... | 16335301   | 1       |
| Caelo    | Cherry syrup (conserved)        | 1634503    | 1       |
| Caelo    | Cherry syrup (conserved)        | 16345301   | 3       |
| Caelo    | Raspberry syrup (conserved)     | 16345401   | 5       |
| Caelo    | Raspberry syrup (conserved)     | 16345404   | 5       |
| Caelo    | Sugar syrup DAB                 | 16345602   | 1       |
| Caelo    | Sugar syrup DAB                 | 16345701   | 5       |
| Caelo    | Sorbitol, liquid (non crista... | 1702011-01 | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 1702011-02 | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 17027005   | 12      |
| Caelo    | Sorbitol, liquid (non crista... | 17027006   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 17027010   | 11      |
| Caelo    | Sorbitol, liquid (non crista... | 17027011   | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 17027014   | 2       |
| Caelo    | Sugar syrup DAB                 | 17028002   | 9       |
| Caelo    | Raspberry syrup (conserved)     | 17101202   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 17111805   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 1712004-01 | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 17128301   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 17128309   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 17128402   | 3       |
| Caelo    | Raspberry syrup (conserved)     | 17128404   | 13      |
| Caelo    | Raspberry syrup (conserved)     | 17128405   | 3       |
| Caelo    | Sugar syrup DAB                 | 17129001   | 5       |
| Caelo    | Sugar syrup DAB                 | 17129101   | 2       |
| Caelo    | Sugar syrup DAB                 | 17129301   | 10      |
| Caelo    | Sugar syrup DAB                 | 17200501   | 2       |
| Caelo    | Marshmallow syrup (conserved)   | 17249902   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 17249903   | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 17249904   | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 17249907   | 4       |
| Caelo    | Sugar syrup DAB                 | 17260101   | 4       |
| Caelo    | Sugar syrup DAB                 | 17275702   | 6       |
| Caelo    | Sorbitol, liquid (non crista... | 1730401    | 1       |
| Caelo    | Sugar syrup DAB                 | 17304301   | 2       |
| Caelo    | Sugar syrup DAB                 | 17304302   | 4       |
| Caelo    | Sorbitol, liquid (non crista... | 17305401   | 23      |
| Caelo    | Sorbitol, liquid (non crista... | 17305403   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 17305406   | 7       |
| Caelo    | Sorbitol, liquid (non crista... | 17305409   | 12      |
| Caelo    | Sorbitol, liquid (non crista... | 17305412   | 11      |
| Caelo    | Sorbitol, liquid (non crista... | 17305413   | 2       |
| Caelo    | Cherry syrup (conserved)        | 17351101   | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 17357502   | 2       |
| Caelo    | Marshmallow syrup (conserved)   | 17357505   | 4       |
| Caelo    | Sugar syrup DAB                 | 17A240417  | 1       |
| Caelo    | Raspberry syrup (conserved)     | 1803009-01 | 2       |
| Caelo    | Sugar syrup DAB                 | 18032801   | 5       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Sugar syrup DAB                 | 18033002     | 7       |
| Caelo    | Sugar syrup DAB                 | 18033401     | 10      |
| Caelo    | Sorbitol, liquid (non crista... | 1804019-01   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 1804019-02   | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 18062004     | 1       |
| Caelo    | Ribwort plantain syrup (cons... | 18078901     | 2       |
| Caelo    | Cherry syrup (conserved)        | 18080202     | 3       |
| Caelo    | Cherry syrup (conserved)        | 18080205     | 2       |
| Caelo    | Sugar syrup DAB                 | 18095601     | 10      |
| Caelo    | Sugar syrup DAB                 | 18095701     | 2       |
| Caelo    | Raspberry syrup (conserved)     | 180967003    | 1       |
| Caelo    | Raspberry syrup (conserved)     | 18096701     | 21      |
| Caelo    | Raspberry syrup (conserved)     | 18096703     | 4       |
| Caelo    | Raspberry syrup (conserved)     | 18111308     | 1       |
| Caelo    | Raspberry syrup (conserved)     | 18121706     | 1       |
| Caelo    | Sugar syrup DAB                 | 18130001     | 9       |
| Caelo    | Marshmallow syrup (conserved)   | 18155101     | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 18155104     | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 18155105     | 5       |
| Caelo    | Marshmallow syrup (conserved)   | 18155106     | 2       |
| Caelo    | Sugar syrup DAB                 | 18175701     | 4       |
| Caelo    | Sugar syrup DAB                 | 18189801     | 3       |
| Caelo    | Raspberry syrup (conserved)     | 18190901     | 14      |
| Caelo    | Raspberry syrup (conserved)     | 18190903     | 11      |
| Caelo    | Raspberry syrup (conserved)     | 18190905     | 5       |
| Caelo    | Sugar syrup DAB                 | 182278001    | 1       |
| Caelo    | Sugar syrup DAB                 | 18227801     | 3       |
| Caelo    | Sugar syrup DAB                 | 18247503     | 3       |
| Caelo    | Sugar syrup DAB                 | 18247601     | 1       |
| Caelo    | Sugar syrup DAB                 | 18247602     | 5       |
| Caelo    | Ribwort plantain syrup (cons... | 18289801     | 11      |
| Caelo    | Ribwort plantain syrup (cons... | 18289803     | 6       |
| Caelo    | Sugar syrup DAB                 | 18296401     | 6       |
| Caelo    | Sugar syrup DAB                 | 18296402     | 1       |
| Caelo    | Sugar syrup DAB                 | 1829642      | 1       |
| Caelo    | Sugar syrup DAB                 | 18296501     | 5       |
| Caelo    | Sugar syrup DAB                 | 18296502     | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 18322001     | 23      |
| Caelo    | Sorbitol, liquid (non crista... | 18322002     | 5       |
| Caelo    | Sorbitol, liquid (non crista... | 18322005     | 11      |
| Caelo    | Sorbitol, liquid (non crista... | 18322006     | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 1832202      | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 19(17027010) | 1       |
| Caelo    | Sugar syrup DAB                 | 19000457001  | 11      |
| Caelo    | Sugar syrup DAB                 | 19000475001  | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 19000641002  | 4       |
| Caelo    | Sugar syrup DAB                 | 19000841001  | 9       |
| Caelo    | Sugar syrup DAB                 | 19000842001  | 2       |
| Caelo    | Raspberry syrup (conserved)     | 19009801     | 16      |
| Caelo    | Raspberry syrup (conserved)     | 19009802     | 1       |
| Caelo    | Raspberry syrup (conserved)     | 19009803     | 6       |
| Caelo    | Marshmallow syrup (conserved)   | 19010003     | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 19010005     | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 19010012     | 7       |
| Caelo    | Sugar syrup DAB                 | 19010402     | 5       |
| Caelo    | Sugar syrup DAB                 | 19010602     | 5       |
| Caelo    | Marshmallow syrup (conserved)   | 190110005    | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 190110010    | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 19022301     | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 19022302     | 10      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Sugar syrup DAB                 | 19050701     | 5       |
| Caelo    | Fennel honey (conserved)        | 190514001    | 1       |
| Caelo    | Fennel honey (conserved)        | 19051402     | 5       |
| Caelo    | Fennel honey (conserved)        | 19051403     | 1       |
| Caelo    | Sugar syrup DAB                 | 19085001     | 7       |
| Caelo    | Sugar syrup DAB                 | 19085101     | 5       |
| Caelo    | Sugar syrup DAB                 | 19085102     | 2       |
| Caelo    | Sugar syrup DAB                 | 191132001    | 1       |
| Caelo    | Sugar syrup DAB                 | 19131801     | 3       |
| Caelo    | Sugar syrup DAB                 | 19131901     | 3       |
| Caelo    | Sugar syrup DAB                 | 19132001     | 11      |
| Caelo    | Ribwort plantain syrup (cons... | 191483002    | 4       |
| Caelo    | Ribwort plantain syrup (cons... | 19148301     | 5       |
| Caelo    | Raspberry syrup (conserved)     | 19153301     | 15      |
| Caelo    | Sorbitol, liquid (non crista... | 19163403     | 8       |
| Caelo    | Sorbitol, liquid (non crista... | 19163404     | 3       |
| Caelo    | Cherry syrup (conserved)        | 191806002    | 1       |
| Caelo    | Cherry syrup (conserved)        | 19180601     | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 19218101     | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 19218102     | 3       |
| Caelo    | Sugar syrup DAB                 | 19225101     | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 19234201     | 16      |
| Caelo    | Sorbitol, liquid (non crista... | 19234202     | 9       |
| Caelo    | Sugar syrup DAB                 | 19234701     | 3       |
| Caelo    | Sugar syrup DAB                 | 19234702     | 2       |
| Caelo    | Sugar syrup DAB                 | 19234801     | 2       |
| Caelo    | Raspberry syrup (conserved)     | 192390004    | 1       |
| Caelo    | Raspberry syrup (conserved)     | 192399003    | 19      |
| Caelo    | Raspberry syrup (conserved)     | 192399004    | 14      |
| Caelo    | Sorbitol, liquid (non crista... | 19322001     | 1       |
| Caelo    | Raspberry syrup (conserved)     | 1953301      | 1       |
| Caelo    | Sugar syrup DAB                 | 1A140115     | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 20(17305409) | 1       |
| Caelo    | Cherry syrup (conserved)        | 20000134003  | 1       |
| Caelo    | Raspberry syrup (conserved)     | 20000558001  | 1       |
| Caelo    | Raspberry syrup (conserved)     | 20000558002  | 11      |
| Caelo    | Sorbitol, liquid (non crista... | 20000571002  | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 20000571003  | 11      |
| Caelo    | Sorbitol, liquid (non crista... | 20000571005  | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 20000571007  | 14      |
| Caelo    | Sugar syrup DAB                 | 20000600001  | 2       |
| Caelo    | Sugar syrup DAB                 | 20000601001  | 1       |
| Caelo    | Ribwort plantain syrup (cons... | 20001180002  | 2       |
| Caelo    | Ribwort plantain syrup (cons... | 20001180005  | 1       |
| Caelo    | Sugar syrup DAB                 | 20001505001  | 2       |
| Caelo    | Sugar syrup DAB                 | 20001506001  | 4       |
| Caelo    | Sugar syrup DAB                 | 20001848001  | 2       |
| Caelo    | Sugar syrup DAB                 | 20001849001  | 3       |
| Caelo    | Sugar syrup DAB                 | 20002430002  | 1       |
| Caelo    | Raspberry syrup (conserved)     | 2000264003   | 1       |
| Caelo    | Raspberry syrup (conserved)     | 20002644002  | 1       |
| Caelo    | Raspberry syrup (conserved)     | 20002644003  | 6       |
| Caelo    | Sugar syrup DAB                 | 20003010001  | 1       |
| Caelo    | Sugar syrup DAB                 | 20003012001  | 2       |
| Caelo    | Ribwort plantain syrup (cons... | 20003416001  | 1       |
| Caelo    | Sugar syrup DAB                 | 20003766001  | 1       |
| Caelo    | Sugar syrup DAB                 | 20003767001  | 3       |
| Caelo    | Sugar syrup DAB                 | 2001505001   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 2003063-02   | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 2071305      | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Sugar syrup DAB                 | 20A120318           | 1       |
| Caelo    | Sugar syrup DAB                 | 20A270215           | 2       |
| Caelo    | Sugar syrup DAB                 | 21000066001         | 2       |
| Caelo    | Sugar syrup DAB                 | 21000067001         | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 21000097003         | 15      |
| Caelo    | Sorbitol, liquid (non crista... | 21000097004         | 2       |
| Caelo    | Raspberry syrup (conserved)     | 21000519002         | 9       |
| Caelo    | Sugar syrup DAB                 | 21000931001         | 6       |
| Caelo    | Sorbitol, liquid (non crista... | 21000976005         | 3       |
| Caelo    | Sorbitol, liquid (non crista... | 21000976008         | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 21000976012         | 4       |
| Caelo    | Marshmallow syrup (conserved)   | 21001213003         | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 21001213004         | 3       |
| Caelo    | Marshmallow syrup (conserved)   | 21001213008         | 1       |
| Caelo    | Sugar syrup DAB                 | 21001532001         | 1       |
| Caelo    | Sugar syrup DAB                 | 21002020001         | 2       |
| Caelo    | Sugar syrup DAB                 | 21002898002         | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 21003914005         | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 21041803            | 1       |
| Caelo    | Sugar syrup DAB                 | 21A010313           | 1       |
| Caelo    | Sugar syrup DAB                 | 21A170316           | 1       |
| Caelo    | Marshmallow syrup (conserved)   | 22000123002         | 1       |
| Caelo    | Sugar syrup DAB                 | 22000464001         | 1       |
| Caelo    | Sugar syrup DAB                 | 22000465001         | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 22011306            | 1       |
| Caelo    | Sugar syrup DAB                 | 22A130315           | 2       |
| Caelo    | Sugar syrup DAB                 | 23A180316           | 1       |
| Caelo    | Raspberry syrup (conserved)     | 24061707            | 1       |
| Caelo    | Raspberry syrup (conserved)     | 24071802            | 1       |
| Caelo    | Raspberry syrup (conserved)     | 24081201            | 1       |
| Caelo    | Raspberry syrup (conserved)     | 24091302            | 1       |
| Caelo    | Raspberry syrup (conserved)     | 249(CH30045626/001) | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 25021706            | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 26071209            | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 28081301            | 1       |
| Caelo    | Sugar syrup DAB                 | 28A110418           | 1       |
| Caelo    | Sugar syrup DAB                 | 29A130617           | 1       |
| Caelo    | Raspberry syrup (conserved)     | 2x13122001          | 1       |
| Caelo    | Raspberry syrup (conserved)     | 3011301             | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 3031404             | 1       |
| Caelo    | Sugar syrup DAB                 | 30A190416           | 1       |
| Caelo    | Raspberry syrup (conserved)     | 3121404             | 1       |
| Caelo    | Sorbitol, liquid (non crista... | 3274                | 2       |
| Caelo    | Sorbitol, liquid (non crista... | 330401S70           | 1       |
| Caelo    | Sugar syrup DAB                 | 33A190617           | 1       |
| Caelo    | Sugar syrup DAB                 | 35A200317           | 1       |
| Caelo    | Sugar syrup DAB                 | 35A300516           | 2       |
| Caelo    | Sugar syrup DAB                 | 38A190514           | 1       |
| Caelo    | Raspberry syrup (conserved)     | 3961/V07/14         | 1       |
| Caelo    | Raspberry syrup (conserved)     | 4071203             | 1       |
| Caelo    | Raspberry syrup (conserved)     | 4101405             | 1       |
| Caelo    | Sugar syrup DAB                 | 41A040716           | 1       |
| Caelo    | Sugar syrup DAB                 | 42A050618           | 1       |
| Caelo    | Sugar syrup DAB                 | 42A120615           | 1       |
| Caelo    | Sugar syrup DAB                 | 44A050613           | 1       |
| Caelo    | Sugar syrup DAB                 | 48A220716           | 1       |
| Caelo    | Raspberry syrup (conserved)     | 5021510             | 1       |
| Caelo    | Sugar syrup DAB                 | 51A070814           | 1       |
| Caelo    | Sugar syrup DAB                 | 51A170718           | 1       |
| Caelo    | Sugar syrup DAB                 | 53A120816           | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch          | Spectra |
|----------------------------|---------------------------------|----------------|---------|
| Caelo                      | Sugar syrup DAB                 | 55A011020      | 2       |
| Caelo                      | Sugar syrup DAB                 | 58A270712      | 1       |
| Caelo                      | Sugar syrup DAB                 | 59a290818      | 1       |
| Caelo                      | Sugar syrup DAB                 | 59A290818      | 2       |
| Caelo                      | Sugar syrup DAB                 | 5A240118       | 1       |
| Caelo                      | Sugar syrup DAB                 | 66A101018      | 1       |
| Caelo                      | Sugar syrup DAB                 | 6A050218       | 1       |
| Caelo                      | Raspberry syrup (conserved)     | 7051802        | 1       |
| Caelo                      | Raspberry syrup (conserved)     | 7091702        | 1       |
| Caelo                      | Sugar syrup DAB                 | 76A171013      | 1       |
| Caelo                      | Sugar syrup DAB                 | 77A061114      | 1       |
| Caelo                      | Sugar syrup DAB                 | 79A241116      | 1       |
| Caelo                      | Sugar syrup DAB                 | 79A281013      | 2       |
| Caelo                      | Raspberry syrup (conserved)     | 8021301        | 1       |
| Caelo                      | Sorbitol, liquid (non crista... | 8051306        | 1       |
| Caelo                      | Sugar syrup DAB                 | 81A-251114     | 1       |
| Caelo                      | Sorbitol, liquid (non crista... | 8322001        | 1       |
| Caelo                      | Sugar syrup DAB                 | 8A010219       | 1       |
| Caelo                      | Raspberry syrup (conserved)     | 9153301        | 1       |
| Caelo                      | Sugar syrup DAB                 | 93A231214      | 1       |
| Caelo                      | Sugar syrup DAB                 | 9A280116       | 3       |
| Caelo                      | Raspberry syrup (conserved)     | CH-B1810021-01 | 1       |
| Caelo                      | Sorbitol, liquid (non crista... | E77P           | 1       |
| Caecolo/Sanacorp           | Sugar syrup DAB                 | 5A240118       | 1       |
| Caesar & Lorenz GmbH       | Sorbitol, liquid (non crista... | 17027010       | 1       |
| Caesar & Loretz GmbH / ... | Sugar syrup DAB                 | 17028002       | 2       |
| Caesar & Loretz GmbH / ... | Sugar syrup DAB                 | 20001849001    | 2       |
| Caesar & Loretz GmbH / ... | Sorbitol, liquid (non crista... | 18322001       | 1       |
| Caesar & Loretz GmbH, P... | Raspberry syrup (conserved)     | 20002644003    | 1       |
| Caesar & Loretz GmbH/ G... | Raspberry syrup (conserved)     | 20002644003    | 1       |
| Caesar & Loretz GmbH/ P... | Raspberry syrup (conserved)     | 19009803       | 1       |
| Caesar & Loretz GmbH/AHD   | Sorbitol, liquid (non crista... | 21000097003    | 1       |
| Caesar & Loretz GmbH/All   | Raspberry syrup (conserved)     | 20000558002    | 1       |
| Caesar & Loretz GmbH/Al... | Raspberry syrup (conserved)     | 19153301       | 1       |
| Caesar & Loretz GmbH/Fi... | Sorbitol, liquid (non crista... | 19234201       | 1       |
| Caesar & Loretz GmbH/Fi... | Sorbitol, liquid (non crista... | 20000571007    | 1       |
| Caesar & Loretz GmbH/Gehe  | Raspberry syrup (conserved)     | 192399003      | 2       |
| Caesar & Loretz GmbH/Gehe  | Sugar syrup DAB                 | 21000931001    | 1       |
| Caesar & Loretz GmbH/Je... | Sorbitol, liquid (non crista... | 21000976005    | 1       |
| Caesar & Loretz GmbH/No... | Sorbitol, liquid (non crista... | 19022302       | 1       |
| Caesar & Loretz GmbH/No... | Sugar syrup DAB                 | 19131901       | 1       |
| Caesar & Loretz GmbH/No... | Raspberry syrup (conserved)     | 19153301       | 1       |
| Caesar & Loretz GmbH/No... | Sugar syrup DAB                 | 19234702       | 1       |
| Caesar & Loretz GmbH/No... | Sugar syrup DAB                 | 21001532001    | 1       |
| Caesar & Loretz GmbH/Sa... | Raspberry syrup (conserved)     | 19009801       | 2       |
| Caesar & Loretz GmbH/Sa... | Sorbitol, liquid (non crista... | 19163403       | 1       |
| Caesar & Loretz GmbH/Sa... | Sugar syrup DAB                 | 19234702       | 1       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 14298101       | 1       |
| Caesar & Loretz GmbH       | Cherry syrup (conserved)        | 18080202       | 1       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 18096701       | 4       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 18190901       | 3       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 18190903       | 3       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 18190905       | 4       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 18296402       | 1       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 18322001       | 1       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 18322005       | 2       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19000842001    | 3       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 19009801       | 7       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 19009803       | 3       |
| Caesar & Loretz GmbH       | Marshmallow syrup (conserved)   | 19010003       | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19010402    | 3       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 19022302    | 3       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19050701    | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19085001    | 4       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19085102    | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19132001    | 1       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 19153301    | 10      |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 19163403    | 1       |
| Caesar & Loretz GmbH       | Cherry syrup (conserved)        | 191806002   | 2       |
| Caesar & Loretz GmbH       | Cherry syrup (conserved)        | 19180601    | 3       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19225101    | 5       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 19234201    | 5       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19234701    | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19234702    | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 19234801    | 2       |
| Caesar & Loretz GmbH       | Cherry syrup (conserved)        | 20000134003 | 1       |
| Caesar & Loretz GmbH       | Cherry syrup (conserved)        | 20000134006 | 1       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 20000558002 | 7       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 20000571002 | 2       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 20000571003 | 7       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 20000571005 | 3       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 20000571007 | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 20000600001 | 2       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 20001849001 | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 20003010001 | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 20003012001 | 2       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 20003767001 | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 21000067001 | 2       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 21000097003 | 1       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 21000097004 | 1       |
| Caesar & Loretz GmbH       | Raspberry syrup (conserved)     | 21000519002 | 2       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 21000931001 | 1       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 21000976005 | 1       |
| Caesar & Loretz GmbH       | Sorbitol, liquid (non crista... | 21000976012 | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 21002664001 | 1       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 22000464001 | 2       |
| Caesar & Loretz GmbH       | Sugar syrup DAB                 | 86A051214   | 1       |
| Caesar & Loretz Hilden     | Sorbitol, liquid (non crista... | 18322001    | 1       |
| Caesar & Loretz Hilden     | Sorbitol, liquid (non crista... | 19234201    | 1       |
| Caesar & Loretz/ Caesar... | Raspberry syrup (conserved)     | 17128409    | 1       |
| Caesar & Loretz/ Caesar... | Raspberry syrup (conserved)     | 18080601    | 1       |
| Caesar & Loretz/ Noweda    | Raspberry syrup (conserved)     | 13122003    | 1       |
| Caesar & Loretz/ Noweda    | Raspberry syrup (conserved)     | 18096702    | 1       |
| Caesar & Loretz/Noweda     | Raspberry syrup (conserved)     | 16151603    | 1       |
| Caesar & Loretz/Noweda     | Sugar syrup DAB                 | 21000931001 | 1       |
| Caesar & Loretz            | Raspberry syrup (conserved)     | 15149203    | 1       |
| Caesar & Loretz            | Raspberry syrup (conserved)     | 16151602    | 2       |
| Caesar & Loretz            | Raspberry syrup (conserved)     | 16345403    | 3       |
| Caesar u Loretz            | Sorbitol, liquid (non crista... | 13060206    | 1       |
| Caesar&Loretz              | Raspberry syrup (conserved)     | 15320801    | 1       |
| Caesar&Loretz              | Raspberry syrup (conserved)     | 15320804    | 1       |
| Caesar&Loretz              | Raspberry syrup (conserved)     | 16003602    | 1       |
| Caleo                      | Sugar syrup DAB                 | 17260101    | 1       |
| Cealo/ Noweda              | Raspberry syrup (conserved)     | 1712004-01  | 1       |
| Cealo                      | Raspberry syrup (conserved)     | 15149202    | 3       |
| Cordes/AHD                 | Sorbitol, liquid (non crista... | 19234201    | 1       |
| Dr. Wolff                  | Raspberry syrup (conserved)     | 1310016-01  | 1       |
| Eurho / Sanacorp           | Raspberry syrup (conserved)     | 1110025-01  | 2       |
| Eurho / Sanacorp           | Raspberry syrup (conserved)     | 1302026-01  | 2       |
| EuRho / Gehe               | Sorbitol, liquid (non crista... | 1309026-02  | 1       |

continued on the next page



continued from previous page

| Supplier          | Substance                       | Batch                | Spectra |
|-------------------|---------------------------------|----------------------|---------|
| EuRho 12.2.14     | Sorbitol, liquid (non crista... | 1309026-01           | 1       |
| EuRho Anzag       | Raspberry syrup (conserved)     | 1210004-01           | 1       |
| EuRho/ Anzag      | Raspberry syrup (conserved)     | 253(1901049-01)      | 1       |
| EuRho/Phoenix     | Sorbitol, liquid (non crista... | 1804019-02           | 1       |
| Eurho/Phönix      | Raspberry syrup (conserved)     | 1409039-01           | 1       |
| EuRho/Phönix      | Sorbitol, liquid (non crista... | 1412031-02           | 1       |
| EuRho/Sanacorp    | Raspberry syrup (conserved)     | 1302026-01           | 1       |
| EuRho             | Raspberry syrup (conserved)     | 1205001-01           | 3       |
| EuRho             | Sorbitol, liquid (non crista... | 1207012-02           | 1       |
| EuRho             | Sorbitol, liquid (non crista... | 1309026-02           | 1       |
| EuRho             | Raspberry syrup (conserved)     | 1603007-01           | 1       |
| EuRho             | Sorbitol, liquid (non crista... | 1604020-02           | 1       |
| EuRho             | Sorbitol, liquid (non crista... | 2003063-01           | 1       |
| EuRho             | Raspberry syrup (conserved)     | 2010023-01           | 1       |
| Euro OCT / Noveda | Sorbitol, liquid (non crista... | 2003010-01           | 1       |
| Euro OTC          | Raspberry syrup (conserved)     |                      | 1       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1102001-02           | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 11081402             | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1205001-01           | 4       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1207012-01           | 4       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1207012-02           | 3       |
| Euro OTC          | Raspberry syrup (conserved)     | 121000401            | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1210004-01           | 14      |
| Euro OTC          | Raspberry syrup (conserved)     | 1302023-01           | 2       |
| Euro OTC          | Raspberry syrup (conserved)     | 1302026-01           | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1302026-01-335031904 | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1306006-01           | 2       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1309026-01           | 4       |
| Euro OTC          | Sorbitol, liquid (non crista... | 130902602            | 1       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1309026-02           | 5       |
| Euro OTC          | Raspberry syrup (conserved)     | 1310016-01           | 9       |
| Euro OTC          | Raspberry syrup (conserved)     | 13802025-01          | 1       |
| Euro OTC          | Sugar syrup DAB                 | 13A150216            | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 140300201            | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1406031-01           | 5       |
| Euro OTC          | Sorbitol, liquid (non crista... | 141203101            | 1       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1412031-01           | 10      |
| Euro OTC          | Sorbitol, liquid (non crista... | 1412031-02           | 5       |
| Euro OTC          | Raspberry syrup (conserved)     | 1501011-01           | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1504011-01           | 3       |
| Euro OTC          | Raspberry syrup (conserved)     | 1508015-01           | 4       |
| Euro OTC          | Raspberry syrup (conserved)     | 1511023-01           | 3       |
| Euro OTC          | Raspberry syrup (conserved)     | 1511024-01           | 6       |
| Euro OTC          | Sorbitol, liquid (non crista... | 15437906             | 1       |
| Euro OTC          | Sorbitol, liquid (non crista... | 15437907             | 2       |
| Euro OTC          | Raspberry syrup (conserved)     | 1603007-01           | 11      |
| Euro OTC          | Sorbitol, liquid (non crista... | 1604020-01           | 9       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1604020-02           | 2       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1604020-03           | 3       |
| Euro OTC          | Raspberry syrup (conserved)     | 160500801            | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1605008-01           | 10      |
| Euro OTC          | Raspberry syrup (conserved)     | 160508-01            | 1       |
| Euro OTC          | Raspberry syrup (conserved)     | 1608003-01           | 6       |
| Euro OTC          | Sugar syrup DAB                 | 1610008-01           | 2       |
| Euro OTC          | Raspberry syrup (conserved)     | 1610026-01           | 5       |
| Euro OTC          | Raspberry syrup (conserved)     | 170102201            | 3       |
| Euro OTC          | Raspberry syrup (conserved)     | 1701022-01           | 5       |
| Euro OTC          | Raspberry syrup (conserved)     | 1701022-02           | 1       |
| Euro OTC          | Sorbitol, liquid (non crista... | 1702011-01           | 5       |
| Euro OTC          | Sorbitol, liquid (non crista... | 170201102            | 1       |

continued on the next page

continued from previous page

| Supplier            | Substance                          | Batch           | Spectra |
|---------------------|------------------------------------|-----------------|---------|
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 1702011-02      | 10      |
| Euro OTC            | Raspberry syrup (conserved)        | 1705037-01      | 15      |
| Euro OTC            | Raspberry syrup (conserved)        | 1709003-01      | 9       |
| Euro OTC            | Raspberry syrup (conserved)        | 1709004-01      | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 171200401       | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 1712004-01      | 15      |
| Euro OTC            | Raspberry syrup (conserved)        | 180300901       | 2       |
| Euro OTC            | Raspberry syrup (conserved)        | 1803009-01      | 9       |
| Euro OTC            | Sugar syrup DAB                    | 18033401        | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 1804018-01      | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 180401901       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 1804019-01      | 18      |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 1804019-02      | 15      |
| Euro OTC            | Raspberry syrup (conserved)        | 180702601       | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 1807026-01      | 14      |
| Euro OTC            | Raspberry syrup (conserved)        | 1807026-1       | 2       |
| Euro OTC            | Raspberry syrup (conserved)        | 1810021-01      | 10      |
| Euro OTC            | Raspberry syrup (conserved)        | 181021-01       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 18322001        | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 190104901       | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 1901049-01      | 14      |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 19050-01        | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 190501001       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 1905010-01      | 19      |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 1905010-02      | 8       |
| Euro OTC            | Raspberry syrup (conserved)        | 190801001       | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 1908010-01      | 12      |
| Euro OTC            | Raspberry syrup (conserved)        | 191049-01       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 195010-02       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 20003063-02     | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 2003010-01      | 24      |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 2003062-01      | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 200306301       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 2003063-01      | 14      |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 200306302       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 2003063-02      | 8       |
| Euro OTC            | Raspberry syrup (conserved)        | 2003067         | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 2003067-01      | 10      |
| Euro OTC            | Raspberry syrup (conserved)        | 201002301       | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 2010023-01      | 8       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 203063-02       | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | 21041804        | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 2108008-01      | 3       |
| Euro OTC            | Raspberry syrup (conserved)        | 250(1807026-01) | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 251(1807026-01) | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 252(1310021-01) | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 300052900/001   | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 30039701/001    | 1       |
| Euro OTC            | Sugar syrup DAB                    | 80A061115       | 1       |
| Euro OTC            | Sugar syrup DAB                    | 86A271216       | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | 953/001         | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | CH30041714/001  | 1       |
| Euro OTC            | Raspberry syrup (conserved)        | CH30052900/001  | 1       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | E415T           | 2       |
| Euro OTC            | Sorbitol, liquid (non crista. ...) | E807Q           | 1       |
| Euro pharma /Phönix | Raspberry syrup (conserved)        | 1908010-01      | 1       |
| Euro pharma /Phönix | Raspberry syrup (conserved)        | 2003067-01      | 2       |
| Euro/Noweda         | Sorbitol, liquid (non crista. ...) | 170201102       | 1       |
| Euro/Sanacorp       | Sorbitol, liquid (non crista. ...) | 18419-01        | 1       |
| Fagron              | Ipecacuanha syrup (NRF 19.1)       | 11B10-M01       | 1       |

continued on the next page



continued from previous page

| Supplier               | Substance                       | Batch            | Spectra |
|------------------------|---------------------------------|------------------|---------|
| Fagron                 | Sorbitol, liquid (non crista... | 11G18-N14        | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 12E08-N09        | 1       |
| Fagron                 | Sugar syrup DAB                 | 13089R           | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 139026           | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 13E24-B01        | 2       |
| Fagron                 | Ipecacuanha syrup (NRF 19.1)    | 13G23-M02        | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 13J04-B01-289676 | 1       |
| Fagron                 | Ipecacuanha syrup (NRF 19.1)    | 14D17-M01        | 1       |
| Fagron                 | Raspberry syrup (conserved)     | 1501011-01       | 1       |
| Fagron                 | Ipecacuanha syrup (NRF 19.1)    | 15C11-M08        | 3       |
| Fagron                 | Sorbitol, liquid (non crista... | 16078810         | 1       |
| Fagron                 | Raspberry syrup (conserved)     | 16345404         | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 16G06-B08        | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 17D25-B09-345911 | 1       |
| Fagron                 | Raspberry syrup (conserved)     | 1908010-01       | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 2013M-02299      | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 20D06-F03        | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 21081406         | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 23021702         | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 26081708         | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 29081505         | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 3041801          | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 3396             | 1       |
| Fagron                 | Sugar syrup DAB                 | 38A250413        | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 3918M-02299      | 1       |
| Fagron                 | Ipecacuanha syrup (NRF 19.1)    | 3A170915         | 3       |
| Fagron                 | Sorbitol, liquid (non crista... | 4117I-02299      | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | 4216Q-02299      | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | F03-3706705      | 1       |
| Fagron                 | Sorbitol, liquid (non crista... | T05-0938903      | 1       |
| Fiebig/Europharm       | Raspberry syrup (conserved)     | 1610026-01       | 1       |
| Fiebig/Europharm       | Raspberry syrup (conserved)     | 1701022-01       | 10      |
| Fiebig                 | Sugar syrup DAB                 | 64A260916        | 5       |
| GEHE 07.02.2019        | Sugar syrup DAB                 | 18247502         | 1       |
| Gehe amax              | Sorbitol, liquid (non crista... | 1804019-02       | 1       |
| Gehe amax              | Sugar syrup DAB                 | 19000457001      | 1       |
| Gehe amax              | Sugar syrup DAB                 | 20001506001      | 1       |
| GEHE Kassel 07.02.2019 | Sugar syrup DAB                 | 18296402         | 1       |
| Gehe/AMHNiemann        | Sugar syrup DAB                 | 27A090418        | 1       |
| Gehe/Euro              | Raspberry syrup (conserved)     | 1705037-01       | 1       |
| Gehe/Euro              | Raspberry syrup (conserved)     | 1709003-01       | 1       |
| Gehe/Euro              | Raspberry syrup (conserved)     | CH30043518/001   | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 10323008         | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 1207012-01       | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 120701202        | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 1207012-02       | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 12124910         | 1       |
| Gehe                   | Raspberry syrup (conserved)     | 12161702         | 1       |
| Gehe                   | Raspberry syrup (conserved)     | 12367602         | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 12E08-N09        | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 12K07-N04        | 1       |
| Gehe                   | Sorbitol, liquid (non crista... | 12118-N09        | 1       |
| Gehe                   | Raspberry syrup (conserved)     | 1409039-01       | 1       |
| Gehe                   | Marshmallow syrup (conserved)   | 14102603         | 2       |
| Gehe                   | Ribwort plantain syrup (cons... | 14125701         | 2       |
| Gehe                   | Marshmallow syrup (conserved)   | 14364803         | 2       |
| Gehe                   | Fennel honey (conserved)        | 15015602         | 1       |
| Gehe                   | Ribwort plantain syrup (cons... | 15076002         | 2       |
| Gehe                   | Raspberry syrup (conserved)     | 1508015-01       | 1       |
| Gehe                   | Marshmallow syrup (conserved)   | 15418606         | 1       |

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| Supplier              | Substance                       | Batch      | Spectra |
|-----------------------|---------------------------------|------------|---------|
| Gehe                  | Ribwort plantain syrup (cons... | 16029002   | 3       |
| Gehe                  | Marshmallow syrup (conserved)   | 16077503   | 2       |
| Gehe                  | Raspberry syrup (conserved)     | 1608003-01 | 1       |
| Gehe                  | Marshmallow syrup (conserved)   | 16213604   | 1       |
| Gehe                  | Raspberry syrup (conserved)     | 17128404   | 1       |
| Gehe                  | Sorbitol, liquid (non crista... | 17305401   | 1       |
| GEHE                  | Sorbitol, liquid (non crista... | 17305409   | 1       |
| GEHE                  | Sugar syrup DAB                 | 18033401   | 1       |
| Gehe                  | Sorbitol, liquid (non crista... | 190501001  | 1       |
| Gehe                  | Sorbitol, liquid (non crista... | 2003063-02 | 1       |
| Gehe                  | Sugar syrup DAB                 | 41A220817  | 1       |
| Gehe                  | Sugar syrup DAB                 | 51A090713  | 1       |
| Gehe                  | Sugar syrup DAB                 | 70A051118  | 1       |
| Gutenberg-Apotheke    | Sugar syrup DAB                 | 18A030314  | 1       |
| Hageda                | Sugar syrup DAB                 | 17A250220  | 1       |
| Hänseler              | Ribwort plantain syrup (cons... |            | 5       |
| Hochhaus-Apotheke     | Sugar syrup DAB                 | 64A260916  | 3       |
| hochhaus-Apotheke     | Sugar syrup DAB                 | 67A131016  | 1       |
| hochhaus-Apotheke     | Sugar syrup DAB                 | 67A-131016 | 1       |
| Ichthyol/Gehe         | Sorbitol, liquid (non crista... | 1309026-01 | 1       |
| Ichthyol/Gehe         | Sugar syrup DAB                 | 22A170316  | 1       |
| Intern Drogen/Phoenix | Raspberry syrup (conserved)     | 18096703   | 1       |
| jenne eurho           | Raspberry syrup (conserved)     | 1302026-01 | 1       |
| JENNE                 | Sugar syrup DAB                 | 16214101   | 1       |
| Jenne                 | Sugar syrup DAB                 | 56A151221  | 1       |
| Klenk                 | Sugar syrup DAB                 | 13A150216  | 2       |
| L10                   | Sugar syrup DAB                 | 12A190218  | 4       |
| L10                   | Raspberry syrup (conserved)     | 17128402   | 4       |
| L10                   | Raspberry syrup (conserved)     | 18096701   | 5       |
| L10                   | Sugar syrup DAB                 | 32A140617  | 1       |
| L10                   | Sugar syrup DAB                 | 4A240118   | 3       |
| L10                   | Sugar syrup DAB                 | 7A050218   | 3       |
| L11                   | Sugar syrup DAB                 | 58A131017  | 3       |
| L12                   | Sugar syrup DAB                 | 12A300117  | 1       |
| L12                   | Ribwort plantain syrup (cons... | 163335305  | 1       |
| L12                   | Ribwort plantain syrup (cons... | 16335302   | 5       |
| L12                   | Raspberry syrup (conserved)     | 16345401   | 1       |
| L12                   | Raspberry syrup (conserved)     | 16345404   | 4       |
| L12                   | Ribwort plantain syrup (cons... | 18078902   | 9       |
| L12                   | Raspberry syrup (conserved)     | 18190901   | 3       |
| L12                   | Sugar syrup DAB                 | 22A160517  | 5       |
| L12                   | Sugar syrup DAB                 | 39A170717  | 5       |
| L12                   | Sugar syrup DAB                 | 49A240817  | 1       |
| L12                   | Sugar syrup DAB                 | 50A170718  | 3       |
| L12                   | Sugar syrup DAB                 | 57A280818  | 2       |
| L12                   | Sugar syrup DAB                 | 60A210918  | 2       |
| L12                   | Sugar syrup DAB                 | 74A271217  | 2       |
| L12                   | Sugar syrup DAB                 | 81A291118  | 1       |
| L12                   | Sugar syrup DAB                 | 82A121218  | 1       |
| L12                   | Sugar syrup DAB                 | 85A231216  | 2       |
| L30                   | Sugar syrup DAB                 | 80A251116  | 2       |
| L30                   | Sugar syrup DAB                 | 87A271216  | 3       |
| L31                   | Ribwort plantain syrup (cons... | 16335305   | 1       |
| Maros / Jenne         | Sorbitol, liquid (non crista... | 17027014   | 1       |
| Midas                 | Raspberry syrup (conserved)     | 17128404   | 6       |
| Midas                 | Raspberry syrup (conserved)     | 18096703   | 3       |
| MIDAS                 | Raspberry syrup (conserved)     | 190009801  | 1       |
| MIDAS                 | Raspberry syrup (conserved)     | 19009801   | 4       |
| Nachprüfung           | Sugar syrup DAB                 | 42A220612  | 1       |
| Niemann GmbH & Co.KG  | Sugar syrup DAB                 | 53A080814  | 1       |

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continued from previous page

| Supplier         | Substance                       | Batch          | Spectra |
|------------------|---------------------------------|----------------|---------|
| Nowe/Apom        | Sugar syrup DAB                 | 77A101116      | 2       |
| Noweda 04.08.15  | Raspberry syrup (conserved)     | 1501011-01     | 1       |
| noweda           | Raspberry syrup (conserved)     |                | 1       |
| Noweda           | Sugar syrup DAB                 | 11A060213      | 1       |
| noweda           | Raspberry syrup (conserved)     | 13393605       | 1       |
| Noweda           | Sugar syrup DAB                 | 13a150219      | 2       |
| Noweda           | Sugar syrup DAB                 | 13A150219      | 1       |
| Noweda           | Raspberry syrup (conserved)     | 1712004-01     | 1       |
| Noweda           | Sorbitol, liquid (non crista... | 17305401       | 1       |
| Noweda           | Raspberry syrup (conserved)     | 1803009-01     | 1       |
| Noweda           | Sugar syrup DAB                 | 18130001       | 1       |
| Noweda           | Sugar syrup DAB                 | 18A060318      | 1       |
| Noweda           | Raspberry syrup (conserved)     | 19009801       | 1       |
| Noweda           | Sugar syrup DAB                 | 19010402       | 1       |
| Noweda           | Raspberry syrup (conserved)     | 1901049-01     | 1       |
| Noweda           | Sugar syrup DAB                 | 72A291117      | 1       |
| phoenix 14.11.14 | Raspberry syrup (conserved)     | 14114306       | 1       |
| Phoenix          | Sugar syrup DAB                 | 10A110219      | 3       |
| Phoenix          | Sorbitol, liquid (non crista... | 1309026-02     | 1       |
| Phoenix          | Raspberry syrup (conserved)     | 13338001       | 1       |
| Phoenix          | Sorbitol, liquid (non crista... | 15437906       | 1       |
| Phoenix          | Sorbitol, liquid (non crista... | 17305409       | 1       |
| Phoenix          | Raspberry syrup (conserved)     | 1807026-01     | 2       |
| Phoenix          | Sugar syrup DAB                 | 18296502       | 1       |
| Phoenix          | Sugar syrup DAB                 | 19050701       | 2       |
| PHOENIX          | Sugar syrup DAB                 | 19131801       | 1       |
| Phoenix          | Sorbitol, liquid (non crista... | 2003063-02     | 1       |
| Phoenix          | Sorbitol, liquid (non crista... | 200582306      | 1       |
| Phoenix          | Sugar syrup DAB                 | 20A040419      | 1       |
| Phoenix          | Sugar syrup DAB                 | 25A020519      | 2       |
| Phoenix          | Sorbitol, liquid (non crista... | 3068           | 1       |
| Phoenix          | Sugar syrup DAB                 | 30A300418      | 1       |
| Phoenix          | Sorbitol, liquid (non crista... | 3131           | 1       |
| Phoenix          | Sugar syrup DAB                 | 43A040613      | 1       |
| Phoenix          | Sugar syrup DAB                 | 44A050819      | 5       |
| Phoenix          | Sugar syrup DAB                 | 59A01914       | 1       |
| Phoenix          | Sugar syrup DAB                 | 62A111119      | 2       |
| Phoenix          | Sugar syrup DAB                 | 71A051118      | 1       |
| Phönix Gotha     | Sugar syrup DAB                 |                | 1       |
| Phönix Gotha     | Sugar syrup DAB                 | 1A130114       | 1       |
| Phönix Gotha     | Sugar syrup DAB                 | 51A090713      | 3       |
| Phönix Gotha     | Sugar syrup DAB                 | 59A220813      | 1       |
| Phönix Gotha     | Sugar syrup DAB                 | 77A171013      | 1       |
| phönix           | Raspberry syrup (conserved)     | 12038501       | 1       |
| Phönix           | Raspberry syrup (conserved)     | 141114303      | 1       |
| Phönix           | Raspberry syrup (conserved)     | 14114303       | 2       |
| Phönix           | Cherry syrup (conserved)        | 14114304       | 1       |
| Phönix           | Sugar syrup DAB                 | 18095701       | 1       |
| Phönix           | Raspberry syrup (conserved)     | 18096701       | 1       |
| Phönix           | Sugar syrup DAB                 | 18227801       | 1       |
| Phönix           | Sorbitol, liquid (non crista... | 19005010-01    | 5       |
| Phönix           | Raspberry syrup (conserved)     | 1901049-01     | 1       |
| Phönix           | Raspberry syrup (conserved)     | 21000519001    | 1       |
| Phönix           | Sugar syrup DAB                 | 29A110418      | 1       |
| Phönix           | Sugar syrup DAB                 | 60A181017      | 1       |
| Phönix           | Raspberry syrup (conserved)     | ch30046807/001 | 1       |
| PhR Neidhardt    | Sugar syrup DAB                 | 17A060318      | 2       |
| PhR Neidhardt    | Sugar syrup DAB                 | 38A010618      | 1       |
| PhR Neidhardt    | Sugar syrup DAB                 | 42A310717      | 1       |
| PhR Neidhardt    | Sugar syrup DAB                 | 43A180618      | 1       |

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| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| PhR Neidhardt              | Sugar syrup DAB                 | 54A010818  | 1       |
| PhR Neidhardt              | Sugar syrup DAB                 | 67A101018  | 2       |
| PhR Neidhardt              | Sugar syrup DAB                 | 68A281117  | 2       |
| PhR Neidhardt              | Sugar syrup DAB                 | 73A271217  | 1       |
| PhR                        | Sugar syrup DAB                 | 14a200217  | 1       |
| PhR                        | Sugar syrup DAB                 | 14A200217  | 1       |
| PhR                        | Sugar syrup DAB                 | 30A130617  | 1       |
| PhR                        | Sugar syrup DAB                 | 41a040716  | 1       |
| PhR                        | Sugar syrup DAB                 | 41A040716  | 1       |
| PhR                        | Sugar syrup DAB                 | 53a120816  | 1       |
| PhR                        | Sugar syrup DAB                 | 82a151216  | 1       |
| PhR                        | Sugar syrup DAB                 | 82A151216  | 2       |
| PKH / Phoenix              | Sugar syrup DAB                 | 80A061115  | 2       |
| PKH / Phoenix              | Sugar syrup DAB                 | 93A231214  | 1       |
| pkh Gehe 18,12.17          | Sugar syrup DAB                 | 68a281117  | 1       |
| PKH GmbH / Phoenix         | Sugar syrup DAB                 | 49A020715  | 1       |
| PKH GmbH                   | Sugar syrup DAB                 | 14A200217  | 1       |
| PKH GmbH                   | Sugar syrup DAB                 | 30A190416  | 1       |
| PKH GmbH                   | Sugar syrup DAB                 | 4A240118   | 1       |
| PKH GmbH                   | Sugar syrup DAB                 | 68A281117  | 1       |
| PKH Halle / Phoenix        | Sugar syrup DAB                 | 57A180816  | 1       |
| PKH Halle/ Gehe 27.04.2... | Sugar syrup DAB                 | 5A180117   | 1       |
| PKH Halle/Ph               | Sugar syrup DAB                 | 38A180719  | 1       |
| PKH Halle                  | Sugar syrup DAB                 | 19A040314  | 1       |
| PKH NO                     | Sugar syrup DAB                 | 3A271217   | 1       |
| PKH PH                     | Sugar syrup DAB                 | 44A040718  | 1       |
| PKH/Phoenix                | Sugar syrup DAB                 | 25A310517  | 1       |
| PKH                        | Sugar syrup DAB                 | 41A190612  | 1       |
| PKH-Halle/Sanacorp         | Sugar syrup DAB                 | 10A030214  | 1       |
| PKH-Halle/Sanacorp         | Sugar syrup DAB                 | 72A041013  | 2       |
| Roquette Lestrem           | Sorbitol, liquid (non crista... | 1905010-01 | 1       |
| Roquette lestrem           | Sorbitol, liquid (non crista... | 2003010-01 | 1       |
| rPhR Neidhar               | Sugar syrup DAB                 | 30A190416  | 3       |
| Sanacorp/ PKH Halle        | Sugar syrup DAB                 | 29A110512  | 1       |
| Sanacorp/AMHNiemann        | Sugar syrup DAB                 | 48A160718  | 2       |
| Sanacorp                   | Raspberry syrup (conserved)     | 12283103   | 3       |
| Sanacorp                   | Ribwort plantain syrup (cons... | 13152303   | 1       |
| Sanacorp                   | Raspberry syrup (conserved)     | 13194301   | 1       |
| Sanacorp                   | Marshmallow syrup (conserved)   | 13212909   | 1       |
| Sanacorp                   | Sugar syrup DAB                 | 13A080421  | 1       |
| Sanacorp                   | Sugar syrup DAB                 | 13A290115  | 1       |
| Sanacorp                   | Raspberry syrup (conserved)     | 14243405   | 1       |
| Sanacorp                   | Raspberry syrup (conserved)     | 1508015-01 | 1       |
| Sanacorp                   | Ribwort plantain syrup (cons... | 16029009   | 1       |
| Sanacorp                   | Ribwort plantain syrup (cons... | 16335302   | 1       |
| Sanacorp                   | Ribwort plantain syrup (cons... | 16335305   | 1       |
| Sanacorp                   | Raspberry syrup (conserved)     | 1701022-01 | 1       |
| Sanacorp                   | Fennel honey (conserved)        | 17032805   | 2       |
| Sanacorp                   | Marshmallow syrup (conserved)   | 17128301   | 2       |
| Sanacorp                   | Marshmallow syrup (conserved)   | 17128305   | 1       |
| Sanacorp                   | Marshmallow syrup (conserved)   | 17249904   | 1       |
| Sanacorp                   | Sugar syrup DAB                 | 17260101   | 1       |
| Sanacorp                   | Marshmallow syrup (conserved)   | 17357505   | 1       |
| Sanacorp                   | Raspberry syrup (conserved)     | 180300901  | 1       |
| Sanacorp                   | Ribwort plantain syrup (cons... | 18078902   | 5       |
| Sanacorp                   | Marshmallow syrup (conserved)   | 18155106   | 5       |
| Sanacorp                   | Fennel honey (conserved)        | 18158002   | 2       |
| Sanacorp                   | Raspberry syrup (conserved)     | 18190901   | 1       |
| Sanacorp                   | Ribwort plantain syrup (cons... | 18289801   | 2       |
| Sanacorp                   | Raspberry syrup (conserved)     | 19009801   | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| sanacorp                   | Sorbitol, liquid (non crista... | 1905010-02  | 1       |
| Sanacorp                   | Sorbitol, liquid (non crista... | 20000571003 | 1       |
| Sanacorp                   | Sorbitol, liquid (non crista... | 20000571007 | 1       |
| Sanacorp                   | Sugar syrup DAB                 | 58A270712   | 1       |
| Sanacorp                   | Sugar syrup DAB                 | 82A081112   | 1       |
| Spangropharm               | Sugar syrup DAB                 | 5117A-02263 | 1       |
| Zentralapotheke, Eigenh... | Sugar syrup DAB                 | 170620      | 1       |

- 285 689 spectra from 1294 *Apo-Ident* customers from a total of 50 943 batches from a further 336 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Syrups* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Syrups* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 1980          | 0              | 65 179        |
| <b>Type B</b> | 0              | 2552          | 7              | 104 804       |
| <b>Type C</b> | 0              | 3016          | 4              | 285 689       |

The substance/substance group *Syrups* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.6970 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 99.7265 % (> 99.6092 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.8675 % (> 99.7682 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Syrups* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                         | Distance in<br>main model | Distance in<br>second-stage model |
|-----------------------------------|---------------------------|-----------------------------------|
| Honey                             | 12.52                     | —                                 |
| Viscous base solution (NRF p. 20) | 20.45                     | —                                 |
| Glucose syrup                     | 23.59                     | —                                 |
| Rose honey                        | 24.97                     | —                                 |
| Condurango wine                   | 28.94                     | —                                 |
| Liquorice juice purified, diluted | 30.18                     | —                                 |
| Lotio Cordes®                     | 33.94                     | —                                 |
| Sodium-(s)-lactate solution 50%   | 35.22                     | —                                 |
| Glycerine ointment (conserved)    | 37.08                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Syrups* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30753     | 31147                  | 3.37                            | 35.47                              |
| 30870     | 32277                  | 5.58                            | 32.74                              |
| 30897     | 31877                  | 3.35                            | 34.10                              |
| 30900     | 30900                  | 0.00                            | 29.51                              |
| 31051     | 31051                  | 0.00                            | 38.75                              |
| 31124     | 31353                  | 1.78                            | 32.54                              |
| 31147     | 31147                  | 0.00                            | 36.65                              |
| 31155     | 31155                  | 0.00                            | 37.52                              |
| 31175     | 31175                  | 0.00                            | 38.44                              |
| 31181     | 31181                  | 0.00                            | 41.46                              |
| 31218     | 31218                  | 0.00                            | 33.94                              |
| 31353     | 31353                  | 0.00                            | 32.75                              |
| 31355     | 31175                  | 1.86                            | 36.02                              |
| 31359     | 31051                  | 1.49                            | 36.99                              |
| 31365     | 31877                  | 3.67                            | 37.76                              |
| 31467     | 31051                  | 1.74                            | 39.63                              |
| 31598     | 30900                  | 7.34                            | 26.77                              |
| 31773     | 31773                  | 0.00                            | 31.80                              |
| 31802     | 31802                  | 0.00                            | 32.46                              |
| 31877     | 31877                  | 0.00                            | 37.37                              |
| 32210     | 32210                  | 0.00                            | 35.36                              |
| 32277     | 32277                  | 0.00                            | 32.55                              |
| 32284     | 32284                  | 0.00                            | 34.83                              |
| 32984     | 32984                  | 0.00                            | 30.08                              |
| 33099     | 33099                  | 0.00                            | 43.07                              |
| 33228     | 33228                  | 0.00                            | 34.95                              |
| 33263     | 31181                  | 5.71                            | 40.57                              |
| 33331     | 33331                  | 0.00                            | 37.88                              |
| 33420     | 31181                  | 6.27                            | 41.50                              |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 33421            | 31181                      | 5.74                                | 41.05                                  |
| 33505            | 35164                      | 2.10                                | 39.49                                  |
| 34233            | 34233                      | 0.00                                | 27.13                                  |
| 34329            | 34329                      | 0.00                                | 41.25                                  |
| 34477            | 34477                      | 0.00                                | 39.46                                  |
| 34526            | 31877                      | 2.17                                | 35.24                                  |
| 34600            | 34600                      | 0.00                                | 38.04                                  |
| 34664            | 34664                      | 0.00                                | 38.59                                  |
| 34734            | 34734                      | 0.00                                | 26.92                                  |
| 34831            | 34831                      | 0.00                                | 33.64                                  |
| 35138            | 35138                      | 0.00                                | 45.08                                  |
| 35164            | 35164                      | 0.00                                | 39.06                                  |
| 35290            | 31181                      | 11.06                               | 39.20                                  |
| 35552            | 35552                      | 0.00                                | 27.26                                  |
| 36065            | 36065                      | 0.00                                | 30.00                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Tea tree oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 31023-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Tea tree oil; Melaleuca aetheroleum

### Special notes

When selecting the *Tea tree oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Tea tree oil              | 5      | 3      | 89     |

## Second-stage model

For differentiation of the substance/substance group *Tea tree oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Tea tree oil*:

| Supplier | Substance    | Batch    | Sample ID | Spectra | Certificate |
|----------|--------------|----------|-----------|---------|-------------|
| Caelo    | Tea tree oil | 12201303 | 31023     | 40      | 1404597     |
| Caelo    | Tea tree oil | 13288914 | 31401     | 40      | 20130828    |
| Caelo    | Tea tree oil | 14203203 | 31960     | 60      | 20140703    |
| Caelo    | Tea tree oil | 15337105 | 33478     | 40      | 20151007    |
| Caelo    | Tea tree oil | 192425   | 34712     | 40      | 20191002*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Tea tree oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 120 spectra of 3 reference samples from the substance/substance group *Tea tree oil*.
- Among them are spectra of independent samples from 3 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance    | Batch    | Sample ID | Spectra |
|----------|--------------|----------|-----------|---------|
| Caelo    | Tea tree oil | 173227   | 34058     | 40      |
| Caelo    | Tea tree oil | 170677   | 34059     | 40      |
| Caelo    | Tea tree oil | 21004231 | 36166     | 40      |

- 107 243 spectra from a total of 2498 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 185 spectra from 68 *Apo-Ident* customers from 92 batches from the substance/substance group *Tea tree oil*.
- Among them are spectra of independent samples from 86 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                 | Substance    | Batch                 | Spectra |
|--------------------------|--------------|-----------------------|---------|
| Apoth.Bauer&Co,Münch     | Tea tree oil |                       | 1       |
| Apoth.Bauer&Co,Münch     | Tea tree oil | 692624                | 1       |
| apotheker bauer& cie oHG | Tea tree oil | 6548331306            | 1       |
| Apotheker Bauer&Cie OHG  | Tea tree oil | 68647-73-4-85085-48-9 | 1       |
| Apotheker bauer          | Tea tree oil |                       | 1       |
| Bambastus/fiebig         | Tea tree oil | 18001809              | 2       |
| Bergland / Noweda        | Tea tree oil | P102633               | 1       |
| Bergland /Noweda         | Tea tree oil | K302332               | 1       |
| Bergland-Pharma/Anzag    | Tea tree oil | C002685               | 1       |
| Bergland-Pharma/Anzag    | Tea tree oil | C101782               | 1       |
| Bombastus                | Tea tree oil | 19001331              | 2       |
| Bombastus                | Tea tree oil | 302427                | 1       |
| Bombastus                | Tea tree oil | 304033                | 1       |
| Bombastus                | Tea tree oil | 305629                | 3       |
| Caelo                    | Tea tree oil | 11333514              | 1       |
| Caelo                    | Tea tree oil | 11333516              | 1       |
| Caelo                    | Tea tree oil | 11358910              | 1       |
| Caelo                    | Tea tree oil | 12201303              | 3       |
| Caelo                    | Tea tree oil | 12201304              | 3       |
| Caelo                    | Tea tree oil | 12201311              | 4       |
| Caelo                    | Tea tree oil | 12201313              | 1       |
| Caelo                    | Tea tree oil | 13099506              | 6       |
| Caelo                    | Tea tree oil | 13099510              | 4       |
| Caelo                    | Tea tree oil | 13288902              | 1       |
| Caelo                    | Tea tree oil | 14071604              | 2       |
| Caelo                    | Tea tree oil | 14111201              | 1       |
| Caelo                    | Tea tree oil | 14203201              | 1       |
| Caelo                    | Tea tree oil | 14203202              | 1       |
| Caelo                    | Tea tree oil | 14203203              | 2       |
| Caelo                    | Tea tree oil | 14302301              | 8       |
| Caelo                    | Tea tree oil | 14302302              | 1       |
| Caelo                    | Tea tree oil | 15051806              | 2       |
| Caelo                    | Tea tree oil | 15051807              | 2       |
| Caelo                    | Tea tree oil | 15337106              | 3       |
| Caelo                    | Tea tree oil | 15337111              | 2       |

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| Supplier             | Substance    | Batch               | Spectra |
|----------------------|--------------|---------------------|---------|
| Caelo                | Tea tree oil | 15337112            | 5       |
| Caelo                | Tea tree oil | 15337120            | 4       |
| Caelo                | Tea tree oil | 16007506            | 7       |
| Caelo                | Tea tree oil | 16007509            | 4       |
| Caelo                | Tea tree oil | 170667706           | 3       |
| Caelo                | Tea tree oil | 17067705            | 6       |
| Caelo                | Tea tree oil | 17067706            | 7       |
| Caelo                | Tea tree oil | 17322706            | 3       |
| Caelo                | Tea tree oil | 17322707            | 1       |
| Caelo                | Tea tree oil | 17322710            | 1       |
| Caelo                | Tea tree oil | 17322711            | 3       |
| Caelo                | Tea tree oil | 17322716            | 4       |
| Caelo                | Tea tree oil | 17322717            | 1       |
| Caelo                | Tea tree oil | 1732711             | 1       |
| Caelo                | Tea tree oil | 18047602            | 2       |
| Caelo                | Tea tree oil | 18047603            | 2       |
| Caelo                | Tea tree oil | 18047610            | 2       |
| Caelo                | Tea tree oil | 18047611            | 4       |
| Caelo                | Tea tree oil | 192425001           | 2       |
| Caelo                | Tea tree oil | 192425002           | 1       |
| Caelo                | Tea tree oil | 192425004           | 1       |
| Caelo                | Tea tree oil | 192425006           | 1       |
| Caelo                | Tea tree oil | 192425007           | 2       |
| Caelo                | Tea tree oil | 192425008           | 1       |
| Caelo                | Tea tree oil | 192425017           | 1       |
| Caelo                | Tea tree oil | 192425018           | 1       |
| Caelo                | Tea tree oil | 19245018            | 1       |
| Caelo                | Tea tree oil | 21000006005         | 1       |
| Caelo                | Tea tree oil | 21004231001         | 1       |
| Caelo                | Tea tree oil | 300469              | 1       |
| Caelo                | Tea tree oil | P-09121921          | 1       |
| Caelo                | Tea tree oil | P-09121921/17322709 | 1       |
| Caesar & Loretz GmbH | Tea tree oil | 17322710            | 3       |
| Caesar & Loretz GmbH | Tea tree oil | 192425004           | 1       |
| Caesar & Loretz GmbH | Tea tree oil | 21000006002         | 1       |
| Caesar & Loretz      | Tea tree oil | 15337119            | 1       |
| Cealo                | Tea tree oil | 12201303            | 1       |
| Devesa               | Tea tree oil | 18047602            | 1       |
| Ebert 01.09.2016     | Tea tree oil | 15337105            | 1       |
| Fagron               | Tea tree oil |                     | 2       |
| Gehe                 | Tea tree oil | K203705             | 3       |
| L12                  | Tea tree oil | 15337119            | 1       |
| L12                  | Tea tree oil | 18047602            | 1       |
| Melaleuka GmbH       | Tea tree oil | MCZWH14             | 1       |
| Minck                | Tea tree oil | 1511E-03093         | 1       |
| Noweda/Taoasis       | Tea tree oil | 122038-8756         | 1       |
| Noweda               | Tea tree oil | 17322711            | 1       |
| Noweda               | Tea tree oil | 18047603            | 1       |
| Phönix               | Tea tree oil | 17067705            | 1       |
| primavera            | Tea tree oil | 5604136             | 1       |
| Sanacorp/Taoasis     | Tea tree oil | 76283-777           | 1       |
| Sensient             | Tea tree oil | C9663               | 1       |
| Taoasis GmbH         | Tea tree oil | 98546               | 1       |
| Taoasis/Noweda       | Tea tree oil | 20644-5389          | 1       |
| Taoasis/Taoasis      | Tea tree oil | 20269-117745G09     | 1       |
| Taoasis              | Tea tree oil | 122038-8343         | 1       |
| Taoasis              | Tea tree oil | 122038-9077         | 1       |
| Taoasis              | Tea tree oil | 26276-12047         | 1       |
| Taoasis              | Tea tree oil | 26752-13384         | 1       |
| Taoasis              | Tea tree oil | 33152-112369        | 1       |

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| Supplier | Substance    | Batch         | Spectra |
|----------|--------------|---------------|---------|
| Taoasis  | Tea tree oil | 41015006139   | 1       |
| Taoasis  | Tea tree oil | 516495-108562 | 1       |
| Taoasis  | Tea tree oil | 535627-110746 | 2       |
| Taoasis  | Tea tree oil | 556031-114257 | 2       |
| Taoasis  | Tea tree oil | 76283-778     | 1       |
| Taoasis  | Tea tree oil | 92962-3626    | 1       |

- 288 524 spectra from 1294 *Apo-Ident* customers from a total of 51 797 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Tea tree oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Tea tree oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 220           | 0              | 66 939        |
| <b>Type B</b> | 0              | 120           | 0              | 107 243       |
| <b>Type C</b> | 0              | 184           | 1              | 288 524       |

The substance/substance group *Tea tree oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.0000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.4595 % (> 97.8378 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Tea tree oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------|---------------------------|-----------------------------------|
| Citronella oil                | 39.62                     | —                                 |
| Verbena oil, nature-identical | 57.98                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Tea tree oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31023     | 31023                  | 0.00                            | 56.13                              |
| 31401     | 34712                  | 14.68                           | 51.79                              |
| 31960     | 31023                  | 8.18                            | 57.70                              |
| 33478     | 34712                  | 9.19                            | 73.26                              |
| 34712     | 34712                  | 0.00                            | 64.94                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Thyme oil, thymol type**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30206-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Thyme oil, thymol type; Thymi typo thymolo aetheroleum

### Special notes

When selecting the *Thyme oil, thymol type* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Thyme oil, thymol type    | 6      | 4      | 113    |



## Second-stage model

For differentiation of the substance/substance group *Thyme oil, thymol type* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Thyme oil, thymol type*:

| Supplier  | Substance           | Batch    | Sample ID | Spectra | Certificate |
|-----------|---------------------|----------|-----------|---------|-------------|
| Bombastus | Thyme oil, thymo... | 17001282 | 33878     | 40      | 20171108    |
| Bombastus | Thyme oil, thymo... | 18003401 | 34519     | 40      | 124170      |
| Bombastus | Thyme oil, thymo... | 19001870 | 35066     | 40      | 20190322    |
| Caelo     | Thyme oil, thymo... | 12020518 | 31018     | 40      | 1407220     |
| Caelo     | Thyme oil, thymo... | 14225405 | 31566     | 60      | 20140822    |
| Caelo     | Thyme oil, thymo... | 15230104 | 32265     | 40      | 20150702    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 260 spectra of 6 reference samples from the substance/substance group *Thyme oil, thymol type*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 899 spectra from a total of 1373 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Thyme oil, thymol type*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance              | Batch    | Sample ID | Spectra |
|-----------|------------------------|----------|-----------|---------|
| Bombastus | Thyme oil, thymol type | 305865   | 33877     | 40      |
| Bombastus | Thyme oil, thymol type | 21003510 | 36195     | 40      |
| Caelo     | Thyme oil, thymol type | 163279   | 33083     | 40      |
| Caelo     | Thyme oil, thymol type | 16327902 | 33477     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 374 spectra from 168 *Apo-Ident* customers from 119 batches from the substance/substance group *Thyme oil, thymol type*.
- Among them are spectra of independent samples from 112 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier               | Substance              | Batch       | Spectra |
|------------------------|------------------------|-------------|---------|
|                        | Thyme oil, thymol type | 13044708    | 1       |
| Anzag 27.12.12 ek:8,71 | Thyme oil, thymol type | 12020510    | 2       |
| Bombastus              | Thyme oil, thymol type | 18002293    | 1       |
| Bombastus              | Thyme oil, thymol type | 18003401    | 4       |
| Bombastus              | Thyme oil, thymol type | 19001870    | 3       |
| Bombastus              | Thyme oil, thymol type | 19006602    | 1       |
| Bombastus              | Thyme oil, thymol type | 268010      | 1       |
| Bombastus              | Thyme oil, thymol type | 271263      | 1       |
| Bombastus              | Thyme oil, thymol type | 283494      | 1       |
| Bombastus              | Thyme oil, thymol type | 298188      | 3       |
| Bombastus              | Thyme oil, thymol type | 305865      | 1       |
| Caelo                  | Thyme oil, thymol type | 10118603    | 1       |
| Caelo                  | Thyme oil, thymol type | 1017Q-02023 | 1       |
| Caelo                  | Thyme oil, thymol type | 1120917     | 1       |
| Caelo                  | Thyme oil, thymol type | 11275801    | 1       |
| Caelo                  | Thyme oil, thymol type | 11275806    | 1       |
| Caelo                  | Thyme oil, thymol type | 11275811    | 2       |
| Caelo                  | Thyme oil, thymol type | 12020503    | 3       |
| Caelo                  | Thyme oil, thymol type | 12020510    | 6       |
| Caelo                  | Thyme oil, thymol type | 12020511    | 1       |
| Caelo                  | Thyme oil, thymol type | 12020514    | 5       |
| Caelo                  | Thyme oil, thymol type | 12020515    | 1       |
| Caelo                  | Thyme oil, thymol type | 12020518    | 5       |
| Caelo                  | Thyme oil, thymol type | 1202510     | 1       |
| Caelo                  | Thyme oil, thymol type | 12165401    | 1       |
| Caelo                  | Thyme oil, thymol type | 12201104    | 5       |
| Caelo                  | Thyme oil, thymol type | 1221104     | 1       |
| Caelo                  | Thyme oil, thymol type | 13021303    | 1       |
| Caelo                  | Thyme oil, thymol type | 13044702    | 3       |
| Caelo                  | Thyme oil, thymol type | 13044705    | 1       |
| Caelo                  | Thyme oil, thymol type | 13044707    | 7       |
| Caelo                  | Thyme oil, thymol type | 13044708    | 6       |
| Caelo                  | Thyme oil, thymol type | 13044709    | 1       |
| Caelo                  | Thyme oil, thymol type | 13044710    | 1       |

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| <b>Supplier</b> | <b>Substance</b>       | <b>Batch</b>     | <b>Spectra</b> |
|-----------------|------------------------|------------------|----------------|
| Caelo           | Thyme oil, thymol type | 13044715         | 2              |
| Caelo           | Thyme oil, thymol type | 13044716         | 3              |
| Caelo           | Thyme oil, thymol type | 14071202         | 1              |
| Caelo           | Thyme oil, thymol type | 142225412        | 1              |
| Caelo           | Thyme oil, thymol type | 14225401         | 3              |
| Caelo           | Thyme oil, thymol type | 14225403         | 1              |
| Caelo           | Thyme oil, thymol type | 14225405         | 1              |
| Caelo           | Thyme oil, thymol type | 14225406         | 6              |
| Caelo           | Thyme oil, thymol type | 14225408         | 3              |
| Caelo           | Thyme oil, thymol type | 14225409         | 2              |
| Caelo           | Thyme oil, thymol type | 14225410         | 2              |
| Caelo           | Thyme oil, thymol type | 14225412         | 3              |
| Caelo           | Thyme oil, thymol type | 14225413         | 9              |
| Caelo           | Thyme oil, thymol type | 14225414         | 1              |
| Caelo           | Thyme oil, thymol type | 14225417         | 4              |
| Caelo           | Thyme oil, thymol type | 14225418         | 1              |
| Caelo           | Thyme oil, thymol type | 142254410        | 1              |
| Caelo           | Thyme oil, thymol type | 14381301         | 1              |
| Caelo           | Thyme oil, thymol type | 15042208         | 1              |
| Caelo           | Thyme oil, thymol type | 15230104         | 11             |
| Caelo           | Thyme oil, thymol type | 15230104/1100516 | 1              |
| Caelo           | Thyme oil, thymol type | 1540220          | 1              |
| Caelo           | Thyme oil, thymol type | 154022002        | 1              |
| Caelo           | Thyme oil, thymol type | 15402202         | 29             |
| Caelo           | Thyme oil, thymol type | 15402203         | 1              |
| Caelo           | Thyme oil, thymol type | 15402204         | 1              |
| Caelo           | Thyme oil, thymol type | 15402207         | 6              |
| Caelo           | Thyme oil, thymol type | 15402208         | 4              |
| Caelo           | Thyme oil, thymol type | 15402219         | 1              |
| Caelo           | Thyme oil, thymol type | 16327902         | 10             |
| Caelo           | Thyme oil, thymol type | 16327903         | 9              |
| Caelo           | Thyme oil, thymol type | 16327904         | 2              |
| Caelo           | Thyme oil, thymol type | 16327906         | 1              |
| Caelo           | Thyme oil, thymol type | 16327909         | 8              |
| Caelo           | Thyme oil, thymol type | 16327910         | 17             |
| Caelo           | Thyme oil, thymol type | 16327911         | 1              |
| Caelo           | Thyme oil, thymol type | 16327915         | 1              |
| Caelo           | Thyme oil, thymol type | 163279902        | 1              |
| Caelo           | Thyme oil, thymol type | 1632910          | 1              |
| Caelo           | Thyme oil, thymol type | 18025201         | 11             |
| Caelo           | Thyme oil, thymol type | 18087301         | 6              |
| Caelo           | Thyme oil, thymol type | 18087305         | 1              |
| Caelo           | Thyme oil, thymol type | 18087307         | 2              |
| Caelo           | Thyme oil, thymol type | 18087308         | 1              |
| Caelo           | Thyme oil, thymol type | 18087309         | 17             |
| Caelo           | Thyme oil, thymol type | 18087312         | 7              |
| Caelo           | Thyme oil, thymol type | 18087313         | 2              |
| Caelo           | Thyme oil, thymol type | 18087314         | 2              |
| Caelo           | Thyme oil, thymol type | 18087319         | 6              |
| Caelo           | Thyme oil, thymol type | 18087320         | 3              |
| Caelo           | Thyme oil, thymol type | 18087321         | 1              |
| Caelo           | Thyme oil, thymol type | 180887320        | 1              |
| Caelo           | Thyme oil, thymol type | 18097309         | 1              |
| Caelo           | Thyme oil, thymol type | 18252007         | 1              |
| Caelo           | Thyme oil, thymol type | 192423003        | 1              |
| Caelo           | Thyme oil, thymol type | 192423004        | 6              |
| Caelo           | Thyme oil, thymol type | 192423006        | 3              |
| Caelo           | Thyme oil, thymol type | 192423008        | 1              |
| Caelo           | Thyme oil, thymol type | 192423010        | 2              |
| Caelo           | Thyme oil, thymol type | 192423013        | 3              |

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| Supplier                   | Substance              | Batch           | Spectra |
|----------------------------|------------------------|-----------------|---------|
| Caelo                      | Thyme oil, thymol type | 192423015       | 1       |
| Caelo                      | Thyme oil, thymol type | 19242303        | 3       |
| Caelo                      | Thyme oil, thymol type | 2016E-02023     | 1       |
| Caelo                      | Thyme oil, thymol type | 21000083003     | 3       |
| Caelo                      | Thyme oil, thymol type | 21000083004     | 1       |
| Caelo                      | Thyme oil, thymol type | 21000083006     | 1       |
| Caelo                      | Thyme oil, thymol type | 24061701        | 1       |
| Caelo                      | Thyme oil, thymol type | 2615A-02023     | 1       |
| Caelo                      | Thyme oil, thymol type | 301115          | 1       |
| Caelo                      | Thyme oil, thymol type | 3018E-02023     | 1       |
| Caelo                      | Thyme oil, thymol type | 315A-02023      | 1       |
| Caelo                      | Thyme oil, thymol type | 3211I-02023     | 1       |
| Caelo                      | Thyme oil, thymol type | 3313U-02023     | 1       |
| Caelo                      | Thyme oil, thymol type | 5121816         | 1       |
| Caelo                      | Thyme oil, thymol type | 6081401         | 1       |
| Caelo                      | Thyme oil, thymol type | Bittenachtragen | 1       |
| Caesar & Loretz GmbH / ... | Thyme oil, thymol type | 18087320        | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 18087307        | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 18087312        | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 18087319        | 2       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 18087320        | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 192423003       | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 192423004       | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 192423006       | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 192423013       | 1       |
| Caesar & Loretz GmbH       | Thyme oil, thymol type | 21000083003     | 1       |
| Caesar & Loretz/Noweda     | Thyme oil, thymol type | 15402202        | 1       |
| Euro OTC                   | Thyme oil, thymol type |                 | 1       |
| Euro OTC                   | Thyme oil, thymol type | 18087307        | 8       |
| Fagron                     | Thyme oil, thymol type |                 | 1       |
| Fagron                     | Thyme oil, thymol type | 10L20-N09       | 1       |
| Fagron                     | Thyme oil, thymol type | 12020518        | 1       |
| Fagron                     | Thyme oil, thymol type | 18087309        | 3       |
| Fiebi 07.11.12 ek:8,48     | Thyme oil, thymol type | 12020503        | 1       |
| GEHE 02.07.2014            | Thyme oil, thymol type | 13044715        | 3       |
| Gehe                       | Thyme oil, thymol type | 14225410        | 1       |
| Gehe                       | Thyme oil, thymol type | 15402202        | 1       |
| Kögl                       | Thyme oil, thymol type | 14602170617     | 1       |
| L12                        | Thyme oil, thymol type | 18087309        | 1       |
| Noweda                     | Thyme oil, thymol type | 18087307        | 1       |
| Phoenix                    | Thyme oil, thymol type | 15402202        | 1       |
| Phönix                     | Thyme oil, thymol type | 18087309        | 1       |
| PVL                        | Thyme oil, thymol type | 271112          | 1       |
| Sanacorp                   | Thyme oil, thymol type | 16327910        | 1       |
| Sanacorp                   | Thyme oil, thymol type | 18087307        | 1       |
| Taoasis                    | Thyme oil, thymol type | 109378          | 1       |
| TAOASIS                    | Thyme oil, thymol type | 16327908        | 1       |
| Taoasis                    | Thyme oil, thymol type | 28739-104426    | 1       |
| Taoasis                    | Thyme oil, thymol type | 28739-106640    | 1       |
| Taoasis                    | Thyme oil, thymol type | 31911-109378    | 1       |
| Taoasis                    | Thyme oil, thymol type | 31911-110649    | 1       |
| VDL                        | Thyme oil, thymol type | 14225413        | 1       |

- 288 335 spectra from 1294 *Apo-Ident* customers from a total of 51 773 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Thyme oil, thymol type* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Thyme oil, thymol type* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 260           | 0              | 66 899        |
| Type B | 0              | 160           | 0              | 107 203       |
| Type C | 0              | 368           | 6              | 288 335       |

The substance/substance group *Thyme oil, thymol type* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.6923 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| Type C | 100.0000 % (> 99.6871 %) | 98.3957 % (> 97.5936 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Thyme oil, thymol type* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance     | Distance in main model | Distance in second-stage model |
|---------------|------------------------|--------------------------------|
| Oregano oil   | 25.94                  | —                              |
| Coriander oil | 62.25                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Thyme oil, thymol type* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

## Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31018     | 31018               | 0.00                         | 47.58                           |
| 31566     | 31018               | 7.26                         | 48.96                           |
| 32265     | 31018               | 13.15                        | 40.67                           |
| 33878     | 31018               | 13.16                        | 43.67                           |
| 34519     | 31018               | 20.56                        | 38.20                           |
| 35066     | 31018               | 22.70                        | 35.24                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Triglycerides</b>                                             |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30647-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Triglycerides; Almond oil, refined; Amygdalae oleum raffinatum; Apricot kernel oil, refined; Avocado oil, refined; Borage oil, refined, stabilised; Butyrospermi parkii adeps raffinatus; Carthami oleum raffinatum; Codliver oil (type A); Corn oil, refined; Decyl oleate; Decylis oleas; Evening primrose oil, refined; Flaxseed oil, native; Grape seed oil, refined; Helianthi annui oleum raffinatum; Iecoris aselli oleum A; Jojoba Oil, native; Laurel oil; Lauri oleum; Lecithinum e sojæ, liquidus; Lini oleum virginale; Maydis oleum raffinatum; Oenotherae oleum raffinatum; Oleum arachidis raffinatum; Oleum boraginis raffinatum; Oleum cucurbita semen; Oleum juglandis raffinatum; Oleum omega-3 18/12; Oleum persea americana raffinatum; Oleum pruni armeniacae raffinatum; Oleyl oleate (stabilised); Oleylis oleas; Olivæ oleum virginale; Olive oil, native; Omega-3-fish oil; Peanut oil, refined; Pumpkin seed oil, pressed; Rapae oleum raffinatum; Rapeseed oil, refined; Safflower oil, refined type I; Sesame oil, refined; Sesami oleum raffinatum; Shea butter, refined; Simmondsia cera virginalis; Soiae oleum raffinatum; Soy lecithin, liquid; Soy oil, refined; Sunflower oil, refined; Tritici aestivi oleum raffinatum; Vitis viniferae oleum raffinatum; Walnut oil, refined; Wheatgerm oil, refined

### Special notes

When selecting the *Triglycerides* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

## Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Triglycerides             | 137    | 154    | 3997   |

## Second-stage model

For differentiation of the substance/substance group *Triglycerides* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Triglycerides*:

| Supplier      | Substance           | Batch            | Sample ID | Spectra | Certificate        |
|---------------|---------------------|------------------|-----------|---------|--------------------|
| Caelo         | Almond oil, refi... | 13350007         | 31250     | 40      | 1407348            |
| Caelo         | Almond oil, refi... | 14042704         | 31337     | 40      | 20140211           |
| Caelo         | Almond oil, refi... | 191871           | 34617     | 40      | 20190709*          |
| Euro OTC      | Almond oil, refi... | 1510014          | 31770     | 60      | 20151022*          |
| Euro OTC      | Almond oil, refi... | 1603025          | 32188     | 40      | 20160428*          |
| Euro OTC      | Almond oil, refi... | 1909015          | 34751     | 40      | 20191015*          |
| Caelo         | Apricot kernel o... | 11346402         | 30840     | 40      | 20111214           |
| Caelo         | Apricot kernel o... | 13357604         | 31375     | 40      | 1412121            |
| Caelo         | Apricot kernel o... | 162361           | 32683     | 40      | 20160818*          |
| Caelo         | Apricot kernel o... | 16236106         | 32931     | 40      | 20160818           |
| Caelo         | Apricot kernel o... | 170555           | 33060     | 30      | 20170308*          |
| Caelo         | Apricot kernel o... | 190665           | 34666     | 40      | 20190318*          |
| Caelo         | Apricot kernel o... | 20002355         | 35038     | 40      | 20200729*          |
| Caelo         | Avocado oil, ref... | 13361406         | 31336     | 40      | AR-15-FG-002721-01 |
| Caelo         | Avocado oil, ref... | 14363703         | 31662     | 60      | 20150114           |
| Caelo         | Avocado oil, ref... | 170388           | 33067     | 40      | 20170209*          |
| Euro OTC      | Avocado oil, ref... | 1501015          | 31801     | 60      | 20150121*          |
| Euro OTC      | Avocado oil, ref... | 1605034          | 32457     | 40      | 20160607*          |
| Caelo         | Borage oil, refi... | 13170606         | 31161     | 40      | 1407319            |
| Caelo         | Borage oil, refi... | 14161904         | 31384     | 40      | 20140522           |
| Caelo         | Borage oil, refi... | 16266007         | 33510     | 40      | 20161027           |
| Caelo         | Borage oil, refi... | 182958           | 34643     | 40      | 20181212*          |
| Caelo         | Borage oil, refi... | 192492           | 34721     | 40      | 20190920*          |
| Caelo         | Borage oil, refi... | 20000791         | 35057     | 40      | 20200326*          |
| Caelo         | Codliver oil (ty... | 12062501         | 30878     | 40      | 20120411           |
| Caelo         | Codliver oil (ty... | 13396403         | 31361     | 60      | AR-14-FG-012167-01 |
| Caelo         | Codliver oil (ty... | 20004067002      | 35747     | 50      | 20210616           |
| Fagron        | Codliver oil (ty... | 14D16-B08-304341 | 31677     | 60      | 20140520           |
| Fagron        | Codliver oil (ty... | 15A07-B05-304428 | 31825     | 60      | 20150116           |
| Henry Lamotte | Codliver oil (ty... | 8006235003       | 35286     | 40      | 20200701           |
| Caelo         | Corn oil, refined   | 12141511         | 31016     | 40      | 1407320            |
| Caelo         | Corn oil, refined   | 13249005         | 31274     | 40      | 1407347            |
| Caelo         | Corn oil, refined   | 13249005         | 31344     | 40      | 20130819           |
| Caelo         | Corn oil, refined   | 191129           | 34437     | 40      | 20190424*          |
| Caelo         | Corn oil, refined   | 21002133         | 35779     | 50      | 20210705*          |
| Caelo         | Corn oil, refined   | 20003898002      | 35847     | 50      | 20201215           |

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| Supplier      | Substance           | Batch       | Sample ID | Spectra | Certificate        |
|---------------|---------------------|-------------|-----------|---------|--------------------|
| Caelo         | Decyl oleate        | 13378403    | 31382     | 40      | AR-15-FG-000232-01 |
| Caelo         | Decyl oleate        | 170595      | 33070     | 40      | 20170308*          |
| Caelo         | Decyl oleate        | 20002016    | 35018     | 40      | 20200710*          |
| Euro OTC      | Decyl oleate        | 1309018-01  | 31584     | 60      | 20131007           |
| Caelo         | Evening primrose... | 12325103    | 30855     | 40      | 20121107           |
| Caelo         | Evening primrose... | 14010915    | 31460     | 60      | AR-14-FG-012898-01 |
| Caelo         | Evening primrose... | 14258610    | 31572     | 60      | AR-15-FG-002720-01 |
| Caelo         | Evening primrose... | 20001052    | 35056     | 40      | 20200505*          |
| Euro OTC      | Evening primrose... | 1407002-02  | 31589     | 60      | 20140718           |
| Euro OTC      | Evening primrose... | 1509005     | 31775     | 60      | 20150921*          |
| Euro OTC      | Evening primrose... | 2105001     | 35579     | 50      | 20210701*          |
| Bombastus     | Flaxseed oil, na... | 281489      | 31172     | 40      | 1407202            |
| Bombastus     | Flaxseed oil, na... | 309176      | 33880     | 40      | 114126             |
| Bombastus     | Flaxseed oil, na... | 19001510    | 34522     | 40      | 130458             |
| Bombastus     | Flaxseed oil, na... | 20004426    | 35288     | 40      | 20201113           |
| Caelo         | Flaxseed oil, na... | 14087903    | 31326     | 40      | 20140401           |
| Caelo         | Flaxseed oil, na... | 170467      | 33064     | 40      | 20170222*          |
| Caelo         | Grape seed oil, ... | 13065302    | 31121     | 40      | 1407373            |
| Caelo         | Grape seed oil, ... | 16092401    | 32746     | 40      | 20160407           |
| Caelo         | Grape seed oil, ... | 192412      | 34713     | 40      | 20191002*          |
| Caelo         | Grape seed oil, ... | 20000789    | 35046     | 40      | 20200326*          |
| Caelo         | Grape seed oil, ... | 21002984    | 35780     | 50      | 20210917*          |
| Caelo         | Grape seed oil, ... | 21001936    | 35785     | 50      | 20210615*          |
| Caelo         | Joboba Oil, native  | 13287709    | 31322     | 40      | AR-14-FG-012487-01 |
| Caelo         | Joboba Oil, native  | 13287709    | 31482     | 60      | 20130920           |
| Caelo         | Joboba Oil, native  | 13287709    | 31519     | 60      | 20130920           |
| Caelo         | Joboba Oil, native  | 16070602    | 33254     | 40      | 20160316           |
| Euro OTC      | Joboba Oil, native  | 1808038     | 34300     | 40      | 20180917*          |
| Euro OTC      | Joboba Oil, native  | 2001009     | 34807     | 40      | 20200131*          |
| Henry Lamotte | Joboba Oil, native  | 8002391001  | 33876     | 40      | 20161124           |
| Henry Lamotte | Joboba Oil, native  | 8004998001  | 34691     | 40      | 20190221           |
| Caelo         | Laurel oil          | 13024511    | 31122     | 40      | 1403397            |
| Caelo         | Laurel oil          | 15216401    | 31833     | 60      | 1606485            |
| Caelo         | Laurel oil          | 16275701    | 33255     | 40      | 20161005           |
| Caelo         | Laurel oil          | 190919      | 34441     | 40      | 20190509*          |
| Caelo         | Laurel oil          | 192363      | 34711     | 40      | 20190913*          |
| Caelo         | Laurel oil          | 20002806006 | 35740     | 50      | 20200914           |
| Caelo         | Oleyl oleate (st... | 12220205    | 30754     | 40      | 20120803           |
| Caelo         | Oleyl oleate (st... | 12220207    | 30863     | 40      | 20120803           |
| Caelo         | Oleyl oleate (st... | 14005001    | 31496     | 60      | AR-15-FG-001552-01 |
| Caelo         | Oleyl oleate (st... | 21000767    | 35299     | 40      | 20210401*          |
| Bombastus     | Olive oil, native   | 306949      | 32990     | 40      | 20170116           |
| Bombastus     | Olive oil, native   | 306949      | 32991     | 40      | 20170116           |
| Bombastus     | Olive oil, native   | 19001848    | 34521     | 40      | 130315             |
| Caelo         | Olive oil, native   | 14024409    | 31356     | 60      | 20140130           |
| Caelo         | Olive oil, native   | 161446      | 32195     | 40      | 20160524*          |
| Caelo         | Olive oil, native   | 163274      | 33063     | 30      | 20160112*          |
| Caelo         | Olive oil, native   | 20001410    | 35053     | 40      | 20200507*          |
| Euro OTC      | Olive oil, native   | 1407052-02  | 31585     | 60      | 20140812           |
| Euro OTC      | Olive oil, native   | 1602022     | 32186     | 40      | 20160309*          |
| Henry Lamotte | Omega-3-fish oil    | 0123108     | 30679     | 40      | 20120613           |
| Henry Lamotte | Omega-3-fish oil    | 0123780     | 31178     | 40      | 20130403           |
| Henry Lamotte | Omega-3-fish oil    | 0124495     | 31540     | 60      | 20140325           |
| Henry Lamotte | Omega-3-fish oil    | 1000000642  | 31729     | 60      | 1601423            |
| Henry Lamotte | Omega-3-fish oil    | 1000000642  | 31792     | 60      | 20150414           |
| Henry Lamotte | Omega-3-fish oil    | 1000001175  | 31875     | 60      | 20150626           |
| Caelo         | Peanut oil, refi... | 13306106    | 31246     | 40      | 1406534            |
| Caelo         | Peanut oil, refi... | 14115404    | 31346     | 60      | 20140415           |
| Caelo         | Peanut oil, refi... | 162495      | 32680     | 40      | 20160831*          |
| Caelo         | Peanut oil, refi... | 170428      | 33059     | 40      | 20170215*          |

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| Supplier      | Substance           | Batch       | Sample ID | Spectra | Certificate        |
|---------------|---------------------|-------------|-----------|---------|--------------------|
| Caelo         | Peanut oil, refi... | 163553      | 33085     | 40      | 20170106*          |
| Caelo         | Peanut oil, refi... | 20001473    | 35045     | 40      | 20200512*          |
| Caelo         | Pumpkin seed oil... | 13358504    | 31332     | 40      | AR-14-FG-012336-02 |
| Caelo         | Pumpkin seed oil... | 14199402    | 31609     | 60      | 1507428            |
| Caelo         | Pumpkin seed oil... | 171379      | 33917     | 40      | 20170606*          |
| Caelo         | Pumpkin seed oil... | 191450      | 34663     | 40      | 20190605*          |
| Caelo         | Pumpkin seed oil... | 192743      | 34718     | 40      | 20191008*          |
| Caelo         | Rapeseed oil, re... | 12054402    | 30647     | 40      | 20120321           |
| Caelo         | Rapeseed oil, re... | 13011008    | 31215     | 40      | 1406536            |
| Caelo         | Rapeseed oil, re... | 13236506    | 31376     | 40      | 20130806           |
| Caelo         | Rapeseed oil, re... | 21001714    | 35784     | 50      | 20210609*          |
| Caelo         | Rapeseed oil, re... | 20004106002 | 35818     | 50      | 20201204           |
| Caelo         | Safflower oil, r... | 13011302    | 30981     | 80      | 1407318            |
| Caelo         | Safflower oil, r... | 13358705    | 31362     | 60      | 20131122           |
| Caelo         | Safflower oil, r... | 161849      | 32334     | 40      | 20160623*          |
| Caelo         | Sesame oil, refi... | 12054508    | 30873     | 40      | 20120323           |
| Caelo         | Sesame oil, refi... | 13397402    | 31350     | 60      | AR-14-FG-012338-01 |
| Caelo         | Sesame oil, refi... | 192560      | 34716     | 40      | 20190924*          |
| Caelo         | Sesame oil, refi... | 20000741    | 35055     | 40      | 20200327*          |
| Caelo         | Sesame oil, refi... | 21001358004 | 35823     | 50      | 20210517           |
| Caelo         | Shea butter, ref... | 13143819    | 31513     | 60      | 1412122            |
| Caelo         | Shea butter, ref... | 14261107    | 31582     | 60      | 20140923           |
| Caelo         | Shea butter, ref... | 15303004    | 31826     | 60      | 20151112           |
| Caelo         | Shea butter, ref... | 15144903    | 32300     | 40      | 20150703           |
| Caelo         | Shea butter, ref... | 15144903    | 32301     | 40      | 20150703           |
| Caelo         | Shea butter, ref... | 22000650    | 36164     | 40      | 20220315*          |
| Euro OTC      | Soy lecithin, li... | 1305019-01  | 31034     | 40      | 20130603           |
| Euro OTC      | Soy lecithin, li... | 1404022-01  | 31523     | 60      | 8779               |
| Euro OTC      | Soy lecithin, li... | 1907035     | 34753     | 40      | 20190911*          |
| Caelo         | Soy oil, refined    | 13361305    | 31378     | 40      | 20131122           |
| Caelo         | Soy oil, refined    | 15239302    | 31834     | 60      | 20150817           |
| Caelo         | Soy oil, refined    | 15239302    | 32729     | 40      | 20150817           |
| Caelo         | Soy oil, refined    | 171217      | 33309     | 40      | 20170509*          |
| Caelo         | Sunflower oil, r... | 13011411    | 31217     | 40      | 1406538            |
| Caelo         | Sunflower oil, r... | 13225110    | 31374     | 40      | 20130813           |
| Caelo         | Sunflower oil, r... | 15422804    | 32745     | 40      | 20151218           |
| Henry Lamotte | Sunflower oil, r... | 8002491005  | 33472     | 40      | 20170210           |
| Henry Lamotte | Sunflower oil, r... | 1000010859  | 34701     | 40      | 20190503           |
| Henry Lamotte | Sunflower oil, r... | 1000015924  | 35467     | 40      | 20210218           |
| Caelo         | Walnut oil, refi... | 13202401    | 31216     | 40      | 1406537            |
| Caelo         | Walnut oil, refi... | 13364501    | 31380     | 40      | 20131122           |
| Caelo         | Walnut oil, refi... | 173248      | 33916     | 40      | 20170512*          |
| Caelo         | Wheatgerm oil, r... | 13261604    | 31491     | 40      | 1412119            |
| Caelo         | Wheatgerm oil, r... | 16137403    | 32730     | 40      | 20160708           |
| Caelo         | Wheatgerm oil, r... | 191432      | 34602     | 40      | 20190605*          |
| Caelo         | Wheatgerm oil, r... | 20001556    | 35043     | 40      | 20200515*          |
| Caelo         | Wheatgerm oil, r... | 20004490    | 35271     | 40      | 20210211*          |
| Caelo         | Wheatgerm oil, r... | 21002983    | 35782     | 50      | 20211005*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

### Type A All calibration spectra.

- 6490 spectra of 144 reference samples from the substance/substance group *Triglycerides*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 137 different batches.
- 60 669 spectra from a total of 1242 batches from further 203 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a †. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 6335 spectra of 155 reference samples from the substance/substance group *Triglycerides*.
- Among them are spectra of independent samples from 154 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier  | Substance                       | Batch       | Sample ID | Spectra |
|-----------|---------------------------------|-------------|-----------|---------|
| Bombastus | Almond oil, refined             | 22000138    | 36188     | 40      |
| Caelo     | Almond oil, refined             | 161444      | 32198     | 40      |
| Caelo     | Almond oil, refined             | 170422      | 33066     | 40      |
| Caelo     | Almond oil, refined             | 171765      | 33314     | 40      |
| Caelo     | Almond oil, refined             | 20000746    | 35030     | 40      |
| Caelo     | Almond oil, refined             | 20001624    | 35031     | 40      |
| Caelo     | Almond oil, refined             | 21001240    | 35466     | 40      |
| Caelo     | Almond oil, refined             | 21002363    | 35783     | 50      |
| Caelo     | Almond oil, refined             | 22000751    | 36074     | 40      |
| Caelo     | Almond oil, refined             | 21003729    | 36161     | 40      |
| Euro OTC  | Almond oil, refined             | 1701036     | 33231     | 40      |
| Euro OTC  | Almond oil, refined             | 1801030     | 33924     | 40      |
| Euro OTC  | Almond oil, refined             | 1807007     | 34195     | 40      |
| Euro OTC  | Almond oil, refined             | 1904007     | 34493     | 40      |
| Euro OTC  | Almond oil, refined             | 2004032     | 35060     | 40      |
| Euro OTC  | Almond oil, refined             | 2009004     | 35079     | 40      |
| Euro OTC  | Almond oil, refined             | 2101033     | 35246     | 40      |
| Euro OTC  | Almond oil, refined             | 2107007     | 35625     | 50      |
| Euro OTC  | Almond oil, refined             | 2111012     | 35899     | 50      |
| Caelo     | Apricot kernel oil, refined     | 16236109    | 33512     | 40      |
| Caelo     | Apricot kernel oil, refined     | 172518      | 33700     | 40      |
| Caelo     | Apricot kernel oil, refined     | 20001746    | 35039     | 40      |
| Bombastus | Avocado oil, refined            | 22000064    | 36189     | 40      |
| Caelo     | Avocado oil, refined            | 161047      | 32197     | 40      |
| Caelo     | Avocado oil, refined            | 161859      | 32315     | 40      |
| Caelo     | Avocado oil, refined            | 21001530006 | 35741     | 50      |
| Caelo     | Avocado oil, refined            | 21002884    | 35786     | 50      |
| Caelo     | Avocado oil, refined            | 22000074    | 36070     | 40      |
| Caelo     | Borage oil, refined, stabili... | 162660      | 32685     | 40      |

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| Supplier  | Substance                       | Batch       | Sample ID | Spectra |
|-----------|---------------------------------|-------------|-----------|---------|
| Caelo     | Borage oil, refined, stabili... | 17055407    | 33853     | 40      |
| Caelo     | Borage oil, refined, stabili... | 21002207    | 35775     | 50      |
| Caelo     | Borage oil, refined, stabili... | 22001488    | 36310     | 40      |
| Caelo     | Codliver oil (type A)           | 162739      | 32690     | 40      |
| Caelo     | Codliver oil (type A)           | 171378      | 33308     | 40      |
| Caelo     | Codliver oil (type A)           | 20000831    | 35048     | 40      |
| Caelo     | Codliver oil (type A)           | 21002506    | 35777     | 50      |
| Caelo     | Codliver oil (type A)           | 22000638    | 36297     | 40      |
| Caelo     | Corn oil, refined               | 162603      | 32689     | 40      |
| Caelo     | Corn oil, refined               | 170550      | 33069     | 40      |
| Caelo     | Corn oil, refined               | 20000641    | 35058     | 40      |
| Caelo     | Decyl oleate                    | 161071      | 32194     | 40      |
| Caelo     | Decyl oleate                    | 172156      | 33671     | 40      |
| Caelo     | Decyl oleate                    | 190883      | 34472     | 40      |
| Caelo     | Decyl oleate                    | 21003661    | 36156     | 40      |
| Caelo     | Evening primrose oil, refined   | 162813      | 32682     | 40      |
| Caelo     | Evening primrose oil, refined   | 191644      | 34604     | 40      |
| Caelo     | Evening primrose oil, refined   | 191754      | 34605     | 40      |
| Caelo     | Evening primrose oil, refined   | 21000915    | 35270     | 40      |
| Caelo     | Evening primrose oil, refined   | 20004047    | 35274     | 40      |
| Caelo     | Evening primrose oil, refined   | 21003319    | 36064     | 40      |
| Caelo     | Evening primrose oil, refined   | 21004228    | 36173     | 40      |
| Caelo     | Evening primrose oil, refined   | 22001284    | 36295     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 1605027     | 32463     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 1703020     | 33227     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 1710011     | 33849     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 1803006     | 34095     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 1901046     | 34423     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 1911009     | 34809     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 2003029     | 34832     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 2008037     | 35127     | 40      |
| Euro OTC  | Evening primrose oil, refined   | 2204018     | 36276     | 40      |
| Bombastus | Flaxseed oil, native            | 22000289    | 36182     | 40      |
| Caelo     | Flaxseed oil, native            | 172364      | 33677     | 40      |
| Caelo     | Flaxseed oil, native            | 190994      | 34439     | 40      |
| Caelo     | Flaxseed oil, native            | 191645      | 34610     | 40      |
| Caelo     | Flaxseed oil, native            | 192554      | 34719     | 40      |
| Caelo     | Flaxseed oil, native            | 20002039    | 35052     | 40      |
| Caelo     | Flaxseed oil, native            | 21001170    | 35465     | 40      |
| Caelo     | Flaxseed oil, native            | 21002087    | 35829     | 50      |
| Caelo     | Flaxseed oil, native            | 22000432    | 36172     | 40      |
| Caelo     | Grape seed oil, refined         | 16092402    | 32989     | 40      |
| Caelo     | Grape seed oil, refined         | 16339703    | 33475     | 40      |
| Caelo     | Grape seed oil, refined         | 20001744    | 35047     | 40      |
| Caelo     | Grape seed oil, refined         | 21004004    | 36071     | 40      |
| Caelo     | Grape seed oil, refined         | 22000818    | 36157     | 40      |
| Bombastus | Jobaba Oil, native              | 22001311    | 36181     | 40      |
| Caelo     | Jobaba Oil, native              | 170733      | 33892     | 40      |
| Caelo     | Jobaba Oil, native              | 191529      | 34611     | 40      |
| Caelo     | Jobaba Oil, native              | 20000722    | 35040     | 40      |
| Caelo     | Jobaba Oil, native              | 21001028    | 35834     | 50      |
| Caelo     | Laurel oil                      | 14176301    | 31657     | 15      |
| Caelo     | Laurel oil                      | 15216402    | 31745     | 60      |
| Caelo     | Laurel oil                      | 18028202    | 33948     | 40      |
| Caelo     | Laurel oil                      | 21004068002 | 36047     | 40      |
| Caelo     | Laurel oil                      | 22001178    | 36312     | 40      |
| Caelo     | Oleyl oleate (stabilised)       | 161049      | 32202     | 40      |
| Caelo     | Oleyl oleate (stabilised)       | 173581      | 33920     | 40      |
| Bombastus | Olive oil, native               | 22000660    | 36197     | 40      |
| Caelo     | Olive oil, native               | 170387      | 33068     | 40      |

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| Supplier      | Substance                     | Batch       | Sample ID | Spectra |
|---------------|-------------------------------|-------------|-----------|---------|
| Caelo         | Olive oil, native             | 171216      | 33306     | 40      |
| Caelo         | Olive oil, native             | 172365      | 33674     | 40      |
| Caelo         | Olive oil, native             | 21000836    | 35303     | 40      |
| Caelo         | Olive oil, native             | 21002271    | 35832     | 50      |
| Caelo         | Olive oil, native             | 21003239    | 36069     | 40      |
| Caelo         | Olive oil, native             | 21004008    | 36159     | 40      |
| Caelo         | Olive oil, native             | 22000853    | 36294     | 40      |
| Euro OTC      | Olive oil, native             | 1608006     | 32709     | 40      |
| Euro OTC      | Olive oil, native             | 1802011     | 34005     | 40      |
| Euro OTC      | Olive oil, native             | 1805023     | 34183     | 40      |
| Euro OTC      | Olive oil, native             | 1808026     | 34215     | 40      |
| Euro OTC      | Olive oil, native             | 1903013     | 34495     | 40      |
| Euro OTC      | Olive oil, native             | 1905018     | 34653     | 40      |
| Euro OTC      | Olive oil, native             | 1910015     | 34752     | 40      |
| Euro OTC      | Olive oil, native             | 2001005     | 34806     | 40      |
| Euro OTC      | Olive oil, native             | 2003050     | 34830     | 40      |
| Euro OTC      | Olive oil, native             | 2006034     | 35064     | 40      |
| Euro OTC      | Olive oil, native             | 2012004     | 35244     | 40      |
| Euro OTC      | Olive oil, native             | 2104011     | 35492     | 40      |
| Euro OTC      | Olive oil, native             | 2107030     | 35628     | 50      |
| Euro OTC      | Olive oil, native             | 2203021     | 36283     | 40      |
| Henry Lamotte | Omega-3-fish oil              | 1000002824  | 32734     | 40      |
| Henry Lamotte | Omega-3-fish oil              | 1000007067  | 34124     | 40      |
| Henry Lamotte | Omega-3-fish oil              | 1000016012  | 35475     | 40      |
| Bombastus     | Peanut oil, refined           | 19005220    | 35089     | 40      |
| Bombastus     | Peanut oil, refined           | 22000178    | 36179     | 40      |
| Caelo         | Peanut oil, refined           | 161195      | 32206     | 40      |
| Caelo         | Peanut oil, refined           | 171690      | 33315     | 40      |
| Caelo         | Peanut oil, refined           | 21001091    | 35281     | 40      |
| Caelo         | Peanut oil, refined           | 21003839    | 36073     | 40      |
| Caelo         | Peanut oil, refined           | 22001375    | 36311     | 40      |
| Henry Lamotte | Peanut oil, refined           | 1000013880  | 35088     | 40      |
| Caelo         | Pumpkin seed oil, pressed     | 15410004    | 32783     | 40      |
| Caelo         | Pumpkin seed oil, pressed     | 180837      | 34061     | 40      |
| Caelo         | Pumpkin seed oil, pressed     | 20003109    | 35732     | 50      |
| Caelo         | Rapeseed oil, refined         | 161850      | 32316     | 40      |
| Caelo         | Rapeseed oil, refined         | 172139      | 33673     | 40      |
| Caelo         | Rapeseed oil, refined         | 20000308    | 35050     | 40      |
| Bombastus     | Safflower oil, refined type I | 21004396    | 36183     | 40      |
| Caelo         | Safflower oil, refined type I | 17092201    | 33653     | 40      |
| Caelo         | Safflower oil, refined type I | 180999      | 34062     | 40      |
| Caelo         | Sesame oil, refined           | 163125      | 33075     | 40      |
| Caelo         | Sesame oil, refined           | 171777      | 33313     | 40      |
| Caelo         | Sesame oil, refined           | 16312505    | 33618     | 40      |
| Caelo         | Sesame oil, refined           | 21004230    | 36165     | 40      |
| Caelo         | Shea butter, refined          | 17085805    | 33470     | 40      |
| Caelo         | Shea butter, refined          | 20001135    | 35817     | 50      |
| Caelo         | Shea butter, refined          | 21001422004 | 36041     | 40      |
| Euro OTC      | Soy lecithin, liquid          | 1703001-01  | 33838     | 40      |
| Euro OTC      | Soy lecithin, liquid          | 1803030     | 34094     | 40      |
| Caelo         | Soy oil, refined              | 16347104    | 33462     | 40      |
| Caelo         | Soy oil, refined              | 20001575    | 35054     | 40      |
| Caelo         | Soy oil, refined              | 21001264    | 35282     | 40      |
| Caelo         | Sunflower oil, refined        | 162758      | 32691     | 40      |
| Caelo         | Sunflower oil, refined        | 191755      | 34613     | 40      |
| Caelo         | Sunflower oil, refined        | 20000985    | 35051     | 40      |
| Caelo         | Sunflower oil, refined        | 21002312    | 35776     | 50      |
| Caelo         | Sunflower oil, refined        | 21003678    | 36072     | 40      |
| Caelo         | Walnut oil, refined           | 161007      | 32199     | 40      |
| Caelo         | Walnut oil, refined           | 16100703    | 33488     | 40      |

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| Supplier  | Substance               | Batch    | Sample ID | Spectra |
|-----------|-------------------------|----------|-----------|---------|
| Bombastus | Wheatgerm oil, refined  | 22000002 | 36177     | 40      |
| Caelo     | Wheatgerm oil, refined  | 16321301 | 33489     | 40      |
| Caelo     | Wheatgerm oil, refined  | 172903   | 33915     | 40      |
| Caelo     | Wheatgerm oil, refined  | 20000829 | 35042     | 40      |
| Caelo     | Wheatgerm oil, refined  | 22000612 | 36296     | 40      |
| Caelo     | Grape seed oil, refined | 16339703 | 33476     | 40      |

- 101 028 spectra from a total of 2347 batches from further 325 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 26 984 spectra from 1219 *Apo-Ident* customers from 4053 batches from the substance/substance group *Triglycerides*.
- Among them are spectra of independent samples from 3940 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| 06/20                      | Borage oil, refined, stabili... | 123387           | 1       |
|                            | Borage oil, refined, stabili... | 13170606         | 1       |
|                            | Evening primrose oil, refined   | 150303101        | 1       |
|                            | Evening primrose oil, refined   | 1503031-01       | 1       |
|                            | Evening primrose oil, refined   | 1710011-02       | 1       |
|                            | Sesame oil, refined             | 17332106         | 1       |
|                            | Peanut oil, refined             | 19059208         | 1       |
|                            | Almond oil, refined             | 1000010685       | 1       |
|                            | Almond oil, refined             | 14215814         | 1       |
|                            | Decyl oleate                    | 17215601         | 1       |
| 18,01,2021Caesar & Lore... | Almond oil, refined             | 20001624007      | 1       |
| 200                        | Evening primrose oil, refined   | 2008037-01       | 1       |
| 290924                     | Olive oil, native               | 290924           | 2       |
| Abis Pharma/Sanacorp       | Shea butter, refined            | 10-500P/0714     | 1       |
| Abis-Pharma                | Shea butter, refined            | 22-50P/0919      | 1       |
| ACM                        | Codliver oil (type A)           | KNC0300J15       | 1       |
| ACM                        | Codliver oil (type A)           | KNC0302J15       | 1       |
| ACM                        | Codliver oil (type A)           | KNC0303J15       | 1       |
| ACM                        | Flaxseed oil, native            | KNC0446J15       | 1       |
| ACM                        | Almond oil, refined             | KNC0766J15       | 1       |
| ACM                        | Almond oil, refined             | KNC1100J15       | 1       |
| ACM                        | Almond oil, refined             | KNC1364J15       | 1       |
| ACM                        | Almond oil, refined             | KNC1560J16       | 1       |
| ACM                        | Olive oil, native               | KNC2225J14       | 1       |
| aelo/Gehe                  | Evening primrose oil, refined   | 17255801         | 2       |
| AEP                        | Olive oil, native               | 19006021         | 1       |
| AEP                        | Almond oil, refined             | 19187101         | 1       |
| AEP                        | Olive oil, native               | 21000836002      | 1       |
| agronF                     | Peanut oil, refined             | 19J18-F01-365916 | 2       |
| AHC03.08.13 EK2,36 100ml   | Almond oil, refined             | 5438302          | 1       |
| AHD / H.Lamotte            | Almond oil, refined             | 8000712001       | 1       |
| AHD 18.04.18 Henry Lamo... | Almond oil, refined             | 8003167001       | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| AHD Cealo                  | Wheatgerm oil, refined          | 193009004   | 1       |
| AHD Lamotte GmbH           | Olive oil, native               | 1000010861  | 2       |
| AHD Lamotte GmbH           | Olive oil, native               | 1000014032  | 1       |
| AHD, 03.08.2011            | Olive oil, native               | 5372701     | 1       |
| AHD, 06.05.2013            | Peanut oil, refined             | 12323204    | 1       |
| AHD/ Henry Lamotte         | Almond oil, refined             | 8000915002  | 1       |
| AHD/ Lamotte               | Almond oil, refined             | 1000013112  | 1       |
| AHD/ Lamotte               | Almond oil, refined             | 1000013565  | 1       |
| AHD/Lamotte                | Almond oil, refined             | 1000010685  | 1       |
| AHD/Lamotte                | Almond oil, refined             | 1000012126  | 1       |
| AHD/Lamotte                | Jobba Oil, native               | 8003732001  | 1       |
| AHD/Lamotte                | Almond oil, refined             | 8005936002  | 1       |
| AHD                        | Sesame oil, refined             | 1000007221  | 1       |
| AHD                        | Evening primrose oil, refined   | 1000008469  | 2       |
| AHD                        | Almond oil, refined             | 130145      | 1       |
| AHD                        | Oleil oleate (stabilised)       | 14129003    | 1       |
| AHD                        | Almond oil, refined             | 14139305    | 1       |
| AHD                        | Peanut oil, refined             | 14246901    | 1       |
| AHD                        | Jobba Oil, native               | 16070606    | 1       |
| AHD                        | Flaxseed oil, native            | 17001535    | 1       |
| AHD                        | Peanut oil, refined             | 17169001    | 2       |
| AHD                        | Flaxseed oil, native            | 18002317    | 1       |
| AHD                        | Evening primrose oil, refined   | 18009114    | 1       |
| AHD                        | Almond oil, refined             | 18015002    | 1       |
| AHD                        | Almond oil, refined             | 18184101    | 1       |
| AHD                        | Evening primrose oil, refined   | 18216201    | 2       |
| AHD                        | Evening primrose oil, refined   | 18216202    | 2       |
| AHD                        | Evening primrose oil, refined   | 18216217    | 1       |
| AHD                        | Borage oil, refined, stabili... | 18295808    | 1       |
| AHD                        | Almond oil, refined             | 19000779001 | 1       |
| AHD                        | Evening primrose oil, refined   | 19175401    | 1       |
| AHD                        | Evening primrose oil, refined   | 192982001   | 1       |
| AHD                        | Evening primrose oil, refined   | 192982004   | 1       |
| AHD                        | Evening primrose oil, refined   | 20001052001 | 1       |
| AHD                        | Codliver oil (type A)           | 8001765001  | 1       |
| AHD                        | Codliver oil (type A)           | 8002338002  | 2       |
| AHD                        | Codliver oil (type A)           | 8003727001  | 2       |
| AHL                        | Almond oil, refined             | 8003167001  | 1       |
| AHL                        | Olive oil, native               | 8003420001  | 1       |
| ALH                        | Sunflower oil, refined          | 15163805    | 1       |
| ALH                        | Almond oil, refined             | 8001497001  | 1       |
| Aliance Hearthcave 11.0... | Almond oil, refined             | 13236402    | 1       |
| allcura/Noweda             | Evening primrose oil, refined   |             | 1       |
| allcura                    | Evening primrose oil, refined   | L2641       | 1       |
| Allcura                    | Evening primrose oil, refined   | 1364        | 1       |
| Allcura                    | Evening primrose oil, refined   | L-387       | 1       |
| Allcura                    | Evening primrose oil, refined   | L-406       | 1       |
| Allcura                    | Evening primrose oil, refined   | L416        | 1       |
| Allianc. Health. /bo       | Olive oil, native               | 302523      | 1       |
| Alliance H.                | Almond oil, refined             | 15409704    | 1       |
| Alliance Healthcare/Lam... | Almond oil, refined             | 8001497001  | 1       |
| Alliance Healthcare        | Sesame oil, refined             | 1000009220  | 1       |
| Alliance Healthcare        | Olive oil, native               | 1000012617  | 1       |
| Alliance Healthcare        | Olive oil, native               | 12274108    | 1       |
| Alliance Healthcare        | Peanut oil, refined             | 13129203    | 1       |
| Alliance Healthcare        | Olive oil, native               | 13224703    | 1       |
| Alliance Healthcare        | Evening primrose oil, refined   | 16281315    | 1       |
| Alliance Healthcare        | Shea butter, refined            | 17085818    | 1       |
| Alliance Healthcare        | Sesame oil, refined             | 17177703    | 1       |
| Alliance Healthcare        | Sesame oil, refined             | 17332103    | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| Alliance Healthcare        | Sesame oil, refined             | 17332106   | 1       |
| Alliance Healthcare        | Avocado oil, refined            | 18044910   | 1       |
| Alliance Healthcare        | Decyl oleate                    | 18069402   | 1       |
| Alliance Healthcare        | Oleyl oleate (stabilised)       | 18272011   | 1       |
| Alliance Healthcare        | Flaxseed oil, native            | 19002739   | 1       |
| Alliance Healthcare        | Shea butter, refined            | 192058005  | 1       |
| Alliance Healthcare        | Almond oil, refined             | 8004039003 | 1       |
| Alliance Healthcare        | Olive oil, native               | 8004067001 | 1       |
| Alliance Healthcare        | Olive oil, native               | 8004499001 | 1       |
| Alliance Healthcare        | Evening primrose oil, refined   | AP147307N  | 1       |
| Alliance/EuRho             | Evening primrose oil, refined   | 1901046-01 | 1       |
| Alliance/EuRho             | Evening primrose oil, refined   | 1911009-01 | 1       |
| Alliance/Henry Lamotte     | Olive oil, native               | 1000012617 | 1       |
| Alliance/Lamotte           | Almond oil, refined             | 8004548002 | 1       |
| Alliance/Verta             | Sesame oil, refined             | 92011      | 2       |
| Alliance                   | Olive oil, native               | 277050     | 1       |
| Allianz Healthcare 01.0... | Evening primrose oil, refined   | AP562-124N | 2       |
| Allianz Healthcare         | Olive oil, native               | 16327402   | 1       |
| Allianz Healthcare         | Olive oil, native               | 18311910   | 1       |
| Allianz Healthcare         | Olive oil, native               | 19076109   | 1       |
| Allianz                    | Olive oil, native               | 17361108   | 1       |
| Allianz                    | Evening primrose oil, refined   | 18009106   | 1       |
| Allianz                    | Evening primrose oil, refined   | 18009109   | 1       |
| Alte Apotheke              | Evening primrose oil, refined   | 15417808   | 1       |
| Alte Apotheke              | Almond oil, refined             | 16071007   | 1       |
| AMH Niemann GmbH/Noweda    | Olive oil, native               | 8002366001 | 1       |
| Andor                      | Evening primrose oil, refined   | AP869-100N | 1       |
| Andor                      | Evening primrose oil, refined   | AP920-114N | 1       |
| Anzag 06.02.2013           | Avocado oil, refined            | 1208028-01 | 1       |
| Anzag 07.12.12             | Peanut oil, refined             | 12203803   | 1       |
| Anzag 09.02.2013           | Almond oil, refined             | 12357101   | 1       |
| Anzag 10.12.12             | Borage oil, refined, stabili... | 965-028    | 2       |
| Anzag 16.01.13 ek.5.13     | Peanut oil, refined             | 5204402    | 2       |
| Anzag 16.10.12 ek: 3,90EUR | Avocado oil, refined            | 1204047-01 | 1       |
| Anzag 17.12.2012           | Codliver oil (type A)           | 12062501   | 1       |
| Anzag 30.01.13 ek:16,40EUR | Evening primrose oil, refined   | 1205023-02 | 1       |
| Anzag 30.04.18             | Olive oil, native               | 17361101   | 1       |
| Anzag 31.10.12 ek: 2,78EUR | Olive oil, native               | 12077701   | 1       |
| Anzag ek:13.04EUR 08.08.12 | Evening primrose oil, refined   | 1205023-01 | 2       |
| Anzag, 03.01.2019          | Almond oil, refined             | 18000342   | 1       |
| anzag, 9,45EUR, 19.11.14   | Codliver oil (type A)           | 5693101    | 1       |
| Anzag, Henry Lamotte       | Almond oil, refined             | 8001497001 | 1       |
| Anzag/ Henry Lamotte       | Almond oil, refined             | 8004039003 | 2       |
| Anzag/                     | Jojoba Oil, native              | 5115601    | 1       |
| Anzag/Henry Lamotte        | Evening primrose oil, refined   | 145675     | 1       |
| Anzag/Henry Lamotte        | Almond oil, refined             | 8003885002 | 1       |
| Anzag/Lamotte              | Olive oil, native               | 1000017999 | 1       |
| Anzag/Lamotte              | Olive oil, native               | 5623601    | 1       |
| Anzag/Leyh Pharma am       | Almond oil, refined             | 13236404   | 1       |
| Anzag                      | Olive oil, native               | 12077701   | 1       |
| Anzag                      | Olive oil, native               | 12274104   | 1       |
| Anzag                      | Peanut oil, refined             | 12323204   | 1       |
| Anzag                      | Peanut oil, refined             | 12c30n02   | 1       |
| Anzag                      | Peanut oil, refined             | 12H31N05   | 1       |
| Anzag                      | Evening primrose oil, refined   | 130401812  | 1       |
| Anzag                      | Evening primrose oil, refined   | 13121818   | 1       |
| Anzag                      | Peanut oil, refined             | 13358804   | 1       |
| Anzag                      | Peanut oil, refined             | 15015103   | 1       |
| anzag                      | Olive oil, native               | 15216308   | 1       |
| Anzag                      | Olive oil, native               | 15399706   | 1       |

continued on the next page

continued from previous page

| Supplier                  | Substance                     | Batch         | Spectra |
|---------------------------|-------------------------------|---------------|---------|
| Anzag                     | Evening primrose oil, refined | 16281309      | 1       |
| Anzag                     | Olive oil, native             | 16327403      | 1       |
| Anzag                     | Olive oil, native             | 17121604      | 1       |
| Anzag                     | Evening primrose oil, refined | 17255801      | 1       |
| Anzag                     | Olive oil, native             | 18002118      | 1       |
| Anzag                     | Peanut oil, refined           | 18208207      | 1       |
| Anzag                     | Evening primrose oil, refined | 18216202      | 1       |
| Anzag                     | Evening primrose oil, refined | 18216217      | 1       |
| Anzag                     | Evening primrose oil, refined | 2008037-01    | 1       |
| Anzag                     | Almond oil, refined           | 219101221     | 1       |
| Anzag                     | Olive oil, native             | 297565        | 1       |
| Anzag                     | Jojoba Oil, native            | 5172601       | 1       |
| Anzag                     | Almond oil, refined           | 5214206       | 1       |
| ANZAG                     | Almond oil, refined           | 5214206       | 1       |
| Anzag                     | Codliver oil (type A)         | 5228001       | 2       |
| Anzag                     | Almond oil, refined           | 8005936002    | 1       |
| Anzag                     | Evening primrose oil, refined | AP141023N     | 1       |
| Anzag                     | Evening primrose oil, refined | EP745611-1    | 1       |
| Apo Ident/Fiebig          | Evening primrose oil, refined | 2008037-01    | 1       |
| Apo Ident/Noweda          | Evening primrose oil, refined | 20001052009   | 1       |
| Apo Ident/Noweda          | Evening primrose oil, refined | 2003029-01    | 1       |
| apo ident                 | Evening primrose oil, refined | 1608008-01    | 3       |
| Apoident /Sanacorp        | Evening primrose oil, refined | 1901046-01    | 1       |
| Apoident /Sanacorp        | Evening primrose oil, refined | 2008037       | 1       |
| Apoident/ Phoenix         | Evening primrose oil, refined | 2008037-02    | 1       |
| apo-ident                 | Evening primrose oil, refined | 1710011-02    | 1       |
| apo-ident                 | Evening primrose oil, refined | 1803006-01    | 2       |
| apo-ident                 | Evening primrose oil, refined | 200803702     | 1       |
| apo-Ident                 | Evening primrose oil, refined | BTR349512-01  | 1       |
| Apolda/ Sanacorp          | Almond oil, refined           | 14139309      | 1       |
| Apolda/ Sanacorp          | Almond oil, refined           | 14215807      | 1       |
| apomix                    | Evening primrose oil, refined | 1605027-01    | 1       |
| apomix                    | Peanut oil, refined           | 17169001      | 1       |
| apomix                    | Olive oil, native             | 17236508      | 1       |
| apomix                    | Almond oil, refined           | 8003885002    | 1       |
| Aponorm/Wepa              | Peanut oil, refined           | 17169018      | 1       |
| Apotheke am Landrain      | Olive oil, native             |               | 1       |
| Apotheke Hornbach Zentrum | Evening primrose oil, refined | 19164407      | 2       |
| Audor Pharma              | Avocado oil, refined          | 13361414      | 1       |
| Audor Pharma              | Evening primrose oil, refined | 140319N       | 2       |
| Audor Pharma              | Evening primrose oil, refined | 141023N       | 3       |
| Audor Pharma              | Evening primrose oil, refined | 144174        | 2       |
| Audor Pharma              | Evening primrose oil, refined | 144330        | 1       |
| Audor Pharma              | Evening primrose oil, refined | 144330N       | 2       |
| Audor Pharma              | Evening primrose oil, refined | 1911009-01    | 8       |
| Audor Pharma              | Almond oil, refined           | 304023        | 1       |
| Audor Pharma              | Evening primrose oil, refined | 392-133N      | 2       |
| Audor Pharma              | Evening primrose oil, refined | 869-100N      | 1       |
| Audor Pharma              | Evening primrose oil, refined | AP094-115N    | 1       |
| Audor Pharma              | Evening primrose oil, refined | AP140319      | 2       |
| Audor Pharma              | Evening primrose oil, refined | AP140319N     | 9       |
| Audor Pharma              | Evening primrose oil, refined | AP140319N5300 | 1       |
| Audor Pharma              | Evening primrose oil, refined | AP140319N5341 | 1       |
| Audor Pharma              | Evening primrose oil, refined | AP140319N5383 | 1       |
| Audor Pharma              | Evening primrose oil, refined | AP141023      | 2       |
| Audor Pharma              | Evening primrose oil, refined | AP141023N     | 12      |
| Audor Pharma              | Evening primrose oil, refined | AP141023N5499 | 1       |
| Audor Pharma              | Evening primrose oil, refined | AP141023N5584 | 1       |
| Audor Pharma              | Evening primrose oil, refined | AP144174      | 2       |
| Audor Pharma              | Evening primrose oil, refined | AP144174N     | 21      |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch         | Spectra |
|----------------------------|---------------------------------|---------------|---------|
| Audor Pharma               | Evening primrose oil, refined   | AP144330N     | 14      |
| Audor Pharma               | Evening primrose oil, refined   | AP144330N5736 | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP144330N5770 | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP147307      | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP147307N     | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP147307N     | 38      |
| Audor Pharma               | Evening primrose oil, refined   | AP191-088/1N  | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP191-088N    | 2       |
| Audor Pharma               | Evening primrose oil, refined   | AP273116N     | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP273-116N    | 5       |
| Audor Pharma               | Evening primrose oil, refined   | AP294-118N    | 13      |
| Audor Pharma               | Evening primrose oil, refined   | AP366-108N    | 3       |
| Audor Pharma               | Evening primrose oil, refined   | AP392-133N    | 10      |
| Audor Pharma               | Evening primrose oil, refined   | AP-392-133N   | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP396-120N    | 7       |
| Audor Pharma               | Evening primrose oil, refined   | AP562-124     | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP562-124N    | 17      |
| Audor Pharma               | Evening primrose oil, refined   | AP676-078N    | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP788-128N    | 14      |
| Audor Pharma               | Evening primrose oil, refined   | AP-788-128N   | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP869-100/1N  | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP869-100N    | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP869-100N    | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP920-114/1N  | 1       |
| Audor Pharma               | Evening primrose oil, refined   | AP920-114N    | 7       |
| Audor Pharma               | Evening primrose oil, refined   | AP01244174N   | 1       |
| Audor Pharma               | Evening primrose oil, refined   | BTR349512-01  | 2       |
| Aurica Vital               | Borage oil, refined, stabili... | 28/05/15      | 1       |
| Aurica Vital               | Borage oil, refined, stabili... | Z13902/A      | 1       |
| Aurica Vital               | Borage oil, refined, stabili... | Z14456        | 1       |
| Aurica Vital               | Borage oil, refined, stabili... | Z14966        | 1       |
| Aurica Vital               | Borage oil, refined, stabili... | ZR1287        | 1       |
| Aurica/ Noweda             | Borage oil, refined, stabili... | ZR1540        | 1       |
| Aurica/Noweda              | Borage oil, refined, stabili... | 957-038       | 1       |
| Aurica                     | Borage oil, refined, stabili... | 201674        | 1       |
| Aurica                     | Borage oil, refined, stabili... | Z13902/A      | 1       |
| Azett GmbH/AHD             | Jojoba Oil, native              | 190217        | 1       |
| Bahnhofapotheke Kempten... | Shea butter, refined            | G16FGFI       | 1       |
| Bahnhof-Apotheke           | Almond oil, refined             | -30-160809    | 1       |
| Bambastus/ Anzag           | Peanut oil, refined             | 19005220      | 3       |
| Bambastus-Werke AG/Phönix  | Olive oil, native               | 19001848      | 1       |
| Bambastus-Werke AG/Phönix  | Olive oil, native               | 20000171      | 1       |
| Beiersdorf AG/Geilenkir... | Olive oil, native               | 291374        | 1       |
| Beiersdorf                 | Almond oil, refined             | 17207905      | 1       |
| Bergland / Krieger         | Evening primrose oil, refined   | 1072021/1     | 1       |
| Bergland/Anzag             | Evening primrose oil, refined   | H500690       | 1       |
| Bergland/Phönix            | Evening primrose oil, refined   | H302605       | 1       |
| Bergland/Phönix            | Evening primrose oil, refined   | K501908       | 1       |
| Bergland                   | Borage oil, refined, stabili... | H300590       | 2       |
| Bergland                   | Evening primrose oil, refined   | K6013776      | 1       |
| Bergland                   | Evening primrose oil, refined   | K702516       | 1       |
| Bergland                   | Evening primrose oil, refined   | K800621       | 1       |
| Bergland-Pharma            | Borage oil, refined, stabili... | H103019       | 2       |
| Biofrid/Kehr               | Jojoba Oil, native              | 1127          | 1       |
| Bionorica ethics/Allian... | Olive oil, native               | 18005453      | 1       |
| Bionorica ethics           | Evening primrose oil, refined   | 1901046-01    | 2       |
| Bionorica/Phönix           | Almond oil, refined             | 18070602      | 1       |
| Biopräp / GEHE             | Almond oil, refined             | E1403027      | 1       |
| Biopräp / GEHE             | Almond oil, refined             | E1410088      | 1       |
| BioPräp/Phoenix 08.03.2... | Jojoba Oil, native              | 1711193       | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b>   | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-------------------|---------------------------------|--------------|----------------|
| BioPräp/Phönix    | Almond oil, refined             | E1805161     | 1              |
| BioPräp           | Almond oil, refined             | E1510042     | 1              |
| BioPräp           | Almond oil, refined             | E1610090     | 1              |
| biopräp           | Almond oil, refined             | E1810144     | 1              |
| BioPräp           | Almond oil, refined             | E1902011     | 1              |
| Bomastus/Phönix   | Olive oil, native               | 302523       | 1              |
| Bomastus/Phönix   | Avocado oil, refined            | 309826       | 2              |
| Bomastus          | Olive oil, native               | 17001926     | 1              |
| Bomastus-Werke AG | Olive oil, native               | 308230       | 1              |
| Bomb/ Noweda      | Flaxseed oil, native            | 290569       | 1              |
| Bomba/Phönix      | Olive oil, native               | 18003205     | 1              |
| Bomba/Phönix      | Olive oil, native               | 19006021     | 1              |
| Bombas/AHD        | Olive oil, native               | 20003375     | 1              |
| Bombast/Noweda    | Olive oil, native               | 289095       | 1              |
| Bombast/Phönix    | Almond oil, refined             | 18000342     | 1              |
| Bombastu/Phönix   | Almond oil, refined             | 18006808     | 2              |
| Bombastus         | Evening primrose oil, refined   | 1000003443   | 3              |
| Bombastus         | Corn oil, refined               | 10032015A    | 1              |
| Bombastus         | Almond oil, refined             | 108000342    | 1              |
| Bombastus         | Olive oil, native               | 108230       | 1              |
| Bombastus         | Olive oil, native               | 110816-1     | 1              |
| Bombastus         | Olive oil, native               | 111405       | 1              |
| Bombastus         | Olive oil, native               | 12274106     | 1              |
| Bombastus         | Evening primrose oil, refined   | 12325114     | 1              |
| Bombastus         | Almond oil, refined             | 1233test     | 1              |
| Bombastus         | Evening primrose oil, refined   | 13121806     | 1              |
| Bombastus         | Evening primrose oil, refined   | 133339       | 1              |
| Bombastus         | Flaxseed oil, native            | 14087902     | 1              |
| Bombastus         | Flaxseed oil, native            | 14087903     | 1              |
| Bombastus         | Olive oil, native               | 14118604     | 1              |
| Bombastus         | Almond oil, refined             | 14139305     | 1              |
| Bombastus         | Olive oil, native               | 14306904     | 1              |
| Bombastus         | Almond oil, refined             | 1509710      | 1              |
| Bombastus         | Evening primrose oil, refined   | 15171108     | 1              |
| Bombastus         | Evening primrose oil, refined   | 15171110     | 1              |
| Bombastus         | Almond oil, refined             | 15197406     | 1              |
| Bombastus         | Almond oil, refined             | 15197407     | 1              |
| Bombastus         | Almond oil, refined             | 15197409     | 1              |
| Bombastus         | Almond oil, refined             | 15197412     | 1              |
| Bombastus         | Borage oil, refined, stabili... | 15305001     | 1              |
| Bombastus         | Olive oil, native               | 15399702     | 1              |
| Bombastus         | Flaxseed oil, native            | 15415904     | 1              |
| Bombastus         | Jobba Oil, native               | 16070610     | 1              |
| Bombastus         | Peanut oil, refined             | 16071104     | 1              |
| Bombastus         | Almond oil, refined             | 16115303     | 1              |
| Bombastus         | Olive oil, native               | 16212801     | 1              |
| Bombastus         | Almond oil, refined             | 16327302     | 4              |
| Bombastus         | Almond oil, refined             | 16327311     | 1              |
| Bombastus         | Flaxseed oil, native            | 17000381     | 3              |
| Bombastus         | Almond oil, refined             | 17000424     | 1              |
| Bombastus         | Almond oil, refined             | 17000425     | 3              |
| Bombastus         | Almond oil, refined             | 17000426     | 6              |
| Bombastus         | Peanut oil, refined             | 17001078     | 3              |
| Bombastus         | Flaxseed oil, native            | 170015335500 | 1              |
| Bombastus         | Flaxseed oil, native            | 17001535     | 1              |
| Bombastus         | Olive oil, native               | 17001888     | 7              |
| Bombastus         | Olive oil, native               | 17001926     | 48             |
| Bombastus         | Flaxseed oil, native            | 17002088     | 1              |
| Bombastus         | Flaxseed oil, native            | 17002089     | 3              |
| Bombastus         | Evening primrose oil, refined   | 1703020-01   | 1              |

*continued on the next page*



continued from previous page

| Supplier  | Substance                     | Batch         | Spectra |
|-----------|-------------------------------|---------------|---------|
| Bombastus | Evening primrose oil, refined | 1710011-01    | 1       |
| Bombastus | Olive oil, native             | 17121604      | 1       |
| Bombastus | Peanut oil, refined           | 17169010      | 1       |
| Bombastus | Almond oil, refined           | 17176507      | 1       |
| Bombastus | Shea butter, refined          | 17287502      | 2       |
| Bombastus | Olive oil, native             | 18000212      | 2       |
| Bombastus | Almond oil, refined           | 18000340      | 1       |
| Bombastus | Almond oil, refined           | 18000341      | 4       |
| Bombastus | Almond oil, refined           | 180003415618  | 1       |
| Bombastus | Almond oil, refined           | 18000342      | 12      |
| Bombastus | Wheatgerm oil, refined        | 18000536      | 4       |
| Bombastus | Flaxseed oil, native          | 18000694      | 3       |
| Bombastus | Flaxseed oil, native          | 180017195740  | 1       |
| Bombastus | Flaxseed oil, native          | 18001721      | 2       |
| Bombastus | Jobba Oil, native             | 18001734      | 1       |
| Bombastus | Almond oil, refined           | 18001780      | 6       |
| Bombastus | Almond oil, refined           | 18001781      | 12      |
| Bombastus | Almond oil, refined           | 18001782      | 12      |
| Bombastus | Olive oil, native             | 18002118      | 3       |
| Bombastus | Olive oil, native             | 18002119      | 49      |
| Bombastus | Peanut oil, refined           | 18002249      | 10      |
| Bombastus | Peanut oil, refined           | 18002250      | 1       |
| Bombastus | Wheatgerm oil, refined        | 1800243       | 1       |
| Bombastus | Wheatgerm oil, refined        | 18002442      | 1       |
| Bombastus | Avocado oil, refined          | 18002515      | 4       |
| Bombastus | Olive oil, native             | 18003204      | 13      |
| Bombastus | Olive oil, native             | 18003205      | 68      |
| Bombastus | Almond oil, refined           | 1800342       | 1       |
| Bombastus | Flaxseed oil, native          | 18003462      | 1       |
| Bombastus | Flaxseed oil, native          | 18003463      | 2       |
| Bombastus | Avocado oil, refined          | 18003611      | 4       |
| Bombastus | Jobba Oil, native             | 18003615      | 4       |
| Bombastus | Jobba Oil, native             | 18003617      | 1       |
| Bombastus | Almond oil, refined           | 18004501      | 2       |
| Bombastus | Almond oil, refined           | 18004502      | 8       |
| Bombastus | Almond oil, refined           | 18004503      | 9       |
| Bombastus | Peanut oil, refined           | 18004538      | 1       |
| Bombastus | Wheatgerm oil, refined        | 1800524       | 1       |
| Bombastus | Sunflower oil, refined        | 18005423      | 3       |
| Bombastus | Olive oil, native             | 18005452      | 11      |
| Bombastus | Olive oil, native             | 18005453      | 62      |
| Bombastus | Peanut oil, refined           | 18005645      | 8       |
| Bombastus | Almond oil, refined           | 18006806      | 1       |
| Bombastus | Almond oil, refined           | 18006807      | 8       |
| Bombastus | Almond oil, refined           | 18006808      | 8       |
| Bombastus | Peanut oil, refined           | 18014402      | 1       |
| Bombastus | Peanut oil, refined           | 18014405      | 1       |
| Bombastus | Evening primrose oil, refined | 1803006-01    | 1       |
| Bombastus | Olive oil, native             | 18208106      | 1       |
| Bombastus | Olive oil, native             | 185(308229)   | 1       |
| Bombastus | Olive oil, native             | 186(17001888) | 1       |
| Bombastus | Olive oil, native             | 187(18005452) | 1       |
| Bombastus | Olive oil, native             | 190000227     | 1       |
| Bombastus | Safflower oil, refined type I | 19000029      | 2       |
| Bombastus | Peanut oil, refined           | 19000224      | 7       |
| Bombastus | Olive oil, native             | 19000226      | 6       |
| Bombastus | Olive oil, native             | 19000227      | 41      |
| Bombastus | Sunflower oil, refined        | 19000395      | 2       |
| Bombastus | Avocado oil, refined          | 19000722      | 3       |
| Bombastus | Flaxseed oil, native          | 19001510      | 1       |

continued on the next page



continued from previous page

| Supplier  | Substance                     | Batch     | Spectra |
|-----------|-------------------------------|-----------|---------|
| Bombastus | Almond oil, refined           | 19001702  | 12      |
| Bombastus | Almond oil, refined           | 19001703  | 2       |
| Bombastus | Wheatgerm oil, refined        | 19001748  | 2       |
| Bombastus | Olive oil, native             | 19001847  | 2       |
| Bombastus | Olive oil, native             | 19001848  | 33      |
| Bombastus | Peanut oil, refined           | 19001936  | 3       |
| Bombastus | Flaxseed oil, native          | 19002738  | 1       |
| Bombastus | Flaxseed oil, native          | 19002739  | 2       |
| Bombastus | Olive oil, native             | 19002973  | 12      |
| Bombastus | Olive oil, native             | 19002974  | 68      |
| Bombastus | Wheatgerm oil, refined        | 19003005  | 1       |
| Bombastus | Sunflower oil, refined        | 19003337  | 1       |
| Bombastus | Sunflower oil, refined        | 19003338  | 3       |
| Bombastus | Almond oil, refined           | 19003889  | 12      |
| Bombastus | Almond oil, refined           | 19003890  | 6       |
| Bombastus | Almond oil, refined           | 19003906  | 2       |
| Bombastus | Safflower oil, refined type I | 19003935  | 3       |
| Bombastus | Flaxseed oil, native          | 19004013  | 4       |
| Bombastus | Apricot kernel oil, refined   | 19004099  | 1       |
| Bombastus | Sunflower oil, refined        | 19005126  | 4       |
| Bombastus | Peanut oil, refined           | 19005220  | 3       |
| Bombastus | Olive oil, native             | 19005404  | 4       |
| Bombastus | Almond oil, refined           | 19005416  | 1       |
| Bombastus | Almond oil, refined           | 19005859  | 13      |
| Bombastus | Almond oil, refined           | 19005860  | 8       |
| Bombastus | Olive oil, native             | 19006020  | 7       |
| Bombastus | Olive oil, native             | 19006021  | 41      |
| Bombastus | Flaxseed oil, native          | 19006028  | 1       |
| Bombastus | Olive oil, native             | 1900621   | 1       |
| Bombastus | Almond oil, refined           | 19006436  | 2       |
| Bombastus | Olive oil, native             | 190451504 | 1       |
| Bombastus | Almond oil, refined           | 1905860   | 1       |
| Bombastus | Olive oil, native             | 190692406 | 1       |
| Bombastus | Olive oil, native             | 20000170  | 14      |
| Bombastus | Olive oil, native             | 20000171  | 24      |
| Bombastus | Olive oil, native             | 200001867 | 1       |
| Bombastus | Almond oil, refined           | 20000844  | 5       |
| Bombastus | Almond oil, refined           | 20000845  | 12      |
| Bombastus | Almond oil, refined           | 2000085   | 1       |
| Bombastus | Wheatgerm oil, refined        | 20000929  | 1       |
| Bombastus | Sunflower oil, refined        | 20001463  | 3       |
| Bombastus | Almond oil, refined           | 20001466  | 1       |
| Bombastus | Peanut oil, refined           | 20001707  | 2       |
| Bombastus | Peanut oil, refined           | 20001708  | 2       |
| Bombastus | Avocado oil, refined          | 20001740  | 3       |
| Bombastus | Olive oil, native             | 20001864  | 5       |
| Bombastus | Olive oil, native             | 20001867  | 23      |
| Bombastus | Sunflower oil, refined        | 20002635  | 1       |
| Bombastus | Olive oil, native             | 20002914  | 2       |
| Bombastus | Olive oil, native             | 20002915  | 18      |
| Bombastus | Almond oil, refined           | 20003200  | 4       |
| Bombastus | Almond oil, refined           | 20003201  | 12      |
| Bombastus | Safflower oil, refined type I | 20003302  | 2       |
| Bombastus | Olive oil, native             | 20003374  | 2       |
| Bombastus | Olive oil, native             | 20003375  | 20      |
| Bombastus | Peanut oil, refined           | 20003735  | 1       |
| Bombastus | Flaxseed oil, native          | 20003792  | 1       |
| Bombastus | Sunflower oil, refined        | 20003804  | 1       |
| Bombastus | Olive oil, native             | 20004027  | 1       |
| Bombastus | Olive oil, native             | 20004028  | 5       |

continued on the next page

continued from previous page

| Supplier  | Substance                     | Batch         | Spectra |
|-----------|-------------------------------|---------------|---------|
| Bombastus | Flaxseed oil, native          | 20004426      | 3       |
| Bombastus | Olive oil, native             | 2000472       | 1       |
| Bombastus | Olive oil, native             | 20004725      | 2       |
| Bombastus | Olive oil, native             | 20004726      | 13      |
| Bombastus | Almond oil, refined           | 20005068      | 4       |
| Bombastus | Olive oil, native             | 20005317      | 4       |
| Bombastus | Olive oil, native             | 20005318      | 8       |
| Bombastus | Olive oil, native             | 20005599      | 1       |
| Bombastus | Olive oil, native             | 20005601      | 18      |
| Bombastus | Almond oil, refined           | 20005608      | 1       |
| Bombastus | Olive oil, native             | 2003375       | 1       |
| Bombastus | Avocado oil, refined          | 2091235000130 | 1       |
| Bombastus | Safflower oil, refined type I | 21000062      | 4       |
| Bombastus | Peanut oil, refined           | 21000287      | 1       |
| Bombastus | Almond oil, refined           | 21000527      | 2       |
| Bombastus | Sunflower oil, refined        | 21000550      | 1       |
| Bombastus | Almond oil, refined           | 21001187      | 3       |
| Bombastus | Almond oil, refined           | 21001188      | 3       |
| Bombastus | Olive oil, native             | 21001644      | 12      |
| Bombastus | Almond oil, refined           | 21003336      | 1       |
| Bombastus | Olive oil, native             | 21003356      | 3       |
| Bombastus | Olive oil, native             | 210033560     | 1       |
| Bombastus | Olive oil, native             | 21004461      | 2       |
| Bombastus | Olive oil, native             | 21005266      | 1       |
| Bombastus | Olive oil, native             | 21005267      | 3       |
| Bombastus | Olive oil, native             | 22000660      | 2       |
| Bombastus | Olive oil, native             | 2519I-02000   | 1       |
| Bombastus | Peanut oil, refined           | 263129        | 1       |
| Bombastus | Almond oil, refined           | 264164        | 1       |
| Bombastus | Peanut oil, refined           | 264328        | 1       |
| Bombastus | Olive oil, native             | 265359        | 1       |
| Bombastus | Flaxseed oil, native          | 266111        | 1       |
| Bombastus | Olive oil, native             | 266513        | 1       |
| Bombastus | Peanut oil, refined           | 266753        | 1       |
| Bombastus | Almond oil, refined           | 267099        | 2       |
| Bombastus | Olive oil, native             | 267376        | 3       |
| Bombastus | Avocado oil, refined          | 267660        | 1       |
| Bombastus | Jobba Oil, native             | 267834        | 1       |
| Bombastus | Peanut oil, refined           | 267966        | 4       |
| Bombastus | Olive oil, native             | 268118        | 1       |
| Bombastus | Avocado oil, refined          | 268579        | 1       |
| Bombastus | Olive oil, native             | 269674        | 1       |
| Bombastus | Almond oil, refined           | 270829        | 1       |
| Bombastus | Olive oil, native             | 270970        | 4       |
| Bombastus | Olive oil, native             | 270971        | 2       |
| Bombastus | Sunflower oil, refined        | 271457        | 1       |
| Bombastus | Peanut oil, refined           | 271512        | 3       |
| Bombastus | Flaxseed oil, native          | 271645        | 2       |
| Bombastus | Olive oil, native             | 272270        | 2       |
| Bombastus | Flaxseed oil, native          | 272528        | 1       |
| Bombastus | Almond oil, refined           | 273578        | 4       |
| Bombastus | Olive oil, native             | 273659        | 3       |
| Bombastus | Olive oil, native             | 273871        | 5       |
| Bombastus | Sunflower oil, refined        | 274107        | 1       |
| Bombastus | Olive oil, native             | 274236        | 7       |
| Bombastus | Almond oil, refined           | 274564        | 1       |
| Bombastus | Flaxseed oil, native          | 274875        | 1       |
| Bombastus | Apricot kernel oil, refined   | 274930        | 1       |
| Bombastus | Avocado oil, refined          | 274935        | 1       |
| Bombastus | Flaxseed oil, native          | 275487        | 2       |

continued on the next page

continued from previous page

| Supplier  | Substance              | Batch        | Spectra |
|-----------|------------------------|--------------|---------|
| Bombastus | Olive oil, native      | 275757       | 2       |
| Bombastus | Sunflower oil, refined | 275830       | 1       |
| Bombastus | Peanut oil, refined    | 276103       | 2       |
| Bombastus | Flaxseed oil, native   | 276105       | 1       |
| Bombastus | Flaxseed oil, native   | 276106       | 1       |
| Bombastus | Jojoba Oil, native     | 276323       | 1       |
| Bombastus | Olive oil, native      | 276542       | 2       |
| Bombastus | Flaxseed oil, native   | 276727       | 2       |
| Bombastus | Olive oil, native      | 277049       | 1       |
| Bombastus | Olive oil, native      | 277050       | 9       |
| Bombastus | Almond oil, refined    | 277912       | 2       |
| Bombastus | Almond oil, refined    | 277971       | 4       |
| Bombastus | Olive oil, native      | 278583       | 10      |
| Bombastus | Almond oil, refined    | 279230       | 1       |
| Bombastus | Olive oil, native      | 279608       | 5       |
| Bombastus | Olive oil, native      | 279609       | 7       |
| Bombastus | Flaxseed oil, native   | 280711       | 1       |
| Bombastus | Almond oil, refined    | 281039       | 1       |
| Bombastus | Almond oil, refined    | 281040       | 5       |
| Bombastus | Olive oil, native      | 281209       | 4       |
| Bombastus | Jojoba Oil, native     | 281299       | 1       |
| Bombastus | Flaxseed oil, native   | 281489       | 2       |
| Bombastus | Almond oil, refined    | 281765       | 1       |
| Bombastus | Sunflower oil, refined | 281796       | 2       |
| Bombastus | Olive oil, native      | 281898       | 5       |
| Bombastus | Almond oil, refined    | 282093       | 3       |
| Bombastus | Almond oil, refined    | 282171       | 1       |
| Bombastus | Flaxseed oil, native   | 282391       | 1       |
| Bombastus | Olive oil, native      | 282963       | 9       |
| Bombastus | Wheatgerm oil, refined | 283449       | 1       |
| Bombastus | Olive oil, native      | 283762       | 3       |
| Bombastus | Almond oil, refined    | 283800       | 2       |
| Bombastus | Almond oil, refined    | 283801       | 2       |
| Bombastus | Peanut oil, refined    | 283866       | 1       |
| Bombastus | Olive oil, native      | 284143       | 2       |
| Bombastus | Olive oil, native      | 284144       | 7       |
| Bombastus | Peanut oil, refined    | 284286       | 5       |
| Bombastus | Almond oil, refined    | 284967       | 2       |
| Bombastus | Almond oil, refined    | 284968       | 1       |
| Bombastus | Flaxseed oil, native   | 285121       | 1       |
| Bombastus | Olive oil, native      | 285160       | 1       |
| Bombastus | Sunflower oil, refined | 285243       | 1       |
| Bombastus | Olive oil, native      | 285642       | 1       |
| Bombastus | Sunflower oil, refined | 285712       | 2       |
| Bombastus | Olive oil, native      | 285942       | 10      |
| Bombastus | Almond oil, refined    | 286253       | 2       |
| Bombastus | Almond oil, refined    | 286254       | 5       |
| Bombastus | Peanut oil, refined    | 286393       | 5       |
| Bombastus | Avocado oil, refined   | 286519       | 1       |
| Bombastus | Olive oil, native      | 286533       | 8       |
| Bombastus | Wheatgerm oil, refined | 286986       | 1       |
| Bombastus | Olive oil, native      | 287259       | 9       |
| Bombastus | Olive oil, native      | 287259Noweda | 1       |
| Bombastus | Almond oil, refined    | 287416       | 1       |
| Bombastus | Flaxseed oil, native   | 288025       | 1       |
| Bombastus | Almond oil, refined    | 288428       | 3       |
| Bombastus | Almond oil, refined    | 288471       | 3       |
| Bombastus | Peanut oil, refined    | 288510       | 3       |
| Bombastus | Olive oil, native      | 288752       | 6       |
| Bombastus | Olive oil, native      | 289094       | 5       |

continued on the next page

continued from previous page

| Supplier  | Substance              | Batch    | Spectra |
|-----------|------------------------|----------|---------|
| Bombastus | Olive oil, native      | 289095   | 6       |
| Bombastus | Wheatgerm oil, refined | 289212   | 1       |
| Bombastus | Avocado oil, refined   | 289240   | 2       |
| Bombastus | Olive oil, native      | 28963    | 1       |
| Bombastus | Almond oil, refined    | 289709   | 1       |
| Bombastus | Almond oil, refined    | 290135   | 1       |
| Bombastus | Almond oil, refined    | 290136   | 1       |
| Bombastus | Olive oil, native      | 290403   | 10      |
| Bombastus | Olive oil, native      | 290924   | 15      |
| Bombastus | Flaxseed oil, native   | 291126   | 1       |
| Bombastus | Sunflower oil, refined | 291278   | 1       |
| Bombastus | Olive oil, native      | 291374   | 10      |
| Bombastus | Almond oil, refined    | 291509   | 5       |
| Bombastus | Peanut oil, refined    | 291671   | 4       |
| Bombastus | Flaxseed oil, native   | 291900   | 1       |
| Bombastus | Olive oil, native      | 292369   | 24      |
| Bombastus | Almond oil, refined    | 292591   | 4       |
| Bombastus | Almond oil, refined    | 292592   | 6       |
| Bombastus | Sunflower oil, refined | 292956   | 1       |
| Bombastus | Flaxseed oil, native   | 293950   | 1       |
| Bombastus | Olive oil, native      | 294034   | 19      |
| Bombastus | Olive oil, native      | 294035   | 2       |
| Bombastus | Jobba Oil, native      | 294112   | 3       |
| Bombastus | Avocado oil, refined   | 294183   | 4       |
| Bombastus | Almond oil, refined    | 294784   | 4       |
| Bombastus | Peanut oil, refined    | 29527    | 1       |
| Bombastus | Peanut oil, refined    | 295272   | 10      |
| Bombastus | Olive oil, native      | 295282   | 4       |
| Bombastus | Olive oil, native      | 295283   | 24      |
| Bombastus | Wheatgerm oil, refined | 295374   | 1       |
| Bombastus | Almond oil, refined    | 295615   | 3       |
| Bombastus | Almond oil, refined    | 295616   | 5       |
| Bombastus | Sunflower oil, refined | 295818   | 2       |
| Bombastus | Olive oil, native      | 296259   | 3       |
| Bombastus | Olive oil, native      | 296260   | 18      |
| Bombastus | Almond oil, refined    | 296518   | 3       |
| Bombastus | Almond oil, refined    | 296519   | 2       |
| Bombastus | Flaxseed oil, native   | 296730   | 1       |
| Bombastus | Olive oil, native      | 297227   | 5       |
| Bombastus | Peanut oil, refined    | 297242   | 3       |
| Bombastus | Flaxseed oil, native   | 297286   | 2       |
| Bombastus | Olive oil, native      | 297564   | 4       |
| Bombastus | Olive oil, native      | 297565   | 7       |
| Bombastus | Jobba Oil, native      | 297760   | 3       |
| Bombastus | Almond oil, refined    | 297872   | 3       |
| Bombastus | Olive oil, native      | 298007   | 7       |
| Bombastus | Olive oil, native      | 298008   | 10      |
| Bombastus | Sunflower oil, refined | 298487   | 1       |
| Bombastus | Avocado oil, refined   | 298491   | 1       |
| Bombastus | Almond oil, refined    | 298744   | 2       |
| Bombastus | Almond oil, refined    | 298745   | 10      |
| Bombastus | Peanut oil, refined    | 299136   | 7       |
| Bombastus | Almond oil, refined    | 299598   | 1       |
| Bombastus | Sunflower oil, refined | 299712   | 1       |
| Bombastus | Olive oil, native      | 299817   | 5       |
| Bombastus | Olive oil, native      | 29992915 | 1       |
| Bombastus | Peanut oil, refined    | 30008    | 1       |
| Bombastus | Olive oil, native      | 300219   | 5       |
| Bombastus | Olive oil, native      | 300220   | 18      |
| Bombastus | Flaxseed oil, native   | 300307   | 1       |

continued on the next page

continued from previous page

| Supplier  | Substance                   | Batch      | Spectra |
|-----------|-----------------------------|------------|---------|
| Bombastus | Avocado oil, refined        | 300403     | 2       |
| Bombastus | Almond oil, refined         | 300840     | 1       |
| Bombastus | Almond oil, refined         | 300841     | 3       |
| Bombastus | Peanut oil, refined         | 30100      | 1       |
| Bombastus | Peanut oil, refined         | 301000     | 1       |
| Bombastus | Olive oil, native           | 301099     | 10      |
| Bombastus | Olive oil, native           | 301100     | 28      |
| Bombastus | Olive oil, native           | 3011000    | 2       |
| Bombastus | Wheatgerm oil, refined      | 301382     | 1       |
| Bombastus | Wheatgerm oil, refined      | 301383     | 1       |
| Bombastus | Jojoba Oil, native          | 301651     | 1       |
| Bombastus | Peanut oil, refined         | 302017     | 5       |
| Bombastus | Olive oil, native           | 302073     | 5       |
| Bombastus | Apricot kernel oil, refined | 302095     | 2       |
| Bombastus | Almond oil, refined         | 302209     | 1       |
| Bombastus | Almond oil, refined         | 302210     | 5       |
| Bombastus | Almond oil, refined         | 302211     | 7       |
| Bombastus | Flaxseed oil, native        | 302269     | 2       |
| Bombastus | Sunflower oil, refined      | 302347     | 1       |
| Bombastus | Olive oil, native           | 302521     | 28      |
| Bombastus | Olive oil, native           | 302522     | 4       |
| Bombastus | Olive oil, native           | 302523     | 17      |
| Bombastus | Flaxseed oil, native        | 303096     | 3       |
| Bombastus | Flaxseed oil, native        | 303440     | 2       |
| Bombastus | Olive oil, native           | 303449     | 37      |
| Bombastus | Peanut oil, refined         | 303460     | 5       |
| Bombastus | Almond oil, refined         | 304023     | 4       |
| Bombastus | Almond oil, refined         | 304024     | 3       |
| Bombastus | Olive oil, native           | 304111     | 10      |
| Bombastus | Olive oil, native           | 304112     | 1       |
| Bombastus | Olive oil, native           | 304113     | 15      |
| Bombastus | Flaxseed oil, native        | 304454     | 2       |
| Bombastus | Olive oil, native           | 305001     | 81      |
| Bombastus | Olive oil, native           | 305002     | 9       |
| Bombastus | Olive oil, native           | 305003     | 25      |
| Bombastus | Wheatgerm oil, refined      | 305122     | 2       |
| Bombastus | Flaxseed oil, native        | 305183     | 1       |
| Bombastus | Peanut oil, refined         | 305319     | 3       |
| Bombastus | Flaxseed oil, native        | 306179     | 3       |
| Bombastus | Jojoba Oil, native          | 306279     | 1       |
| Bombastus | Almond oil, refined         | 306290     | 1       |
| Bombastus | Almond oil, refined         | 306291     | 3       |
| Bombastus | Almond oil, refined         | 306292     | 5       |
| Bombastus | Avocado oil, refined        | 306789     | 1       |
| Bombastus | Olive oil, native           | 306948     | 23      |
| Bombastus | Olive oil, native           | 306949     | 10      |
| Bombastus | Olive oil, native           | 306950     | 21      |
| Bombastus | Olive oil, native           | 307103     | 19      |
| Bombastus | Flaxseed oil, native        | 307115     | 1       |
| Bombastus | Wheatgerm oil, refined      | 307209     | 1       |
| Bombastus | Wheatgerm oil, refined      | 307210     | 2       |
| Bombastus | Peanut oil, refined         | 307254     | 1       |
| Bombastus | Almond oil, refined         | 307297     | 2       |
| Bombastus | Almond oil, refined         | 307298     | 6       |
| Bombastus | Almond oil, refined         | 307299     | 10      |
| Bombastus | Peanut oil, refined         | 307541     | 7       |
| Bombastus | Apricot kernel oil, refined | 307653     | 1       |
| Bombastus | Flaxseed oil, native        | 3079865304 | 1       |
| Bombastus | Flaxseed oil, native        | 307988     | 1       |
| Bombastus | Olive oil, native           | 30820      | 1       |

continued on the next page

continued from previous page

| Supplier                 | Substance                     | Batch               | Spectra |
|--------------------------|-------------------------------|---------------------|---------|
| Bombastus                | Olive oil, native             | 308229              | 9       |
| Bombastus                | Olive oil, native             | 308230              | 78      |
| Bombastus                | Olive oil, native             | 308230-20170704Ma13 | 1       |
| Bombastus                | Olive oil, native             | 308230-20171106Ma7  | 1       |
| Bombastus                | Flaxseed oil, native          | 308634              | 3       |
| Bombastus                | Almond oil, refined           | 308918              | 4       |
| Bombastus                | Almond oil, refined           | 308919              | 5       |
| Bombastus                | Almond oil, refined           | 3089195381          | 1       |
| Bombastus                | Almond oil, refined           | 308920              | 5       |
| Bombastus                | Wheatgerm oil, refined        | 309093              | 1       |
| Bombastus                | Sunflower oil, refined        | 309255              | 1       |
| Bombastus                | Sunflower oil, refined        | 309256              | 2       |
| Bombastus                | Jojoba Oil, native            | 309479              | 1       |
| Bombastus                | Jojoba Oil, native            | 309480              | 1       |
| Bombastus                | Safflower oil, refined type I | 309851              | 2       |
| Bombastus                | Peanut oil, refined           | 310007              | 6       |
| Bombastus                | Peanut oil, refined           | 310008              | 2       |
| Bombastus                | Almond oil, refined           | 310859              | 2       |
| Bombastus                | Olive oil, native             | 310866              | 4       |
| Bombastus                | Olive oil, native             | 310868              | 46      |
| Bombastus                | Olive oil, native             | 310868x2            | 1       |
| Bombastus                | Wheatgerm oil, refined        | 311302              | 2       |
| Bombastus                | Olive oil, native             | 4328413             | 1       |
| Bombastus                | Olive oil, native             | 4613M-02000         | 1       |
| Bombastus                | Almond oil, refined           | 47/2014             | 1       |
| Bombastus                | Olive oil, native             | 4812A-02000         | 1       |
| Bombastus                | Olive oil, native             | 60081503            | 14      |
| Bombastus                | Almond oil, refined           | 60083010            | 1       |
| Bombastus                | Olive oil, native             | 6861565             | 1       |
| Bombastus                | Olive oil, native             | 6861571             | 5       |
| Bombastus                | Olive oil, native             | 68615710            | 1       |
| Bombastus                | Almond oil, refined           | 6862010             | 2       |
| Bombastus                | Codliver oil (type A)         | 8001176004          | 1       |
| Bombastus                | Almond oil, refined           | 8002653001          | 2       |
| Bombastus                | Almond oil, refined           | 8004039003          | 1       |
| Bombastus                | Olive oil, native             | 8004251002          | 1       |
| Bombastus                | Olive oil, native             | 8022014A            | 1       |
| Bombastus                | Peanut oil, refined           | 80370408            | 2       |
| Bombastus                | Peanut oil, refined           | 8273799             | 1       |
| Bombastus                | Olive oil, native             | 9005020             | 1       |
| Bombastus                | Olive oil, native             | bombastus/21001644  | 1       |
| Bombastus                | Olive oil, native             | oo270970            | 1       |
| Bombastus                | Shea butter, refined          | SB1747              | 1       |
| Bombstus/Phönix          | Olive oil, native             | 18002119            | 1       |
| Bombstus                 | Peanut oil, refined           | 17001078            | 1       |
| Bombstus                 | Olive oil, native             | 18005453            | 1       |
| Bombstus                 | Olive oil, native             | 308230              | 2       |
| Boombastus               | Olive oil, native             | 19002974            | 1       |
| Bremen / Noweda          | Codliver oil (type A)         | 5529601             | 1       |
| BREMER SCHLÜSSEL/ Noweda | Codliver oil (type A)         | 5437202             | 1       |
| Bremer Schlüssel/Phönix  | Sesame oil, refined           | 1000007221          | 1       |
| BremerSchlüssel Phoenix  | Codliver oil (type A)         | 8003727001          | 2       |
| Brücken-Apotheke         | Olive oil, native             | 288752              | 2       |
| Cae                      | Olive oil, native             | 12141309            | 1       |
| Cae                      | Evening primrose oil, refined | 14002501            | 1       |
| Cae                      | Oleyl oleate (stabilised)     | 15321701            | 1       |
| cae                      | Shea butter, refined          | 18222305            | 1       |
| Caeleo/ Krieger          | Olive oil, native             | 18121101            | 1       |
| Caeli/Alliance           | Avocado oil, refined          | 18044901            | 1       |
| Caelo                    | Olive oil, native             |                     | 26      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Borage oil, refined, stabili... | 1(18295808)      | 1       |
| Caelo    | Almond oil, refined             | 1000003242       | 4       |
| Caelo    | Evening primrose oil, refined   | 1000003443       | 1       |
| Caelo    | Almond oil, refined             | 1000004431       | 7       |
| Caelo    | Avocado oil, refined            | 1000005537       | 2       |
| Caelo    | Sesame oil, refined             | 1000005858       | 1       |
| Caelo    | Borage oil, refined, stabili... | 1000006595       | 1       |
| Caelo    | Sesame oil, refined             | 1000007221       | 1       |
| Caelo    | Sesame oil, refined             | 1000009220       | 9       |
| Caelo    | Almond oil, refined             | 1000010093       | 4       |
| Caelo    | Almond oil, refined             | 1000010685       | 2       |
| Caelo    | Sesame oil, refined             | 1000010906       | 1       |
| Caelo    | Almond oil, refined             | 1000012126       | 1       |
| Caelo    | Olive oil, native               | 1000012617       | 1       |
| Caelo    | Peanut oil, refined             | 1000012961       | 2       |
| Caelo    | Codliver oil (type A)           | 1000013131       | 2       |
| Caelo    | Peanut oil, refined             | 1000013880       | 1       |
| Caelo    | Peanut oil, refined             | 1000014700       | 2       |
| Caelo    | Sesame oil, refined             | 100015599        | 1       |
| Caelo    | Sesame oil, refined             | 10011503         | 1       |
| Caelo    | Olive oil, native               | 1001848          | 1       |
| Caelo    | Codliver oil (type A)           | 10031501         | 1       |
| Caelo    | Codliver oil (type A)           | 10061302         | 1       |
| Caelo    | Codliver oil (type A)           | 10061501         | 1       |
| Caelo    | Almond oil, refined             | 10061502         | 1       |
| Caelo    | Jobba Oil, native               | 10071307         | 1       |
| Caelo    | Codliver oil (type A)           | 10101207         | 1       |
| Caelo    | Evening primrose oil, refined   | 10101404         | 1       |
| Caelo    | Olive oil, native               | 10111201         | 1       |
| Caelo    | Shea butter, refined            | 10133305         | 2       |
| Caelo    | Peanut oil, refined             | 1013A-01954      | 2       |
| Caelo    | Almond oil, refined             | 10131-01950      | 1       |
| Caelo    | Peanut oil, refined             | 102(17169001)    | 1       |
| Caelo    | Peanut oil, refined             | 10208605         | 1       |
| Caelo    | Grape seed oil, refined         | 10222901         | 1       |
| Caelo    | Sesame oil, refined             | 10241803         | 1       |
| Caelo    | Evening primrose oil, refined   | 10281314         | 1       |
| Caelo    | Peanut oil, refined             | 103(18296001)    | 1       |
| Caelo    | Olive oil, native               | 1031302          | 1       |
| Caelo    | Walnut oil, refined             | 10328802         | 1       |
| Caelo    | Almond oil, refined             | 1041703          | 1       |
| Caelo    | Codliver oil (type A)           | 1041704          | 1       |
| Caelo    | Almond oil, refined             | 1042204          | 1       |
| Caelo    | Evening primrose oil, refined   | 1052001          | 1       |
| Caelo    | Peanut oil, refined             | 107063           | 1       |
| Caelo    | Evening primrose oil, refined   | 108009103        | 1       |
| Caelo    | Almond oil, refined             | 1080517/16327302 | 1       |
| Caelo    | Olive oil, native               | 1081402          | 1       |
| Caelo    | Almond oil, refined             | 109000779004     | 1       |
| Caelo    | Olive oil, native               | 10976109         | 1       |
| Caelo    | Sunflower oil, refined          | 11000605         | 2       |
| Caelo    | Borage oil, refined, stabili... | 11002607         | 1       |
| Caelo    | Olive oil, native               | 1100616          | 1       |
| Caelo    | Evening primrose oil, refined   | 11019201         | 1       |
| Caelo    | Olive oil, native               | 11031706         | 1       |
| Caelo    | Codliver oil (type A)           | 11051705         | 1       |
| Caelo    | Olive oil, native               | 11063901         | 1       |
| Caelo    | Olive oil, native               | 11063906         | 1       |
| Caelo    | Jobba Oil, native               | 11078605         | 2       |
| Caelo    | Jobba Oil, native               | 11078606         | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Codliver oil (type A)           | 11081202    | 1       |
| Caelo    | Sesame oil, refined             | 11081513    | 1       |
| Caelo    | Peanut oil, refined             | 11100201    | 2       |
| Caelo    | Olive oil, native               | 11121701    | 1       |
| Caelo    | Almond oil, refined             | 1113E-01950 | 1       |
| Caelo    | Avocado oil, refined            | 11147607    | 1       |
| Caelo    | Peanut oil, refined             | 11163201    | 1       |
| Caelo    | Walnut oil, refined             | 11167103    | 1       |
| Caelo    | Sesame oil, refined             | 11224108    | 2       |
| Caelo    | Olive oil, native               | 11227001    | 1       |
| Caelo    | Olive oil, native               | 11227002    | 2       |
| Caelo    | Olive oil, native               | 11227011    | 1       |
| Caelo    | Avocado oil, refined            | 11227207    | 1       |
| Caelo    | Wheatgerm oil, refined          | 11227305    | 2       |
| Caelo    | Almond oil, refined             | 11227406    | 1       |
| Caelo    | Almond oil, refined             | 11227407    | 1       |
| Caelo    | Peanut oil, refined             | 11254503    | 1       |
| Caelo    | Borage oil, refined, stabili... | 11260102    | 2       |
| Caelo    | Borage oil, refined, stabili... | 11260106    | 2       |
| Caelo    | Corn oil, refined               | 11267907    | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 11292610    | 1       |
| Caelo    | Almond oil, refined             | 1131303     | 1       |
| Caelo    | Grape seed oil, refined         | 11313605    | 1       |
| Caelo    | Peanut oil, refined             | 11313905    | 4       |
| Caelo    | Peanut oil, refined             | 11313906    | 2       |
| Caelo    | Almond oil, refined             | 11314201    | 1       |
| Caelo    | Almond oil, refined             | 11314206    | 2       |
| Caelo    | Almond oil, refined             | 11314208    | 1       |
| Caelo    | Almond oil, refined             | 11314209    | 2       |
| Caelo    | Almond oil, refined             | 11314210    | 1       |
| Caelo    | Codliver oil (type A)           | 11315302    | 1       |
| Caelo    | Codliver oil (type A)           | 11315303    | 1       |
| Caelo    | Shea butter, refined            | 11346509    | 1       |
| Caelo    | Shea butter, refined            | 11346514    | 1       |
| Caelo    | Jojoba Oil, native              | 11358102    | 1       |
| Caelo    | Jojoba Oil, native              | 11358103    | 1       |
| Caelo    | Almond oil, refined             | 11358910    | 1       |
| Caelo    | Olive oil, native               | 11376905    | 3       |
| Caelo    | Olive oil, native               | 11376906    | 3       |
| Caelo    | Olive oil, native               | 114Q-02000  | 1       |
| Caelo    | Almond oil, refined             | 1176501     | 1       |
| Caelo    | Codliver oil (type A)           | 119929      | 2       |
| Caelo    | Codliver oil (type A)           | 12009301    | 1       |
| Caelo    | Codliver oil (type A)           | 12009302    | 5       |
| Caelo    | Codliver oil (type A)           | 12009308    | 2       |
| Caelo    | Sunflower oil, refined          | 12009804    | 3       |
| Caelo    | Olive oil, native               | 12021822    | 1       |
| Caelo    | Borage oil, refined, stabili... | 12027004    | 1       |
| Caelo    | Borage oil, refined, stabili... | 12027008    | 2       |
| Caelo    | Evening primrose oil, refined   | 12031604    | 1       |
| Caelo    | Evening primrose oil, refined   | 12032901    | 1       |
| Caelo    | Evening primrose oil, refined   | 12032906    | 2       |
| Caelo    | Evening primrose oil, refined   | 12032908    | 1       |
| Caelo    | Evening primrose oil, refined   | 12032912    | 2       |
| Caelo    | Evening primrose oil, refined   | 12032913    | 2       |
| Caelo    | Peanut oil, refined             | 12041092    | 1       |
| Caelo    | Flaxseed oil, native            | 12041701    | 1       |
| Caelo    | Olive oil, native               | 12041801    | 10      |
| Caelo    | Almond oil, refined             | 12041802    | 1       |
| Caelo    | Almond oil, refined             | 12041803    | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch        | Spectra |
|----------|-------------------------------|--------------|---------|
| Caelo    | Peanut oil, refined           | 12041902     | 10      |
| Caelo    | Evening primrose oil, refined | 120502302    | 1       |
| Caelo    | Evening primrose oil, refined | 1205023-02   | 2       |
| Caelo    | Evening primrose oil, refined | 120543078-13 | 1       |
| Caelo    | Rapeseed oil, refined         | 12054406     | 2       |
| Caelo    | Sesame oil, refined           | 12054501     | 1       |
| Caelo    | Sesame oil, refined           | 12054508     | 3       |
| Caelo    | Codliver oil (type A)         | 12062501     | 11      |
| Caelo    | Avocado oil, refined          | 12064802     | 3       |
| Caelo    | Avocado oil, refined          | 12064804     | 3       |
| Caelo    | Avocado oil, refined          | 12064810     | 2       |
| Caelo    | Avocado oil, refined          | 12064812     | 2       |
| Caelo    | Avocado oil, refined          | 12064813     | 3       |
| Caelo    | Oleyl oleate (stabilised)     | 12067701     | 1       |
| Caelo    | Oleyl oleate (stabilised)     | 12067704     | 4       |
| Caelo    | Oleyl oleate (stabilised)     | 12067705     | 1       |
| Caelo    | Peanut oil, refined           | 1207211954   | 1       |
| Caelo    | Olive oil, native             | 12077701     | 12      |
| Caelo    | Olive oil, native             | 12077702     | 2       |
| Caelo    | Olive oil, native             | 120777027-13 | 1       |
| Caelo    | Olive oil, native             | 1207771      | 1       |
| Caelo    | Almond oil, refined           | 12080801     | 3       |
| Caelo    | Peanut oil, refined           | 12080802     | 4       |
| Caelo    | Almond oil, refined           | 12080803     | 7       |
| Caelo    | Almond oil, refined           | 12080806     | 6       |
| Caelo    | Olive oil, native             | 12081701     | 1       |
| Caelo    | Olive oil, native             | 12091803     | 1       |
| Caelo    | Avocado oil, refined          | 12091807     | 1       |
| Caelo    | Evening primrose oil, refined | 1210012-01   | 2       |
| Caelo    | Evening primrose oil, refined | 1210012-02   | 1       |
| Caelo    | Peanut oil, refined           | 12101502     | 3       |
| Caelo    | Peanut oil, refined           | 12101503     | 8       |
| Caelo    | Evening primrose oil, refined | 12112901     | 1       |
| Caelo    | Evening primrose oil, refined | 12112902     | 2       |
| Caelo    | Evening primrose oil, refined | 12112903     | 1       |
| Caelo    | Evening primrose oil, refined | 12112905     | 3       |
| Caelo    | Evening primrose oil, refined | 12112906     | 1       |
| Caelo    | Evening primrose oil, refined | 12112908     | 6       |
| Caelo    | Evening primrose oil, refined | 12112910     | 1       |
| Caelo    | Evening primrose oil, refined | 12112911     | 4       |
| Caelo    | Evening primrose oil, refined | 12112912     | 1       |
| Caelo    | Evening primrose oil, refined | 12112914     | 2       |
| Caelo    | Evening primrose oil, refined | 12112915     | 2       |
| Caelo    | Jojoba Oil, native            | 12114701     | 1       |
| Caelo    | Jojoba Oil, native            | 12114702     | 1       |
| Caelo    | Jojoba Oil, native            | 12114703     | 1       |
| Caelo    | Jojoba Oil, native            | 12114708     | 1       |
| Caelo    | Peanut oil, refined           | 1211503      | 1       |
| Caelo    | Codliver oil (type A)         | 12126102     | 1       |
| Caelo    | Olive oil, native             | 12141305     | 3       |
| Caelo    | Olive oil, native             | 12141306     | 12      |
| Caelo    | Olive oil, native             | 12141309     | 5       |
| Caelo    | Olive oil, native             | 12141310     | 1       |
| Caelo    | Corn oil, refined             | 12141511     | 1       |
| Caelo    | Olive oil, native             | 1214306      | 1       |
| Caelo    | Codliver oil (type A)         | 12148703     | 10      |
| Caelo    | Codliver oil (type A)         | 121487703    | 1       |
| Caelo    | Grape seed oil, refined       | 12149203     | 2       |
| Caelo    | Grape seed oil, refined       | 12149204     | 4       |
| Caelo    | Grape seed oil, refined       | 12149205     | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Grape seed oil, refined         | 12149210   | 1       |
| Caelo    | Grape seed oil, refined         | 12149211   | 1       |
| Caelo    | Grape seed oil, refined         | 12149212   | 2       |
| Caelo    | Borage oil, refined, stabili... | 12152108   | 1       |
| Caelo    | Almond oil, refined             | 12153501   | 5       |
| Caelo    | Almond oil, refined             | 12153502   | 7       |
| Caelo    | Almond oil, refined             | 12153504   | 1       |
| Caelo    | Almond oil, refined             | 12153505   | 8       |
| Caelo    | Almond oil, refined             | 12153506   | 4       |
| Caelo    | Borage oil, refined, stabili... | 12161202   | 8       |
| Caelo    | Borage oil, refined, stabili... | 12161203   | 1       |
| Caelo    | Borage oil, refined, stabili... | 12161205   | 3       |
| Caelo    | Borage oil, refined, stabili... | 12161207   | 4       |
| Caelo    | Borage oil, refined, stabili... | 12161209   | 1       |
| Caelo    | Evening primrose oil, refined   | 1218404553 | 1       |
| Caelo    | Peanut oil, refined             | 12203803   | 15      |
| Caelo    | Peanut oil, refined             | 12203806   | 3       |
| Caelo    | Walnut oil, refined             | 12214902   | 1       |
| Caelo    | Walnut oil, refined             | 12214904   | 1       |
| Caelo    | Jojoba Oil, native              | 12217003   | 1       |
| Caelo    | Jojoba Oil, native              | 12217008   | 2       |
| Caelo    | Jojoba Oil, native              | 12217009   | 3       |
| Caelo    | Jojoba Oil, native              | 12217010   | 4       |
| Caelo    | Flaxseed oil, native            | 12217504   | 2       |
| Caelo    | Flaxseed oil, native            | 12217505   | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 12220201   | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 12220204   | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 12220205   | 6       |
| Caelo    | Oleyl oleate (stabilised)       | 12220207   | 3       |
| Caelo    | Oleyl oleate (stabilised)       | 12220210   | 1       |
| Caelo    | Wheatgerm oil, refined          | 12220302   | 1       |
| Caelo    | Wheatgerm oil, refined          | 12220304   | 2       |
| Caelo    | Wheatgerm oil, refined          | 12220305   | 1       |
| Caelo    | Wheatgerm oil, refined          | 12220306   | 2       |
| Caelo    | Wheatgerm oil, refined          | 12220307   | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 12220210   | 1       |
| Caelo    | Shea butter, refined            | 1224210    | 1       |
| Caelo    | Shea butter, refined            | 12242404   | 1       |
| Caelo    | Shea butter, refined            | 12242406   | 1       |
| Caelo    | Shea butter, refined            | 12242410   | 1       |
| Caelo    | Shea butter, refined            | 12242412   | 1       |
| Caelo    | Shea butter, refined            | 12242416   | 2       |
| Caelo    | Peanut oil, refined             | 1224302    | 1       |
| Caelo    | Avocado oil, refined            | 12248302   | 1       |
| Caelo    | Avocado oil, refined            | 12248303   | 2       |
| Caelo    | Avocado oil, refined            | 12248310   | 12      |
| Caelo    | Avocado oil, refined            | 12248311   | 2       |
| Caelo    | Avocado oil, refined            | 12248312   | 3       |
| Caelo    | Avocado oil, refined            | 12248315   | 2       |
| Caelo    | Peanut oil, refined             | 12274032   | 1       |
| Caelo    | Olive oil, native               | 12274104   | 7       |
| Caelo    | Olive oil, native               | 12274106   | 11      |
| Caelo    | Olive oil, native               | 12274108   | 1       |
| Caelo    | Flaxseed oil, native            | 12274205   | 2       |
| Caelo    | Peanut oil, refined             | 12274302   | 22      |
| Caelo    | Peanut oil, refined             | 12274305   | 3       |
| Caelo    | Evening primrose oil, refined   | 122966     | 3       |
| Caelo    | Borage oil, refined, stabili... | 123118     | 1       |
| Caelo    | Peanut oil, refined             | 1232304    | 1       |
| Caelo    | Peanut oil, refined             | 12323204   | 16      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Peanut oil, refined             | 12323205   | 3       |
| Caelo    | Evening primrose oil, refined   | 123235106  | 1       |
| Caelo    | Evening primrose oil, refined   | 12325101   | 9       |
| Caelo    | Evening primrose oil, refined   | 12325103   | 4       |
| Caelo    | Evening primrose oil, refined   | 12325105   | 7       |
| Caelo    | Evening primrose oil, refined   | 12325106   | 13      |
| Caelo    | Evening primrose oil, refined   | 12325107   | 9       |
| Caelo    | Evening primrose oil, refined   | 12325109   | 6       |
| Caelo    | Evening primrose oil, refined   | 12325110   | 1       |
| Caelo    | Evening primrose oil, refined   | 12325111   | 10      |
| Caelo    | Evening primrose oil, refined   | 12325113   | 8       |
| Caelo    | Evening primrose oil, refined   | 12325114   | 5       |
| Caelo    | Evening primrose oil, refined   | 12325115   | 3       |
| Caelo    | Evening primrose oil, refined   | 12325116   | 5       |
| Caelo    | Evening primrose oil, refined   | 1232516    | 1       |
| Caelo    | Sesame oil, refined             | 1234       | 1       |
| Caelo    | Sesame oil, refined             | 123456     | 1       |
| Caelo    | Olive oil, native               | 123465     | 1       |
| Caelo    | Codliver oil (type A)           | 12346810   | 8       |
| Caelo    | Evening primrose oil, refined   | 1235101    | 1       |
| Caelo    | Evening primrose oil, refined   | 1235106    | 1       |
| Caelo    | Evening primrose oil, refined   | 1235113    | 1       |
| Caelo    | Borage oil, refined, stabili... | 1235504    | 1       |
| Caelo    | Evening primrose oil, refined   | 12355115   | 1       |
| Caelo    | Borage oil, refined, stabili... | 12355203   | 9       |
| Caelo    | Borage oil, refined, stabili... | 12355205   | 4       |
| Caelo    | Almond oil, refined             | 12357101   | 12      |
| Caelo    | Almond oil, refined             | 12357102   | 5       |
| Caelo    | Almond oil, refined             | 12357103   | 7       |
| Caelo    | Almond oil, refined             | 12357110   | 1       |
| Caelo    | Almond oil, refined             | 12357111   | 12      |
| Caelo    | Almond oil, refined             | 12357112   | 2       |
| Caelo    | Olive oil, native               | 123773     | 1       |
| Caelo    | Sesame oil, refined             | 123826     | 1       |
| Caelo    | Olive oil, native               | 12388      | 1       |
| Caelo    | Olive oil, native               | 123test    | 2       |
| Caelo    | Avocado oil, refined            | 124656     | 1       |
| Caelo    | Avocado oil, refined            | 127889     | 1       |
| Caelo    | Evening primrose oil, refined   | 1281315    | 1       |
| Caelo    | Olive oil, native               | 12ini9     | 1       |
| Caelo    | Corn oil, refined               | 13010707   | 2       |
| Caelo    | Corn oil, refined               | 13010710   | 1       |
| Caelo    | Olive oil, native               | 13010904   | 23      |
| Caelo    | Olive oil, native               | 13010906   | 6       |
| Caelo    | Olive oil, native               | 130109062x | 1       |
| Caelo    | Olive oil, native               | 13010911   | 19      |
| Caelo    | Olive oil, native               | 1301094    | 1       |
| Caelo    | Rapeseed oil, refined           | 13011008   | 1       |
| Caelo    | Sesame oil, refined             | 1301105    | 1       |
| Caelo    | Sesame oil, refined             | 13011104   | 4       |
| Caelo    | Sesame oil, refined             | 13011105   | 11      |
| Caelo    | Sesame oil, refined             | 13011107   | 7       |
| Caelo    | Sesame oil, refined             | 13011109   | 1       |
| Caelo    | Sesame oil, refined             | 130111107  | 1       |
| Caelo    | Jojoba Oil, native              | 13011202   | 5       |
| Caelo    | Jojoba Oil, native              | 13011203   | 2       |
| Caelo    | Jojoba Oil, native              | 13011204   | 4       |
| Caelo    | Codliver oil (type A)           | 13011301   | 1       |
| Caelo    | Wheatgerm oil, refined          | 13011501   | 6       |
| Caelo    | Wheatgerm oil, refined          | 13011502   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Wheatgerm oil, refined          | 13011503            | 2       |
| Caelo    | Wheatgerm oil, refined          | 13011505            | 6       |
| Caelo    | Wheatgerm oil, refined          | 13011507            | 3       |
| Caelo    | Wheatgerm oil, refined          | 13011508            | 2       |
| Caelo    | Apricot kernel oil, refined     | 13011804            | 1       |
| Caelo    | Apricot kernel oil, refined     | 13011805            | 1       |
| Caelo    | Almond oil, refined             | 130145              | 4       |
| Caelo    | Avocado oil, refined            | 130172              | 1       |
| Caelo    | Olive oil, native               | 13021410            | 1       |
| Caelo    | Avocado oil, refined            | 13031303            | 1       |
| Caelo    | Borage oil, refined, stabili... | 130402              | 4       |
| Caelo    | Avocado oil, refined            | 1304039-1           | 1       |
| Caelo    | Olive oil, native               | 13051402            | 1       |
| Caelo    | Peanut oil, refined             | 13051403            | 1       |
| Caelo    | Grape seed oil, refined         | 13065302            | 7       |
| Caelo    | Grape seed oil, refined         | 13065304            | 2       |
| Caelo    | Grape seed oil, refined         | 13065309            | 4       |
| Caelo    | Codliver oil (type A)           | 13065503            | 5       |
| Caelo    | Codliver oil (type A)           | 13069201            | 1       |
| Caelo    | Olive oil, native               | 13081204            | 1       |
| Caelo    | Almond oil, refined             | 13091308            | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 13096401            | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 13096801            | 1       |
| Caelo    | Almond oil, refined             | 13101203            | 1       |
| Caelo    | Codliver oil (type A)           | 13106201            | 9       |
| Caelo    | Codliver oil (type A)           | 13106201-3392131070 | 1       |
| Caelo    | Evening primrose oil, refined   | 131211807           | 1       |
| Caelo    | Evening primrose oil, refined   | 13121804            | 1       |
| Caelo    | Evening primrose oil, refined   | 13121806            | 2       |
| Caelo    | Evening primrose oil, refined   | 13121807            | 6       |
| Caelo    | Evening primrose oil, refined   | 13121808            | 16      |
| Caelo    | Evening primrose oil, refined   | 13121809            | 11      |
| Caelo    | Evening primrose oil, refined   | 13121812            | 7       |
| Caelo    | Evening primrose oil, refined   | 13121813            | 5       |
| Caelo    | Evening primrose oil, refined   | 13121814            | 8       |
| Caelo    | Evening primrose oil, refined   | 13121816            | 15      |
| Caelo    | Evening primrose oil, refined   | 13121818            | 4       |
| Caelo    | Evening primrose oil, refined   | 1312812             | 1       |
| Caelo    | Evening primrose oil, refined   | 1312816             | 1       |
| Caelo    | Jojoba Oil, native              | 13129001            | 3       |
| Caelo    | Jojoba Oil, native              | 13129004            | 5       |
| Caelo    | Jojoba Oil, native              | 13129005            | 3       |
| Caelo    | Jojoba Oil, native              | 13129006            | 5       |
| Caelo    | Jojoba Oil, native              | 13129008            | 1       |
| Caelo    | Avocado oil, refined            | 13129103            | 10      |
| Caelo    | Avocado oil, refined            | 13129104            | 2       |
| Caelo    | Avocado oil, refined            | 13129106            | 3       |
| Caelo    | Avocado oil, refined            | 13129108            | 7       |
| Caelo    | Avocado oil, refined            | 13129111            | 1       |
| Caelo    | Peanut oil, refined             | 13129202            | 1       |
| Caelo    | Peanut oil, refined             | 13129203            | 34      |
| Caelo    | Almond oil, refined             | 1312Q-01950         | 1       |
| Caelo    | Borage oil, refined, stabili... | 13136504            | 9       |
| Caelo    | Shea butter, refined            | 13143807            | 1       |
| Caelo    | Shea butter, refined            | 13143810            | 1       |
| Caelo    | Shea butter, refined            | 13143813            | 2       |
| Caelo    | Shea butter, refined            | 13143814            | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 13144401            | 1       |
| Caelo    | Olive oil, native               | 13147001            | 9       |
| Caelo    | Olive oil, native               | 13147004            | 19      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Borage oil, refined, stabili... | 1316504   | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 13167107  | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 13167109  | 4       |
| Caelo    | Borage oil, refined, stabili... | 13170601  | 4       |
| Caelo    | Borage oil, refined, stabili... | 13170603  | 1       |
| Caelo    | Borage oil, refined, stabili... | 13170604  | 1       |
| Caelo    | Borage oil, refined, stabili... | 13170605  | 3       |
| Caelo    | Borage oil, refined, stabili... | 13170606  | 15      |
| Caelo    | Borage oil, refined, stabili... | 13170607  | 1       |
| Caelo    | Borage oil, refined, stabili... | 13170610  | 7       |
| Caelo    | Borage oil, refined, stabili... | 13170613  | 4       |
| Caelo    | Sesame oil, refined             | 13172906  | 5       |
| Caelo    | Sesame oil, refined             | 13172908  | 2       |
| Caelo    | Peanut oil, refined             | 13173003  | 1       |
| Caelo    | Grape seed oil, refined         | 13174601  | 2       |
| Caelo    | Almond oil, refined             | 13178002  | 12      |
| Caelo    | Almond oil, refined             | 13178003  | 16      |
| Caelo    | Almond oil, refined             | 13178004  | 15      |
| Caelo    | Almond oil, refined             | 13178009  | 2       |
| Caelo    | Almond oil, refined             | 13178011  | 12      |
| Caelo    | Flaxseed oil, native            | 13178203  | 4       |
| Caelo    | Flaxseed oil, native            | 13178209  | 3       |
| Caelo    | Flaxseed oil, native            | 13178210  | 1       |
| Caelo    | Walnut oil, refined             | 13202401  | 3       |
| Caelo    | Olive oil, native               | 13224701  | 7       |
| Caelo    | Olive oil, native               | 13224702  | 4       |
| Caelo    | Olive oil, native               | 13224703  | 17      |
| Caelo    | Olive oil, native               | 13224704  | 15      |
| Caelo    | Sunflower oil, refined          | 13225102  | 2       |
| Caelo    | Almond oil, refined             | 132363403 | 1       |
| Caelo    | Almond oil, refined             | 13236401  | 15      |
| Caelo    | Almond oil, refined             | 13236402  | 13      |
| Caelo    | Almond oil, refined             | 13236403  | 7       |
| Caelo    | Almond oil, refined             | 13236404  | 4       |
| Caelo    | Almond oil, refined             | 13236406  | 8       |
| Caelo    | Almond oil, refined             | 13236411  | 7       |
| Caelo    | Olive oil, native               | 1324704   | 1       |
| Caelo    | Apricot kernel oil, refined     | 13253203  | 2       |
| Caelo    | Wheatgerm oil, refined          | 13261601  | 4       |
| Caelo    | Wheatgerm oil, refined          | 13261603  | 7       |
| Caelo    | Wheatgerm oil, refined          | 13261604  | 3       |
| Caelo    | Wheatgerm oil, refined          | 13261605  | 1       |
| Caelo    | Almond oil, refined             | 1326403   | 1       |
| Caelo    | Olive oil, native               | 132656    | 1       |
| Caelo    | Codliver oil (type A)           | 13277706  | 7       |
| Caelo    | Codliver oil (type A)           | 13277707  | 1       |
| Caelo    | Jobba Oil, native               | 13287701  | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 13291602  | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 13291605  | 1       |
| Caelo    | Decyl oleate                    | 13291606  | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 13291607  | 1       |
| Caelo    | Peanut oil, refined             | 13306101  | 2       |
| Caelo    | Peanut oil, refined             | 13306102  | 8       |
| Caelo    | Olive oil, native               | 13306103  | 26      |
| Caelo    | Peanut oil, refined             | 13306106  | 15      |
| Caelo    | Avocado oil, refined            | 1331406   | 1       |
| Caelo    | Almond oil, refined             | 13326411  | 1       |
| Caelo    | Walnut oil, refined             | 13338302  | 1       |
| Caelo    | Almond oil, refined             | 133500006 | 1       |
| Caelo    | Almond oil, refined             | 13350001  | 17      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Almond oil, refined             | 13350002         | 17      |
| Caelo    | Almond oil, refined             | 13350003         | 13      |
| Caelo    | Almond oil, refined             | 13350006         | 4       |
| Caelo    | Almond oil, refined             | 13350007         | 4       |
| Caelo    | Almond oil, refined             | 1335006          | 1       |
| Caelo    | Olive oil, native               | 13350101         | 4       |
| Caelo    | Olive oil, native               | 13350102         | 16      |
| Caelo    | Olive oil, native               | 13350103         | 13      |
| Caelo    | Olive oil, native               | 13350104         | 7       |
| Caelo    | Olive oil, native               | 13350105         | 3       |
| Caelo    | Apricot kernel oil, refined     | 13357604         | 1       |
| Caelo    | Peanut oil, refined             | 13358801         | 10      |
| Caelo    | Peanut oil, refined             | 13358803         | 14      |
| Caelo    | Peanut oil, refined             | 13358803klare    | 1       |
| Caelo    | Peanut oil, refined             | 13358804         | 23      |
| Caelo    | Flaxseed oil, native            | 13361202         | 4       |
| Caelo    | Flaxseed oil, native            | 13361203         | 2       |
| Caelo    | Avocado oil, refined            | 13361406         | 9       |
| Caelo    | Avocado oil, refined            | 13361407         | 3       |
| Caelo    | Avocado oil, refined            | 13361411         | 4       |
| Caelo    | Avocado oil, refined            | 13361414         | 7       |
| Caelo    | Avocado oil, refined            | 13361441         | 1       |
| Caelo    | Borage oil, refined, stabili... | 13372101         | 2       |
| Caelo    | Borage oil, refined, stabili... | 13372104         | 6       |
| Caelo    | Borage oil, refined, stabili... | 13372106         | 2       |
| Caelo    | Borage oil, refined, stabili... | 13372107         | 8       |
| Caelo    | Borage oil, refined, stabili... | 13372110         | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 13378403         | 4       |
| Caelo    | Codliver oil (type A)           | 13396403         | 2       |
| Caelo    | Codliver oil (type A)           | 13396407         | 4       |
| Caelo    | Sesame oil, refined             | 13397402         | 3       |
| Caelo    | Almond oil, refined             | 1350003          | 1       |
| Caelo    | Peanut oil, refined             | 1358804          | 1       |
| Caelo    | Almond oil, refined             | 13H08-N11        | 1       |
| Caelo    | Peanut oil, refined             | 13J25-B06-291838 | 1       |
| Caelo    | Evening primrose oil, refined   | 14002501         | 1       |
| Caelo    | Evening primrose oil, refined   | 14002502         | 2       |
| Caelo    | Evening primrose oil, refined   | 14002503         | 6       |
| Caelo    | Oleyl oleate (stabilised)       | 14005001         | 4       |
| Caelo    | Decyl oleate                    | 14005002         | 1       |
| Caelo    | Evening primrose oil, refined   | 14010901         | 1       |
| Caelo    | Evening primrose oil, refined   | 14010903         | 2       |
| Caelo    | Evening primrose oil, refined   | 14010904         | 8       |
| Caelo    | Evening primrose oil, refined   | 14010905         | 1       |
| Caelo    | Evening primrose oil, refined   | 14010907         | 1       |
| Caelo    | Evening primrose oil, refined   | 14010908         | 22      |
| Caelo    | Evening primrose oil, refined   | 14010910         | 13      |
| Caelo    | Evening primrose oil, refined   | 14010912         | 2       |
| Caelo    | Evening primrose oil, refined   | 14010913         | 12      |
| Caelo    | Evening primrose oil, refined   | 14010914         | 2       |
| Caelo    | Evening primrose oil, refined   | 14010915         | 14      |
| Caelo    | Evening primrose oil, refined   | 14010917         | 1       |
| Caelo    | Evening primrose oil, refined   | 14010918         | 6       |
| Caelo    | Evening primrose oil, refined   | 14010920         | 1       |
| Caelo    | Almond oil, refined             | 140113PML01      | 1       |
| Caelo    | Evening primrose oil, refined   | 1401904          | 1       |
| Caelo    | Evening primrose oil, refined   | 1401908          | 1       |
| Caelo    | Olive oil, native               | 14024406         | 5       |
| Caelo    | Olive oil, native               | 14024407         | 11      |
| Caelo    | Olive oil, native               | 14024408         | 16      |

continued on the next page



continued from previous page

| Supplier | Substance                     | Batch          | Spectra |
|----------|-------------------------------|----------------|---------|
| Caelo    | Olive oil, native             | 14024409       | 8       |
| Caelo    | Wheatgerm oil, refined        | 14024501       | 7       |
| Caelo    | Wheatgerm oil, refined        | 14024502       | 1       |
| Caelo    | Evening primrose oil, refined | 14031701       | 1       |
| Caelo    | Shea butter, refined          | 14033303       | 1       |
| Caelo    | Shea butter, refined          | 14033304       | 2       |
| Caelo    | Shea butter, refined          | 14033306       | 1       |
| Caelo    | Shea butter, refined          | 14033310       | 1       |
| Caelo    | Shea butter, refined          | 14033312       | 2       |
| Caelo    | Shea butter, refined          | 14033313       | 3       |
| Caelo    | Shea butter, refined          | 14033314       | 1       |
| Caelo    | Peanut oil, refined           | 14033601       | 18      |
| Caelo    | Almond oil, refined           | 1404206        | 1       |
| Caelo    | Almond oil, refined           | 14042702       | 2       |
| Caelo    | Almond oil, refined           | 14042703       | 8       |
| Caelo    | Almond oil, refined           | 14042704       | 3       |
| Caelo    | Almond oil, refined           | 14042705       | 6       |
| Caelo    | Almond oil, refined           | 14042706       | 8       |
| Caelo    | Almond oil, refined           | 14042707       | 5       |
| Caelo    | Almond oil, refined           | 14042708       | 8       |
| Caelo    | Almond oil, refined           | 14042710       | 1       |
| Caelo    | Almond oil, refined           | 14042714       | 1       |
| Caelo    | Almond oil, refined           | 14042717       | 3       |
| Caelo    | Avocado oil, refined          | 1405007-01     | 1       |
| Caelo    | Jojoba Oil, native            | 14052201       | 5       |
| Caelo    | Jojoba Oil, native            | 14052206       | 1       |
| Caelo    | Codliver oil (type A)         | 14061312       | 1       |
| Caelo    | Olive oil, native             | 1406914        | 1       |
| Caelo    | Evening primrose oil, refined | 1407002-01     | 2       |
| Caelo    | Evening primrose oil, refined | 1407002-02     | 1       |
| Caelo    | Olive oil, native             | 14070802       | 1       |
| Caelo    | Olive oil, native             | 14071504       | 1       |
| Caelo    | Olive oil, native             | 14071704       | 1       |
| Caelo    | Codliver oil (type A)         | 14075015       | 3       |
| Caelo    | Flaxseed oil, native          | 14087903       | 1       |
| Caelo    | Flaxseed oil, native          | 14087908       | 4       |
| Caelo    | Flaxseed oil, native          | 14087909       | 1       |
| Caelo    | Olive oil, native             | 1410001        | 1       |
| Caelo    | Sesame oil, refined           | 14101302       | 1       |
| Caelo    | Olive oil, native             | 14101709       | 1       |
| Caelo    | Olive oil, native             | 14111306       | 1       |
| Caelo    | Peanut oil, refined           | 14111401       | 1       |
| Caelo    | Peanut oil, refined           | 14115403       | 5       |
| Caelo    | Peanut oil, refined           | 14115404       | 10      |
| Caelo    | Peanut oil, refined           | 14115405       | 16      |
| Caelo    | Peanut oil, refined           | 14115406       | 14      |
| Caelo    | Olive oil, native             | 141182303      | 1       |
| Caelo    | Olive oil, native             | 14118603       | 24      |
| Caelo    | Olive oil, native             | 14118604       | 15      |
| Caelo    | Olive oil, native             | 14118606       | 2       |
| Caelo    | Almond oil, refined           | 141215804      | 1       |
| Caelo    | Wheatgerm oil, refined        | 14121701       | 1       |
| Caelo    | Jojoba Oil, native            | 14121702       | 1       |
| Caelo    | Almond oil, refined           | 14121703       | 1       |
| Caelo    | Grape seed oil, refined       | 14127902       | 4       |
| Caelo    | Grape seed oil, refined       | 14127903       | 2       |
| Caelo    | Grape seed oil, refined       | 14127906       | 1       |
| Caelo    | Oleyl oleate (stabilised)     | 14129007       | 13      |
| Caelo    | Oleyl oleate (stabilised)     | 14129007(2mal) | 1       |
| Caelo    | Almond oil, refined           | 14139034       | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Almond oil, refined             | 14139301    | 1       |
| Caelo    | Almond oil, refined             | 14139304    | 2       |
| Caelo    | Almond oil, refined             | 14139305    | 2       |
| Caelo    | Almond oil, refined             | 14139306    | 2       |
| Caelo    | Almond oil, refined             | 14139309    | 3       |
| Caelo    | Almond oil, refined             | 14139310    | 14      |
| Caelo    | Almond oil, refined             | 14139311    | 12      |
| Caelo    | Evening primrose oil, refined   | 1414201710  | 1       |
| Caelo    | Sunflower oil, refined          | 14147101    | 3       |
| Caelo    | Borage oil, refined, stabili... | 14161901    | 4       |
| Caelo    | Borage oil, refined, stabili... | 14161904    | 4       |
| Caelo    | Borage oil, refined, stabili... | 14161906    | 2       |
| Caelo    | Borage oil, refined, stabili... | 1416906     | 1       |
| Caelo    | Peanut oil, refined             | 1416A-01954 | 1       |
| Caelo    | Sesame oil, refined             | 14170001    | 1       |
| Caelo    | Sesame oil, refined             | 14170004    | 9       |
| Caelo    | Sesame oil, refined             | 14170005    | 3       |
| Caelo    | Avocado oil, refined            | 14170102    | 1       |
| Caelo    | Avocado oil, refined            | 14170104    | 11      |
| Caelo    | Avocado oil, refined            | 14170105    | 3       |
| Caelo    | Laurel oil                      | 14176301    | 1       |
| Caelo    | Laurel oil                      | 14176303    | 1       |
| Caelo    | Olive oil, native               | 14182302    | 17      |
| Caelo    | Olive oil, native               | 14182303    | 19      |
| Caelo    | Olive oil, native               | 14182304    | 3       |
| Caelo    | Olive oil, native               | 14182305    | 2       |
| Caelo    | Borage oil, refined, stabili... | 1418E-02881 | 1       |
| Caelo    | Soy oil, refined                | 14194107    | 1       |
| Caelo    | Borage oil, refined, stabili... | 14203001    | 2       |
| Caelo    | Borage oil, refined, stabili... | 14203004    | 10      |
| Caelo    | Borage oil, refined, stabili... | 14203005    | 14      |
| Caelo    | Borage oil, refined, stabili... | 14203009    | 1       |
| Caelo    | Borage oil, refined, stabili... | 14203011    | 6       |
| Caelo    | Borage oil, refined, stabili... | 14203012    | 1       |
| Caelo    | Grape seed oil, refined         | 14214606    | 3       |
| Caelo    | Grape seed oil, refined         | 14214607    | 2       |
| Caelo    | Almond oil, refined             | 1421508     | 1       |
| Caelo    | Almond oil, refined             | 14215804    | 4       |
| Caelo    | Almond oil, refined             | 14215805    | 10      |
| Caelo    | Almond oil, refined             | 14215806    | 9       |
| Caelo    | Almond oil, refined             | 14215807    | 3       |
| Caelo    | Almond oil, refined             | 14215808    | 8       |
| Caelo    | Almond oil, refined             | 14215809    | 13      |
| Caelo    | Almond oil, refined             | 14215814    | 4       |
| Caelo    | Almond oil, refined             | 14215815    | 4       |
| Caelo    | Almond oil, refined             | 14215816    | 1       |
| Caelo    | Almond oil, refined             | 14215817    | 8       |
| Caelo    | Peanut oil, refined             | 14246901    | 15      |
| Caelo    | Peanut oil, refined             | 14246902    | 5       |
| Caelo    | Peanut oil, refined             | 14246903    | 19      |
| Caelo    | Oleyl oleate (stabilised)       | 14254603    | 8       |
| Caelo    | Evening primrose oil, refined   | 14256810    | 1       |
| Caelo    | Evening primrose oil, refined   | 14258601    | 11      |
| Caelo    | Evening primrose oil, refined   | 14258603    | 12      |
| Caelo    | Evening primrose oil, refined   | 14258604    | 4       |
| Caelo    | Evening primrose oil, refined   | 14258606    | 12      |
| Caelo    | Evening primrose oil, refined   | 14258607    | 5       |
| Caelo    | Evening primrose oil, refined   | 14258608    | 12      |
| Caelo    | Evening primrose oil, refined   | 14258610    | 20      |
| Caelo    | Evening primrose oil, refined   | 14258611    | 4       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Evening primrose oil, refined   | 14258612         | 3       |
| Caelo    | Evening primrose oil, refined   | 14258615         | 2       |
| Caelo    | Evening primrose oil, refined   | 14258616         | 17      |
| Caelo    | Evening primrose oil, refined   | 14258617         | 15      |
| Caelo    | Shea butter, refined            | 14261102         | 1       |
| Caelo    | Shea butter, refined            | 14261107         | 2       |
| Caelo    | Shea butter, refined            | 14261108         | 4       |
| Caelo    | Shea butter, refined            | 14261109         | 1       |
| Caelo    | Shea butter, refined            | 14261110         | 1       |
| Caelo    | Shea butter, refined            | 14261111         | 1       |
| Caelo    | Shea butter, refined            | 14261113         | 7       |
| Caelo    | Wheatgerm oil, refined          | 1427251          | 1       |
| Caelo    | Wheatgerm oil, refined          | 14272511         | 2       |
| Caelo    | Wheatgerm oil, refined          | 14272513         | 2       |
| Caelo    | Wheatgerm oil, refined          | 14272514         | 4       |
| Caelo    | Joboba Oil, native              | 14284202         | 4       |
| Caelo    | Joboba Oil, native              | 14284203         | 2       |
| Caelo    | Joboba Oil, native              | 14284204         | 7       |
| Caelo    | Joboba Oil, native              | 14284207         | 7       |
| Caelo    | Joboba Oil, native              | 14284208         | 7       |
| Caelo    | Evening primrose oil, refined   | 1428616          | 1       |
| Caelo    | Codliver oil (type A)           | 14305002         | 1       |
| Caelo    | Codliver oil (type A)           | 14305003         | 1       |
| Caelo    | Codliver oil (type A)           | 14305701         | 2       |
| Caelo    | Sunflower oil, refined          | 14306701         | 2       |
| Caelo    | Flaxseed oil, native            | 14306806         | 2       |
| Caelo    | Flaxseed oil, native            | 14306808         | 1       |
| Caelo    | Flaxseed oil, native            | 14306811         | 3       |
| Caelo    | Olive oil, native               | 14306902         | 1       |
| Caelo    | Olive oil, native               | 14306903         | 4       |
| Caelo    | Olive oil, native               | 14306904         | 9       |
| Caelo    | Olive oil, native               | 14306905         | 15      |
| Caelo    | Olive oil, native               | 14306913         | 2       |
| Caelo    | Olive oil, native               | 14306914         | 1       |
| Caelo    | Olive oil, native               | 14306915         | 8       |
| Caelo    | Olive oil, native               | 14306916         | 10      |
| Caelo    | Sesame oil, refined             | 14351804         | 6       |
| Caelo    | Peanut oil, refined             | 14355903         | 6       |
| Caelo    | Peanut oil, refined             | 14355904         | 14      |
| Caelo    | Peanut oil, refined             | 14355905         | 14      |
| Caelo    | Wheatgerm oil, refined          | 14356001         | 6       |
| Caelo    | Wheatgerm oil, refined          | 14356003         | 2       |
| Caelo    | Wheatgerm oil, refined          | 14356006         | 4       |
| Caelo    | Avocado oil, refined            | 14363702         | 14      |
| Caelo    | Avocado oil, refined            | 14363703         | 12      |
| Caelo    | Avocado oil, refined            | 14363704         | 1       |
| Caelo    | Avocado oil, refined            | 14363705         | 4       |
| Caelo    | Avocado oil, refined            | 14363706         | 2       |
| Caelo    | Wheatgerm oil, refined          | 14366001         | 1       |
| Caelo    | Avocado oil, refined            | 1436705          | 1       |
| Caelo    | Avocado oil, refined            | 1436706          | 1       |
| Caelo    | Almond oil, refined             | 1439310          | 1       |
| Caelo    | Evening primrose oil, refined   | 145691           | 14      |
| Caelo    | Borage oil, refined, stabili... | 1461906          | 1       |
| Caelo    | Evening primrose oil, refined   | 14717806         | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 14B14-B03-292195 | 1       |
| Caelo    | Almond oil, refined             | 14D24-b07-302332 | 1       |
| Caelo    | Evening primrose oil, refined   | 150081403        | 1       |
| Caelo    | Joboba Oil, native              | 15011412         | 1       |
| Caelo    | Peanut oil, refined             | 15012016         | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Peanut oil, refined             | 15015103   | 16      |
| Caelo    | Peanut oil, refined             | 15015104   | 15      |
| Caelo    | Peanut oil, refined             | 15015106   | 4       |
| Caelo    | Evening primrose oil, refined   | 150303101  | 1       |
| Caelo    | Evening primrose oil, refined   | 1503031-01 | 1       |
| Caelo    | Codliver oil (type A)           | 15047201   | 6       |
| Caelo    | Codliver oil (type A)           | 15047210   | 1       |
| Caelo    | Decyl oleate                    | 15047702   | 2       |
| Caelo    | Corn oil, refined               | 15050506   | 1       |
| Caelo    | Codliver oil (type A)           | 15056802   | 1       |
| Caelo    | Evening primrose oil, refined   | 1506001-01 | 1       |
| Caelo    | Evening primrose oil, refined   | 150601-01  | 1       |
| Caelo    | Wheatgerm oil, refined          | 1506201    | 1       |
| Caelo    | Borage oil, refined, stabili... | 15063401   | 2       |
| Caelo    | Borage oil, refined, stabili... | 15063402   | 12      |
| Caelo    | Borage oil, refined, stabili... | 15063406   | 3       |
| Caelo    | Borage oil, refined, stabili... | 15063407   | 16      |
| Caelo    | Borage oil, refined, stabili... | 15063408   | 3       |
| Caelo    | Borage oil, refined, stabili... | 15063409   | 3       |
| Caelo    | Borage oil, refined, stabili... | 15063411   | 6       |
| Caelo    | Borage oil, refined, stabili... | 15063412   | 2       |
| Caelo    | Borage oil, refined, stabili... | 15063413   | 2       |
| Caelo    | Almond oil, refined             | 15071406   | 1       |
| Caelo    | Almond oil, refined             | 15078401   | 2       |
| Caelo    | Almond oil, refined             | 15078402   | 5       |
| Caelo    | Almond oil, refined             | 15078403   | 9       |
| Caelo    | Almond oil, refined             | 15078404   | 12      |
| Caelo    | Almond oil, refined             | 15078405   | 14      |
| Caelo    | Almond oil, refined             | 15078406   | 3       |
| Caelo    | Almond oil, refined             | 15078407   | 3       |
| Caelo    | Almond oil, refined             | 15080602   | 1       |
| Caelo    | Evening primrose oil, refined   | 15081401   | 4       |
| Caelo    | Evening primrose oil, refined   | 15081402   | 3       |
| Caelo    | Evening primrose oil, refined   | 15081403   | 8       |
| Caelo    | Evening primrose oil, refined   | 15081404   | 13      |
| Caelo    | Evening primrose oil, refined   | 15081405   | 20      |
| Caelo    | Evening primrose oil, refined   | 15081407   | 20      |
| Caelo    | Decyl oleate                    | 15082205   | 1       |
| Caelo    | Decyl oleate                    | 15082206   | 3       |
| Caelo    | Evening primrose oil, refined   | 1509005-01 | 3       |
| Caelo    | Olive oil, native               | 1509212000 | 1       |
| Caelo    | Wheatgerm oil, refined          | 15111602   | 4       |
| Caelo    | Wheatgerm oil, refined          | 15111603   | 4       |
| Caelo    | Wheatgerm oil, refined          | 15111605   | 2       |
| Caelo    | Olive oil, native               | 15112703   | 3       |
| Caelo    | Olive oil, native               | 15112704   | 3       |
| Caelo    | Olive oil, native               | 15112705   | 8       |
| Caelo    | Olive oil, native               | 15112706   | 16      |
| Caelo    | Olive oil, native               | 15112707   | 5       |
| Caelo    | Olive oil, native               | 1511403    | 1       |
| Caelo    | Flaxseed oil, native            | 15116702   | 6       |
| Caelo    | Jojoba Oil, native              | 15116903   | 12      |
| Caelo    | Jojoba Oil, native              | 15116904   | 5       |
| Caelo    | Evening primrose oil, refined   | 1512000501 | 1       |
| Caelo    | Evening primrose oil, refined   | 1512005-01 | 1       |
| Caelo    | Evening primrose oil, refined   | 151200502  | 1       |
| Caelo    | Evening primrose oil, refined   | 1512005-02 | 2       |
| Caelo    | Evening primrose oil, refined   | 15121405   | 1       |
| Caelo    | Olive oil, native               | 15121802   | 1       |
| Caelo    | Almond oil, refined             | 15127302   | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch       | Spectra |
|----------|-------------------------------|-------------|---------|
| Caelo    | Almond oil, refined           | 15127303    | 2       |
| Caelo    | Almond oil, refined           | 15127304    | 8       |
| Caelo    | Almond oil, refined           | 15127305    | 6       |
| Caelo    | Almond oil, refined           | 15127306    | 12      |
| Caelo    | Almond oil, refined           | 15127307    | 10      |
| Caelo    | Almond oil, refined           | 15127308    | 2       |
| Caelo    | Evening primrose oil, refined | 15141102    | 1       |
| Caelo    | Grape seed oil, refined       | 15144502    | 1       |
| Caelo    | Grape seed oil, refined       | 15144504    | 2       |
| Caelo    | Grape seed oil, refined       | 15144505    | 3       |
| Caelo    | Grape seed oil, refined       | 15144506    | 1       |
| Caelo    | Grape seed oil, refined       | 15144509    | 2       |
| Caelo    | Grape seed oil, refined       | 15144510    | 1       |
| Caelo    | Shea butter, refined          | 15144901    | 2       |
| Caelo    | Shea butter, refined          | 15144902    | 1       |
| Caelo    | Shea butter, refined          | 15144903    | 1       |
| Caelo    | Shea butter, refined          | 15144907    | 8       |
| Caelo    | Avocado oil, refined          | 15155203    | 2       |
| Caelo    | Avocado oil, refined          | 15155206    | 9       |
| Caelo    | Avocado oil, refined          | 15155207    | 5       |
| Caelo    | Joboba Oil, native            | 1515M-01986 | 1       |
| Caelo    | Evening primrose oil, refined | 15171101    | 6       |
| Caelo    | Evening primrose oil, refined | 15171102    | 27      |
| Caelo    | Evening primrose oil, refined | 15171103    | 9       |
| Caelo    | Evening primrose oil, refined | 15171104    | 20      |
| Caelo    | Evening primrose oil, refined | 15171105    | 13      |
| Caelo    | Evening primrose oil, refined | 15171106    | 1       |
| Caelo    | Evening primrose oil, refined | 15171108    | 1       |
| Caelo    | Evening primrose oil, refined | 15171109    | 17      |
| Caelo    | Evening primrose oil, refined | 15171110    | 42      |
| Caelo    | Evening primrose oil, refined | 15171111    | 16      |
| Caelo    | Evening primrose oil, refined | 15171113    | 1       |
| Caelo    | Flaxseed oil, native          | 15175602    | 1       |
| Caelo    | Flaxseed oil, native          | 15175604    | 2       |
| Caelo    | Flaxseed oil, native          | 15175608    | 5       |
| Caelo    | Almond oil, refined           | 15187404    | 1       |
| Caelo    | Decyl oleate                  | 15191501    | 1       |
| Caelo    | Decyl oleate                  | 15191502    | 5       |
| Caelo    | Almond oil, refined           | 15197401    | 12      |
| Caelo    | Almond oil, refined           | 15197402    | 13      |
| Caelo    | Almond oil, refined           | 15197403    | 16      |
| Caelo    | Almond oil, refined           | 15197404    | 7       |
| Caelo    | Almond oil, refined           | 15197405    | 5       |
| Caelo    | Almond oil, refined           | 15197406    | 5       |
| Caelo    | Almond oil, refined           | 15197407    | 10      |
| Caelo    | Almond oil, refined           | 15197408    | 12      |
| Caelo    | Almond oil, refined           | 15197409    | 5       |
| Caelo    | Almond oil, refined           | 15197412    | 6       |
| Caelo    | Codliver oil (type A)         | 15201201    | 3       |
| Caelo    | Codliver oil (type A)         | 15201203    | 3       |
| Caelo    | Peanut oil, refined           | 15208501    | 3       |
| Caelo    | Peanut oil, refined           | 15208505    | 16      |
| Caelo    | Peanut oil, refined           | 15208506    | 20      |
| Caelo    | Olive oil, native             | 1521309     | 1       |
| Caelo    | Rapeseed oil, refined         | 15214403    | 1       |
| Caelo    | Rapeseed oil, refined         | 15214407    | 1       |
| Caelo    | Olive oil, native             | 15216305    | 1       |
| Caelo    | Olive oil, native             | 15216307    | 13      |
| Caelo    | Olive oil, native             | 15216308    | 13      |
| Caelo    | Olive oil, native             | 15216309    | 11      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch     | Spectra |
|----------|---------------------------------|-----------|---------|
| Caelo    | Olive oil, native               | 15216310  | 4       |
| Caelo    | Soy oil, refined                | 15239303  | 1       |
| Caelo    | Soy oil, refined                | 15239310  | 3       |
| Caelo    | Sesame oil, refined             | 15239405  | 6       |
| Caelo    | Decyl oleate                    | 15248405  | 7       |
| Caelo    | Decyl oleate                    | 15248408  | 2       |
| Caelo    | Walnut oil, refined             | 15253203  | 1       |
| Caelo    | Avocado oil, refined            | 15268203  | 17      |
| Caelo    | Avocado oil, refined            | 15268205  | 7       |
| Caelo    | Avocado oil, refined            | 15268213  | 3       |
| Caelo    | Almond oil, refined             | 1527304   | 1       |
| Caelo    | Almond oil, refined             | 1527305   | 1       |
| Caelo    | Peanut oil, refined             | 15273402  | 18      |
| Caelo    | Peanut oil, refined             | 15273403  | 19      |
| Caelo    | Grape seed oil, refined         | 15294604  | 1       |
| Caelo    | Grape seed oil, refined         | 15294607  | 2       |
| Caelo    | Grape seed oil, refined         | 15294608  | 1       |
| Caelo    | Rapeseed oil, refined           | 15296106  | 3       |
| Caelo    | Corn oil, refined               | 15296407  | 5       |
| Caelo    | Oleyl oleate (stabilised)       | 15298004  | 1       |
| Caelo    | Shea butter, refined            | 15303001  | 1       |
| Caelo    | Shea butter, refined            | 15303002  | 4       |
| Caelo    | Shea butter, refined            | 15303003  | 2       |
| Caelo    | Shea butter, refined            | 15303004  | 1       |
| Caelo    | Shea butter, refined            | 15303005  | 2       |
| Caelo    | Shea butter, refined            | 15303007  | 2       |
| Caelo    | Shea butter, refined            | 15303009  | 2       |
| Caelo    | Borage oil, refined, stabili... | 153050009 | 1       |
| Caelo    | Borage oil, refined, stabili... | 15305001  | 14      |
| Caelo    | Borage oil, refined, stabili... | 15305002  | 5       |
| Caelo    | Borage oil, refined, stabili... | 15305003  | 5       |
| Caelo    | Borage oil, refined, stabili... | 15305005  | 3       |
| Caelo    | Borage oil, refined, stabili... | 15305006  | 4       |
| Caelo    | Borage oil, refined, stabili... | 15305009  | 8       |
| Caelo    | Borage oil, refined, stabili... | 15305011  | 1       |
| Caelo    | Olive oil, native               | 15311401  | 4       |
| Caelo    | Olive oil, native               | 15311402  | 8       |
| Caelo    | Olive oil, native               | 15311403  | 23      |
| Caelo    | Olive oil, native               | 15311404  | 13      |
| Caelo    | Olive oil, native               | 15311408  | 6       |
| Caelo    | Peanut oil, refined             | 1531502   | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 153217    | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 15321701  | 13      |
| Caelo    | Oleyl oleate (stabilised)       | 15321702  | 5       |
| Caelo    | Oleyl oleate (stabilised)       | 15321706  | 8       |
| Caelo    | Oleyl oleate (stabilised)       | 15322703  | 2       |
| Caelo    | Codliver oil (type A)           | 15325201  | 2       |
| Caelo    | Codliver oil (type A)           | 15325202  | 1       |
| Caelo    | Peanut oil, refined             | 15331501  | 21      |
| Caelo    | Peanut oil, refined             | 15331502  | 29      |
| Caelo    | Peanut oil, refined             | 15331503  | 21      |
| Caelo    | Peanut oil, refined             | 15331506  | 4       |
| Caelo    | Almond oil, refined             | 15331603  | 1       |
| Caelo    | Almond oil, refined             | 15331611  | 1       |
| Caelo    | Borage oil, refined, stabili... | 1534-08   | 1       |
| Caelo    | Olive oil, native               | 15363302  | 1       |
| Caelo    | Sesame oil, refined             | 15374001  | 18      |
| Caelo    | Sesame oil, refined             | 15374006  | 6       |
| Caelo    | Wheatgerm oil, refined          | 15374101  | 8       |
| Caelo    | Wheatgerm oil, refined          | 15374104  | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch      | Spectra |
|----------|-------------------------------|------------|---------|
| Caelo    | Wheatgerm oil, refined        | 15374105   | 1       |
| Caelo    | Decyl oleate                  | 15393704   | 2       |
| Caelo    | Olive oil, native             | 15399702   | 21      |
| Caelo    | Olive oil, native             | 15399703   | 25      |
| Caelo    | Olive oil, native             | 15399704   | 23      |
| Caelo    | Olive oil, native             | 15399706   | 1       |
| Caelo    | Wheatgerm oil, refined        | 15405201   | 1       |
| Caelo    | Wheatgerm oil, refined        | 15406201   | 2       |
| Caelo    | Wheatgerm oil, refined        | 15406205   | 2       |
| Caelo    | Wheatgerm oil, refined        | 15406206   | 1       |
| Caelo    | Almond oil, refined           | 15409105   | 1       |
| Caelo    | Almond oil, refined           | 15409701   | 10      |
| Caelo    | Almond oil, refined           | 15409702   | 7       |
| Caelo    | Almond oil, refined           | 15409703   | 9       |
| Caelo    | Almond oil, refined           | 15409704   | 19      |
| Caelo    | Almond oil, refined           | 15409705   | 16      |
| Caelo    | Almond oil, refined           | 15409706   | 2       |
| Caelo    | Almond oil, refined           | 15409707   | 6       |
| Caelo    | Almond oil, refined           | 15409709   | 1       |
| Caelo    | Almond oil, refined           | 15409710   | 19      |
| Caelo    | Almond oil, refined           | 15409712   | 14      |
| Caelo    | Almond oil, refined           | 15409713   | 12      |
| Caelo    | Almond oil, refined           | 15409714   | 6       |
| Caelo    | Almond oil, refined           | 15409716   | 3       |
| Caelo    | Jojoba Oil, native            | 15409902   | 14      |
| Caelo    | Jojoba Oil, native            | 15409903   | 20      |
| Caelo    | Jojoba Oil, native            | 15409904   | 4       |
| Caelo    | Oleyl oleate (stabilised)     | 15410204   | 10      |
| Caelo    | Oleyl oleate (stabilised)     | 15410207   | 10      |
| Caelo    | Flaxseed oil, native          | 15415904   | 2       |
| Caelo    | Flaxseed oil, native          | 15415906   | 10      |
| Caelo    | Flaxseed oil, native          | 15415907   | 1       |
| Caelo    | Flaxseed oil, native          | 15415911   | 1       |
| Caelo    | Evening primrose oil, refined | 15417083   | 1       |
| Caelo    | Evening primrose oil, refined | 15417801   | 65      |
| Caelo    | Evening primrose oil, refined | 15417802   | 59      |
| Caelo    | Evening primrose oil, refined | 15417803   | 24      |
| Caelo    | Evening primrose oil, refined | 15417805   | 41      |
| Caelo    | Evening primrose oil, refined | 15417806   | 21      |
| Caelo    | Evening primrose oil, refined | 15417807   | 3       |
| Caelo    | Evening primrose oil, refined | 15417808   | 25      |
| Caelo    | Evening primrose oil, refined | 15417809   | 10      |
| Caelo    | Evening primrose oil, refined | 154178806  | 1       |
| Caelo    | Evening primrose oil, refined | 1541801    | 1       |
| Caelo    | Sesame oil, refined           | 15422706   | 7       |
| Caelo    | Sesame oil, refined           | 15422707   | 2       |
| Caelo    | Sunflower oil, refined        | 15422801   | 1       |
| Caelo    | Sunflower oil, refined        | 15422804   | 1       |
| Caelo    | Sunflower oil, refined        | 15422805   | 1       |
| Caelo    | Avocado oil, refined          | 15426303   | 2       |
| Caelo    | Avocado oil, refined          | 15426304   | 11      |
| Caelo    | Avocado oil, refined          | 15426305   | 11      |
| Caelo    | Avocado oil, refined          | 15426306   | 5       |
| Caelo    | Evening primrose oil, refined | 1547801    | 1       |
| Caelo    | Almond oil, refined           | 15806001   | 1       |
| Caelo    | Evening primrose oil, refined | 1601059-01 | 1       |
| Caelo    | Peanut oil, refined           | 16011403   | 1       |
| Caelo    | Olive oil, native             | 16011404   | 1       |
| Caelo    | Almond oil, refined           | 1601311950 | 1       |
| Caelo    | Shea butter, refined          | 16017202   | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Shea butter, refined            | 16017203         | 3       |
| Caelo    | Shea butter, refined            | 16017204         | 2       |
| Caelo    | Shea butter, refined            | 16017205         | 3       |
| Caelo    | Shea butter, refined            | 16017208         | 4       |
| Caelo    | Shea butter, refined            | 16017213         | 1       |
| Caelo    | Shea butter, refined            | 16017214         | 2       |
| Caelo    | Codliver oil (type A)           | 16018202         | 4       |
| Caelo    | Codliver oil (type A)           | 16018301         | 1       |
| Caelo    | Evening primrose oil, refined   | 160213003        | 1       |
| Caelo    | Almond oil, refined             | 16021510         | 1       |
| Caelo    | Almond oil, refined             | 1602211950       | 1       |
| Caelo    | Evening primrose oil, refined   | 1603048-01       | 3       |
| Caelo    | Olive oil, native               | 160353010        | 1       |
| Caelo    | Olive oil, native               | 16035308         | 7       |
| Caelo    | Olive oil, native               | 16035309         | 5       |
| Caelo    | Olive oil, native               | 16035310         | 21      |
| Caelo    | Olive oil, native               | 16035311         | 14      |
| Caelo    | Soy lecithin, liquid            | 1604034-01       | 1       |
| Caelo    | Evening primrose oil, refined   | 160502701        | 1       |
| Caelo    | Evening primrose oil, refined   | 1605027-01       | 2       |
| Caelo    | Avocado oil, refined            | 1605034-01       | 2       |
| Caelo    | Avocado oil, refined            | 1605034-03       | 1       |
| Caelo    | Borage oil, refined, stabili... | 16052301         | 16      |
| Caelo    | Borage oil, refined, stabili... | 16052302         | 4       |
| Caelo    | Borage oil, refined, stabili... | 16052307         | 13      |
| Caelo    | Jojoba Oil, native              | 16070601         | 4       |
| Caelo    | Jojoba Oil, native              | 16070602         | 20      |
| Caelo    | Jojoba Oil, native              | 16070604         | 2       |
| Caelo    | Jojoba Oil, native              | 16070606         | 17      |
| Caelo    | Jojoba Oil, native              | 16070607         | 3       |
| Caelo    | Jojoba Oil, native              | 16070608         | 8       |
| Caelo    | Jojoba Oil, native              | 16070609         | 11      |
| Caelo    | Jojoba Oil, native              | 16070610         | 10      |
| Caelo    | Almond oil, refined             | 16071001         | 8       |
| Caelo    | Almond oil, refined             | 16071002         | 20      |
| Caelo    | Almond oil, refined             | 16071003         | 22      |
| Caelo    | Almond oil, refined             | 16071004         | 9       |
| Caelo    | Almond oil, refined             | 16071005         | 8       |
| Caelo    | Almond oil, refined             | 16071006         | 12      |
| Caelo    | Almond oil, refined             | 16071007         | 11      |
| Caelo    | Almond oil, refined             | 16071008         | 2       |
| Caelo    | Almond oil, refined             | 16071009         | 1       |
| Caelo    | Peanut oil, refined             | 160711           | 1       |
| Caelo    | Peanut oil, refined             | 16071101         | 20      |
| Caelo    | Peanut oil, refined             | 16071102         | 28      |
| Caelo    | Peanut oil, refined             | 16071103         | 23      |
| Caelo    | Peanut oil, refined             | 16071103/1160117 | 1       |
| Caelo    | Peanut oil, refined             | 16071104         | 16      |
| Caelo    | Peanut oil, refined             | 16071105         | 20      |
| Caelo    | Peanut oil, refined             | 16071106         | 4       |
| Caelo    | Peanut oil, refined             | 160711104        | 1       |
| Caelo    | Peanut oil, refined             | 16071804         | 1       |
| Caelo    | Codliver oil (type A)           | 16074301         | 1       |
| Caelo    | Codliver oil (type A)           | 16074305         | 2       |
| Caelo    | Evening primrose oil, refined   | 1608008-01       | 2       |
| Caelo    | Soy oil, refined                | 16081309         | 3       |
| Caelo    | Olive oil, native               | 16081803         | 1       |
| Caelo    | Avocado oil, refined            | 16081811         | 1       |
| Caelo    | Grape seed oil, refined         | 16092401         | 3       |
| Caelo    | Grape seed oil, refined         | 16092402         | 6       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Grape seed oil, refined         | 16092409    | 3       |
| Caelo    | Grape seed oil, refined         | 16092410    | 2       |
| Caelo    | Avocado oil, refined            | 16104702    | 20      |
| Caelo    | Avocado oil, refined            | 16104703    | 4       |
| Caelo    | Avocado oil, refined            | 16104704    | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 16104904    | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 16104907    | 11      |
| Caelo    | Decyl oleate                    | 161071      | 1       |
| Caelo    | Decyl oleate                    | 16107101    | 16      |
| Caelo    | Olive oil, native               | 16121306    | 1       |
| Caelo    | Olive oil, native               | 1612803     | 1       |
| Caelo    | Wheatgerm oil, refined          | 16137401    | 1       |
| Caelo    | Wheatgerm oil, refined          | 16137403    | 5       |
| Caelo    | Wheatgerm oil, refined          | 16137404    | 7       |
| Caelo    | Wheatgerm oil, refined          | 16137405    | 3       |
| Caelo    | Almond oil, refined             | 1614401     | 1       |
| Caelo    | Olive oil, native               | 16144218    | 1       |
| Caelo    | Almond oil, refined             | 16144403    | 5       |
| Caelo    | Almond oil, refined             | 16144404    | 1       |
| Caelo    | Almond oil, refined             | 16144405    | 1       |
| Caelo    | Olive oil, native               | 16144605    | 5       |
| Caelo    | Oleyl oleate (stabilised)       | 1614907     | 2       |
| Caelo    | Almond oil, refined             | 16149802    | 1       |
| Caelo    | Sesame oil, refined             | 1615E-02016 | 1       |
| Caelo    | Safflower oil, refined type I   | 16184901    | 1       |
| Caelo    | Rapeseed oil, refined           | 16185004    | 3       |
| Caelo    | Rapeseed oil, refined           | 16185006    | 1       |
| Caelo    | Avocado oil, refined            | 16185907    | 12      |
| Caelo    | Avocado oil, refined            | 16185908    | 6       |
| Caelo    | Avocado oil, refined            | 1618908     | 1       |
| Caelo    | Evening primrose oil, refined   | 1620        | 1       |
| Caelo    | Olive oil, native               | 16212801    | 19      |
| Caelo    | Olive oil, native               | 16212802    | 4       |
| Caelo    | Olive oil, native               | 16212803    | 4       |
| Caelo    | Olive oil, native               | 16212805    | 1       |
| Caelo    | Olive oil, native               | 16212806    | 38      |
| Caelo    | Olive oil, native               | 1621806     | 3       |
| Caelo    | Decyl oleate                    | 16223409    | 1       |
| Caelo    | Decyl oleate                    | 16224302    | 6       |
| Caelo    | Decyl oleate                    | 16224309    | 4       |
| Caelo    | Flaxseed oil, native            | 16231106    | 1       |
| Caelo    | Peanut oil, refined             | 1624502     | 1       |
| Caelo    | Evening primrose oil, refined   | 16245602    | 1       |
| Caelo    | Peanut oil, refined             | 16249502    | 77      |
| Caelo    | Peanut oil, refined             | 16259502    | 1       |
| Caelo    | Corn oil, refined               | 16260309    | 2       |
| Caelo    | Evening primrose oil, refined   | 16261313    | 1       |
| Caelo    | Borage oil, refined, stabili... | 16266002    | 6       |
| Caelo    | Borage oil, refined, stabili... | 16266007    | 23      |
| Caelo    | Borage oil, refined, stabili... | 16266008    | 1       |
| Caelo    | Borage oil, refined, stabili... | 16266009    | 2       |
| Caelo    | Borage oil, refined, stabili... | 16266011    | 12      |
| Caelo    | Borage oil, refined, stabili... | 16266012    | 2       |
| Caelo    | Borage oil, refined, stabili... | 1626608     | 1       |
| Caelo    | Laurel oil                      | 16275702    | 1       |
| Caelo    | Sunflower oil, refined          | 16275801    | 1       |
| Caelo    | Sunflower oil, refined          | 16275804    | 6       |
| Caelo    | Olive oil, native               | 16278806    | 1       |
| Caelo    | Evening primrose oil, refined   | 1628109     | 1       |
| Caelo    | Evening primrose oil, refined   | 16281209    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch            | Spectra |
|----------|-------------------------------|------------------|---------|
| Caelo    | Evening primrose oil, refined | 16281301         | 22      |
| Caelo    | Evening primrose oil, refined | 16281302         | 27      |
| Caelo    | Evening primrose oil, refined | 16281303         | 5       |
| Caelo    | Evening primrose oil, refined | 16281305         | 11      |
| Caelo    | Evening primrose oil, refined | 16281306         | 16      |
| Caelo    | Evening primrose oil, refined | 16281307         | 12      |
| Caelo    | Evening primrose oil, refined | 162813078        | 1       |
| Caelo    | Evening primrose oil, refined | 16281308         | 42      |
| Caelo    | Evening primrose oil, refined | 16281309         | 59      |
| Caelo    | Evening primrose oil, refined | 16281310         | 13      |
| Caelo    | Evening primrose oil, refined | 16281311         | 1       |
| Caelo    | Evening primrose oil, refined | 16281313         | 22      |
| Caelo    | Evening primrose oil, refined | 16281314         | 13      |
| Caelo    | Evening primrose oil, refined | 16281315         | 11      |
| Caelo    | Evening primrose oil, refined | 16281317         | 6       |
| Caelo    | Evening primrose oil, refined | 16281318         | 14      |
| Caelo    | Evening primrose oil, refined | 16281319         | 6       |
| Caelo    | Evening primrose oil, refined | 16282301         | 1       |
| Caelo    | Evening primrose oil, refined | 1628308          | 1       |
| Caelo    | Evening primrose oil, refined | 1628315          | 1       |
| Caelo    | Evening primrose oil, refined | 162891302        | 1       |
| Caelo    | Codliver oil (type A)         | 16304601         | 1       |
| Caelo    | Sesame oil, refined           | 16312501         | 4       |
| Caelo    | Sesame oil, refined           | 16312505         | 10      |
| Caelo    | Sesame oil, refined           | 16312507         | 8       |
| Caelo    | Sesame oil, refined           | 163125501        | 1       |
| Caelo    | Flaxseed oil, native          | 16321102         | 2       |
| Caelo    | Flaxseed oil, native          | 16321106         | 8       |
| Caelo    | Wheatgerm oil, refined        | 16321301         | 12      |
| Caelo    | Almond oil, refined           | 1632303          | 1       |
| Caelo    | Almond oil, refined           | 16327302         | 55      |
| Caelo    | Almond oil, refined           | 16327303         | 49      |
| Caelo    | Almond oil, refined           | 16327304         | 19      |
| Caelo    | Almond oil, refined           | 16327305         | 7       |
| Caelo    | Almond oil, refined           | 16327308         | 16      |
| Caelo    | Almond oil, refined           | 16327309         | 4       |
| Caelo    | Almond oil, refined           | 16327311         | 40      |
| Caelo    | Olive oil, native             | 163274           | 3       |
| Caelo    | Olive oil, native             | 16327402         | 51      |
| Caelo    | Olive oil, native             | 16327403         | 12      |
| Caelo    | Olive oil, native             | 16327406         | 16      |
| Caelo    | Almond oil, refined           | 1633327302       | 1       |
| Caelo    | Grape seed oil, refined       | 16339703         | 6       |
| Caelo    | Grape seed oil, refined       | 16339705         | 2       |
| Caelo    | Grape seed oil, refined       | 16339706         | 4       |
| Caelo    | Grape seed oil, refined       | 16339707         | 1       |
| Caelo    | Codliver oil (type A)         | 16344001         | 1       |
| Caelo    | Soy oil, refined              | 16347104         | 3       |
| Caelo    | Peanut oil, refined           | 16348001         | 61      |
| Caelo    | Peanut oil, refined           | 16348002         | 1       |
| Caelo    | Peanut oil, refined           | 16355302         | 5       |
| Caelo    | Laurel oil                    | 16355701         | 2       |
| Caelo    | Laurel oil                    | 16355702         | 1       |
| Caelo    | Almond oil, refined           | 1637302          | 2       |
| Caelo    | Almond oil, refined           | 1637308          | 1       |
| Caelo    | Almond oil, refined           | 1637311          | 1       |
| Caelo    | Peanut oil, refined           | 1671101          | 1       |
| Caelo    | Avocado oil, refined          | 1685908          | 1       |
| Caelo    | Evening primrose oil, refined | 169071803        | 1       |
| Caelo    | Olive oil, native             | 16K24-B01_329002 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Almond oil, refined             | 17000426          | 1       |
| Caelo    | Olive oil, native               | 17001888          | 1       |
| Caelo    | Olive oil, native               | 17001926          | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 170105181         | 1       |
| Caelo    | Sesame oil, refined             | 17011405          | 1       |
| Caelo    | Codliver oil (type A)           | 17011503          | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 17013005          | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 17013008          | 11      |
| Caelo    | Oleyl oleate (stabilised)       | 17013009          | 3       |
| Caelo    | Oleyl oleate (stabilised)       | 17013014          | 14      |
| Caelo    | Peanut oil, refined             | 17014402          | 1       |
| Caelo    | Olive oil, native               | 17020700/16212806 | 1       |
| Caelo    | Almond oil, refined             | 17021405          | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 1703014           | 1       |
| Caelo    | Evening primrose oil, refined   | 170302001         | 1       |
| Caelo    | Evening primrose oil, refined   | 1703020-01        | 8       |
| Caelo    | Borage oil, refined, stabili... | 170307801         | 1       |
| Caelo    | Shea butter, refined            | 17031501          | 1       |
| Caelo    | Codliver oil (type A)           | 17036701          | 2       |
| Caelo    | Olive oil, native               | 17038702          | 54      |
| Caelo    | Olive oil, native               | 17038703          | 10      |
| Caelo    | Avocado oil, refined            | 17038802          | 46      |
| Caelo    | Avocado oil, refined            | 17038803          | 10      |
| Caelo    | Avocado oil, refined            | 17038804          | 3       |
| Caelo    | Avocado oil, refined            | 17038811          | 7       |
| Caelo    | Avocado oil, refined            | 17038812          | 1       |
| Caelo    | Avocado oil, refined            | 17038814          | 2       |
| Caelo    | Avocado oil, refined            | 17038817          | 1       |
| Caelo    | Evening primrose oil, refined   | 1704018_01        | 2       |
| Caelo    | Evening primrose oil, refined   | 1704018-01        | 3       |
| Caelo    | Evening primrose oil, refined   | 1704018-1         | 1       |
| Caelo    | Olive oil, native               | 17041404          | 1       |
| Caelo    | Peanut oil, refined             | 170420802         | 1       |
| Caelo    | Almond oil, refined             | 17042202          | 1       |
| Caelo    | Almond oil, refined             | 17042203          | 40      |
| Caelo    | Almond oil, refined             | 17042204          | 18      |
| Caelo    | Almond oil, refined             | 17042206          | 5       |
| Caelo    | Almond oil, refined             | 17042207          | 1       |
| Caelo    | Almond oil, refined             | 17042209          | 9       |
| Caelo    | Peanut oil, refined             | 17042802          | 57      |
| Caelo    | Flaxseed oil, native            | 17046711          | 2       |
| Caelo    | Peanut oil, refined             | 1704802           | 1       |
| Caelo    | Olive oil, native               | 17051403          | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 17051700/15410207 | 1       |
| Caelo    | Borage oil, refined, stabili... | 17053189          | 1       |
| Caelo    | Corn oil, refined               | 17055008          | 1       |
| Caelo    | Codliver oil (type A)           | 17055303          | 2       |
| Caelo    | Borage oil, refined, stabili... | 17055401          | 22      |
| Caelo    | Borage oil, refined, stabili... | 17055402          | 8       |
| Caelo    | Borage oil, refined, stabili... | 17055407          | 1       |
| Caelo    | Codliver oil (type A)           | 17058301          | 1       |
| Caelo    | Codliver oil (type A)           | 17058302          | 2       |
| Caelo    | Almond oil, refined             | 17061403          | 1       |
| Caelo    | Olive oil, native               | 17062007          | 1       |
| Caelo    | Almond oil, refined             | 17070608          | 1       |
| Caelo    | Sunflower oil, refined          | 17073005          | 1       |
| Caelo    | Jojoba Oil, native              | 17073305          | 10      |
| Caelo    | Jojoba Oil, native              | 17073308          | 4       |
| Caelo    | Jojoba Oil, native              | 17073309          | 16      |
| Caelo    | Jojoba Oil, native              | 17073310          | 2       |

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continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Shea butter, refined            | 17085802          | 3       |
| Caelo    | Shea butter, refined            | 17085803          | 3       |
| Caelo    | Shea butter, refined            | 17085804          | 2       |
| Caelo    | Shea butter, refined            | 17085806          | 7       |
| Caelo    | Shea butter, refined            | 17085807          | 2       |
| Caelo    | Shea butter, refined            | 17085809          | 3       |
| Caelo    | Shea butter, refined            | 17085810          | 2       |
| Caelo    | Shea butter, refined            | 17085812          | 2       |
| Caelo    | Shea butter, refined            | 17085813          | 1       |
| Caelo    | Shea butter, refined            | 17085815          | 2       |
| Caelo    | Shea butter, refined            | 17085817          | 1       |
| Caelo    | Shea butter, refined            | 17085818          | 2       |
| Caelo    | Shea butter, refined            | 17085821          | 1       |
| Caelo    | Evening primrose oil, refined   | 1710011-01        | 4       |
| Caelo    | Evening primrose oil, refined   | 1710011-02        | 6       |
| Caelo    | Evening primrose oil, refined   | 1710011-11        | 1       |
| Caelo    | Almond oil, refined             | 17111402          | 1       |
| Caelo    | Almond oil, refined             | 171176512         | 1       |
| Caelo    | Olive oil, native               | 171211610         | 1       |
| Caelo    | Jojoba Oil, native              | 17121302          | 1       |
| Caelo    | Almond oil, refined             | 17121303          | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 17121500/17013008 | 1       |
| Caelo    | Olive oil, native               | 171216            | 2       |
| Caelo    | Olive oil, native               | 17121602          | 32      |
| Caelo    | Olive oil, native               | 17121603          | 4       |
| Caelo    | Olive oil, native               | 17121604          | 9       |
| Caelo    | Olive oil, native               | 17121605          | 1       |
| Caelo    | Olive oil, native               | 17121606          | 34      |
| Caelo    | Olive oil, native               | 17121607          | 4       |
| Caelo    | Olive oil, native               | 17121608          | 9       |
| Caelo    | Olive oil, native               | 17121610          | 18      |
| Caelo    | Olive oil, native               | 17121611          | 1       |
| Caelo    | Olive oil, native               | 17121900/17121610 | 1       |
| Caelo    | Codliver oil (type A)           | 17137801          | 1       |
| Caelo    | Borage oil, refined, stabili... | 1713M-02881       | 1       |
| Caelo    | Shea butter, refined            | 17149601          | 3       |
| Caelo    | Almond oil, refined             | 1716502           | 1       |
| Caelo    | Almond oil, refined             | 1716506           | 2       |
| Caelo    | Almond oil, refined             | 1716512           | 1       |
| Caelo    | Peanut oil, refined             | 17169001          | 36      |
| Caelo    | Peanut oil, refined             | 171690015409      | 1       |
| Caelo    | Peanut oil, refined             | 17169002          | 3       |
| Caelo    | Peanut oil, refined             | 17169010          | 41      |
| Caelo    | Peanut oil, refined             | 17169011          | 2       |
| Caelo    | Peanut oil, refined             | 17169018          | 41      |
| Caelo    | Peanut oil, refined             | 17169020          | 1       |
| Caelo    | Peanut oil, refined             | 171699010         | 1       |
| Caelo    | Almond oil, refined             | 17176501          | 29      |
| Caelo    | Almond oil, refined             | 17176502          | 22      |
| Caelo    | Almond oil, refined             | 17176503          | 10      |
| Caelo    | Almond oil, refined             | 17176504          | 1       |
| Caelo    | Almond oil, refined             | 17176505          | 1       |
| Caelo    | Almond oil, refined             | 17176506          | 24      |
| Caelo    | Almond oil, refined             | 17176507          | 14      |
| Caelo    | Almond oil, refined             | 17176508          | 4       |
| Caelo    | Almond oil, refined             | 17176509          | 1       |
| Caelo    | Almond oil, refined             | 17176511          | 15      |
| Caelo    | Almond oil, refined             | 17176512          | 11      |
| Caelo    | Almond oil, refined             | 17176513          | 1       |
| Caelo    | Almond oil, refined             | 17176514          | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Sesame oil, refined             | 1717770            | 1       |
| Caelo    | Sesame oil, refined             | 17177701           | 11      |
| Caelo    | Sesame oil, refined             | 17177703           | 24      |
| Caelo    | Grape seed oil, refined         | 17206501           | 5       |
| Caelo    | Grape seed oil, refined         | 17206507           | 8       |
| Caelo    | Grape seed oil, refined         | 17206509           | 1       |
| Caelo    | Almond oil, refined             | 17207306           | 1       |
| Caelo    | Peanut oil, refined             | 17207905           | 26      |
| Caelo    | Almond oil, refined             | 17207906           | 24      |
| Caelo    | Almond oil, refined             | 17207907           | 12      |
| Caelo    | Almond oil, refined             | 17207908           | 1       |
| Caelo    | Rapeseed oil, refined           | 17213901           | 3       |
| Caelo    | Decyl oleate                    | 17215601           | 18      |
| Caelo    | Wheatgerm oil, refined          | 17216701           | 7       |
| Caelo    | Wheatgerm oil, refined          | 17216702           | 2       |
| Caelo    | Wheatgerm oil, refined          | 17216705           | 7       |
| Caelo    | Olive oil, native               | 172236501          | 1       |
| Caelo    | Olive oil, native               | 1723605            | 1       |
| Caelo    | Flaxseed oil, native            | 17236401           | 5       |
| Caelo    | Flaxseed oil, native            | 17236404           | 1       |
| Caelo    | Flaxseed oil, native            | 17236408           | 5       |
| Caelo    | Flaxseed oil, native            | 17236411           | 1       |
| Caelo    | Olive oil, native               | 17236501           | 41      |
| Caelo    | Olive oil, native               | 17236502           | 5       |
| Caelo    | Olive oil, native               | 172365025615       | 1       |
| Caelo    | Olive oil, native               | 17236505           | 48      |
| Caelo    | Olive oil, native               | 17236506           | 2       |
| Caelo    | Olive oil, native               | 17236508           | 8       |
| Caelo    | Sunflower oil, refined          | 17242101           | 8       |
| Caelo    | Sunflower oil, refined          | 17242104           | 1       |
| Caelo    | Apricot kernel oil, refined     | 17251802           | 1       |
| Caelo    | Evening primrose oil, refined   | 17255801           | 59      |
| Caelo    | Evening primrose oil, refined   | 172558012x         | 1       |
| Caelo    | Evening primrose oil, refined   | 17255802           | 55      |
| Caelo    | Evening primrose oil, refined   | 17255803           | 24      |
| Caelo    | Evening primrose oil, refined   | 17255804           | 2       |
| Caelo    | Borage oil, refined, stabili... | 17261805           | 2       |
| Caelo    | Shea butter, refined            | 17287505           | 3       |
| Caelo    | Shea butter, refined            | 17287506           | 2       |
| Caelo    | Shea butter, refined            | 17287508           | 1       |
| Caelo    | Shea butter, refined            | 17287509           | 1       |
| Caelo    | Shea butter, refined            | 17287510           | 4       |
| Caelo    | Shea butter, refined            | 17287514           | 1       |
| Caelo    | Wheatgerm oil, refined          | 17290301           | 12      |
| Caelo    | Wheatgerm oil, refined          | 17290302           | 1       |
| Caelo    | Codliver oil (type A)           | 17295101           | 2       |
| Caelo    | Soy oil, refined                | 17300001           | 9       |
| Caelo    | Corn oil, refined               | 17300102           | 1       |
| Caelo    | Borage oil, refined, stabili... | 17307801           | 24      |
| Caelo    | Evening primrose oil, refined   | 17307802           | 17      |
| Caelo    | Flaxseed oil, native            | 17314401           | 4       |
| Caelo    | Flaxseed oil, native            | 17314405           | 1       |
| Caelo    | Evening primrose oil, refined   | 17322105           | 1       |
| Caelo    | Peanut oil, refined             | 17328601           | 97      |
| Caelo    | Peanut oil, refined             | 173286015616       | 1       |
| Caelo    | Peanut oil, refined             | 17328602           | 4       |
| Caelo    | Sesame oil, refined             | 17332102           | 6       |
| Caelo    | Sesame oil, refined             | 17332103           | 13      |
| Caelo    | Sesame oil, refined             | 17332103P-180904-2 | 1       |
| Caelo    | Sesame oil, refined             | 17332106           | 15      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Codliver oil (type A)           | 17344601         | 4       |
| Caelo    | Codliver oil (type A)           | 17344602         | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 17358101         | 7       |
| Caelo    | Oleyl oleate (stabilised)       | 17358103         | 19      |
| Caelo    | Oleyl oleate (stabilised)       | 17358104         | 8       |
| Caelo    | Oleyl oleate (stabilised)       | 17358109         | 23      |
| Caelo    | Oleyl oleate (stabilised)       | 17358110         | 1       |
| Caelo    | Olive oil, native               | 17361101         | 61      |
| Caelo    | Olive oil, native               | 17361104         | 28      |
| Caelo    | Olive oil, native               | 17361106         | 54      |
| Caelo    | Olive oil, native               | 17361107         | 11      |
| Caelo    | Olive oil, native               | 17361108         | 6       |
| Caelo    | Borage oil, refined, stabili... | 17361801         | 5       |
| Caelo    | Borage oil, refined, stabili... | 17361802         | 1       |
| Caelo    | Borage oil, refined, stabili... | 17361804         | 12      |
| Caelo    | Borage oil, refined, stabili... | 17361805         | 14      |
| Caelo    | Borage oil, refined, stabili... | 173618805        | 1       |
| Caelo    | Evening primrose oil, refined   | 1755601          | 1       |
| Caelo    | Peanut oil, refined             | 1769018          | 1       |
| Caelo    | Almond oil, refined             | 177906           | 1       |
| Caelo    | Peanut oil, refined             | 17A10-B01-335073 | 1       |
| Caelo    | Almond oil, refined             | 18000341         | 2       |
| Caelo    | Almond oil, refined             | 18000342         | 1       |
| Caelo    | Evening primrose oil, refined   | 180009101        | 1       |
| Caelo    | Evening primrose oil, refined   | 18001901         | 1       |
| Caelo    | Olive oil, native               | 18002118         | 2       |
| Caelo    | Olive oil, native               | 18002119         | 3       |
| Caelo    | Flaxseed oil, native            | 18002317         | 1       |
| Caelo    | Sunflower oil, refined          | 180027005        | 1       |
| Caelo    | Evening primrose oil, refined   | 18003102         | 1       |
| Caelo    | Olive oil, native               | 18003204         | 1       |
| Caelo    | Olive oil, native               | 18003205         | 7       |
| Caelo    | Olive oil, native               | 18005452         | 2       |
| Caelo    | Olive oil, native               | 18005453         | 2       |
| Caelo    | Almond oil, refined             | 18006807         | 1       |
| Caelo    | Avocado oil, refined            | 18007501         | 21      |
| Caelo    | Avocado oil, refined            | 18007502         | 4       |
| Caelo    | Avocado oil, refined            | 18007503         | 2       |
| Caelo    | Evening primrose oil, refined   | 18009101         | 62      |
| Caelo    | Evening primrose oil, refined   | 18009102         | 32      |
| Caelo    | Evening primrose oil, refined   | 18009103         | 17      |
| Caelo    | Evening primrose oil, refined   | 18009104         | 2       |
| Caelo    | Evening primrose oil, refined   | 18009105         | 25      |
| Caelo    | Evening primrose oil, refined   | 18009106         | 29      |
| Caelo    | Evening primrose oil, refined   | 18009107         | 2       |
| Caelo    | Evening primrose oil, refined   | 18009108         | 1       |
| Caelo    | Evening primrose oil, refined   | 18009109         | 42      |
| Caelo    | Evening primrose oil, refined   | 1800910903385897 | 1       |
| Caelo    | Evening primrose oil, refined   | 18009110         | 45      |
| Caelo    | Evening primrose oil, refined   | 18009111         | 4       |
| Caelo    | Evening primrose oil, refined   | 18009114         | 22      |
| Caelo    | Evening primrose oil, refined   | 18009115         | 13      |
| Caelo    | Evening primrose oil, refined   | 18009116         | 15      |
| Caelo    | Evening primrose oil, refined   | 18009117         | 1       |
| Caelo    | Evening primrose oil, refined   | 1800914          | 1       |
| Caelo    | Evening primrose oil, refined   | 1800915          | 1       |
| Caelo    | Evening primrose oil, refined   | 180091701        | 1       |
| Caelo    | Wheatgerm oil, refined          | 18009501         | 7       |
| Caelo    | Wheatgerm oil, refined          | 18009502         | 2       |
| Caelo    | Wheatgerm oil, refined          | 18009505         | 8       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Wheatgerm oil, refined          | 18009506             | 4       |
| Caelo    | Wheatgerm oil, refined          | 18009509             | 4       |
| Caelo    | Wheatgerm oil, refined          | 18009510             | 1       |
| Caelo    | Peanut oil, refined             | 18014                | 1       |
| Caelo    | Peanut oil, refined             | 18014402             | 68      |
| Caelo    | Peanut oil, refined             | 18014403             | 1       |
| Caelo    | Peanut oil, refined             | 18014405             | 30      |
| Caelo    | Almond oil, refined             | 18015002             | 25      |
| Caelo    | Almond oil, refined             | 18015003             | 25      |
| Caelo    | Almond oil, refined             | 18015004             | 14      |
| Caelo    | Almond oil, refined             | 18015005             | 1       |
| Caelo    | Almond oil, refined             | 18015007             | 71      |
| Caelo    | Almond oil, refined             | 18015008             | 20      |
| Caelo    | Almond oil, refined             | 18015008-20180619Ma7 | 1       |
| Caelo    | Almond oil, refined             | 180154004            | 1       |
| Caelo    | Olive oil, native               | 1802011-01           | 1       |
| Caelo    | Peanut oil, refined             | 180208202            | 2       |
| Caelo    | Sunflower oil, refined          | 18027004             | 1       |
| Caelo    | Sunflower oil, refined          | 18027005             | 1       |
| Caelo    | Laurel oil                      | 18028202             | 1       |
| Caelo    | Laurel oil                      | 18028203             | 1       |
| Caelo    | Evening primrose oil, refined   | 1803006-01           | 14      |
| Caelo    | Evening primrose oil, refined   | 180300602            | 2       |
| Caelo    | Evening primrose oil, refined   | 1803006-02           | 3       |
| Caelo    | Soy lecithin, liquid            | 1803030-01           | 1       |
| Caelo    | Codliver oil (type A)           | 18031308             | 1       |
| Caelo    | Olive oil, native               | 18031506             | 1       |
| Caelo    | Olive oil, native               | 18041502             | 1       |
| Caelo    | Avocado oil, refined            | 18044901             | 29      |
| Caelo    | Avocado oil, refined            | 18044902             | 1       |
| Caelo    | Avocado oil, refined            | 18044905             | 3       |
| Caelo    | Avocado oil, refined            | 18044908             | 19      |
| Caelo    | Avocado oil, refined            | 18044909             | 3       |
| Caelo    | Avocado oil, refined            | 18044910             | 1       |
| Caelo    | Avocado oil, refined            | 18044911             | 5       |
| Caelo    | Avocado oil, refined            | 18044913             | 20      |
| Caelo    | Avocado oil, refined            | 18044914             | 2       |
| Caelo    | Rapeseed oil, refined           | 18047201             | 1       |
| Caelo    | Rapeseed oil, refined           | 18047204             | 1       |
| Caelo    | Borage oil, refined, stabili... | 18050509             | 1       |
| Caelo    | Jojoba Oil, native              | 18057102             | 13      |
| Caelo    | Jojoba Oil, native              | 18057103             | 3       |
| Caelo    | Jojoba Oil, native              | 18057105             | 20      |
| Caelo    | Jojoba Oil, native              | 18057107             | 28      |
| Caelo    | Jojoba Oil, native              | 18057108             | 4       |
| Caelo    | Grape seed oil, refined         | 18065201             | 8       |
| Caelo    | Grape seed oil, refined         | 18065202             | 2       |
| Caelo    | Grape seed oil, refined         | 18065207             | 8       |
| Caelo    | Decyl oleate                    | 18069402             | 17      |
| Caelo    | Decyl oleate                    | 18069404             | 3       |
| Caelo    | Decyl oleate                    | 18069407             | 12      |
| Caelo    | Almond oil, refined             | 180706003            | 1       |
| Caelo    | Almond oil, refined             | 18070602             | 46      |
| Caelo    | Almond oil, refined             | 18070603             | 16      |
| Caelo    | Almond oil, refined             | 18070604             | 2       |
| Caelo    | Almond oil, refined             | 18070605             | 28      |
| Caelo    | Almond oil, refined             | 18070606             | 1       |
| Caelo    | Almond oil, refined             | 18070608             | 19      |
| Caelo    | Almond oil, refined             | 1807063              | 1       |
| Caelo    | Almond oil, refined             | 1807608              | 1       |

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continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Decyl oleate                    | 18079402   | 1       |
| Caelo    | Almond oil, refined             | 18080033/2 | 1       |
| Caelo    | Borage oil, refined, stabili... | 18080501   | 41      |
| Caelo    | Borage oil, refined, stabili... | 18080502   | 1       |
| Caelo    | Borage oil, refined, stabili... | 18080504   | 13      |
| Caelo    | Borage oil, refined, stabili... | 18080506   | 3       |
| Caelo    | Borage oil, refined, stabili... | 18080507   | 2       |
| Caelo    | Borage oil, refined, stabili... | 18080509   | 7       |
| Caelo    | Borage oil, refined, stabili... | 18080510   | 2       |
| Caelo    | Borage oil, refined, stabili... | 18080511   | 1       |
| Caelo    | Borage oil, refined, stabili... | 1808054    | 1       |
| Caelo    | Codliver oil (type A)           | 18080801   | 8       |
| Caelo    | Flaxseed oil, native            | 180808181  | 1       |
| Caelo    | Almond oil, refined             | 18081402   | 1       |
| Caelo    | Grape seed oil, refined         | 18085201   | 2       |
| Caelo    | Jojoba Oil, native              | 18097109   | 1       |
| Caelo    | Flaxseed oil, native            | 18120901   | 13      |
| Caelo    | Flaxseed oil, native            | 18120904   | 1       |
| Caelo    | Sunflower oil, refined          | 18121004   | 10      |
| Caelo    | Olive oil, native               | 1812101    | 1       |
| Caelo    | Olive oil, native               | 18121101   | 47      |
| Caelo    | Olive oil, native               | 18121102   | 15      |
| Caelo    | Olive oil, native               | 18121106   | 1       |
| Caelo    | Olive oil, native               | 1812111    | 1       |
| Caelo    | Olive oil, native               | 181211102  | 1       |
| Caelo    | Almond oil, refined             | 1815007    | 2       |
| Caelo    | Evening primrose oil, refined   | 1816211    | 1       |
| Caelo    | Almond oil, refined             | 18184101   | 36      |
| Caelo    | Almond oil, refined             | 18184102   | 47      |
| Caelo    | Almond oil, refined             | 18184107   | 34      |
| Caelo    | Almond oil, refined             | 18184108   | 18      |
| Caelo    | Almond oil, refined             | 18184109   | 12      |
| Caelo    | Almond oil, refined             | 18184110   | 1       |
| Caelo    | Almond oil, refined             | 18184113   | 46      |
| Caelo    | Almond oil, refined             | 18184114   | 31      |
| Caelo    | Almond oil, refined             | 18184115   | 10      |
| Caelo    | Almond oil, refined             | 18184116   | 1       |
| Caelo    | Almond oil, refined             | 181844114  | 1       |
| Caelo    | Almond oil, refined             | 18184413   | 1       |
| Caelo    | Codliver oil (type A)           | 18184501   | 5       |
| Caelo    | Codliver oil (type A)           | 18191801   | 3       |
| Caelo    | Peanut oil, refined             | 18196007   | 1       |
| Caelo    | Olive oil, native               | 18206101   | 1       |
| Caelo    | Olive oil, native               | 18208101   | 81      |
| Caelo    | Olive oil, native               | 18208102   | 19      |
| Caelo    | Olive oil, native               | 18208105   | 1       |
| Caelo    | Olive oil, native               | 18208106   | 41      |
| Caelo    | Olive oil, native               | 18208107   | 6       |
| Caelo    | Olive oil, native               | 18208108   | 1       |
| Caelo    | Olive oil, native               | 18208110   | 36      |
| Caelo    | Olive oil, native               | 18208111   | 1       |
| Caelo    | Peanut oil, refined             | 18208202   | 104     |
| Caelo    | Peanut oil, refined             | 18208204   | 4       |
| Caelo    | Peanut oil, refined             | 18208207   | 23      |
| Caelo    | Evening primrose oil, refined   | 1821206    | 1       |
| Caelo    | Codliver oil (type A)           | 18213302   | 4       |
| Caelo    | Decyl oleate                    | 18214604   | 8       |
| Caelo    | Evening primrose oil, refined   | 1821602    | 2       |
| Caelo    | Evening primrose oil, refined   | 182160206  | 1       |
| Caelo    | Evening primrose oil, refined   | 182162003  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Evening primrose oil, refined   | 18216201          | 29      |
| Caelo    | Evening primrose oil, refined   | 18216202          | 50      |
| Caelo    | Evening primrose oil, refined   | 18216203          | 26      |
| Caelo    | Evening primrose oil, refined   | 18216204          | 2       |
| Caelo    | Evening primrose oil, refined   | 18216206          | 70      |
| Caelo    | Evening primrose oil, refined   | 18216207          | 18      |
| Caelo    | Evening primrose oil, refined   | 18216208          | 13      |
| Caelo    | Evening primrose oil, refined   | 18216211          | 21      |
| Caelo    | Evening primrose oil, refined   | 18216212          | 1       |
| Caelo    | Evening primrose oil, refined   | 18216214          | 24      |
| Caelo    | Evening primrose oil, refined   | 18216215          | 5       |
| Caelo    | Evening primrose oil, refined   | 18216216          | 1       |
| Caelo    | Evening primrose oil, refined   | 18216217          | 19      |
| Caelo    | Evening primrose oil, refined   | 18216218          | 14      |
| Caelo    | Evening primrose oil, refined   | 18216219          | 15      |
| Caelo    | Evening primrose oil, refined   | 18216220          | 2       |
| Caelo    | Evening primrose oil, refined   | 18216221          | 1       |
| Caelo    | Olive oil, native               | 18216902          | 1       |
| Caelo    | Shea butter, refined            | 18222303          | 3       |
| Caelo    | Shea butter, refined            | 18222304          | 3       |
| Caelo    | Shea butter, refined            | 18222305          | 5       |
| Caelo    | Shea butter, refined            | 18222306          | 1       |
| Caelo    | Grape seed oil, refined         | 1822410           | 1       |
| Caelo    | Grape seed oil, refined         | 18224202          | 8       |
| Caelo    | Grape seed oil, refined         | 18224203          | 1       |
| Caelo    | Grape seed oil, refined         | 18224207          | 1       |
| Caelo    | Grape seed oil, refined         | 18224210          | 9       |
| Caelo    | Grape seed oil, refined         | 18224211          | 1       |
| Caelo    | Grape seed oil, refined         | 18224213          | 1       |
| Caelo    | Shea butter, refined            | 18236002          | 2       |
| Caelo    | Shea butter, refined            | 18236003          | 2       |
| Caelo    | Shea butter, refined            | 18236004          | 7       |
| Caelo    | Shea butter, refined            | 18236005          | 1       |
| Caelo    | Wheatgerm oil, refined          | 18241002          | 4       |
| Caelo    | Wheatgerm oil, refined          | 18241003          | 2       |
| Caelo    | Wheatgerm oil, refined          | 18241006          | 6       |
| Caelo    | Wheatgerm oil, refined          | 18241007          | 2       |
| Caelo    | Wheatgerm oil, refined          | 18241008          | 1       |
| Caelo    | Wheatgerm oil, refined          | 18241011          | 1       |
| Caelo    | Wheatgerm oil, refined          | 18241012          | 2       |
| Caelo    | Jojoba Oil, native              | 1824407P-191022-7 | 1       |
| Caelo    | Corn oil, refined               | 18244602          | 4       |
| Caelo    | Jojoba Oil, native              | 18244705          | 1       |
| Caelo    | Jojoba Oil, native              | 18244706          | 1       |
| Caelo    | Jojoba Oil, native              | 18244707          | 15      |
| Caelo    | Jojoba Oil, native              | 18244710          | 3       |
| Caelo    | Jojoba Oil, native              | 18244711          | 2       |
| Caelo    | Jojoba Oil, native              | 18244712          | 2       |
| Caelo    | Jojoba Oil, native              | 18244714          | 6       |
| Caelo    | Jojoba Oil, native              | 18244715          | 6       |
| Caelo    | Flaxseed oil, native            | 18252604          | 4       |
| Caelo    | Flaxseed oil, native            | 18252605          | 2       |
| Caelo    | Borage oil, refined, stabili... | 1825808           | 1       |
| Caelo    | Evening primrose oil, refined   | 1826212           | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 18272002          | 17      |
| Caelo    | Oleyl oleate (stabilised)       | 18272003          | 2       |
| Caelo    | Oleyl oleate (stabilised)       | 18272005          | 15      |
| Caelo    | Oleyl oleate (stabilised)       | 18272007          | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 18272008          | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 18272011          | 9       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Oleyl oleate (stabilised)       | 18272015   | 21      |
| Caelo    | Oleyl oleate (stabilised)       | 18272016   | 2       |
| Caelo    | Olive oil, native               | 1828110    | 1       |
| Caelo    | Decyl oleate                    | 18282502   | 4       |
| Caelo    | Decyl oleate                    | 18282506   | 1       |
| Caelo    | Peanut oil, refined             | 1829009    | 1       |
| Caelo    | Flaxseed oil, native            | 18293804   | 2       |
| Caelo    | Almond oil, refined             | 1829503    | 1       |
| Caelo    | Almond oil, refined             | 1829509    | 1       |
| Caelo    | Borage oil, refined, stabili... | 18295801   | 4       |
| Caelo    | Borage oil, refined, stabili... | 18295803   | 1       |
| Caelo    | Borage oil, refined, stabili... | 18295804   | 3       |
| Caelo    | Borage oil, refined, stabili... | 18295807   | 4       |
| Caelo    | Borage oil, refined, stabili... | 18295808   | 9       |
| Caelo    | Borage oil, refined, stabili... | 18295809   | 1       |
| Caelo    | Borage oil, refined, stabili... | 18295812   | 3       |
| Caelo    | Borage oil, refined, stabili... | 18295815   | 3       |
| Caelo    | Borage oil, refined, stabili... | 18295816   | 1       |
| Caelo    | Borage oil, refined, stabili... | 182958904  | 1       |
| Caelo    | Almond oil, refined             | 18295901   | 25      |
| Caelo    | Almond oil, refined             | 18295902   | 35      |
| Caelo    | Almond oil, refined             | 18295903   | 18      |
| Caelo    | Almond oil, refined             | 18295905   | 3       |
| Caelo    | Almond oil, refined             | 18295908   | 34      |
| Caelo    | Almond oil, refined             | 18295909   | 27      |
| Caelo    | Almond oil, refined             | 18295910   | 3       |
| Caelo    | Almond oil, refined             | 18295911   | 1       |
| Caelo    | Almond oil, refined             | 18295914   | 1       |
| Caelo    | Almond oil, refined             | 18295915   | 15      |
| Caelo    | Almond oil, refined             | 18295916   | 1       |
| Caelo    | Peanut oil, refined             | 1829600002 | 1       |
| Caelo    | Peanut oil, refined             | 18296001   | 40      |
| Caelo    | Peanut oil, refined             | 18296002   | 82      |
| Caelo    | Peanut oil, refined             | 18296003   | 1       |
| Caelo    | Peanut oil, refined             | 18296006   | 2       |
| Caelo    | Peanut oil, refined             | 18296007   | 29      |
| Caelo    | Peanut oil, refined             | 18296009   | 38      |
| Caelo    | Avocado oil, refined            | 18303809   | 1       |
| Caelo    | Avocado oil, refined            | 18306801   | 3       |
| Caelo    | Avocado oil, refined            | 18306802   | 2       |
| Caelo    | Avocado oil, refined            | 18306804   | 2       |
| Caelo    | Avocado oil, refined            | 18306805   | 1       |
| Caelo    | Avocado oil, refined            | 18306808   | 13      |
| Caelo    | Avocado oil, refined            | 18306811   | 6       |
| Caelo    | Peanut oil, refined             | 183108003  | 1       |
| Caelo    | Olive oil, native               | 18311901   | 20      |
| Caelo    | Olive oil, native               | 18311902   | 19      |
| Caelo    | Olive oil, native               | 18311903   | 4       |
| Caelo    | Olive oil, native               | 18311906   | 20      |
| Caelo    | Olive oil, native               | 18311907   | 1       |
| Caelo    | Olive oil, native               | 18311908   | 2       |
| Caelo    | Olive oil, native               | 18311910   | 31      |
| Caelo    | Grape seed oil, refined         | 18315903   | 2       |
| Caelo    | Grape seed oil, refined         | 18315906   | 1       |
| Caelo    | Grape seed oil, refined         | 18315909   | 1       |
| Caelo    | Grape seed oil, refined         | 18315910   | 1       |
| Caelo    | Grape seed oil, refined         | 18315913   | 3       |
| Caelo    | Grape seed oil, refined         | 18315914   | 1       |
| Caelo    | Soy oil, refined                | 18319901   | 3       |
| Caelo    | Soy oil, refined                | 18319909   | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch         | Spectra |
|----------|-------------------------------|---------------|---------|
| Caelo    | Codliver oil (type A)         | 183223907     | 1       |
| Caelo    | Codliver oil (type A)         | 18323907      | 1       |
| Caelo    | Apricot kernel oil, refined   | 18329901      | 2       |
| Caelo    | Sesame oil, refined           | 18331301      | 7       |
| Caelo    | Sesame oil, refined           | 18331302      | 9       |
| Caelo    | Sesame oil, refined           | 18331303      | 1       |
| Caelo    | Sesame oil, refined           | 18331305      | 4       |
| Caelo    | Sesame oil, refined           | 18331308      | 5       |
| Caelo    | Sesame oil, refined           | 18331309      | 4       |
| Caelo    | Sesame oil, refined           | 183331301     | 1       |
| Caelo    | Jojoba Oil, native            | 185715        | 1       |
| Caelo    | Decyl oleate                  | 1869402       | 1       |
| Caelo    | Almond oil, refined           | 189015003     | 1       |
| Caelo    | Olive oil, native             | 18912182      | 1       |
| Caelo    | Peanut oil, refined           | 18926002      | 1       |
| Caelo    | Peanut oil, refined           | 19/592/5      | 1       |
| Caelo    | Almond oil, refined           | 1900000779004 | 1       |
| Caelo    | Olive oil, native             | 190000452003  | 2       |
| Caelo    | Avocado oil, refined          | 190000459011  | 1       |
| Caelo    | Olive oil, native             | 19000227      | 6       |
| Caelo    | Olive oil, native             | 190004520003  | 1       |
| Caelo    | Olive oil, native             | 19000452002   | 6       |
| Caelo    | Olive oil, native             | 19000452003   | 47      |
| Caelo    | Olive oil, native             | 19000452005   | 2       |
| Caelo    | Olive oil, native             | 19000452006   | 1       |
| Caelo    | Avocado oil, refined          | 19000459002   | 4       |
| Caelo    | Avocado oil, refined          | 19000459003   | 27      |
| Caelo    | Avocado oil, refined          | 19000459005   | 2       |
| Caelo    | Avocado oil, refined          | 19000459007   | 17      |
| Caelo    | Avocado oil, refined          | 19000459008   | 2       |
| Caelo    | Avocado oil, refined          | 19000459011   | 10      |
| Caelo    | Avocado oil, refined          | 19000459012   | 2       |
| Caelo    | Laurel oil                    | 19000520004   | 2       |
| Caelo    | Codliver oil (type A)         | 19000632001   | 2       |
| Caelo    | Codliver oil (type A)         | 19000632003   | 1       |
| Caelo    | Codliver oil (type A)         | 19000632004   | 1       |
| Caelo    | Codliver oil (type A)         | 19000632005   | 1       |
| Caelo    | Almond oil, refined           | 19000779001   | 88      |
| Caelo    | Almond oil, refined           | 19000779003   | 1       |
| Caelo    | Almond oil, refined           | 19000779004   | 37      |
| Caelo    | Almond oil, refined           | 19000779006   | 9       |
| Caelo    | Almond oil, refined           | 19000779007   | 7       |
| Caelo    | Almond oil, refined           | 1900077901    | 1       |
| Caelo    | Almond oil, refined           | 19000779066   | 1       |
| Caelo    | Almond oil, refined           | 190007793003  | 1       |
| Caelo    | Almond oil, refined           | 1900079007    | 1       |
| Caelo    | Almond oil, refined           | 19000799001   | 1       |
| Caelo    | Almond oil, refined           | 19001701      | 1       |
| Caelo    | Olive oil, native             | 19002973      | 1       |
| Caelo    | Olive oil, native             | 19002974      | 1       |
| Caelo    | Wheatgerm oil, refined        | 19003004      | 1       |
| Caelo    | Codliver oil (type A)         | 1900632003    | 1       |
| Caelo    | Almond oil, refined           | 1900779001    | 1       |
| Caelo    | Almond oil, refined           | 1900779004    | 1       |
| Caelo    | Almond oil, refined           | 19007790040   | 1       |
| Caelo    | Almond oil, refined           | 1900779007    | 1       |
| Caelo    | Evening primrose oil, refined | 190104601     | 2       |
| Caelo    | Evening primrose oil, refined | 1901046-01    | 6       |
| Caelo    | Codliver oil (type A)         | 19021808      | 1       |
| Caelo    | Peanut oil, refined           | 1902485006    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch         | Spectra |
|----------|-------------------------------|---------------|---------|
| Caelo    | Codliver oil (type A)         | 19032201      | 1       |
| Caelo    | Almond oil, refined           | 1904518       | 1       |
| Caelo    | Sunflower oil, refined        | 19046501      | 1       |
| Caelo    | Sunflower oil, refined        | 19046504      | 4       |
| Caelo    | Sunflower oil, refined        | 19046506      | 5       |
| Caelo    | Olive oil, native             | 19051806leber | 1       |
| Caelo    | Codliver oil (type A)         | 19051807      | 1       |
| Caelo    | Peanut oil, refined           | 190592008     | 1       |
| Caelo    | Peanut oil, refined           | 19059202      | 1       |
| Caelo    | Peanut oil, refined           | 19059205      | 47      |
| Caelo    | Peanut oil, refined           | 19059206      | 1       |
| Caelo    | Peanut oil, refined           | 190592066     | 1       |
| Caelo    | Peanut oil, refined           | 19059208      | 14      |
| Caelo    | Peanut oil, refined           | 19059209      | 1       |
| Caelo    | Peanut oil, refined           | 19059212      | 1       |
| Caelo    | Peanut oil, refined           | 19059214      | 15      |
| Caelo    | Jobba Oil, native             | 19061307      | 1       |
| Caelo    | Peanut oil, refined           | 190631806     | 1       |
| Caelo    | Almond oil, refined           | 19064510      | 1       |
| Caelo    | Olive oil, native             | 19076101      | 3       |
| Caelo    | Olive oil, native             | 19076102      | 1       |
| Caelo    | Olive oil, native             | 19076104      | 21      |
| Caelo    | Olive oil, native             | 19076105      | 10      |
| Caelo    | Olive oil, native             | 19076109      | 52      |
| Caelo    | Olive oil, native             | 19076110      | 6       |
| Caelo    | Olive oil, native             | 19076111      | 1       |
| Caelo    | Olive oil, native             | 190766109     | 1       |
| Caelo    | Avocado oil, refined          | 19081501      | 1       |
| Caelo    | Peanut oil, refined           | 19081707      | 1       |
| Caelo    | Almond oil, refined           | 19084502      | 6       |
| Caelo    | Almond oil, refined           | 19084503      | 7       |
| Caelo    | Almond oil, refined           | 19084504      | 1       |
| Caelo    | Almond oil, refined           | 19084505      | 29      |
| Caelo    | Almond oil, refined           | 19084506      | 6       |
| Caelo    | Almond oil, refined           | 19084507      | 6       |
| Caelo    | Almond oil, refined           | 19084510      | 29      |
| Caelo    | Almond oil, refined           | 19084511      | 13      |
| Caelo    | Almond oil, refined           | 19084512      | 12      |
| Caelo    | Almond oil, refined           | 19084513      | 2       |
| Caelo    | Almond oil, refined           | 19084517      | 1       |
| Caelo    | Almond oil, refined           | 19084518      | 8       |
| Caelo    | Decyl oleate                  | 190883001     | 6       |
| Caelo    | Decyl oleate                  | 19088301      | 5       |
| Caelo    | Decyl oleate                  | 19088302      | 1       |
| Caelo    | Laurel oil                    | 19091902      | 4       |
| Caelo    | Laurel oil                    | 19091907      | 1       |
| Caelo    | Laurel oil                    | 19091910      | 1       |
| Caelo    | Flaxseed oil, native          | 19099401      | 4       |
| Caelo    | Codliver oil (type A)         | 19100301      | 3       |
| Caelo    | Codliver oil (type A)         | 19101704      | 1       |
| Caelo    | Evening primrose oil, refined | 1911009-01    | 4       |
| Caelo    | Corn oil, refined             | 19112904      | 1       |
| Caelo    | Oleyl oleate (stabilised)     | 191191003     | 13      |
| Caelo    | Oleyl oleate (stabilised)     | 191191006     | 1       |
| Caelo    | Olive oil, native             | 1912005       | 2       |
| Caelo    | Wheatgerm oil, refined        | 19143201      | 12      |
| Caelo    | Wheatgerm oil, refined        | 19143202      | 2       |
| Caelo    | Jobba Oil, native             | 191529002     | 3       |
| Caelo    | Jobba Oil, native             | 191529004     | 31      |
| Caelo    | Jobba Oil, native             | 191529005     | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Caelo    | Jobaba Oil, native              | 191529006  | 8       |
| Caelo    | Jobaba Oil, native              | 19152901   | 4       |
| Caelo    | Evening primrose oil, refined   | 19161101   | 1       |
| Caelo    | Evening primrose oil, refined   | 1916401    | 1       |
| Caelo    | Evening primrose oil, refined   | 191644002  | 3       |
| Caelo    | Evening primrose oil, refined   | 191644003  | 13      |
| Caelo    | Evening primrose oil, refined   | 19164401   | 80      |
| Caelo    | Evening primrose oil, refined   | 19164402   | 22      |
| Caelo    | Evening primrose oil, refined   | 19164403   | 1       |
| Caelo    | Evening primrose oil, refined   | 19164404   | 1       |
| Caelo    | Evening primrose oil, refined   | 19164407   | 21      |
| Caelo    | Evening primrose oil, refined   | 19164408   | 1       |
| Caelo    | Evening primrose oil, refined   | 19164409   | 2       |
| Caelo    | Flaxseed oil, native            | 19164501   | 5       |
| Caelo    | Evening primrose oil, refined   | 19175401   | 54      |
| Caelo    | Sunflower oil, refined          | 191755001  | 1       |
| Caelo    | Sunflower oil, refined          | 191755002  | 1       |
| Caelo    | Sunflower oil, refined          | 191755005  | 1       |
| Caelo    | Almond oil, refined             | 1918710    | 1       |
| Caelo    | Peanut oil, refined             | 19187101   | 61      |
| Caelo    | Almond oil, refined             | 19187102   | 27      |
| Caelo    | Almond oil, refined             | 19187106   | 6       |
| Caelo    | Almond oil, refined             | 19187107   | 11      |
| Caelo    | Almond oil, refined             | 19187108   | 2       |
| Caelo    | Almond oil, refined             | 19187110   | 1       |
| Caelo    | Evening primrose oil, refined   | 19194407   | 1       |
| Caelo    | Shea butter, refined            | 192058003  | 1       |
| Caelo    | Shea butter, refined            | 192058004  | 1       |
| Caelo    | Shea butter, refined            | 192058005  | 2       |
| Caelo    | Shea butter, refined            | 19205802   | 2       |
| Caelo    | Shea butter, refined            | 19205803   | 6       |
| Caelo    | Shea butter, refined            | 19205804   | 2       |
| Caelo    | Shea butter, refined            | 192085803  | 1       |
| Caelo    | Olive oil, native               | 19212001   | 11      |
| Caelo    | Olive oil, native               | 19212002   | 5       |
| Caelo    | Olive oil, native               | 19212003   | 1       |
| Caelo    | Olive oil, native               | 19212005   | 36      |
| Caelo    | Olive oil, native               | 19212006   | 3       |
| Caelo    | Olive oil, native               | 1921205    | 1       |
| Caelo    | Laurel oil                      | 19236303   | 1       |
| Caelo    | Grape seed oil, refined         | 19241005   | 1       |
| Caelo    | Grape seed oil, refined         | 192412001  | 1       |
| Caelo    | Grape seed oil, refined         | 192412002  | 3       |
| Caelo    | Grape seed oil, refined         | 192412005  | 6       |
| Caelo    | Grape seed oil, refined         | 192412006  | 2       |
| Caelo    | Grape seed oil, refined         | 19241203   | 1       |
| Caelo    | Grape seed oil, refined         | 19241204   | 2       |
| Caelo    | Peanut oil, refined             | 192485001  | 1       |
| Caelo    | Peanut oil, refined             | 192485006  | 62      |
| Caelo    | Peanut oil, refined             | 192485007  | 3       |
| Caelo    | Peanut oil, refined             | 192485011  | 23      |
| Caelo    | Borage oil, refined, stabili... | 192492001  | 20      |
| Caelo    | Borage oil, refined, stabili... | 192492003  | 11      |
| Caelo    | Borage oil, refined, stabili... | 192492004  | 1       |
| Caelo    | Borage oil, refined, stabili... | 192492005  | 5       |
| Caelo    | Borage oil, refined, stabili... | 19249203   | 2       |
| Caelo    | Borage oil, refined, stabili... | 19249204   | 8       |
| Caelo    | Flaxseed oil, native            | 192554003  | 3       |
| Caelo    | Sesame oil, refined             | 1925600002 | 1       |
| Caelo    | Sesame oil, refined             | 192560002  | 2       |

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continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Sesame oil, refined             | 192560003           | 9       |
| Caelo    | Sesame oil, refined             | 19256002            | 8       |
| Caelo    | Sesame oil, refined             | 19256003            | 1       |
| Caelo    | Evening primrose oil, refined   | 19282001            | 1       |
| Caelo    | Evening primrose oil, refined   | 19282002            | 1       |
| Caelo    | Decyl oleate                    | 192834003           | 1       |
| Caelo    | Decyl oleate                    | 192834006           | 4       |
| Caelo    | Evening primrose oil, refined   | 192982001           | 54      |
| Caelo    | Evening primrose oil, refined   | 192982002           | 56      |
| Caelo    | Evening primrose oil, refined   | 192982003           | 13      |
| Caelo    | Evening primrose oil, refined   | 192982004           | 49      |
| Caelo    | Evening primrose oil, refined   | 192982004P-200806-5 | 1       |
| Caelo    | Evening primrose oil, refined   | 192982005           | 2       |
| Caelo    | Evening primrose oil, refined   | 192982006           | 15      |
| Caelo    | Evening primrose oil, refined   | 192982008           | 1       |
| Caelo    | Evening primrose oil, refined   | 192982009           | 3       |
| Caelo    | Evening primrose oil, refined   | 192982010           | 10      |
| Caelo    | Evening primrose oil, refined   | 192982011           | 5       |
| Caelo    | Evening primrose oil, refined   | 192982012           | 8       |
| Caelo    | Evening primrose oil, refined   | 192982013           | 13      |
| Caelo    | Olive oil, native               | 19311901            | 1       |
| Caelo    | Evening primrose oil, refined   | 19992982010         | 1       |
| Caelo    | Jobaba Oil, native              | 200000722003        | 1       |
| Caelo    | Evening primrose oil, refined   | 200001052001        | 1       |
| Caelo    | Evening primrose oil, refined   | 2000010520015       | 1       |
| Caelo    | Evening primrose oil, refined   | 200001052005        | 2       |
| Caelo    | Olive oil, native               | 200001410002        | 1       |
| Caelo    | Olive oil, native               | 200001410003        | 1       |
| Caelo    | Peanut oil, refined             | 200001473008        | 1       |
| Caelo    | Almond oil, refined             | 200001624003        | 1       |
| Caelo    | Almond oil, refined             | 200002892002        | 1       |
| Caelo    | Olive oil, native               | 200003049004        | 1       |
| Caelo    | Flaxseed oil, native            | 20000372003         | 5       |
| Caelo    | Evening primrose oil, refined   | 2000040470100       | 1       |
| Caelo    | Decyl oleate                    | 200004076003        | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 20000495002         | 10      |
| Caelo    | Oleyl oleate (stabilised)       | 20000495005         | 4       |
| Caelo    | Corn oil, refined               | 20000641001         | 2       |
| Caelo    | Jobaba Oil, native              | 20000722002         | 2       |
| Caelo    | Jobaba Oil, native              | 20000722003         | 9       |
| Caelo    | Jobaba Oil, native              | 20000722007         | 2       |
| Caelo    | Jobaba Oil, native              | 20000722008         | 6       |
| Caelo    | Jobaba Oil, native              | 20000722009         | 2       |
| Caelo    | Sesame oil, refined             | 20000741003         | 1       |
| Caelo    | Almond oil, refined             | 20000746002         | 1       |
| Caelo    | Grape seed oil, refined         | 20000789004         | 1       |
| Caelo    | Grape seed oil, refined         | 20000789005         | 1       |
| Caelo    | Grape seed oil, refined         | 20000789008         | 1       |
| Caelo    | Borage oil, refined, stabili... | 20000791002         | 4       |
| Caelo    | Borage oil, refined, stabili... | 20000791003         | 8       |
| Caelo    | Wheatgerm oil, refined          | 20000829002         | 2       |
| Caelo    | Wheatgerm oil, refined          | 20000829003         | 1       |
| Caelo    | Codliver oil (type A)           | 20000831003         | 1       |
| Caelo    | Wheatgerm oil, refined          | 20000929            | 1       |
| Caelo    | Sunflower oil, refined          | 20000985005         | 1       |
| Caelo    | Codliver oil (type A)           | 20001050001         | 2       |
| Caelo    | Evening primrose oil, refined   | 2000105001          | 1       |
| Caelo    | Evening primrose oil, refined   | 20001052001         | 35      |
| Caelo    | Evening primrose oil, refined   | 20001052003         | 43      |
| Caelo    | Evening primrose oil, refined   | 20001052004         | 7       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Evening primrose oil, refined   | 20001052005  | 22      |
| Caelo    | Evening primrose oil, refined   | 20001052009  | 4       |
| Caelo    | Evening primrose oil, refined   | 200010522003 | 1       |
| Caelo    | Shea butter, refined            | 20001135005  | 6       |
| Caelo    | Shea butter, refined            | 20001135009  | 3       |
| Caelo    | Flaxseed oil, native            | 20001305002  | 1       |
| Caelo    | Olive oil, native               | 2000140003   | 1       |
| Caelo    | Olive oil, native               | 200014100003 | 1       |
| Caelo    | Olive oil, native               | 20001410001  | 8       |
| Caelo    | Olive oil, native               | 20001410002  | 61      |
| Caelo    | Olive oil, native               | 20001410003  | 35      |
| Caelo    | Olive oil, native               | 20001410004  | 4       |
| Caelo    | Olive oil, native               | 2000141002   | 1       |
| Caelo    | Olive oil, native               | 2000141003   | 2       |
| Caelo    | Peanut oil, refined             | 20001473003  | 2       |
| Caelo    | Peanut oil, refined             | 20001473004  | 45      |
| Caelo    | Peanut oil, refined             | 20001473006  | 2       |
| Caelo    | Peanut oil, refined             | 20001473008  | 27      |
| Caelo    | Peanut oil, refined             | 20001473010  | 2       |
| Caelo    | Wheatgerm oil, refined          | 20001556003  | 5       |
| Caelo    | Wheatgerm oil, refined          | 20001556007  | 4       |
| Caelo    | Wheatgerm oil, refined          | 20001556012  | 3       |
| Caelo    | Soy oil, refined                | 20001575001  | 1       |
| Caelo    | Soy oil, refined                | 20001575006  | 1       |
| Caelo    | Almond oil, refined             | 20001624001  | 2       |
| Caelo    | Almond oil, refined             | 20001624002  | 5       |
| Caelo    | Almond oil, refined             | 20001624003  | 23      |
| Caelo    | Almond oil, refined             | 20001624004  | 34      |
| Caelo    | Almond oil, refined             | 20001624006  | 9       |
| Caelo    | Almond oil, refined             | 20001624007  | 25      |
| Caelo    | Almond oil, refined             | 20001624008  | 1       |
| Caelo    | Almond oil, refined             | 20001624011  | 2       |
| Caelo    | Almond oil, refined             | 20001624012  | 14      |
| Caelo    | Almond oil, refined             | 2000162404   | 1       |
| Caelo    | Almond oil, refined             | 20001625012  | 1       |
| Caelo    | Avocado oil, refined            | 20001638001  | 1       |
| Caelo    | Avocado oil, refined            | 20001638003  | 9       |
| Caelo    | Avocado oil, refined            | 20001638004  | 2       |
| Caelo    | Avocado oil, refined            | 20001638005  | 1       |
| Caelo    | Avocado oil, refined            | 20001638006  | 1       |
| Caelo    | Avocado oil, refined            | 20001638007  | 1       |
| Caelo    | Grape seed oil, refined         | 20001744002  | 2       |
| Caelo    | Apricot kernel oil, refined     | 20001746003  | 2       |
| Caelo    | Apricot kernel oil, refined     | 20002355003  | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 20002648002  | 11      |
| Caelo    | Laurel oil                      | 20002806001  | 1       |
| Caelo    | Almond oil, refined             | 20002892001  | 13      |
| Caelo    | Almond oil, refined             | 20002892002  | 2       |
| Caelo    | Olive oil, native               | 20003049003  | 44      |
| Caelo    | Olive oil, native               | 20003049004  | 6       |
| Caelo    | Borage oil, refined, stabili... | 20003248002  | 5       |
| Caelo    | Borage oil, refined, stabili... | 20003248003  | 1       |
| Caelo    | Codliver oil (type A)           | 20003364002  | 1       |
| Caelo    | Olive oil, native               | 200034009003 | 1       |
| Caelo    | Almond oil, refined             | 20003418001  | 7       |
| Caelo    | Almond oil, refined             | 20003418002  | 20      |
| Caelo    | Almond oil, refined             | 20003418003  | 1       |
| Caelo    | Almond oil, refined             | 20003418004  | 39      |
| Caelo    | Almond oil, refined             | 20003418007  | 10      |
| Caelo    | Peanut oil, refined             | 20003610005  | 6       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Peanut oil, refined             | 20003610006   | 24      |
| Caelo    | Peanut oil, refined             | 20003610007   | 3       |
| Caelo    | Peanut oil, refined             | 20003610014   | 24      |
| Caelo    | Sesame oil, refined             | 20003617003   | 5       |
| Caelo    | Sesame oil, refined             | 20003617004   | 2       |
| Caelo    | Corn oil, refined               | 20003898002   | 2       |
| Caelo    | Olive oil, native               | 20004028      | 2       |
| Caelo    | Evening primrose oil, refined   | 200040447009  | 1       |
| Caelo    | Evening primrose oil, refined   | 20004047002   | 2       |
| Caelo    | Evening primrose oil, refined   | 20004047006   | 1       |
| Caelo    | Evening primrose oil, refined   | 20004047008   | 37      |
| Caelo    | Evening primrose oil, refined   | 20004047009   | 36      |
| Caelo    | Evening primrose oil, refined   | 20004047010   | 5       |
| Caelo    | Evening primrose oil, refined   | 20004047011   | 2       |
| Caelo    | Evening primrose oil, refined   | 20004047100   | 1       |
| Caelo    | Codliver oil (type A)           | 20004067002   | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 20004076004   | 2       |
| Caelo    | Borage oil, refined, stabili... | 20004100002   | 11      |
| Caelo    | Borage oil, refined, stabili... | 20004100002-2 | 1       |
| Caelo    | Borage oil, refined, stabili... | 20004100004   | 2       |
| Caelo    | Borage oil, refined, stabili... | 20004100005   | 4       |
| Caelo    | Borage oil, refined, stabili... | 20004100009   | 2       |
| Caelo    | Rapeseed oil, refined           | 20004106004   | 1       |
| Caelo    | Flaxseed oil, native            | 20004226002   | 2       |
| Caelo    | Flaxseed oil, native            | 20004433003   | 2       |
| Caelo    | Wheatgerm oil, refined          | 20004490005   | 1       |
| Caelo    | Wheatgerm oil, refined          | 20004490008   | 1       |
| Caelo    | Peanut oil, refined             | 2000473008    | 1       |
| Caelo    | Olive oil, native               | 20006049003   | 1       |
| Caelo    | Joboba Oil, native              | 2000722002    | 1       |
| Caelo    | Joboba Oil, native              | 2000722008    | 1       |
| Caelo    | Evening primrose oil, refined   | 20008037-02   | 1       |
| Caelo    | Evening primrose oil, refined   | 2001052001    | 1       |
| Caelo    | Evening primrose oil, refined   | 2001052009    | 1       |
| Caelo    | Olive oil, native               | 2001410001    | 1       |
| Caelo    | Almond oil, refined             | 2001624003    | 1       |
| Caelo    | Almond oil, refined             | 2001624012    | 1       |
| Caelo    | Peanut oil, refined             | 20021502      | 1       |
| Caelo    | Almond oil, refined             | 2002311950    | 1       |
| Caelo    | Olive oil, native               | 20041701      | 1       |
| Caelo    | Olive oil, native               | 20061207      | 1       |
| Caelo    | Olive oil, native               | 20061502      | 1       |
| Caelo    | Almond oil, refined             | 20081301      | 1       |
| Caelo    | Olive oil, native               | 20101801      | 1       |
| Caelo    | Evening primrose oil, refined   | 2011409       | 1       |
| Caelo    | Wheatgerm oil, refined          | 2011904       | 1       |
| Caelo    | Borage oil, refined, stabili... | 2011906       | 1       |
| Caelo    | Almond oil, refined             | 2013U01950    | 1       |
| Caelo    | Evening primrose oil, refined   | 20140612-18   | 1       |
| Caelo    | Almond oil, refined             | 20150612-2    | 1       |
| Caelo    | Almond oil, refined             | 2021303       | 1       |
| Caelo    | Olive oil, native               | 2021501       | 1       |
| Caelo    | Olive oil, native               | 2021502       | 1       |
| Caelo    | Olive oil, native               | 20270912-4    | 1       |
| Caelo    | Olive oil, native               | 2061503       | 1       |
| Caelo    | Avocado oil, refined            | 2081303       | 1       |
| Caelo    | Almond oil, refined             | 2091708       | 1       |
| Caelo    | Codliver oil (type A)           | 2091712       | 1       |
| Caelo    | Evening primrose oil, refined   | 210003319002  | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 21000767001   | 6       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Oleyl oleate (stabilised)       | 21000767005  | 4       |
| Caelo    | Olive oil, native               | 21000836002  | 10      |
| Caelo    | Olive oil, native               | 21000836004  | 1       |
| Caelo    | Olive oil, native               | 21000836006  | 16      |
| Caelo    | Olive oil, native               | 21000836008  | 5       |
| Caelo    | Evening primrose oil, refined   | 21000915002  | 15      |
| Caelo    | Evening primrose oil, refined   | 21000915003  | 19      |
| Caelo    | Evening primrose oil, refined   | 21000915004  | 3       |
| Caelo    | Evening primrose oil, refined   | 21000915006  | 8       |
| Caelo    | Evening primrose oil, refined   | 21000915007  | 7       |
| Caelo    | Evening primrose oil, refined   | 21000915008  | 3       |
| Caelo    | Jojoba Oil, native              | 21001028001  | 1       |
| Caelo    | Peanut oil, refined             | 21001091003  | 11      |
| Caelo    | Peanut oil, refined             | 21001091005  | 2       |
| Caelo    | Peanut oil, refined             | 21001091007  | 3       |
| Caelo    | Almond oil, refined             | 21001240004  | 6       |
| Caelo    | Almond oil, refined             | 21001240005  | 2       |
| Caelo    | Almond oil, refined             | 21001240006  | 29      |
| Caelo    | Almond oil, refined             | 21001240007  | 10      |
| Caelo    | Almond oil, refined             | 2100124006   | 1       |
| Caelo    | Almond oil, refined             | 2100124007   | 1       |
| Caelo    | Soy oil, refined                | 21001264003  | 1       |
| Caelo    | Decyl oleate                    | 21001300001  | 1       |
| Caelo    | Sesame oil, refined             | 21001358001  | 2       |
| Caelo    | Sesame oil, refined             | 21001358004  | 1       |
| Caelo    | Avocado oil, refined            | 21001530002  | 3       |
| Caelo    | Avocado oil, refined            | 21001530003  | 1       |
| Caelo    | Avocado oil, refined            | 21001530006  | 2       |
| Caelo    | Flaxseed oil, native            | 21002087002  | 1       |
| Caelo    | Borage oil, refined, stabili... | 21002207002  | 1       |
| Caelo    | Borage oil, refined, stabili... | 21002207004  | 1       |
| Caelo    | Borage oil, refined, stabili... | 21002207007  | 1       |
| Caelo    | Codliver oil (type A)           | 21002208001  | 1       |
| Caelo    | Codliver oil (type A)           | 21002208002  | 1       |
| Caelo    | Codliver oil (type A)           | 21002208003  | 1       |
| Caelo    | Olive oil, native               | 21002271002  | 19      |
| Caelo    | Olive oil, native               | 21002271006  | 3       |
| Caelo    | Almond oil, refined             | 2100236005   | 1       |
| Caelo    | Almond oil, refined             | 21002363002  | 1       |
| Caelo    | Almond oil, refined             | 21002363003  | 1       |
| Caelo    | Almond oil, refined             | 21002363004  | 1       |
| Caelo    | Almond oil, refined             | 21002363005  | 22      |
| Caelo    | Almond oil, refined             | 21002363006  | 17      |
| Caelo    | Almond oil, refined             | 21002363008  | 2       |
| Caelo    | Almond oil, refined             | 21002363009  | 7       |
| Caelo    | Almond oil, refined             | 210023663009 | 1       |
| Caelo    | Decyl oleate                    | 21002726002  | 1       |
| Caelo    | Peanut oil, refined             | 21002810004  | 6       |
| Caelo    | Peanut oil, refined             | 21002810009  | 1       |
| Caelo    | Peanut oil, refined             | 2100281004   | 1       |
| Caelo    | Avocado oil, refined            | 21002884003  | 1       |
| Caelo    | Wheatgerm oil, refined          | 21002983003  | 2       |
| Caelo    | Grape seed oil, refined         | 21002984003  | 1       |
| Caelo    | Olive oil, native               | 21003239002  | 5       |
| Caelo    | Evening primrose oil, refined   | 21003319001  | 2       |
| Caelo    | Evening primrose oil, refined   | 21003319002  | 15      |
| Caelo    | Evening primrose oil, refined   | 21003319003  | 18      |
| Caelo    | Almond oil, refined             | 21003729002  | 2       |
| Caelo    | Almond oil, refined             | 21003729003  | 4       |
| Caelo    | Almond oil, refined             | 21003729004  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Almond oil, refined             | 21003729006 | 8       |
| Caelo    | Almond oil, refined             | 21003729007 | 1       |
| Caelo    | Olive oil, native               | 21004008004 | 1       |
| Caelo    | Evening primrose oil, refined   | 21004228002 | 1       |
| Caelo    | Evening primrose oil, refined   | 21004228003 | 2       |
| Caelo    | Olive oil, native               | 2100836006  | 1       |
| Caelo    | Almond oil, refined             | 21011304    | 1       |
| Caelo    | Almond oil, refined             | 2101405     | 1       |
| Caelo    | Almond oil, refined             | 21021303    | 1       |
| Caelo    | Jojoba Oil, native              | 21041504    | 1       |
| Caelo    | Almond oil, refined             | 21041713    | 1       |
| Caelo    | Olive oil, native               | 21041714    | 1       |
| Caelo    | Evening primrose oil, refined   | 21041716    | 1       |
| Caelo    | Sesame oil, refined             | 21051305    | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 21061302    | 1       |
| Caelo    | Olive oil, native               | 210818B     | 1       |
| Caelo    | Codliver oil (type A)           | 21101401    | 1       |
| Caelo    | Codliver oil (type A)           | 21111204    | 1       |
| Caelo    | Almond oil, refined             | 21112PML01  | 1       |
| Caelo    | Peanut oil, refined             | 21121205    | 1       |
| Caelo    | Olive oil, native               | 2113Q02000  | 1       |
| Caelo    | Codliver oil (type A)           | 2121404     | 1       |
| Caelo    | Wheatgerm oil, refined          | 213E-02784  | 1       |
| Caelo    | Evening primrose oil, refined   | 220401N     | 1       |
| Caelo    | Almond oil, refined             | 2204130     | 1       |
| Caelo    | Olive oil, native               | 22042001    | 1       |
| Caelo    | Almond oil, refined             | 220515PML01 | 1       |
| Caelo    | Almond oil, refined             | 22071303    | 1       |
| Caelo    | Almond oil, refined             | 22081205    | 1       |
| Caelo    | Peanut oil, refined             | 22091807    | 1       |
| Caelo    | Peanut oil, refined             | 22092003    | 1       |
| Caelo    | Almond oil, refined             | 22111301    | 1       |
| Caelo    | Flaxseed oil, native            | 23021302    | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 23021714    | 1       |
| Caelo    | Almond oil, refined             | 230315HML01 | 1       |
| Caelo    | Olive oil, native               | 23041802    | 1       |
| Caelo    | Peanut oil, refined             | 23051406    | 1       |
| Caelo    | Jojoba Oil, native              | 23051804    | 1       |
| Caelo    | Evening primrose oil, refined   | 23051821    | 1       |
| Caelo    | Olive oil, native               | 23101704    | 1       |
| Caelo    | Olive oil, native               | 23121413    | 1       |
| Caelo    | Codliver oil (type A)           | 23121414    | 1       |
| Caelo    | Olive oil, native               | 24011303    | 1       |
| Caelo    | Olive oil, native               | 24011408    | 1       |
| Caelo    | Olive oil, native               | 24031502    | 1       |
| Caelo    | Almond oil, refined             | 2405211950  | 1       |
| Caelo    | Evening primrose oil, refined   | 24061711    | 1       |
| Caelo    | Peanut oil, refined             | 24081208    | 1       |
| Caelo    | Olive oil, native               | 24081507    | 1       |
| Caelo    | Walnut oil, refined             | 24101309    | 1       |
| Caelo    | Evening primrose oil, refined   | 2416A-03075 | 1       |
| Caelo    | Borage oil, refined, stabili... | 2492        | 1       |
| Caelo    | Olive oil, native               | 25021404    | 1       |
| Caelo    | Almond oil, refined             | 25021707    | 1       |
| Caelo    | Olive oil, native               | 25021708    | 1       |
| Caelo    | Almond oil, refined             | 25041303    | 1       |
| Caelo    | Sesame oil, refined             | 25051305    | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 25062015A   | 1       |
| Caelo    | Codliver oil (type A)           | 25091210    | 1       |
| Caelo    | Peanut oil, refined             | 25091405    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Caelo    | Jobaba Oil, native              | 25101303    | 1       |
| Caelo    | Avocado oil, refined            | 2515I-01960 | 1       |
| Caelo    | Avocado oil, refined            | 2517M-01960 | 1       |
| Caelo    | Shea butter, refined            | 26021901    | 1       |
| Caelo    | Borage oil, refined, stabili... | 26041404    | 1       |
| Caelo    | Codliver oil (type A)           | 26061202    | 1       |
| Caelo    | Peanut oil, refined             | 26061203    | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 26071210    | 1       |
| Caelo    | Olive oil, native               | 26071403    | 1       |
| Caelo    | Olive oil, native               | 26081709    | 1       |
| Caelo    | Olive oil, native               | 26091403    | 1       |
| Caelo    | Jobaba Oil, native              | 2613M-01986 | 1       |
| Caelo    | Jobaba Oil, native              | 2614A-01986 | 1       |
| Caelo    | Flaxseed oil, native            | 263894      | 1       |
| Caelo    | Olive oil, native               | 265359      | 1       |
| Caelo    | Olive oil, native               | 27061703    | 1       |
| Caelo    | Almond oil, refined             | 2713U1950   | 1       |
| Caelo    | Peanut oil, refined             | 2742        | 1       |
| Caelo    | Olive oil, native               | 2792        | 1       |
| Caelo    | Olive oil, native               | 279609      | 1       |
| Caelo    | Peanut oil, refined             | 28021406    | 1       |
| Caelo    | Peanut oil, refined             | 28031304    | 1       |
| Caelo    | Codliver oil (type A)           | 28041507    | 1       |
| Caelo    | Sesame oil, refined             | 28041709    | 1       |
| Caelo    | Almond oil, refined             | 28041732    | 1       |
| Caelo    | Olive oil, native               | 28051405    | 1       |
| Caelo    | Codliver oil (type A)           | 28071504    | 1       |
| Caelo    | Avocado oil, refined            | 28111308    | 1       |
| Caelo    | Olive oil, native               | 28111704    | 1       |
| Caelo    | Almond oil, refined             | 28111705    | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 28111710    | 1       |
| Caelo    | Jobaba Oil, native              | 28111810    | 1       |
| Caelo    | Decyl oleate                    | 2812        | 1       |
| Caelo    | Olive oil, native               | 28121202    | 1       |
| Caelo    | Peanut oil, refined             | 2813        | 1       |
| Caelo    | Almond oil, refined             | 284968      | 1       |
| Caelo    | Olive oil, native               | 288752      | 2       |
| Caelo    | Olive oil, native               | 289095      | 1       |
| Caelo    | Olive oil, native               | 290403      | 2       |
| Caelo    | Olive oil, native               | 29041301    | 1       |
| Caelo    | Almond oil, refined             | 29081404    | 1       |
| Caelo    | Sesame oil, refined             | 29088       | 1       |
| Caelo    | Olive oil, native               | 29091802    | 1       |
| Caelo    | Olive oil, native               | 290924      | 1       |
| Caelo    | Olive oil, native               | 2915A-02000 | 1       |
| Caelo    | Olive oil, native               | 292369      | 2       |
| Caelo    | Wheatgerm oil, refined          | 292513      | 1       |
| Caelo    | Olive oil, native               | 294034      | 1       |
| Caelo    | Olive oil, native               | 295282      | 3       |
| Caelo    | Olive oil, native               | 295283      | 2       |
| Caelo    | Olive oil, native               | 297227      | 1       |
| Caelo    | Olive oil, native               | 297564      | 1       |
| Caelo    | Olive oil, native               | 297565      | 1       |
| Caelo    | Olive oil, native               | 298008      | 2       |
| Caelo    | Safflower oil, refined type I   | 299143      | 1       |
| Caelo    | Flaxseed oil, native            | 299565      | 1       |
| Caelo    | Olive oil, native               | 300117/A    | 1       |
| Caelo    | Avocado oil, refined            | 30011904    | 1       |
| Caelo    | Olive oil, native               | 300220      | 1       |
| Caelo    | Evening primrose oil, refined   | 30031501    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch        | Spectra |
|----------|-------------------------------|--------------|---------|
| Caelo    | Avocado oil, refined          | 300403       | 1       |
| Caelo    | Codliver oil (type A)         | 30041302     | 1       |
| Caelo    | Sesame oil, refined           | 30051201     | 1       |
| Caelo    | Olive oil, native             | 30071305     | 1       |
| Caelo    | Flaxseed oil, native          | 300983       | 1       |
| Caelo    | Peanut oil, refined           | 301000       | 1       |
| Caelo    | Peanut oil, refined           | 30101312     | 1       |
| Caelo    | Olive oil, native             | 301100       | 2       |
| Caelo    | Almond oil, refined           | 30111803     | 1       |
| Caelo    | Peanut oil, refined           | 30121415     | 1       |
| Caelo    | Almond oil, refined           | 30121416     | 1       |
| Caelo    | Peanut oil, refined           | 302017       | 2       |
| Caelo    | Codliver oil (type A)         | 3021402      | 1       |
| Caelo    | Flaxseed oil, native          | 302269       | 1       |
| Caelo    | Olive oil, native             | 302523       | 1       |
| Caelo    | Olive oil, native             | 304113       | 1       |
| Caelo    | Olive oil, native             | 305003       | 3       |
| Caelo    | Evening primrose oil, refined | 3051806      | 1       |
| Caelo    | Olive oil, native             | 3051807      | 1       |
| Caelo    | Peanut oil, refined           | 305319       | 2       |
| Caelo    | Safflower oil, refined type I | 305902       | 1       |
| Caelo    | Peanut oil, refined           | 3061303      | 1       |
| Caelo    | Almond oil, refined           | 306292       | 1       |
| Caelo    | Olive oil, native             | 306949       | 1       |
| Caelo    | Olive oil, native             | 306950       | 5       |
| Caelo    | Olive oil, native             | 307103       | 3       |
| Caelo    | Flaxseed oil, native          | 307119       | 1       |
| Caelo    | Joboba Oil, native            | 3071301      | 1       |
| Caelo    | Olive oil, native             | 3071302      | 1       |
| Caelo    | Olive oil, native             | 3071714      | 1       |
| Caelo    | Avocado oil, refined          | 3071802      | 1       |
| Caelo    | Olive oil, native             | 308229       | 1       |
| Caelo    | Olive oil, native             | 308230       | 10      |
| Caelo    | Flaxseed oil, native          | 310225       | 1       |
| Caelo    | Almond oil, refined           | 31031403     | 1       |
| Caelo    | Olive oil, native             | 31081206     | 1       |
| Caelo    | Olive oil, native             | 310866       | 3       |
| Caelo    | Olive oil, native             | 310868       | 2       |
| Caelo    | Codliver oil (type A)         | 3111804      | 1       |
| Caelo    | Almond oil, refined           | 31121205     | 1       |
| Caelo    | Peanut oil, refined           | 3112M-01954  | 1       |
| Caelo    | Evening primrose oil, refined | 3112M-03075  | 1       |
| Caelo    | Codliver oil (type A)         | 3121201      | 1       |
| Caelo    | Olive oil, native             | 318A-02000   | 1       |
| Caelo    | Olive oil, native             | 3212I-02000  | 1       |
| Caelo    | Almond oil, refined           | 3236406      | 1       |
| Caelo    | Avocado oil, refined          | 3250         | 1       |
| Caelo    | Almond oil, refined           | 3278         | 1       |
| Caelo    | Olive oil, native             | 3313I-02000  | 1       |
| Caelo    | Peanut oil, refined           | 3318         | 1       |
| Caelo    | Olive oil, native             | 3319         | 1       |
| Caelo    | Evening primrose oil, refined | 3385897      | 3       |
| Caelo    | Avocado oil, refined          | 3413M-01960  | 2       |
| Caelo    | Olive oil, native             | 3418a-02000  | 1       |
| Caelo    | Peanut oil, refined           | 3444         | 1       |
| Caelo    | Olive oil, native             | 3445         | 1       |
| Caelo    | Avocado oil, refined          | 35(18007501) | 1       |
| Caelo    | Avocado oil, refined          | 3518M-01960  | 1       |
| Caelo    | Avocado oil, refined          | 36(18044901) | 1       |
| Caelo    | Peanut oil, refined           | 3614M-01954  | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch          | Spectra |
|----------|---------------------------------|----------------|---------|
| Caelo    | Almond oil, refined             | 3714U-01950    | 1       |
| Caelo    | Peanut oil, refined             | 3813E1954      | 1       |
| Caelo    | Evening primrose oil, refined   | 3878-124466    | 1       |
| Caelo    | Olive oil, native               | 3916I-02000    | 1       |
| Caelo    | Almond oil, refined             | 4017A-01950    | 1       |
| Caelo    | Almond oil, refined             | 40315PML01     | 1       |
| Caelo    | Olive oil, native               | 4041303        | 1       |
| Caelo    | Walnut oil, refined             | 4051702        | 1       |
| Caelo    | Almond oil, refined             | 4061202        | 1       |
| Caelo    | Evening primrose oil, refined   | 4061305        | 1       |
| Caelo    | Codliver oil (type A)           | 4061403        | 1       |
| Caelo    | Olive oil, native               | 406212000      | 1       |
| Caelo    | Olive oil, native               | 4101312        | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 4170717        | 1       |
| Caelo    | Avocado oil, refined            | 4216Q-01960    | 1       |
| Caelo    | Almond oil, refined             | 4313E1950      | 1       |
| Caelo    | Evening primrose oil, refined   | 458528         | 1       |
| Caelo    | Olive oil, native               | 4616U-02000    | 1       |
| Caelo    | Peanut oil, refined             | 4617M-01954    | 1       |
| Caelo    | Almond oil, refined             | 465957         | 1       |
| Caelo    | Peanut oil, refined             | 466158         | 1       |
| Caelo    | Olive oil, native               | 46646018208101 | 1       |
| Caelo    | Avocado oil, refined            | 4718201        | 2       |
| Caelo    | Almond oil, refined             | 4916A-01950    | 1       |
| Caelo    | Wheatgerm oil, refined          | 5011502        | 1       |
| Caelo    | Olive oil, native               | 5011503        | 1       |
| Caelo    | Evening primrose oil, refined   | 5011508        | 1       |
| Caelo    | Borage oil, refined, stabili... | 5012A-02881    | 1       |
| Caelo    | Olive oil, native               | 503312000      | 1       |
| Caelo    | Codliver oil (type A)           | 5061202        | 1       |
| Caelo    | Evening primrose oil, refined   | 5061505        | 1       |
| Caelo    | Codliver oil (type A)           | 5081402        | 1       |
| Caelo    | Codliver oil (type A)           | 5091309        | 1       |
| Caelo    | Almond oil, refined             | 5111208        | 1       |
| Caelo    | Sesame oil, refined             | 5117I-02016    | 1       |
| Caelo    | Avocado oil, refined            | 5121805        | 1       |
| Caelo    | Oleyl oleate (stabilised)       | 5121808        | 1       |
| Caelo    | Almond oil, refined             | 514Q1950       | 1       |
| Caelo    | Evening primrose oil, refined   | 51929821       | 1       |
| Caelo    | Peanut oil, refined             | 5204402        | 1       |
| Caelo    | Almond oil, refined             | 5214206        | 3       |
| Caelo    | Avocado oil, refined            | 5216901        | 1       |
| Caelo    | Olive oil, native               | 5218Q-02000    | 1       |
| Caelo    | Codliver oil (type A)           | 5228001        | 2       |
| Caelo    | Olive oil, native               | 5271504        | 2       |
| Caelo    | Olive oil, native               | 5272401        | 4       |
| Caelo    | Peanut oil, refined             | 5314601        | 1       |
| Caelo    | Sesame oil, refined             | 5319201        | 2       |
| Caelo    | Almond oil, refined             | 5415901        | 6       |
| Caelo    | Codliver oil (type A)           | 5437202        | 13      |
| Caelo    | Almond oil, refined             | 5438301        | 4       |
| Caelo    | Almond oil, refined             | 5438302        | 3       |
| Caelo    | Olive oil, native               | 5464901        | 2       |
| Caelo    | Olive oil, native               | 5470202        | 1       |
| Caelo    | Codliver oil (type A)           | 5529601        | 11      |
| Caelo    | Peanut oil, refined             | 5592601        | 3       |
| Caelo    | Borage oil, refined, stabili... | 5594400002     | 2       |
| Caelo    | Almond oil, refined             | 5615001        | 6       |
| Caelo    | Almond oil, refined             | 5615003        | 1       |
| Caelo    | Olive oil, native               | 5623601        | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Codliver oil (type A)           | 5641901      | 2       |
| Caelo    | Almond oil, refined             | 5669601      | 3       |
| Caelo    | Codliver oil (type A)           | 5693101      | 4       |
| Caelo    | Almond oil, refined             | 5703001      | 4       |
| Caelo    | Olive oil, native               | 5734701      | 1       |
| Caelo    | Sesame oil, refined             | 5744101      | 1       |
| Caelo    | Almond oil, refined             | 5748601      | 7       |
| Caelo    | Evening primrose oil, refined   | 586061428    | 1       |
| Caelo    | Codliver oil (type A)           | 5878701      | 4       |
| Caelo    | Olive oil, native               | 5891202      | 1       |
| Caelo    | Olive oil, native               | 6/AKD15      | 1       |
| Caelo    | Olive oil, native               | 60081503     | 4       |
| Caelo    | Codliver oil (type A)           | 6021302      | 1       |
| Caelo    | Almond oil, refined             | 6031506      | 1       |
| Caelo    | Peanut oil, refined             | 6061202      | 1       |
| Caelo    | Sesame oil, refined             | 6071715      | 1       |
| Caelo    | Almond oil, refined             | 6081202      | 1       |
| Caelo    | Olive oil, native               | 6101706      | 1       |
| Caelo    | Almond oil, refined             | 6101708      | 1       |
| Caelo    | Joboba Oil, native              | 6101802      | 1       |
| Caelo    | Olive oil, native               | 6111208      | 1       |
| Caelo    | Evening primrose oil, refined   | 6121707      | 1       |
| Caelo    | Wheatgerm oil, refined          | 6121709      | 1       |
| Caelo    | Wheatgerm oil, refined          | 6137403      | 1       |
| Caelo    | Borage oil, refined, stabili... | 6170717      | 1       |
| Caelo    | Wheatgerm oil, refined          | 618E-02784   | 1       |
| Caelo    | Evening primrose oil, refined   | 7011502      | 1       |
| Caelo    | Peanut oil, refined             | 7031307      | 1       |
| Caelo    | Olive oil, native               | 7031501      | 1       |
| Caelo    | Olive oil, native               | 7051507      | 1       |
| Caelo    | Olive oil, native               | 7071206      | 1       |
| Caelo    | Sesame oil, refined             | 7071804      | 1       |
| Caelo    | Almond oil, refined             | 7091206      | 1       |
| Caelo    | Olive oil, native               | 7091703      | 1       |
| Caelo    | Almond oil, refined             | 71/AKD15     | 1       |
| Caelo    | Flaxseed oil, native            | 7111204      | 1       |
| Caelo    | Olive oil, native               | 713I-02000   | 1       |
| Caelo    | Evening primrose oil, refined   | 7170717      | 1       |
| Caelo    | Almond oil, refined             | 7176502      | 1       |
| Caelo    | Almond oil, refined             | 72/AKD16     | 1       |
| Caelo    | Borage oil, refined, stabili... | 722915305009 | 1       |
| Caelo    | Evening primrose oil, refined   | 7255801      | 1       |
| Caelo    | Almond oil, refined             | 74176327302  | 1       |
| Caelo    | Codliver oil (type A)           | 80000601001  | 1       |
| Caelo    | Almond oil, refined             | 80000915001  | 1       |
| Caelo    | Codliver oil (type A)           | 8000601001   | 1       |
| Caelo    | Peanut oil, refined             | 8000666005   | 1       |
| Caelo    | Olive oil, native               | 800067001    | 1       |
| Caelo    | Almond oil, refined             | 8000712001   | 2       |
| Caelo    | Almond oil, refined             | 8000915001   | 5       |
| Caelo    | Almond oil, refined             | 8000915002   | 10      |
| Caelo    | Codliver oil (type A)           | 8000918001   | 6       |
| Caelo    | Codliver oil (type A)           | 8001176004   | 5       |
| Caelo    | Codliver oil (type A)           | 8001215002   | 10      |
| Caelo    | Almond oil, refined             | 800149001    | 1       |
| Caelo    | Almond oil, refined             | 8001497001   | 3       |
| Caelo    | Olive oil, native               | 8001560001   | 1       |
| Caelo    | Codliver oil (type A)           | 8001765001   | 2       |
| Caelo    | Olive oil, native               | 8001854001   | 2       |
| Caelo    | Codliver oil (type A)           | 80023380002  | 1       |

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| Supplier | Substance                     | Batch        | Spectra |
|----------|-------------------------------|--------------|---------|
| Caelo    | Codliver oil (type A)         | 8002338002   | 3       |
| Caelo    | Olive oil, native             | 800236001    | 1       |
| Caelo    | Olive oil, native             | 8002366001   | 1       |
| Caelo    | Codliver oil (type A)         | 8002468002   | 4       |
| Caelo    | Almond oil, refined           | 8002653001   | 11      |
| Caelo    | Olive oil, native             | 8002656001   | 1       |
| Caelo    | Almond oil, refined           | 8002675001   | 7       |
| Caelo    | Olive oil, native             | 8002827001   | 1       |
| Caelo    | Olive oil, native             | 8002868001   | 1       |
| Caelo    | Sesame oil, refined           | 8002939002   | 1       |
| Caelo    | Almond oil, refined           | 8003167001   | 3       |
| Caelo    | Olive oil, native             | 8003420001   | 1       |
| Caelo    | Codliver oil (type A)         | 8003468002   | 1       |
| Caelo    | Almond oil, refined           | 8003503001   | 1       |
| Caelo    | Almond oil, refined           | 8003503002   | 4       |
| Caelo    | Olive oil, native             | 8003580002   | 1       |
| Caelo    | Codliver oil (type A)         | 8003727001   | 9       |
| Caelo    | Olive oil, native             | 8003801001   | 2       |
| Caelo    | Almond oil, refined           | 8003885002   | 4       |
| Caelo    | Codliver oil (type A)         | 8003906001   | 8       |
| Caelo    | Codliver oil (type A)         | 8003906002   | 1       |
| Caelo    | Almond oil, refined           | 8004039003   | 6       |
| Caelo    | Olive oil, native             | 8004067001   | 2       |
| Caelo    | Olive oil, native             | 8004194001   | 1       |
| Caelo    | Almond oil, refined           | 8004390001   | 6       |
| Caelo    | Almond oil, refined           | 800439001    | 1       |
| Caelo    | Olive oil, native             | 800449001    | 1       |
| Caelo    | Olive oil, native             | 8004499001   | 1       |
| Caelo    | Almond oil, refined           | 8004548002   | 14      |
| Caelo    | Almond oil, refined           | 8004548011   | 3       |
| Caelo    | Codliver oil (type A)         | 8004742002   | 2       |
| Caelo    | Almond oil, refined           | 8005803006   | 1       |
| Caelo    | Almond oil, refined           | 8005936002   | 6       |
| Caelo    | Almond oil, refined           | 8007584002   | 1       |
| Caelo    | Almond oil, refined           | 802675001    | 1       |
| Caelo    | Almond oil, refined           | 8041501      | 1       |
| Caelo    | Olive oil, native             | 8041709      | 1       |
| Caelo    | Codliver oil (type A)         | 8042014/A    | 1       |
| Caelo    | Shea butter, refined          | 8052001      | 1       |
| Caelo    | Peanut oil, refined           | 8061303      | 1       |
| Caelo    | Olive oil, native             | 8061712      | 1       |
| Caelo    | Codliver oil (type A)         | 8071504      | 1       |
| Caelo    | Olive oil, native             | 8121404      | 1       |
| Caelo    | Codliver oil (type A)         | 8131-01985   | 1       |
| Caelo    | Avocado oil, refined          | 8306803      | 1       |
| Caelo    | Olive oil, native             | 9031707      | 1       |
| Caelo    | Olive oil, native             | 90417099     | 1       |
| Caelo    | Olive oil, native             | 9061810      | 1       |
| Caelo    | Almond oil, refined           | 9061813      | 1       |
| Caelo    | Flaxseed oil, native          | 9062015A     | 1       |
| Caelo    | Peanut oil, refined           | 9091303      | 1       |
| Caelo    | Peanut oil, refined           | 9101201      | 1       |
| Caelo    | Almond oil, refined           | 914E1950     | 1       |
| Caelo    | Almond oil, refined           | 91871071     | 1       |
| Caelo    | Peanut oil, refined           | 920Q-01954   | 1       |
| Caelo    | Avocado oil, refined          | 973117038802 | 1       |
| Caelo    | Avocado oil, refined          | 973418044902 | 1       |
| Caelo    | Evening primrose oil, refined | AP094-115N   | 1       |
| Caelo    | Evening primrose oil, refined | AP141023N    | 1       |
| Caelo    | Evening primrose oil, refined | AP144330N    | 1       |

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| Supplier                   | Substance                       | Batch                   | Spectra |
|----------------------------|---------------------------------|-------------------------|---------|
| Caelo                      | Olive oil, native               | AP201019-04/20001410003 | 1       |
| Caelo                      | Evening primrose oil, refined   | AP788-128N              | 3       |
| Caelo                      | Olive oil, native               | CE834/ES                | 1       |
| Caelo                      | Almond oil, refined             | CH-B18015002            | 1       |
| Caelo                      | Peanut oil, refined             | CHB192485006            | 1       |
| Caelo                      | Evening primrose oil, refined   | EP7137111               | 1       |
| Caelo                      | Evening primrose oil, refined   | EP713711-1              | 3       |
| Caelo                      | Evening primrose oil, refined   | EP8482111               | 1       |
| Caelo                      | Grape seed oil, refined         | N0000004667             | 1       |
| Caelo                      | Grape seed oil, refined         | N0000006050             | 1       |
| Caelo                      | Almond oil, refined             | O-240513-1              | 1       |
| Caelo                      | Olive oil, native               | p070106118              | 1       |
| Caelo                      | Peanut oil, refined             | T12-0858009             | 1       |
| Caelo                      | Wheatgerm oil, refined          | W-240513-2              | 1       |
| Caelo                      | Borage oil, refined, stabili... | ZR1094B                 | 1       |
| Caerol / Gehe              | Olive oil, native               | 15311401                | 1       |
| Caerol/Noweda              | Wheatgerm oil, refined          | 18009505                | 1       |
| Caerol/Phönix              | Evening primrose oil, refined   | 13121814                | 1       |
| Caerol/Phönix              | Olive oil, native               | 17361101                | 1       |
| Caerol/Ahd                 | Olive oil, native               | 18208106                | 1       |
| Caerol/Gehe                | Almond oil, refined             | 18006807                | 1       |
| Caerol/Krieger             | Olive oil, native               | 17121606                | 1       |
| Caerol/Noweda              | Almond oil, refined             | 15409703                | 1       |
| Caerol/Phoenix             | Almond oil, refined             | 8004548002              | 5       |
| Caerol/Phönix              | Olive oil, native               | 15311401                | 2       |
| Caerol/Phönix              | Olive oil, native               | 15311402                | 1       |
| Caerol                     | Wheatgerm oil, refined          | 13261601                | 1       |
| Caerol                     | Jojoba Oil, native              | 13287702                | 1       |
| Caerol/Noweda              | Avocado oil, refined            | 20001638004             | 1       |
| Caesa / Alliance Health... | Evening primrose oil, refined   | 21000915002             | 2       |
| Caesaer/Jenne              | Peanut oil, refined             | 18208202                | 1       |
| Caesar & Lorenz GmbH       | Grape seed oil, refined         | 18224210                | 1       |
| Caesar & Lorenz GmbH       | Almond oil, refined             | 19187101                | 1       |
| Caesar & Lorenz GmbH       | Grape seed oil, refined         | 19241204                | 1       |
| Caesar & Lorenz GmbH       | Olive oil, native               | 21000836002             | 1       |
| Caesar & Lorenz            | Grape seed oil, refined         | 13065310                | 1       |
| Caesar & Loretz GmbH / ... | Almond oil, refined             | 19084505                | 1       |
| Caesar & Loretz GmbH / ... | Peanut oil, refined             | 17169018                | 1       |
| Caesar & Loretz GmbH / ... | Almond oil, refined             | 18184108                | 1       |
| Caesar & Loretz GmbH / ... | Peanut oil, refined             | 18208202                | 1       |
| Caesar & Loretz GmbH / ... | Olive oil, native               | 19000452002             | 2       |
| Caesar & Loretz GmbH / ... | Corn oil, refined               | 19112904                | 1       |
| Caesar & Loretz GmbH / ... | Evening primrose oil, refined   | 192982001               | 1       |
| Caesar & Loretz GmbH / ... | Borage oil, refined, stabili... | 15063412                | 1       |
| Caesar & Loretz GmbH / ... | Oleyl oleate (stabilised)       | 18272002                | 1       |
| Caesar & Loretz GmbH / ... | Avocado oil, refined            | 18306808                | 1       |
| Caesar & Loretz GmbH / ... | Evening primrose oil, refined   | 19164402                | 1       |
| Caesar & Loretz GmbH / ... | Evening primrose oil, refined   | 192982001               | 2       |
| Caesar & Loretz GmbH / ... | Almond oil, refined             | 21001240006             | 1       |
| Caesar & Loretz GmbH / ... | Evening primrose oil, refined   | 16281301                | 1       |
| Caesar & Loretz GmbH / ... | Codliver oil (type A)           | 17137805                | 1       |
| Caesar & Loretz GmbH / ... | Almond oil, refined             | 17207906                | 2       |
| Caesar & Loretz GmbH / ... | Borage oil, refined, stabili... | 17307801                | 1       |
| Caesar & Loretz GmbH / ... | Almond oil, refined             | 18184113                | 1       |
| Caesar & Loretz GmbH / ... | Grape seed oil, refined         | 18224202                | 1       |
| Caesar & Loretz GmbH / ... | Almond oil, refined             | 18295903                | 4       |
| Caesar & Loretz GmbH / ... | Peanut oil, refined             | 192485006               | 1       |
| Caesar & Loretz GmbH / ... | Almond oil, refined             | 18295915                | 1       |
| Caesar & Loretz GmbH / ... | Oleyl oleate (stabilised)       | 20002648002             | 1       |
| Caesar & Loretz GmbH / ... | Avocado oil, refined            | 21002884003             | 1       |

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| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH / ...  | Olive oil, native               | 19001848    | 1       |
| Caesar & Loretz GmbH / ...  | Almond oil, refined             | 18184107    | 1       |
| Caesar & Loretz GmbH / ...  | Peanut oil, refined             | 18296009    | 1       |
| Caesar & Loretz GmbH / ...  | Almond oil, refined             | 19000779001 | 1       |
| Caesar & Loretz GmbH / ...  | Almond oil, refined             | 19187101    | 1       |
| Caesar & Loretz GmbH / ...  | Evening primrose oil, refined   | 192982001   | 1       |
| Caesar & Loretz GmbH / ...  | Peanut oil, refined             | 20001473008 | 1       |
| Caesar & Loretz GmbH / ...  | Evening primrose oil, refined   | 1803006-02  | 1       |
| Caesar & Loretz GmbH / ...  | Evening primrose oil, refined   | 18216211    | 1       |
| Caesar & Loretz GmbH / ...  | Evening primrose oil, refined   | 18216217    | 3       |
| Caesar & Loretz GmbH / ...  | Peanut oil, refined             | 18296001    | 1       |
| Caesar & Loretz GmbH / ...  | Peanut oil, refined             | 18296009    | 1       |
| Caesar & Loretz GmbH / ...  | Olive oil, native               | 18311910    | 1       |
| Caesar & Loretz GmbH / ...  | Evening primrose oil, refined   | 19175401    | 3       |
| Caesar & Loretz GmbH / ...  | Olive oil, native               | 19212005    | 1       |
| Caesar & Loretz GmbH / ...  | Evening primrose oil, refined   | 192982004   | 1       |
| Caesar & Loretz GmbH / G... | Evening primrose oil, refined   | 20001052001 | 1       |
| Caesar & Loretz GmbH 40...  | Evening primrose oil, refined   | 11150007    | 1       |
| Caesar & Loretz GmbH Hi...  | Olive oil, native               | 13350102    | 1       |
| Caesar & Loretz GmbH Hi...  | Avocado oil, refined            | 13361414    | 1       |
| Caesar & Loretz GmbH Hi...  | Peanut oil, refined             | 14115404    | 1       |
| Caesar & Loretz GmbH Hi...  | Olive oil, native               | 14182302    | 1       |
| Caesar & Loretz GmbH Hi...  | Olive oil, native               | 15216309    | 1       |
| Caesar & Loretz GmbH Hi...  | Olive oil, native               | 15311404    | 1       |
| Caesar & Loretz GmbH Hi...  | Peanut oil, refined             | 15331502    | 1       |
| Caesar & Loretz GmbH Hi...  | Olive oil, native               | 16212801    | 1       |
| Caesar & Loretz GmbH Hi...  | Olive oil, native               | 16212806    | 1       |
| Caesar & Loretz GmbH Hi...  | Flaxseed oil, native            | 289164      | 1       |
| Caesar & Loretz GmbH Hi...  | Almond oil, refined             | 510014-01   | 1       |
| Caesar & Loretz GmbH No...  | Olive oil, native               | 18208110    | 1       |
| Caesar & Loretz GmbH Sa...  | Almond oil, refined             | 20001624012 | 2       |
| Caesar & Loretz GmbH, 4...  | Evening primrose oil, refined   | 12032913    | 1       |
| Caesar & Loretz GmbH, 4...  | Evening primrose oil, refined   | 12112911    | 1       |
| Caesar & Loretz GmbH, 4...  | Olive oil, native               | 12141306    | 1       |
| Caesar & Loretz GmbH, 4...  | Evening primrose oil, refined   | 12325101    | 1       |
| Caesar & Loretz GmbH, 4...  | Evening primrose oil, refined   | 12325106    | 1       |
| Caesar & Loretz GmbH, 4...  | Evening primrose oil, refined   | 12325113    | 1       |
| Caesar & Loretz GmbH, A...  | Flaxseed oil, native            | 20004433003 | 1       |
| Caesar & Loretz GmbH, P...  | Peanut oil, refined             | 17328601    | 1       |
| Caesar & Loretz GmbH, P...  | Olive oil, native               | 17361106    | 2       |
| Caesar & Loretz GmbH, 20... | Olive oil, native               | 17121602    | 2       |
| Caesar & Loretz GmbH/ AHD   | Borage oil, refined, stabili... | 18295812    | 1       |
| Caesar & Loretz GmbH/ AHD   | Laurel oil                      | 19000520004 | 1       |
| Caesar & Loretz GmbH/ A...  | Almond oil, refined             | 19000779001 | 1       |
| Caesar & Loretz GmbH/ A...  | Borage oil, refined, stabili... | 20004100002 | 1       |
| Caesar & Loretz GmbH/ A...  | Oleyl oleate (stabilised)       | 21000767005 | 1       |
| Caesar & Loretz GmbH/ A...  | Olive oil, native               | 21002271002 | 1       |
| Caesar & Loretz GmbH/ A...  | Almond oil, refined             | 21002363006 | 1       |
| Caesar & Loretz GmbH/ A...  | Almond oil, refined             | 21003729006 | 1       |
| Caesar & Loretz GmbH/ A...  | Evening primrose oil, refined   | 19164402    | 1       |
| Caesar & Loretz GmbH/ F...  | Evening primrose oil, refined   | 18216202    | 1       |
| Caesar & Loretz GmbH/ G...  | Olive oil, native               | 18208101    | 1       |
| Caesar & Loretz GmbH/ G...  | Almond oil, refined             | 19000779001 | 1       |
| Caesar & Loretz GmbH/ G...  | Almond oil, refined             | 19000779006 | 1       |
| Caesar & Loretz GmbH/ G...  | Evening primrose oil, refined   | 19164407    | 1       |
| Caesar & Loretz GmbH/ G...  | Borage oil, refined, stabili... | 19249204    | 1       |
| Caesar & Loretz GmbH/ G...  | Evening primrose oil, refined   | 192982001   | 1       |
| Caesar & Loretz GmbH/ G...  | Almond oil, refined             | 20001624007 | 1       |
| Caesar & Loretz GmbH/ G...  | Almond oil, refined             | 20003418004 | 1       |
| Caesar & Loretz GmbH/ G...  | Almond oil, refined             | 21001240006 | 2       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/ J... | Almond oil, refined             | 20003418004 | 1       |
| Caesar & Loretz GmbH/ J... | Evening primrose oil, refined   | 21003319003 | 3       |
| Caesar & Loretz GmbH/ K... | Oleyl oleate (stabilised)       | 18272016    | 1       |
| Caesar & Loretz GmbH/ K... | Peanut oil, refined             | 18296002    | 1       |
| Caesar & Loretz GmbH/ K... | Soy oil, refined                | 18319906    | 3       |
| Caesar & Loretz GmbH/ K... | Soy oil, refined                | 18319909    | 5       |
| Caesar & Loretz GmbH/ N... | Peanut oil, refined             | 19059205    | 1       |
| Caesar & Loretz GmbH/ P... | Soy oil, refined                | 183199909   | 1       |
| Caesar & Loretz GmbH/ P... | Grape seed oil, refined         | 18224210    | 1       |
| Caesar & Loretz GmbH/ P... | Olive oil, native               | 19076104    | 1       |
| Caesar & Loretz GmbH/ P... | Peanut oil, refined             | 20001473008 | 1       |
| Caesar & Loretz GmbH/ P... | Almond oil, refined             | 20001624002 | 1       |
| Caesar & Loretz GmbH/ P... | Olive oil, native               | 20003049004 | 1       |
| Caesar & Loretz GmbH/ P... | Almond oil, refined             | 20003418002 | 1       |
| Caesar & Loretz GmbH/ P... | Peanut oil, refined             | 20003610006 | 1       |
| Caesar & Loretz GmbH/ P... | Almond oil, refined             | 21002363009 | 1       |
| Caesar & Loretz GmbH/ S... | Almond oil, refined             | 19084510    | 2       |
| Caesar & Loretz GmbH/ S... | Olive oil, native               | 20001410002 | 1       |
| Caesar & Loretz GmbH/      | Jojoba Oil, native              | 20000722008 | 1       |
| Caesar & Loretz GmbH/AEP   | Peanut oil, refined             | 192485011   | 1       |
| Caesar & Loretz GmbH/AEP   | Almond oil, refined             | 20001624003 | 1       |
| Caesar & Loretz GmbH/AEP   | Almond oil, refined             | 21002363009 | 1       |
| Caesar & Loretz GmbH/AHD   | Borage oil, refined, stabili... | 18295807    | 1       |
| Caesar & Loretz GmbH/AHD   | Borage oil, refined, stabili... | 18295808    | 1       |
| Caesar & Loretz GmbH/AHD   | Avocado oil, refined            | 18306809    | 1       |
| Caesar & Loretz GmbH/AHD   | Olive oil, native               | 19076110    | 1       |
| Caesar & Loretz GmbH/AHD   | Almond oil, refined             | 19084505    | 1       |
| Caesar & Loretz GmbH/AHD   | Olive oil, native               | 19212005    | 1       |
| Caesar & Loretz GmbH/AHD   | Borage oil, refined, stabili... | 20000791003 | 1       |
| Caesar & Loretz GmbH/AHD   | Olive oil, native               | 20001410003 | 1       |
| Caesar & Loretz GmbH/all   | Peanut oil, refined             | 20001473008 | 1       |
| Caesar & Loretz GmbH/Al... | Jojoba Oil, native              | 19152901    | 1       |
| Caesar & Loretz GmbH/An... | Olive oil, native               | 19000452003 | 1       |
| Caesar & Loretz GmbH/An... | Almond oil, refined             | 19000779001 | 1       |
| Caesar & Loretz GmbH/Fi... | Olive oil, native               | 18208106    | 1       |
| Caesar & Loretz GmbH/Fi... | Almond oil, refined             | 19000779004 | 1       |
| Caesar & Loretz GmbH/Fi... | Evening primrose oil, refined   | 19164401    | 1       |
| Caesar & Loretz GmbH/Fi... | Flaxseed oil, native            | 19164501    | 1       |
| Caesar & Loretz GmbH/Fi... | Almond oil, refined             | 20003418004 | 1       |
| Caesar & Loretz GmbH/Fi... | Almond oil, refined             | 20003418006 | 1       |
| Caesar & Loretz GmbH/Fi... | Olive oil, native               | 21000836006 | 1       |
| Caesar & Loretz GmbH/Fi... | Olive oil, native               | 21002271002 | 1       |
| Caesar & Loretz GmbH/G     | Almond oil, refined             | 18184113    | 1       |
| Caesar & Loretz GmbH/Gehe  | Peanut oil, refined             | 1000012961  | 1       |
| Caesar & Loretz GmbH/Gehe  | Borage oil, refined, stabili... | 18295804    | 1       |
| Caesar & Loretz GmbH/Gehe  | Borage oil, refined, stabili... | 18295808    | 2       |
| Caesar & Loretz GmbH/GEHE  | Borage oil, refined, stabili... | 18295815    | 1       |
| Caesar & Loretz GmbH/Gehe  | Grape seed oil, refined         | 18315904    | 1       |
| Caesar & Loretz GmbH/Gehe  | Olive oil, native               | 19000452002 | 1       |
| Caesar & Loretz GmbH/Gehe  | Avocado oil, refined            | 19000459003 | 1       |
| Caesar & Loretz GmbH/Gehe  | Laurel oil                      | 19000520002 | 1       |
| Caesar & Loretz GmbH/Gehe  | Almond oil, refined             | 19000779001 | 4       |
| Caesar & Loretz GmbH/Gehe  | Almond oil, refined             | 19000779006 | 1       |
| Caesar & Loretz GmbH/Gehe  | Almond oil, refined             | 19084505    | 1       |
| Caesar & Loretz GmbH/Gehe  | Jojoba Oil, native              | 191529004   | 1       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 19164401    | 4       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 19164407    | 2       |
| Caesar & Loretz GmbH/Gehe  | Peanut oil, refined             | 192485011   | 1       |
| Caesar & Loretz GmbH/Gehe  | Borage oil, refined, stabili... | 192492003   | 1       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 192982002   | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 192982004   | 3       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 20001052002 | 1       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 20001052003 | 1       |
| Caesar & Loretz GmbH/GEHE  | Olive oil, native               | 20001410001 | 3       |
| Caesar & Loretz GmbH/Gehe  | Olive oil, native               | 20001410004 | 1       |
| Caesar & Loretz GmbH/Gehe  | Peanut oil, refined             | 20001473008 | 1       |
| Caesar & Loretz GmbH/Gehe  | Almond oil, refined             | 20001624003 | 1       |
| Caesar & Loretz GmbH/GEHE  | Avocado oil, refined            | 20001638007 | 1       |
| Caesar & Loretz GmbH/Gehe  | Almond oil, refined             | 20002892001 | 1       |
| Caesar & Loretz GmbH/Gehe  | Borage oil, refined, stabili... | 20003248002 | 2       |
| Caesar & Loretz GmbH/Gehe  | Peanut oil, refined             | 20003610006 | 3       |
| Caesar & Loretz GmbH/Gehe  | Peanut oil, refined             | 20003610014 | 2       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 20004047008 | 2       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 20004047010 | 1       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 21000915005 | 1       |
| Caesar & Loretz GmbH/Gehe  | Evening primrose oil, refined   | 21000915006 | 1       |
| Caesar & Loretz GmbH/GEHE  | Peanut oil, refined             | 21001091003 | 1       |
| Caesar & Loretz GmbH/Gehe  | Avocado oil, refined            | 21001530003 | 1       |
| Caesar & Loretz GmbH/GEHE  | Almond oil, refined             | 21002363005 | 1       |
| Caesar & Loretz GmbH/GEHE  | Almond oil, refined             | 21002363006 | 2       |
| Caesar & Loretz GmbH/Gehe  | Almond oil, refined             | 21002363008 | 1       |
| Caesar & Loretz GmbH/Gehe  | Almond oil, refined             | 21003729006 | 1       |
| Caesar & Loretz GmbH/Ge... | Almond oil, refined             | 19000779007 | 1       |
| Caesar & Loretz GmbH/Go... | Olive oil, native               | 19212005    | 1       |
| Caesar & Loretz GmbH/Gö... | Olive oil, native               | 19076104    | 2       |
| Caesar & Loretz GmbH/Ho... | Olive oil, native               | 21002271002 | 1       |
| Caesar & Loretz GmbH/Je... | Borage oil, refined, stabili... | 18295817    | 1       |
| Caesar & Loretz GmbH/Je... | Olive oil, native               | 19000452002 | 1       |
| Caesar & Loretz GmbH/Je... | Olive oil, native               | 19000452003 | 1       |
| Caesar & Loretz GmbH/Je... | Almond oil, refined             | 19000779004 | 2       |
| Caesar & Loretz GmbH/Je... | Almond oil, refined             | 19000779006 | 1       |
| Caesar & Loretz GmbH/Je... | Flaxseed oil, native            | 19099401    | 1       |
| Caesar & Loretz GmbH/Je... | Evening primrose oil, refined   | 19164401    | 1       |
| Caesar & Loretz GmbH/Je... | Shea butter, refined            | 19205802    | 1       |
| Caesar & Loretz GmbH/Je... | Peanut oil, refined             | 192485006   | 1       |
| Caesar & Loretz GmbH/Je... | Borage oil, refined, stabili... | 192492005   | 1       |
| Caesar & Loretz GmbH/Je... | Evening primrose oil, refined   | 192982001   | 1       |
| Caesar & Loretz GmbH/Je... | Evening primrose oil, refined   | 2000102009  | 1       |
| Caesar & Loretz GmbH/Je... | Olive oil, native               | 20001410001 | 1       |
| Caesar & Loretz GmbH/Je... | Wheatgerm oil, refined          | 20001556007 | 1       |
| Caesar & Loretz GmbH/Je... | Almond oil, refined             | 20001624007 | 2       |
| Caesar & Loretz GmbH/Je... | Almond oil, refined             | 20003418002 | 1       |
| Caesar & Loretz GmbH/Je... | Evening primrose oil, refined   | 20004047006 | 1       |
| Caesar & Loretz GmbH/Je... | Evening primrose oil, refined   | 21000915002 | 1       |
| Caesar & Loretz GmbH/Kehr  | Wheatgerm oil, refined          | 19143201    | 1       |
| Caesar & Loretz GmbH/Kehr  | Wheatgerm oil, refined          | 20001556012 | 1       |
| Caesar & Loretz GmbH/Kr... | Olel oleate (stabilised)        | 18272003    | 1       |
| Caesar & Loretz GmbH/Kr... | Almond oil, refined             | 18295902    | 1       |
| Caesar & Loretz GmbH/Kr... | Peanut oil, refined             | 19059205    | 1       |
| Caesar & Loretz GmbH/Kr... | Peanut oil, refined             | 19059208    | 1       |
| Caesar & Loretz GmbH/Kr... | Almond oil, refined             | 19084507    | 1       |
| Caesar & Loretz GmbH/Kr... | Olel oleate (stabilised)        | 191191004   | 2       |
| Caesar & Loretz GmbH/Kr... | Olel oleate (stabilised)        | 20000495006 | 1       |
| Caesar & Loretz GmbH/Kr... | Olel oleate (stabilised)        | 21000767002 | 1       |
| Caesar & Loretz GmbH/Mi... | Olive oil, native               | 19076104    | 1       |
| Caesar & Loretz GmbH/No... | Sesame oil, refined             | 17332106    | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 18184107    | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 18295902    | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 18295909    | 1       |
| Caesar & Loretz GmbH/No... | Peanut oil, refined             | 18296009    | 1       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Caesar & Loretz GmbH/No... | Avocado oil, refined            | 18306812     | 2       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 19000779004  | 1       |
| Caesar & Loretz GmbH/No... | Peanut oil, refined             | 19059208     | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 19084511     | 2       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 19084518     | 2       |
| Caesar & Loretz GmbH/No... | Evening primrose oil, refined   | 19164401     | 1       |
| Caesar & Loretz GmbH/No... | Evening primrose oil, refined   | 19164402     | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 19187102     | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 19187106     | 1       |
| Caesar & Loretz GmbH/No... | Olive oil, native               | 19212002     | 3       |
| Caesar & Loretz GmbH/No... | Olive oil, native               | 19212005     | 1       |
| Caesar & Loretz GmbH/No... | Peanut oil, refined             | 192485006    | 1       |
| Caesar & Loretz GmbH/No... | Peanut oil, refined             | 192485011    | 2       |
| Caesar & Loretz GmbH/no... | Evening primrose oil, refined   | 192982002    | 3       |
| Caesar & Loretz GmbH/No... | Evening primrose oil, refined   | 192982002    | 1       |
| Caesar & Loretz GmbH/No... | Evening primrose oil, refined   | 192982004    | 2       |
| Caesar & Loretz GmbH/No... | Jobba Oil, native               | 20000722008  | 1       |
| Caesar & Loretz GmbH/No... | Evening primrose oil, refined   | 20001052003  | 3       |
| Caesar & Loretz GmbH/No... | Peanut oil, refined             | 20001473004  | 5       |
| Caesar & Loretz GmbH/No... | Soy oil, refined                | 20001575001  | 4       |
| Caesar & Loretz GmbH/No... | Soy oil, refined                | 20001575006  | 4       |
| Caesar & Loretz GmbH/no... | Almond oil, refined             | 20002892001  | 1       |
| Caesar & Loretz GmbH/No... | Olive oil, native               | 20003049003  | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 20003418007  | 1       |
| Caesar & Loretz GmbH/No... | Peanut oil, refined             | 20003610014  | 1       |
| Caesar & Loretz GmbH/No... | Grape seed oil, refined         | 21001936003  | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 21002363005  | 1       |
| Caesar & Loretz GmbH/No... | Almond oil, refined             | 8004548011   | 1       |
| Caesar & Loretz GmbH/Pg... | Sesame oil, refined             | 192560003    | 1       |
| Caesar & Loretz GmbH/Ph... | Jobba Oil, native               | 18057108     | 1       |
| Caesar & Loretz GmbH/ph... | Peanut oil, refined             | 18208202     | 1       |
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 19000452002  | 1       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 19084518     | 2       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 19175401     | 1       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 200003418007 | 1       |
| Caesar & Loretz GmbH/Ph... | Jobba Oil, native               | 20000722003  | 3       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 20001052005  | 1       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 20001052009  | 1       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 20001624004  | 2       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 20001624007  | 1       |
| Caesar & Loretz GmbH/Ph... | Peanut oil, refined             | 20003610014  | 1       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 20004047008  | 1       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 20004047009  | 1       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 19164401     | 2       |
| Caesar & Loretz GmbH/Ph... | Peanut oil, refined             | 19059205     | 1       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 18216211     | 1       |
| Caesar & Loretz GmbH/Ph... | Jobba Oil, native               | 18244715     | 1       |
| Caesar & Loretz GmbH/Ph... | Borage oil, refined, stabili... | 18295812     | 1       |
| Caesar & Loretz GmbH/Ph... | Borage oil, refined, stabili... | 18295815     | 1       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 18295901     | 1       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 19000779001  | 1       |
| Caesar & Loretz GmbH/Ph... | Peanut oil, refined             | 19059214     | 1       |
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 19076109     | 1       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 19187101     | 3       |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 19187102     | 2       |
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 19212002     | 1       |
| Caesar & Loretz GmbH/Ph... | Borage oil, refined, stabili... | 20000791003  | 2       |
| Caesar & Loretz GmbH/Ph... | Codliver oil (type A)           | 20000831003  | 1       |
| Caesar & Loretz GmbH/Ph... | Evening primrose oil, refined   | 20001052004  | 1       |
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 20001410002  | 1       |

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| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------------------|--------------|----------------|
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 20001410003  | 1              |
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 20001410004  | 1              |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 20001624003  | 1              |
| Caesar & Loretz GmbH/ph... | Avocado oil, refined            | 20001638003  | 1              |
| Caesar & Loretz GmbH/Ph... | Laurel oil                      | 20002806006  | 2              |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 20003418002  | 1              |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 20003418007  | 1              |
| Caesar & Loretz GmbH/Ph... | Peanut oil, refined             | 20003610014  | 2              |
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 21000836006  | 1              |
| Caesar & Loretz GmbH/Ph... | Olive oil, native               | 21002271002  | 1              |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 21002363006  | 1              |
| Caesar & Loretz GmbH/Ph... | Peanut oil, refined             | 21002810009  | 1              |
| Caesar & Loretz GmbH/Ph... | Avocado oil, refined            | 21002884005  | 1              |
| Caesar & Loretz GmbH/Ph... | Almond oil, refined             | 21003729002  | 1              |
| Caesar & Loretz GmbH/Sana  | Decyl oleate                    | 20004076004  | 1              |
| Caesar & Loretz GmbH/Sana  | Wheatgerm oil, refined          | 21002983003  | 1              |
| Caesar & Loretz GmbH/Sa... | Jojoba Oil, native              | 18244712     | 1              |
| Caesar & Loretz GmbH/Sa... | Almond oil, refined             | 18295902     | 1              |
| Caesar & Loretz GmbH/Sa... | Avocado oil, refined            | 19000459008  | 1              |
| Caesar & Loretz GmbH/Sa... | Olive oil, native               | 19076109     | 2              |
| Caesar & Loretz GmbH/Sa... | Olive oil, native               | 19076110     | 1              |
| Caesar & Loretz GmbH/Sa... | Jojoba Oil, native              | 191529006    | 4              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 19164402     | 1              |
| Caesar & Loretz GmbH/Sa... | Flaxseed oil, native            | 19164501     | 1              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 19175401     | 1              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 192982003    | 1              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 192982010    | 1              |
| Caesar & Loretz GmbH/Sa... | Flaxseed oil, native            | 20000372003  | 1              |
| Caesar & Loretz GmbH/sa... | Evening primrose oil, refined   | 20001052001  | 1              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 20001052001  | 3              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 20001052005  | 1              |
| Caesar & Loretz GmbH/Sa... | Olive oil, native               | 20001410003  | 1              |
| Caesar & Loretz GmbH/Sa... | Peanut oil, refined             | 20001473004  | 1              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 20004047008  | 1              |
| Caesar & Loretz GmbH/Sa... | Evening primrose oil, refined   | 20004047009  | 1              |
| Caesar & Loretz GmbH/Sa... | Borage oil, refined, stabili... | 21002207002  | 1              |
| Caesar & Loretz GmbH/Sa... | Almond oil, refined             | 21003729003  | 1              |
| Caesar & Loretz GmbH/sp... | Wheatgerm oil, refined          | 18241017     | 1              |
| Caesar & Loretz GmbH       | Almond oil, refined             | 1000010093   | 1              |
| Caesar & Loretz GmbH       | Olive oil, native               | 1000010861   | 2              |
| Caesar & Loretz GmbH       | Almond oil, refined             | 1000012126   | 1              |
| Caesar & Loretz GmbH       | Peanut oil, refined             | 1000012961   | 1              |
| Caesar & Loretz GmbH       | Peanut oil, refined             | 1000013880   | 1              |
| Caesar & Loretz GmbH       | Sesame oil, refined             | 1000013957   | 2              |
| Caesar & Loretz GmbH       | Evening primrose oil, refined   | 12325107     | 1              |
| Caesar & Loretz GmbH       | Avocado oil, refined            | 12H24-N02    | 1              |
| Caesar & Loretz GmbH       | Evening primrose oil, refined   | 13121812     | 1              |
| Caesar & Loretz GmbH       | Almond oil, refined             | 13178002     | 1              |
| Caesar & Loretz GmbH       | Almond oil, refined             | 13236404     | 1              |
| Caesar & Loretz GmbH       | Almond oil, refined             | 13350007     | 1              |
| Caesar & Loretz GmbH       | Olive oil, native               | 13350101     | 1              |
| Caesar & Loretz GmbH       | Peanut oil, refined             | 13358803     | 1              |
| Caesar & Loretz GmbH       | Evening primrose oil, refined   | 14010910     | 1              |
| Caesar & Loretz GmbH       | Peanut oil, refined             | 14115404     | 1              |
| Caesar & Loretz GmbH       | Almond oil, refined             | 14215804     | 1              |
| Caesar & Loretz GmbH       | Evening primrose oil, refined   | 14258611     | 1              |
| Caesar & Loretz GmbH       | Olive oil, native               | 14306904     | 1              |
| Caesar & Loretz GmbH       | Evening primrose oil, refined   | 15171104     | 1              |
| Caesar & Loretz GmbH       | Evening primrose oil, refined   | 15171109     | 1              |
| Caesar & Loretz GmbH       | Peanut oil, refined             | 15208506     | 1              |

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| Supplier             | Substance                       | Batch      | Spectra |
|----------------------|---------------------------------|------------|---------|
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 15417801   | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 16249502   | 1       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 16266011   | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 16327302   | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 16327308   | 1       |
| Caesar & Loretz GmbH | Grape seed oil, refined         | 17206502   | 1       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 17307801   | 1       |
| Caesar & Loretz GmbH | Sesame oil, refined             | 17332106   | 3       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 17358109   | 1       |
| Caesar & Loretz GmbH | Olive oil, native               | 18003205   | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18009109   | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18015007   | 2       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 180300602  | 1       |
| Caesar & Loretz GmbH | Soy lecithin, liquid            | 1803030-01 | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18044908   | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18044913   | 3       |
| Caesar & Loretz GmbH | Jobaba Oil, native              | 18057107   | 3       |
| Caesar & Loretz GmbH | Jobaba Oil, native              | 18057108   | 2       |
| Caesar & Loretz GmbH | Grape seed oil, refined         | 18065207   | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18070603   | 5       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18070608   | 2       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 18080501   | 1       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 18080509   | 5       |
| Caesar & Loretz GmbH | Flaxseed oil, native            | 18120901   | 1       |
| Caesar & Loretz GmbH | Flaxseed oil, native            | 18120904   | 1       |
| Caesar & Loretz GmbH | Sunflower oil, refined          | 18121004   | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18184113   | 2       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18184114   | 4       |
| Caesar & Loretz GmbH | Olive oil, native               | 18208101   | 1       |
| Caesar & Loretz GmbH | Olive oil, native               | 18208102   | 1       |
| Caesar & Loretz GmbH | Olive oil, native               | 18208106   | 4       |
| Caesar & Loretz GmbH | Olive oil, native               | 18208107   | 2       |
| Caesar & Loretz GmbH | Olive oil, native               | 18208110   | 9       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18208204   | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18208207   | 1       |
| Caesar & Loretz GmbH | Decyl oleate                    | 18214604   | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216201   | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216202   | 5       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216203   | 2       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216206   | 7       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216207   | 3       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216208   | 5       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216211   | 3       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216212   | 2       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216214   | 10      |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216215   | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216217   | 4       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216218   | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 18216219   | 3       |
| Caesar & Loretz GmbH | Shea butter, refined            | 18222304   | 2       |
| Caesar & Loretz GmbH | Shea butter, refined            | 18222305   | 1       |
| Caesar & Loretz GmbH | Shea butter, refined            | 18222308   | 1       |
| Caesar & Loretz GmbH | Shea butter, refined            | 18222310   | 1       |
| Caesar & Loretz GmbH | Grape seed oil, refined         | 18224202   | 1       |
| Caesar & Loretz GmbH | Shea butter, refined            | 18236002   | 1       |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 18241002   | 3       |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 18241006   | 3       |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 18241007   | 1       |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 18241012   | 2       |
| Caesar & Loretz GmbH | Jobaba Oil, native              | 18244707   | 5       |

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| Supplier             | Substance                       | Batch       | Spectra |
|----------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH | Jojoba Oil, native              | 18244711    | 2       |
| Caesar & Loretz GmbH | Jojoba Oil, native              | 18244713    | 2       |
| Caesar & Loretz GmbH | Jojoba Oil, native              | 18244714    | 1       |
| Caesar & Loretz GmbH | Jojoba Oil, native              | 18244715    | 1       |
| Caesar & Loretz GmbH | Flaxseed oil, native            | 18252604    | 1       |
| Caesar & Loretz GmbH | Flaxseed oil, native            | 18252605    | 1       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 18272002    | 2       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 18272005    | 2       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 18272007    | 1       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 18272015    | 7       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 18272016    | 1       |
| Caesar & Loretz GmbH | Decyl oleate                    | 18282506    | 3       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 18295804    | 3       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 18295808    | 12      |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 18295812    | 1       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 18295815    | 2       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295901    | 6       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295902    | 4       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295903    | 9       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295908    | 2       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295909    | 3       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295910    | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295914    | 8       |
| Caesar & Loretz GmbH | Almond oil, refined             | 18295915    | 7       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18296001    | 4       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18296002    | 10      |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18296003    | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18296006    | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18296007    | 8       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 18296009    | 10      |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306801    | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306802    | 3       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306805    | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306806    | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306808    | 2       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306809    | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306811    | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 18306812    | 1       |
| Caesar & Loretz GmbH | Olive oil, native               | 18311901    | 5       |
| Caesar & Loretz GmbH | Olive oil, native               | 18311902    | 5       |
| Caesar & Loretz GmbH | Olive oil, native               | 18311906    | 8       |
| Caesar & Loretz GmbH | Olive oil, native               | 18311907    | 3       |
| Caesar & Loretz GmbH | Olive oil, native               | 18311910    | 7       |
| Caesar & Loretz GmbH | Grape seed oil, refined         | 18315909    | 1       |
| Caesar & Loretz GmbH | Grape seed oil, refined         | 18315913    | 1       |
| Caesar & Loretz GmbH | Soy oil, refined                | 18319901    | 3       |
| Caesar & Loretz GmbH | Soy oil, refined                | 18319909    | 1       |
| Caesar & Loretz GmbH | Codliver oil (type A)           | 18323905    | 1       |
| Caesar & Loretz GmbH | Codliver oil (type A)           | 18323907    | 1       |
| Caesar & Loretz GmbH | Sesame oil, refined             | 18331301    | 5       |
| Caesar & Loretz GmbH | Sesame oil, refined             | 18331308    | 3       |
| Caesar & Loretz GmbH | Olive oil, native               | 19000452002 | 3       |
| Caesar & Loretz GmbH | Olive oil, native               | 19000452003 | 12      |
| Caesar & Loretz GmbH | Olive oil, native               | 19000452005 | 5       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 19000459003 | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 19000459005 | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 19000459007 | 6       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 19000459008 | 2       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 19000459012 | 4       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 1900045907  | 1       |

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| Supplier             | Substance                     | Batch       | Spectra |
|----------------------|-------------------------------|-------------|---------|
| Caesar & Loretz GmbH | Codliver oil (type A)         | 19000632001 | 1       |
| Caesar & Loretz GmbH | Codliver oil (type A)         | 19000632003 | 1       |
| Caesar & Loretz GmbH | Codliver oil (type A)         | 19000632004 | 1       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19000779001 | 18      |
| Caesar & Loretz GmbH | Almond oil, refined           | 19000779004 | 18      |
| Caesar & Loretz GmbH | Almond oil, refined           | 19000779006 | 2       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19000779007 | 3       |
| Caesar & Loretz GmbH | Olive oil, native             | 1900227     | 1       |
| Caesar & Loretz GmbH | Olive oil, native             | 19002974    | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined          | 1900459003  | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 1901046-01  | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined           | 19059205    | 11      |
| Caesar & Loretz GmbH | Peanut oil, refined           | 19059206    | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined           | 19059209    | 2       |
| Caesar & Loretz GmbH | Peanut oil, refined           | 19059212    | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined           | 19059214    | 4       |
| Caesar & Loretz GmbH | Olive oil, native             | 19076101    | 2       |
| Caesar & Loretz GmbH | Olive oil, native             | 19076104    | 4       |
| Caesar & Loretz GmbH | Olive oil, native             | 19076105    | 3       |
| Caesar & Loretz GmbH | Olive oil, native             | 19076109    | 18      |
| Caesar & Loretz GmbH | Olive oil, native             | 19076110    | 5       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19084503    | 5       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19084505    | 5       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19084506    | 1       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19084507    | 3       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19084510    | 6       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19084511    | 4       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19084518    | 3       |
| Caesar & Loretz GmbH | Decyl oleate                  | 190883001   | 1       |
| Caesar & Loretz GmbH | Decyl oleate                  | 19088301    | 2       |
| Caesar & Loretz GmbH | Flaxseed oil, native          | 19099401    | 3       |
| Caesar & Loretz GmbH | Flaxseed oil, native          | 19099403    | 1       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)     | 191191003   | 6       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)     | 191191006   | 1       |
| Caesar & Loretz GmbH | Wheatgerm oil, refined        | 191432002   | 1       |
| Caesar & Loretz GmbH | Wheatgerm oil, refined        | 19143201    | 3       |
| Caesar & Loretz GmbH | Wheatgerm oil, refined        | 19143202    | 3       |
| Caesar & Loretz GmbH | Jojoba Oil, native            | 191529004   | 2       |
| Caesar & Loretz GmbH | Jojoba Oil, native            | 191529006   | 2       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 191644002   | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 191644003   | 2       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 19164401    | 19      |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 19164402    | 7       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 19164407    | 7       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 19164408    | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 19164409    | 3       |
| Caesar & Loretz GmbH | Flaxseed oil, native          | 19164501    | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined | 19175401    | 6       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19187101    | 22      |
| Caesar & Loretz GmbH | Almond oil, refined           | 19187102    | 12      |
| Caesar & Loretz GmbH | Almond oil, refined           | 19187106    | 5       |
| Caesar & Loretz GmbH | Almond oil, refined           | 19187107    | 11      |
| Caesar & Loretz GmbH | Shea butter, refined          | 192058003   | 4       |
| Caesar & Loretz GmbH | Shea butter, refined          | 19205801    | 3       |
| Caesar & Loretz GmbH | Shea butter, refined          | 19205802    | 1       |
| Caesar & Loretz GmbH | Shea butter, refined          | 19205803    | 1       |
| Caesar & Loretz GmbH | Shea butter, refined          | 19205804    | 2       |
| Caesar & Loretz GmbH | Olive oil, native             | 19212001    | 1       |
| Caesar & Loretz GmbH | Olive oil, native             | 19212002    | 7       |
| Caesar & Loretz GmbH | Olive oil, native             | 19212005    | 13      |

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| <b>Supplier</b>      | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------|---------------------------------|--------------|----------------|
| Caesar & Loretz GmbH | Olive oil, native               | 19212006     | 4              |
| Caesar & Loretz GmbH | Grape seed oil, refined         | 192412005    | 1              |
| Caesar & Loretz GmbH | Peanut oil, refined             | 192485006    | 14             |
| Caesar & Loretz GmbH | Peanut oil, refined             | 192485007    | 1              |
| Caesar & Loretz GmbH | Peanut oil, refined             | 192485011    | 8              |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 192492001    | 8              |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 192492003    | 1              |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 19249203     | 1              |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 19249204     | 1              |
| Caesar & Loretz GmbH | Flaxseed oil, native            | 192554003    | 1              |
| Caesar & Loretz GmbH | Sesame oil, refined             | 192560003    | 4              |
| Caesar & Loretz GmbH | Sesame oil, refined             | 19256001     | 2              |
| Caesar & Loretz GmbH | Decyl oleate                    | 192834003    | 1              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982001    | 9              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982002    | 14             |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982003    | 4              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982004    | 15             |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982005    | 2              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982006    | 1              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982008    | 2              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982009    | 2              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982010    | 4              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982011    | 4              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982012    | 4              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 192982013    | 4              |
| Caesar & Loretz GmbH | Flaxseed oil, native            | 20000372003  | 1              |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 20000495002  | 1              |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 20000495005  | 2              |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 20000495006  | 1              |
| Caesar & Loretz GmbH | Corn oil, refined               | 20000641001  | 1              |
| Caesar & Loretz GmbH | Jobba Oil, native               | 20000722002  | 1              |
| Caesar & Loretz GmbH | Jobba Oil, native               | 20000722003  | 3              |
| Caesar & Loretz GmbH | Jobba Oil, native               | 20000722008  | 2              |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 20000791003  | 3              |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 20000829002  | 1              |
| Caesar & Loretz GmbH | Codliver oil (type A)           | 20000831003  | 2              |
| Caesar & Loretz GmbH | Sunflower oil, refined          | 20000985005  | 1              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20001052001  | 14             |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20001052003  | 10             |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20001052004  | 2              |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20001052005  | 11             |
| Caesar & Loretz GmbH | Shea butter, refined            | 20001135007  | 1              |
| Caesar & Loretz GmbH | Olive oil, native               | 2000140002   | 1              |
| Caesar & Loretz GmbH | Olive oil, native               | 2000141000   | 1              |
| Caesar & Loretz GmbH | Olive oil, native               | 20001410001  | 13             |
| Caesar & Loretz GmbH | Olive oil, native               | 20001410002  | 29             |
| Caesar & Loretz GmbH | Olive oil, native               | 20001410003  | 13             |
| Caesar & Loretz GmbH | Olive oil, native               | 20001410004  | 2              |
| Caesar & Loretz GmbH | Peanut oil, refined             | 20001473003  | 2              |
| Caesar & Loretz GmbH | Peanut oil, refined             | 20001473004  | 4              |
| Caesar & Loretz GmbH | Peanut oil, refined             | 20001473008  | 15             |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 20001556002  | 2              |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 20001556012  | 1              |
| Caesar & Loretz GmbH | Wheatgerm oil, refined          | 20001556014  | 1              |
| Caesar & Loretz GmbH | Almond oil, refined             | 20001624002  | 2              |
| Caesar & Loretz GmbH | Almond oil, refined             | 20001624003  | 3              |
| Caesar & Loretz GmbH | Almond oil, refined             | 20001624004  | 3              |
| Caesar & Loretz GmbH | Almond oil, refined             | 20001624006  | 7              |
| Caesar & Loretz GmbH | Almond oil, refined             | 20001624007  | 12             |
| Caesar & Loretz GmbH | Almond oil, refined             | 20001624011  | 2              |

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| Supplier             | Substance                       | Batch       | Spectra |
|----------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH | Almond oil, refined             | 20001624012 | 9       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 20001638003 | 3       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 20001638004 | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 20001638005 | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 20001638007 | 1       |
| Caesar & Loretz GmbH | Grape seed oil, refined         | 20001744002 | 1       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 20002648002 | 3       |
| Caesar & Loretz GmbH | Almond oil, refined             | 20002892001 | 5       |
| Caesar & Loretz GmbH | Olive oil, native               | 20003049003 | 16      |
| Caesar & Loretz GmbH | Olive oil, native               | 20003049004 | 2       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 20003248002 | 2       |
| Caesar & Loretz GmbH | Codliver oil (type A)           | 20003364003 | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 20003418001 | 4       |
| Caesar & Loretz GmbH | Almond oil, refined             | 20003418002 | 16      |
| Caesar & Loretz GmbH | Almond oil, refined             | 20003418004 | 12      |
| Caesar & Loretz GmbH | Almond oil, refined             | 20003418006 | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 20003418007 | 1       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 20003610006 | 9       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 20003610014 | 13      |
| Caesar & Loretz GmbH | Sesame oil, refined             | 20003617003 | 2       |
| Caesar & Loretz GmbH | Corn oil, refined               | 20003898005 | 1       |
| Caesar & Loretz GmbH | Olive oil, native               | 20003907003 | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 2000404010  | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20004047006 | 2       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20004047008 | 8       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20004047009 | 15      |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 20004047010 | 3       |
| Caesar & Loretz GmbH | Codliver oil (type A)           | 20004067004 | 1       |
| Caesar & Loretz GmbH | Decyl oleate                    | 20004076004 | 4       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 20004100002 | 6       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 20004100004 | 1       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 20004100005 | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 2000845     | 1       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 2008037-021 | 1       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 21000767002 | 1       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 21000767005 | 2       |
| Caesar & Loretz GmbH | Olive oil, native               | 21000836002 | 4       |
| Caesar & Loretz GmbH | Olive oil, native               | 21000836004 | 2       |
| Caesar & Loretz GmbH | Olive oil, native               | 21000836005 | 2       |
| Caesar & Loretz GmbH | Olive oil, native               | 21000836006 | 8       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 21000915002 | 7       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 21000915003 | 4       |
| Caesar & Loretz GmbH | Evening primrose oil, refined   | 21000915006 | 4       |
| Caesar & Loretz GmbH | Peanut oil, refined             | 21001091003 | 4       |
| Caesar & Loretz GmbH | Flaxseed oil, native            | 21001170004 | 2       |
| Caesar & Loretz GmbH | Almond oil, refined             | 21001240004 | 1       |
| Caesar & Loretz GmbH | Almond oil, refined             | 21001240006 | 11      |
| Caesar & Loretz GmbH | Almond oil, refined             | 21001240007 | 8       |
| Caesar & Loretz GmbH | Oleyl oleate (stabilised)       | 21001300001 | 1       |
| Caesar & Loretz GmbH | Shea butter, refined            | 21001422006 | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 21001530002 | 1       |
| Caesar & Loretz GmbH | Avocado oil, refined            | 21001530006 | 3       |
| Caesar & Loretz GmbH | Borage oil, refined, stabili... | 21002207002 | 3       |
| Caesar & Loretz GmbH | Olive oil, native               | 21002271002 | 9       |
| Caesar & Loretz GmbH | Olive oil, native               | 21002271003 | 1       |
| Caesar & Loretz GmbH | Olive oil, native               | 21002271005 | 1       |
| Caesar & Loretz GmbH | Olive oil, native               | 21002271006 | 4       |
| Caesar & Loretz GmbH | Almond oil, refined             | 21002363005 | 6       |
| Caesar & Loretz GmbH | Almond oil, refined             | 21002363006 | 10      |
| Caesar & Loretz GmbH | Almond oil, refined             | 21002363008 | 4       |

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| Supplier                    | Substance                       | Batch       | Spectra |
|-----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH        | Almond oil, refined             | 21002363009 | 3       |
| Caesar & Loretz GmbH        | Peanut oil, refined             | 21002810004 | 2       |
| Caesar & Loretz GmbH        | Peanut oil, refined             | 21002810009 | 2       |
| Caesar & Loretz GmbH        | Avocado oil, refined            | 21002884003 | 1       |
| Caesar & Loretz GmbH        | Avocado oil, refined            | 21002884006 | 1       |
| Caesar & Loretz GmbH        | Olive oil, native               | 21003239002 | 2       |
| Caesar & Loretz GmbH        | Evening primrose oil, refined   | 21003319002 | 9       |
| Caesar & Loretz GmbH        | Evening primrose oil, refined   | 21003319003 | 3       |
| Caesar & Loretz GmbH        | Almond oil, refined             | 21003729002 | 1       |
| Caesar & Loretz GmbH        | Almond oil, refined             | 21003729003 | 1       |
| Caesar & Loretz GmbH        | Almond oil, refined             | 21003729004 | 3       |
| Caesar & Loretz GmbH        | Almond oil, refined             | 21003729006 | 1       |
| Caesar & Loretz GmbH        | Evening primrose oil, refined   | 21004228003 | 1       |
| Caesar & Loretz GmbH        | Almond oil, refined             | 8004548002  | 1       |
| Caesar & Loretz GmbH        | Almond oil, refined             | 8005803007  | 1       |
| Caesar & Loretz GmbH        | Almond oil, refined             | 8005936002  | 3       |
| Caesar & Loretz GmbH        | Evening primrose oil, refined   | EP745611-1  | 1       |
| Caesar & Loretz GmbH AHD    | Borage oil, refined, stabili... | 18080509    | 2       |
| Caesar & Loretz Hilden/...  | Peanut oil, refined             | 19059208    | 1       |
| Caesar & Loretz Hilden/...  | Peanut oil, refined             | 192485006   | 3       |
| Caesar & Loretz Hilden      | Avocado oil, refined            | 18044909    | 1       |
| Caesar & Loretz Hilden      | Peanut oil, refined             | 18208207    | 1       |
| Caesar & Loretz Hilden      | Peanut oil, refined             | 18296002    | 2       |
| Caesar & Loretz Hilden      | Avocado oil, refined            | 18306802    | 1       |
| Caesar & Loretz Hilden      | Olive oil, native               | 18311906    | 1       |
| Caesar & Loretz Hilden      | Peanut oil, refined             | 19059205    | 2       |
| Caesar & Loretz Hilden      | Olive oil, native               | 20001410002 | 1       |
| Caesar & Loretz Hilden      | Peanut oil, refined             | 20001473004 | 1       |
| Caesar & Loretz Hilden      | Evening primrose oil, refined   | 20004047008 | 1       |
| Caesar & Loretz/ Caesar...  | Peanut oil, refined             | 17328601    | 1       |
| Caesar & Loretz/ Noweda     | Avocado oil, refined            | 12248312    | 2       |
| Caesar & Loretz/ Noweda     | Almond oil, refined             | 12357101    | 2       |
| Caesar & Loretz/ Noweda     | Almond oil, refined             | 18015007    | 1       |
| Caesar & Loretz/ AHC        | Peanut oil, refined             | 16071104    | 1       |
| Caesar & Loretz/ AHD        | Almond oil, refined             | 18184107    | 1       |
| Caesar & Loretz/ Geilenk... | Evening primrose oil, refined   | 18216217    | 1       |
| Caesar & Loretz/ Geilenk... | Evening primrose oil, refined   | 19164407    | 1       |
| Caesar & Loretz/ Geilenk... | Evening primrose oil, refined   | 192982001   | 1       |
| Caesar & Loretz/ Geilenk... | Evening primrose oil, refined   | 192982003   | 1       |
| Caesar & Loretz/ Geilenk... | Evening primrose oil, refined   | 192982009   | 1       |
| Caesar & Loretz/ Geilenk... | Evening primrose oil, refined   | 20001052001 | 2       |
| Caesar & Loretz/ Noweda     | Evening primrose oil, refined   | 1512005-01  | 1       |
| Caesar & Loretz/ Noweda     | Laurel oil                      | 15216401    | 1       |
| Caesar & Loretz/ Noweda     | Avocado oil, refined            | 15268203    | 1       |
| Caesar & Loretz/ Noweda     | Peanut oil, refined             | 15273402    | 1       |
| Caesar & Loretz/ Noweda     | Codliver oil (type A)           | 15325201    | 1       |
| Caesar & Loretz/ Noweda     | Almond oil, refined             | 15409704    | 1       |
| Caesar & Loretz/ Noweda     | Almond oil, refined             | 16071002    | 1       |
| Caesar & Loretz/ Noweda     | Almond oil, refined             | 16071003    | 1       |
| Caesar & Loretz/ Noweda     | Peanut oil, refined             | 16249502    | 1       |
| Caesar & Loretz/ Noweda     | Avocado oil, refined            | 17038802    | 1       |
| Caesar & Loretz/ Noweda     | Avocado oil, refined            | 17038803    | 1       |
| Caesar & Loretz/ Noweda     | Almond oil, refined             | 17176502    | 1       |
| Caesar & Loretz             | Evening primrose oil, refined   | 13121809    | 1       |
| Caesar & Loretz             | Evening primrose oil, refined   | 15417808    | 1       |
| Caesar & Loretz             | Olive oil, native               | 160327402   | 1       |
| Caesar & Loretz             | Almond oil, refined             | 16071006    | 1       |
| Caesar & Loretz             | Peanut oil, refined             | 16071103    | 1       |
| Caesar & Loretz             | Oleyl oleate (stabilised)       | 16104907    | 1       |
| Caesar & Loretz             | Olive oil, native               | 17121602    | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz            | Peanut oil, refined             | 17169001    | 2       |
| Caesar & Loretz            | Peanut oil, refined             | 17169018    | 1       |
| Caesar & Loretz            | Almond oil, refined             | 17176502    | 1       |
| Caesar & Loretz            | Almond oil, refined             | 17207906    | 2       |
| Caesar & Loretz            | Oleyl oleate (stabilised)       | 17358103    | 2       |
| Caesar & Loretz            | Evening primrose oil, refined   | 18009110    | 1       |
| Caesar & Loretz            | Almond oil, refined             | 18070605    | 1       |
| Caesar & Loretz            | Olive oil, native               | 18208101    | 1       |
| Caesar & Loretz            | Peanut oil, refined             | 18208202    | 1       |
| Caesar & Loretz            | Evening primrose oil, refined   | 19164403    | 1       |
| Caesar & Loretz            | Peanut oil, refined             | 192485006   | 1       |
| caesar &loretz GmbH,Phö... | Peanut oil, refined             | 16071101    | 1       |
| Caesar 6 Loretz GmbH       | Olive oil, native               | 16327402    | 1       |
| Caesar und Loretz GmbH     | Sesame oil, refined             | 16312505    | 1       |
| Caesar und Loretz GmbH     | Evening primrose oil, refined   | 18216214    | 1       |
| Caesar und Loretz          | Evening primrose oil, refined   | 19164401    | 1       |
| Caesar&Lorenz / Gehe       | Evening primrose oil, refined   | 18216217    | 1       |
| Caesar&Lorenz/Anzag        | Evening primrose oil, refined   | 18216207    | 1       |
| Caesar&Lorenz/Phoenix      | Olive oil, native               | 17121604    | 4       |
| Caesar&Lorenz              | Borage oil, refined, stabili... | 20004100005 | 1       |
| Caesar&Lorenz              | Almond oil, refined             | 21002363005 | 1       |
| caesar&loretz / AHD        | Evening primrose oil, refined   | 192982013   | 1       |
| Caesar&Loretz GmbH, AHC... | Olive oil, native               | 17038702    | 1       |
| Caesar&Loretz GmbH,PHön... | Peanut oil, refined             | 16348001    | 1       |
| Caesar&Loretz GmbH/ Gehe   | Evening primrose oil, refined   | 16281306    | 1       |
| Caesar&Loretz GmbH/ San... | Olive oil, native               | 17361106    | 1       |
| Caesar&Loretz GmbH/Anzag   | Peanut oil, refined             | 12323204    | 1       |
| Caesar&Loretz GmbH/Anzag   | Peanut oil, refined             | 13306106    | 1       |
| Caesar&Loretz GmbH/Anzag   | Peanut oil, refined             | 14355905    | 1       |
| Caesar&Loretz GmbH         | Oleyl oleate (stabilised)       | 15410204    | 1       |
| Caesar&Loretz GmbH         | Peanut oil, refined             | 18296001    | 1       |
| Caesar&Loretz GmbH         | Peanut oil, refined             | 19059208    | 1       |
| Caesar&Loretz GmbH         | Evening primrose oil, refined   | 19164401    | 1       |
| Caesar&Loretz GmbH         | Evening primrose oil, refined   | 192982002   | 1       |
| Caesar&loretz,Phoenix,1... | Olive oil, native               | 15399703    | 1       |
| Caesar&loretz,Phoenix      | Peanut oil, refined             | 14033601    | 1       |
| Caesar&loretz,Phoenix      | Peanut oil, refined             | 14246903    | 1       |
| caesar&loretz,Phönix,11... | Almond oil, refined             | 15127304    | 1       |
| caesar&loretz,phönix       | Peanut oil, refined             | 1508506     | 1       |
| Caesar&Loretz/Kehr         | Wheatgerm oil, refined          | 20000829002 | 1       |
| Caesar&Loretz/Noweda       | Oleyl oleate (stabilised)       | 15321702    | 1       |
| caesar&loretz              | Evening primrose oil, refined   | 15171110    | 1       |
| Caesar&Loretz              | Almond oil, refined             | 16327311    | 1       |
| Caesar&Loretz              | Olive oil, native               | 17038702    | 2       |
| Caesar&Loretz              | Evening primrose oil, refined   | 18009110    | 5       |
| Caesar&LoretzGmbH, Phoe... | Peanut oil, refined             | 18296002    | 2       |
| Caesar&LoretzGmbH,07,03... | Olive oil, native               | 16327402    | 1       |
| Caesar/ Alliance Health... | Almond oil, refined             | 18015008    | 1       |
| Caesar/AEP                 | Almond oil, refined             | 21002363002 | 1       |
| Caesar/Lorenz              | Peanut oil, refined             | 12274302    | 1       |
| Caesar/Noweda              | Avocado oil, refined            | 12064801    | 1       |
| Caesar/Noweda              | Avocado oil, refined            | 12064812    | 2       |
| Caesar/Noweda              | Borage oil, refined, stabili... | 12161202    | 1       |
| Caesar/Noweda              | Borage oil, refined, stabili... | 13136501    | 1       |
| Caesar/Noweda              | Borage oil, refined, stabili... | 13136504    | 1       |
| Caesar/Noweda              | Shea butter, refined            | 13143813    | 2       |
| Caesar/Noweda              | Borage oil, refined, stabili... | 13372103    | 1       |
| Caesar/Noweda              | Borage oil, refined, stabili... | 15305003    | 1       |
| Caesar & Loretz GmbH       | Almond oil, refined             | 21002363009 | 1       |
| Caesar und Loretz GmbH     | Almond oil, refined             | 19084511    | 1       |

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| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------------------|--------------|----------------|
| Caesar und Loretz GmbH     | Evening primrose oil, refined   | 19164401     | 2              |
| Caleo/ Noweda              | Almond oil, refined             | 16071007     | 1              |
| Caleo/ Noweda              | Sesame oil, refined             | 17332103     | 1              |
| Caleo/ Noweda              | Peanut oil, refined             | 18014405     | 1              |
| Caleo/ Noweda              | Evening primrose oil, refined   | 18216203     | 3              |
| Caleo/Fiebig               | Almond oil, refined             | 1716508      | 1              |
| Caleo/Phönix               | Peanut oil, refined             | 15015103     | 1              |
| Caleo/Phönix               | Almond oil, refined             | 15078405     | 2              |
| Caleo/Phönix               | Evening primrose oil, refined   | 19175401     | 1              |
| Caleo                      | Peanut oil, refined             | 14/10-B07    | 1              |
| Calo, Hilden/ Phönix       | Evening primrose oil, refined   | 19164402     | 1              |
| Calo, Hilden/ Phönix       | Almond oil, refined             | 19187102     | 1              |
| calo                       | Evening primrose oil, refined   | 18009107     | 1              |
| Calo                       | Olive oil, native               | 18311906     | 1              |
| Canea/Phönix               | Shea butter, refined            | SB1351M13    | 1              |
| Caolo / Kehr               | Almond oil, refined             | 20001624011  | 2              |
| Caolo- Noweda              | Almond oil, refined             | 15197404     | 1              |
| Carelo                     | Peanut oil, refined             | 192485006    | 1              |
| Cealo / Noweda             | Evening primrose oil, refined   | 13121814     | 1              |
| Cealo/ Gehe                | Jojoba Oil, native              | 21001028011  | 1              |
| Cealo/ Noweda              | Almond oil, refined             | 14042704     | 1              |
| Cealo/AHD                  | Peanut oil, refined             | 16071101     | 1              |
| Cealo/Anzag                | Borage oil, refined, stabili... | 17307801     | 1              |
| Cealo/Gehe                 | Olive oil, native               | 12077701     | 1              |
| Cealo/Gehe                 | Olive oil, native               | 17361106     | 1              |
| Cealo/Gehe                 | Borage oil, refined, stabili... | 18080501     | 1              |
| Cealo/GEHE                 | Codliver oil (type A)           | 18323905     | 1              |
| Cealo/Jenne                | Almond oil, refined             | 19084505     | 1              |
| Cealo/Noweda               | Peanut oil, refined             | 17169010     | 1              |
| Cealo/Phoenix              | Peanut oil, refined             | 14115405     | 1              |
| Cealo/Phoenix              | Almond oil, refined             | 2003418007   | 1              |
| Cealo/Sanacorp             | Almond oil, refined             | 19084505     | 1              |
| Cealo                      | Grape seed oil, refined         | 15144505     | 1              |
| Cealo                      | Jojoba Oil, native              | 16070609     | 1              |
| Cealo                      | Almond oil, refined             | 16071007     | 3              |
| Cealo                      | Peanut oil, refined             | 16071104     | 1              |
| Cealo                      | Almond oil, refined             | 19000779001  | 1              |
| Cealo                      | Shea butter, refined            | 19205802     | 2              |
| Ceasar & loretz GmbH       | Avocado oil, refined            | 18306803     | 1              |
| Ceasar&Lorenz GmbH/ San... | Evening primrose oil, refined   | 191644003    | 1              |
| Celo/ Phönix               | Shea butter, refined            | 192058004    | 2              |
| celo/Jenne                 | Olive oil, native               | 13010904     | 1              |
| Celo/Noweda                | Peanut oil, refined             | 18015008     | 1              |
| celo/phönix                | Evening primrose oil, refined   | 13121814     | 1              |
| Chiesi/ Phoenix/ 03.02.... | Almond oil, refined             | 19084518     | 1              |
| Coelo                      | Sunflower oil, refined          | 17242101     | 1              |
| DAC 2006                   | Shea butter, refined            | 11346509     | 1              |
| DAC 2006                   | Jojoba Oil, native              | 11358102     | 1              |
| DAC                        | Jojoba Oil, native              | 17073309     | 1              |
| Delta                      | Evening primrose oil, refined   | 1704018-01   | 1              |
| Delta                      | Olive oil, native               | 17236505     | 1              |
| Dr. Paulsen                | Codliver oil (type A)           | 5437202      | 1              |
| Dr. Theiss Naturwaren      | Olive oil, native               | 1021A        | 1              |
| Dr. Wolff                  | Avocado oil, refined            | 17038802     | 1              |
| Dr.August Wolff/Phönix     | Wheatgerm oil, refined          | 16137403     | 1              |
| dr.r.hahn                  | Evening primrose oil, refined   | 1509005-01   | 1              |
| E PLUS                     | Olive oil, native               | 17038702     | 1              |
| E Plus                     | Almond oil, refined             | 1712-5901    | 1              |
| Ebert & Jacobi 02.08...    | Olive oil, native               | 15399704     | 1              |
| Ebert & Jacobi             | Almond oil, refined             | 15409701     | 1              |

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continued from previous page

| Supplier                   | Substance                     | Batch       | Spectra |
|----------------------------|-------------------------------|-------------|---------|
| Ebert & Jacobi             | Almond oil, refined           | 17176501    | 1       |
| Ebert & Jacobi             | Oleyl oleate (stabilised)     | 17358103    | 1       |
| Ebert & Jacobi             | Peanut oil, refined           | 18014402    | 1       |
| Ebert & Jacobi             | Peanut oil, refined           | 18296002    | 1       |
| Ebert & Jacobi             | Olive oil, native             | 296260      | 1       |
| Ebert & Jacobi             | Evening primrose oil, refined | AP144330N   | 1       |
| Ebert KKH 20.09.16         | Peanut oil, refined           | 8001417003  | 2       |
| Ebert u. Jacobi 16.0...    | Avocado oil, refined          | 302706      | 1       |
| Ebert und Jacobi           | Peanut oil, refined           | 18296002    | 1       |
| ecocert/sanacorp           | Shea butter, refined          | 20-0418C    | 1       |
| Eig                        | Almond oil, refined           | 80515HML01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 120814HAS01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 120914HAS01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 140113HML01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 160414HML01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 180815HJK01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 180915HML01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 181114HML01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 20915HML01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 210313HJK01 | 2       |
| Eigenherstellung           | Almond oil, refined           | 21112HML01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 240214HJK01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 240513HML01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 260515HML01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 270215HJK01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 290714HJK01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 290714HJK02 | 1       |
| Eigenherstellung           | Almond oil, refined           | 300615HML01 | 1       |
| Eigenherstellung           | Almond oil, refined           | 40613HML01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 40613PML01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 40613PML02  | 1       |
| Eigenherstellung           | Almond oil, refined           | 50115PML02  | 1       |
| Eigenherstellung           | Almond oil, refined           | 50612HML01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 60913HJK01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 61113HML01  | 1       |
| Eigenherstellung           | Almond oil, refined           | 80213HJK02  | 1       |
| Eigenproduktion            | Evening primrose oil, refined | 16003901    | 1       |
| Eimermacher                | Olive oil, native             | 8002868001  | 1       |
| E-plus                     | Almond oil, refined           | 1709-5780   | 1       |
| E-Plus                     | Almond oil, refined           | 307299      | 2       |
| Eu Rho                     | Evening primrose oil, refined | 1911009-01  | 3       |
| eur                        | Evening primrose oil, refined | 1710011-02  | 2       |
| EuRho / Noweda             | Evening primrose oil, refined | 1911009-01  | 2       |
| EuRho / Sanacorp 9.06.2... | Evening primrose oil, refined | 1911009-01  | 1       |
| EuRho- Nowewda             | Evening primrose oil, refined | 1803006-02  | 1       |
| EuRho/ AHD                 | Evening primrose oil, refined | 18009105    | 1       |
| EuRho/ NOWEDA              | Olive oil, native             | 18208106    | 1       |
| EuRho/ Phönix              | Evening primrose oil, refined | 1901046-01  | 3       |
| EuRho/NO                   | Evening primrose oil, refined | 1901046-01  | 1       |
| EuRho/Noweda               | Olive oil, native             | 308230      | 1       |
| EuRho/Noweda               | Almond oil, refined           | 8003885002  | 1       |
| EuRho/Phönix               | Evening primrose oil, refined | 1704018-01  | 1       |
| EuRho/Sanacorp             | Evening primrose oil, refined | 1704018-01  | 1       |
| EuRho/Sanacorp             | Evening primrose oil, refined | 2003029-01  | 1       |
| EuRho/Sanacorp             | Evening primrose oil, refined | 2008037-01  | 2       |
| EuRho/Spangro              | Evening primrose oil, refined | 1710011-01  | 1       |
| EuRho                      | Peanut oil, refined           | 1204018-01  | 1       |
| EuRho                      | Evening primrose oil, refined | 1210012-02  | 5       |
| EuRho                      | Olive oil, native             | 13010911    | 1       |
| EuRho                      | Olive oil, native             | 1501023-01  | 1       |

continued on the next page

continued from previous page

| Supplier                  | Substance                     | Batch        | Spectra |
|---------------------------|-------------------------------|--------------|---------|
| EuRho                     | Olive oil, native             | 1503047-01   | 1       |
| EuRho                     | Evening primrose oil, refined | 1506001-01   | 1       |
| EuRho                     | Evening primrose oil, refined | 1509005-01   | 2       |
| EuRho                     | Evening primrose oil, refined | 1704018-01   | 1       |
| Eurho                     | Evening primrose oil, refined | 1710011-01   | 2       |
| EuRho                     | Evening primrose oil, refined | 1803006-02   | 2       |
| EuRho                     | Evening primrose oil, refined | 1901046-01   | 4       |
| EuRho                     | Almond oil, refined           | 1904007-01   | 1       |
| EuRho                     | Evening primrose oil, refined | 1911009-01   | 2       |
| EuRho                     | Evening primrose oil, refined | 2003029-01   | 6       |
| EuRho                     | Evening primrose oil, refined | 2008037      | 1       |
| EuRho                     | Evening primrose oil, refined | 2008037-01   | 5       |
| EuRho                     | Evening primrose oil, refined | 2008037-02   | 2       |
| EuRho                     | Evening primrose oil, refined | 3105001-01   | 1       |
| EuRho                     | Avocado oil, refined          | 4111M-01960  | 1       |
| EuRho                     | Evening primrose oil, refined | 901046-011   | 1       |
| EuRho                     | Evening primrose oil, refined | BTR340388-01 | 1       |
| Euro Gehe                 | Evening primrose oil, refined | 1901046-01   | 1       |
| Euro OCT Pharma/ Sanacorp | Avocado oil, refined          | 138090       | 1       |
| Euro OTC                  | Evening primrose oil, refined |              | 2       |
| Euro OTC                  | Almond oil, refined           | 1000003242   | 3       |
| Euro OTC                  | Almond oil, refined           | 1000010093   | 1       |
| Euro OTC                  | Olive oil, native             | 1000013127   | 1       |
| Euro OTC                  | Evening primrose oil, refined | 1109004-01   | 1       |
| Euro OTC                  | Avocado oil, refined          | 1112018-01   | 1       |
| Euro OTC                  | Soy lecithin, liquid          | 1204028-01   | 1       |
| Euro OTC                  | Evening primrose oil, refined | 1205023-01   | 5       |
| Euro OTC                  | Evening primrose oil, refined | 1205023-02   | 6       |
| Euro OTC                  | Evening primrose oil, refined | 1205023-1    | 1       |
| Euro OTC                  | Almond oil, refined           | 1207014-01   | 1       |
| Euro OTC                  | Evening primrose oil, refined | 1210012-01   | 13      |
| Euro OTC                  | Evening primrose oil, refined | 1210012-02   | 11      |
| Euro OTC                  | Evening primrose oil, refined | 12112906     | 1       |
| Euro OTC                  | Olive oil, native             | 1212022-01   | 2       |
| Euro OTC                  | Olive oil, native             | 12356        | 1       |
| Euro OTC                  | Flaxseed oil, native          | 124116       | 1       |
| Euro OTC                  | Sesame oil, refined           | 124494       | 1       |
| Euro OTC                  | Almond oil, refined           | 1301001-02   | 2       |
| Euro OTC                  | Peanut oil, refined           | 1301015      | 1       |
| Euro OTC                  | Avocado oil, refined          | 1301017-01   | 1       |
| Euro OTC                  | Avocado oil, refined          | 1301039-01   | 1       |
| Euro OTC                  | Sesame oil, refined           | 13011107     | 1       |
| Euro OTC                  | Evening primrose oil, refined | 130401801    | 1       |
| Euro OTC                  | Evening primrose oil, refined | 1304018-01   | 11      |
| Euro OTC                  | Evening primrose oil, refined | 13040-18-01  | 1       |
| Euro OTC                  | Evening primrose oil, refined | 1304018-02   | 14      |
| Euro OTC                  | Avocado oil, refined          | 1304039-01   | 3       |
| Euro OTC                  | Wheatgerm oil, refined        | 1305015-01   | 1       |
| Euro OTC                  | Soy lecithin, liquid          | 1305019-01   | 1       |
| Euro OTC                  | Avocado oil, refined          | 1305046-01   | 5       |
| Euro OTC                  | Flaxseed oil, native          | 13058506     | 1       |
| Euro OTC                  | Decyl oleate                  | 1309018-01   | 2       |
| Euro OTC                  | Decyl oleate                  | 1309018-03   | 1       |
| Euro OTC                  | Evening primrose oil, refined | 13091        | 1       |
| Euro OTC                  | Almond oil, refined           | 1310022-01   | 2       |
| Euro OTC                  | Almond oil, refined           | 131002202    | 1       |
| Euro OTC                  | Omega-3-fish oil              | 1311028-01   | 1       |
| Euro OTC                  | Avocado oil, refined          | 13111404     | 1       |
| Euro OTC                  | Olive oil, native             | 13224704     | 1       |
| Euro OTC                  | Evening primrose oil, refined | 133339       | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Euro OTC | Evening primrose oil, refined   | 136734           | 1       |
| Euro OTC | Evening primrose oil, refined   | 139798           | 5       |
| Euro OTC | Evening primrose oil, refined   | 14002503         | 1       |
| Euro OTC | Olive oil, native               | 1401011-01       | 1       |
| Euro OTC | Evening primrose oil, refined   | 140103301        | 1       |
| Euro OTC | Evening primrose oil, refined   | 1401033-01       | 10      |
| Euro OTC | Evening primrose oil, refined   | 140103302        | 1       |
| Euro OTC | Evening primrose oil, refined   | 1401033-02       | 17      |
| Euro OTC | Evening primrose oil, refined   | 140133-01        | 1       |
| Euro OTC | Evening primrose oil, refined   | 140133-02        | 1       |
| Euro OTC | Avocado oil, refined            | 1402027-01       | 6       |
| Euro OTC | Soy lecithin, liquid            | 1404022-01       | 2       |
| Euro OTC | Soy lecithin, liquid            | 1404022V-02      | 3       |
| Euro OTC | Almond oil, refined             | 1404050-01       | 1       |
| Euro OTC | Avocado oil, refined            | 1405007-01       | 3       |
| Euro OTC | Olive oil, native               | 1406009-01       | 1       |
| Euro OTC | Evening primrose oil, refined   | 140700201        | 2       |
| Euro OTC | Evening primrose oil, refined   | 1407002-01       | 14      |
| Euro OTC | Evening primrose oil, refined   | 140700202        | 2       |
| Euro OTC | Evening primrose oil, refined   | 1407002-02       | 21      |
| Euro OTC | Almond oil, refined             | 1407050-01       | 1       |
| Euro OTC | Almond oil, refined             | 1407050-02       | 2       |
| Euro OTC | Avocado oil, refined            | 1410027-01       | 5       |
| Euro OTC | Olive oil, native               | 14182303         | 1       |
| Euro OTC | Borage oil, refined, stabili... | 14203012         | 1       |
| Euro OTC | Olive oil, native               | 14306903         | 1       |
| Euro OTC | Soy lecithin, liquid            | 14404022-01      | 1       |
| Euro OTC | Almond oil, refined             | 147533           | 1       |
| Euro OTC | Evening primrose oil, refined   | 14C07-B01-291800 | 1       |
| Euro OTC | Avocado oil, refined            | 150101501        | 1       |
| Euro OTC | Avocado oil, refined            | 1501015-01       | 3       |
| Euro OTC | Avocado oil, refined            | 1501015V-01      | 1       |
| Euro OTC | Olive oil, native               | 1501023-01       | 4       |
| Euro OTC | Evening primrose oil, refined   | 1503031-0        | 1       |
| Euro OTC | Evening primrose oil, refined   | 150303101        | 1       |
| Euro OTC | Evening primrose oil, refined   | 1503031-01       | 21      |
| Euro OTC | Soy lecithin, liquid            | 1503038          | 1       |
| Euro OTC | Soy lecithin, liquid            | 1503038-02       | 2       |
| Euro OTC | Olive oil, native               | 1503047-02       | 3       |
| Euro OTC | Olive oil, native               | 1503047-03       | 15      |
| Euro OTC | Evening primrose oil, refined   | 1506001          | 1       |
| Euro OTC | Evening primrose oil, refined   | 1506001-01       | 28      |
| Euro OTC | Codliver oil (type A)           | 1506009-01       | 1       |
| Euro OTC | Borage oil, refined, stabili... | 15063407         | 1       |
| Euro OTC | Evening primrose oil, refined   | 150900501        | 1       |
| Euro OTC | Evening primrose oil, refined   | 1509005-01       | 23      |
| Euro OTC | Almond oil, refined             | 1510014-01       | 4       |
| Euro OTC | Evening primrose oil, refined   | 151200           | 1       |
| Euro OTC | Evening primrose oil, refined   | 15120005-02      | 1       |
| Euro OTC | Evening primrose oil, refined   | 1512005          | 1       |
| Euro OTC | Evening primrose oil, refined   | 151200501        | 1       |
| Euro OTC | Evening primrose oil, refined   | 1512005-01       | 31      |
| Euro OTC | Evening primrose oil, refined   | 1512005-02       | 27      |
| Euro OTC | Evening primrose oil, refined   | 15171109         | 1       |
| Euro OTC | Olive oil, native               | 152834           | 1       |
| Euro OTC | Sesame oil, refined             | 15374001         | 1       |
| Euro OTC | Evening primrose oil, refined   | 15417808         | 1       |
| Euro OTC | Olive oil, native               | 1602022-01       | 17      |
| Euro OTC | Olive oil, native               | 1602022-02       | 1       |
| Euro OTC | Omega-3-fish oil                | 1603021-01       | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Euro OTC | Almond oil, refined             | 160302501          | 1       |
| Euro OTC | Almond oil, refined             | 1603025-01         | 5       |
| Euro OTC | Evening primrose oil, refined   | 160304801          | 2       |
| Euro OTC | Evening primrose oil, refined   | 1603048-01         | 36      |
| Euro OTC | Evening primrose oil, refined   | 160348-01          | 1       |
| Euro OTC | Soy lecithin, liquid            | 160403401          | 1       |
| Euro OTC | Soy lecithin, liquid            | 1604034-01         | 14      |
| Euro OTC | Evening primrose oil, refined   | 1605027            | 1       |
| Euro OTC | Evening primrose oil, refined   | 1605027-01         | 26      |
| Euro OTC | Avocado oil, refined            | 1605034-01         | 7       |
| Euro OTC | Avocado oil, refined            | 160503403          | 1       |
| Euro OTC | Avocado oil, refined            | 1605034-03         | 4       |
| Euro OTC | Borage oil, refined, stabili... | 16052301           | 1       |
| Euro OTC | Almond oil, refined             | 16071001           | 2       |
| Euro OTC | Almond oil, refined             | 16071002           | 1       |
| Euro OTC | Almond oil, refined             | 16071006           | 1       |
| Euro OTC | Peanut oil, refined             | 16071101           | 1       |
| Euro OTC | Peanut oil, refined             | 16071105           | 1       |
| Euro OTC | Olive oil, native               | 1608006-01         | 2       |
| Euro OTC | Olive oil, native               | 1608006-02         | 88      |
| Euro OTC | Evening primrose oil, refined   | 160800801          | 1       |
| Euro OTC | Evening primrose oil, refined   | 1608008-01         | 33      |
| Euro OTC | Jobba Oil, native               | 1609003-01         | 1       |
| Euro OTC | Decyl oleate                    | 16107101           | 1       |
| Euro OTC | Evening primrose oil, refined   | 16204              | 1       |
| Euro OTC | Evening primrose oil, refined   | 16281318           | 1       |
| Euro OTC | Evening primrose oil, refined   | 16281319           | 1       |
| Euro OTC | Olive oil, native               | 16327406           | 3       |
| Euro OTC | Almond oil, refined             | 17001036-01        | 1       |
| Euro OTC | Evening primrose oil, refined   | 170011-02          | 1       |
| Euro OTC | Olive oil, native               | 17001926           | 1       |
| Euro OTC | Almond oil, refined             | 1701036-01         | 4       |
| Euro OTC | Soy lecithin, liquid            | 1703001-01         | 9       |
| Euro OTC | Evening primrose oil, refined   | 170302001          | 1       |
| Euro OTC | Evening primrose oil, refined   | 1703020-01         | 39      |
| Euro OTC | Evening primrose oil, refined   | 1703020-1710011-02 | 1       |
| Euro OTC | Evening primrose oil, refined   | 17040118-01        | 1       |
| Euro OTC | Evening primrose oil, refined   | 1704018            | 2       |
| Euro OTC | Evening primrose oil, refined   | 170401801          | 7       |
| Euro OTC | Evening primrose oil, refined   | 1704018-01         | 100     |
| Euro OTC | Evening primrose oil, refined   | 1704019-01         | 1       |
| Euro OTC | Evening primrose oil, refined   | 170408-01          | 2       |
| Euro OTC | Evening primrose oil, refined   | 17041018-01        | 1       |
| Euro OTC | Peanut oil, refined             | 17042802           | 1       |
| Euro OTC | Almond oil, refined             | 1707007-01         | 1       |
| Euro OTC | Evening primrose oil, refined   | 171001-02          | 1       |
| Euro OTC | Evening primrose oil, refined   | 1710011            | 1       |
| Euro OTC | Evening primrose oil, refined   | 1710011_01         | 1       |
| Euro OTC | Evening primrose oil, refined   | 171001101          | 4       |
| Euro OTC | Evening primrose oil, refined   | 1710011-01         | 29      |
| Euro OTC | Evening primrose oil, refined   | 171001102          | 6       |
| Euro OTC | Evening primrose oil, refined   | 1710011-02         | 69      |
| Euro OTC | Evening primrose oil, refined   | 171011-01          | 1       |
| Euro OTC | Evening primrose oil, refined   | 17110011-01        | 1       |
| Euro OTC | Evening primrose oil, refined   | 17110011-02        | 1       |
| Euro OTC | Peanut oil, refined             | 17169018           | 1       |
| Euro OTC | Almond oil, refined             | 17176501           | 1       |
| Euro OTC | Olive oil, native               | 17236501           | 1       |
| Euro OTC | Evening primrose oil, refined   | 17255801           | 1       |
| Euro OTC | Borage oil, refined, stabili... | 17307801           | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Euro OTC | Peanut oil, refined             | 17328601    | 1       |
| Euro OTC | Olive oil, native               | 17391101    | 1       |
| Euro OTC | Olive oil, native               | 18002119    | 1       |
| Euro OTC | Wheatgerm oil, refined          | 18009509    | 1       |
| Euro OTC | Olive oil, native               | 1802011-01  | 70      |
| Euro OTC | Shea butter, refined            | 1802A0688   | 1       |
| Euro OTC | Evening primrose oil, refined   | 1803006     | 2       |
| Euro OTC | Evening primrose oil, refined   | 180300601   | 5       |
| Euro OTC | Evening primrose oil, refined   | 1803006-01  | 50      |
| Euro OTC | Evening primrose oil, refined   | 180300602   | 1       |
| Euro OTC | Evening primrose oil, refined   | 1803006-02  | 58      |
| Euro OTC | Evening primrose oil, refined   | 1803006-1   | 1       |
| Euro OTC | Soy lecithin, liquid            | 180303001   | 1       |
| Euro OTC | Soy lecithin, liquid            | 1803030-01  | 5       |
| Euro OTC | Evening primrose oil, refined   | 180306-02   | 1       |
| Euro OTC | Evening primrose oil, refined   | 18033006-01 | 1       |
| Euro OTC | Olive oil, native               | 1805023-01  | 45      |
| Euro OTC | Omega-3-fish oil                | 1807006-03  | 1       |
| Euro OTC | Almond oil, refined             | 1807007-01  | 4       |
| Euro OTC | Olive oil, native               | 1807019-01  | 1       |
| Euro OTC | Almond oil, refined             | 18070608    | 1       |
| Euro OTC | Olive oil, native               | 1808026-01  | 151     |
| Euro OTC | Olive oil, native               | 1808026-02  | 1       |
| Euro OTC | Evening primrose oil, refined   | 1808028-01  | 1       |
| Euro OTC | Borage oil, refined, stabili... | 18080501    | 1       |
| Euro OTC | Olive oil, native               | 1809017-01  | 1       |
| Euro OTC | Evening primrose oil, refined   | 1813M-03075 | 1       |
| Euro OTC | Almond oil, refined             | 18184107    | 1       |
| Euro OTC | Almond oil, refined             | 18184113    | 1       |
| Euro OTC | Codliver oil (type A)           | 18191801    | 1       |
| Euro OTC | Olive oil, native               | 18208101    | 1       |
| Euro OTC | Olive oil, native               | 1822011-01  | 1       |
| Euro OTC | Grape seed oil, refined         | 18224202    | 1       |
| Euro OTC | Almond oil, refined             | 18295901    | 1       |
| Euro OTC | Evening primrose oil, refined   | 183006-01   | 1       |
| Euro OTC | Olive oil, native               | 19000226    | 1       |
| Euro OTC | Olive oil, native               | 19000227    | 1       |
| Euro OTC | Evening primrose oil, refined   | 19001046-01 | 1       |
| Euro OTC | Evening primrose oil, refined   | 1901046     | 2       |
| Euro OTC | Evening primrose oil, refined   | 190104601   | 3       |
| Euro OTC | Evening primrose oil, refined   | 1901046-01  | 107     |
| Euro OTC | Evening primrose oil, refined   | 1901048-01  | 1       |
| Euro OTC | Evening primrose oil, refined   | 190146-01   | 2       |
| Euro OTC | Olive oil, native               | 1903013-01  | 49      |
| Euro OTC | Almond oil, refined             | 1904007     | 1       |
| Euro OTC | Almond oil, refined             | 190400701   | 1       |
| Euro OTC | Almond oil, refined             | 1904007-01  | 3       |
| Euro OTC | Olive oil, native               | 1905018-01  | 98      |
| Euro OTC | Olive oil, native               | 1905918-01  | 5       |
| Euro OTC | Soy lecithin, liquid            | 1907035-01  | 7       |
| Euro OTC | Almond oil, refined             | 190901501   | 1       |
| Euro OTC | Almond oil, refined             | 1909015-01  | 6       |
| Euro OTC | Olive oil, native               | 1910015-01  | 63      |
| Euro OTC | Evening primrose oil, refined   | 1911006-01  | 1       |
| Euro OTC | Evening primrose oil, refined   | 1911009     | 1       |
| Euro OTC | Evening primrose oil, refined   | 1911009-001 | 1       |
| Euro OTC | Evening primrose oil, refined   | 191100901   | 4       |
| Euro OTC | Evening primrose oil, refined   | 1911009-01  | 91      |
| Euro OTC | Evening primrose oil, refined   | 1911009-1   | 1       |
| Euro OTC | Evening primrose oil, refined   | 191109-01   | 1       |

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continued from previous page

| Supplier | Substance                     | Batch        | Spectra |
|----------|-------------------------------|--------------|---------|
| Euro OTC | Sesame oil, refined           | 1911-6518    | 1       |
| Euro OTC | Evening primrose oil, refined | 191644003    | 1       |
| Euro OTC | Almond oil, refined           | 192314       | 1       |
| Euro OTC | Peanut oil, refined           | 192485006    | 1       |
| Euro OTC | Evening primrose oil, refined | 192982001    | 1       |
| Euro OTC | Evening primrose oil, refined | 200003702    | 1       |
| Euro OTC | Almond oil, refined           | 20005068     | 1       |
| Euro OTC | Evening primrose oil, refined | 20008037-01  | 1       |
| Euro OTC | Olive oil, native             | 2001005-01   | 29      |
| Euro OTC | Evening primrose oil, refined | 2003029      | 4       |
| Euro OTC | Evening primrose oil, refined | 200302901    | 3       |
| Euro OTC | Evening primrose oil, refined | 2003029-01   | 154     |
| Euro OTC | Evening primrose oil, refined | 200303701    | 1       |
| Euro OTC | Olive oil, native             | 200305001    | 1       |
| Euro OTC | Olive oil, native             | 2003050-01   | 50      |
| Euro OTC | Almond oil, refined           | 2004032-01   | 5       |
| Euro OTC | Olive oil, native             | 200603401    | 1       |
| Euro OTC | Olive oil, native             | 2006034-01   | 151     |
| Euro OTC | Soy lecithin, liquid          | 20061209     | 1       |
| Euro OTC | Evening primrose oil, refined | 20080037-01  | 1       |
| Euro OTC | Evening primrose oil, refined | 2008031-01   | 1       |
| Euro OTC | Evening primrose oil, refined | 2008037      | 4       |
| Euro OTC | Evening primrose oil, refined | 200803701    | 2       |
| Euro OTC | Evening primrose oil, refined | 2008037-01   | 72      |
| Euro OTC | Evening primrose oil, refined | 200803702    | 1       |
| Euro OTC | Evening primrose oil, refined | 2008037-02   | 32      |
| Euro OTC | Almond oil, refined           | 2009004-01   | 1       |
| Euro OTC | Olive oil, native             | 2012004-01   | 69      |
| Euro OTC | Avocado oil, refined          | 2041404      | 1       |
| Euro OTC | Olive oil, native             | 21001644     | 1       |
| Euro OTC | Almond oil, refined           | 2101033-02   | 1       |
| Euro OTC | Almond oil, refined           | 21025E/1803  | 1       |
| Euro OTC | Olive oil, native             | 2104011-01   | 40      |
| Euro OTC | Evening primrose oil, refined | 210500101    | 2       |
| Euro OTC | Evening primrose oil, refined | 2105001-01   | 46      |
| Euro OTC | Evening primrose oil, refined | 2105001-02   | 11      |
| Euro OTC | Olive oil, native             | 2107030-01   | 89      |
| Euro OTC | Evening primrose oil, refined | 215001-01    | 1       |
| Euro OTC | Evening primrose oil, refined | 2204018-01   | 1       |
| Euro OTC | Avocado oil, refined          | 28041506     | 1       |
| Euro OTC | Avocado oil, refined          | 30121424     | 1       |
| Euro OTC | Olive oil, native             | 306950       | 1       |
| Euro OTC | Olive oil, native             | 307103       | 2       |
| Euro OTC | Olive oil, native             | 308228       | 11      |
| Euro OTC | Almond oil, refined           | 540014-01    | 1       |
| Euro OTC | Codliver oil (type A)         | 5529601      | 2       |
| Euro OTC | Peanut oil, refined           | 5592601      | 1       |
| Euro OTC | Soy lecithin, liquid          | 614E3336     | 1       |
| Euro OTC | Evening primrose oil, refined | 700077       | 1       |
| Euro OTC | Evening primrose oil, refined | 700775       | 1       |
| Euro OTC | Jobba Oil, native             | 8001330001   | 2       |
| Euro OTC | Codliver oil (type A)         | 8002468002   | 4       |
| Euro OTC | Olive oil, native             | 8004067001   | 1       |
| Euro OTC | Almond oil, refined           | 8004390001   | 1       |
| Euro OTC | Evening primrose oil, refined | 80616-11     | 1       |
| Euro OTC | Evening primrose oil, refined | 8072002      | 1       |
| Euro OTC | Evening primrose oil, refined | AP141023N    | 1       |
| Euro OTC | Evening primrose oil, refined | AP147307N    | 1       |
| Euro OTC | Evening primrose oil, refined | BTR340388    | 1       |
| Euro OTC | Evening primrose oil, refined | BTR340388-01 | 5       |

continued on the next page

continued from previous page

| Supplier           | Substance                       | Batch         | Spectra |
|--------------------|---------------------------------|---------------|---------|
| Euro OTC           | Evening primrose oil, refined   | BTR34912-01   | 1       |
| Euro OTC           | Evening primrose oil, refined   | BTR349512-01  | 4       |
| Euro OTC           | Evening primrose oil, refined   | BTR3495-12-01 | 1       |
| Euro OTC           | Evening primrose oil, refined   | BTR36050601   | 1       |
| Euro OTC           | Evening primrose oil, refined   | BTR360506-01  | 5       |
| Euro OTC           | Evening primrose oil, refined   | EP704511-2    | 4       |
| Euro OTC           | Evening primrose oil, refined   | EP713711-1    | 4       |
| Euro OTC           | Evening primrose oil, refined   | EP-713-711-1  | 1       |
| Euro OTC           | Evening primrose oil, refined   | ep745611-1    | 1       |
| Euro OTC           | Evening primrose oil, refined   | EP745611-1    | 10      |
| Euro OTC           | Evening primrose oil, refined   | EP848211-1    | 3       |
| Euro OTC           | Evening primrose oil, refined   | EP868211-1    | 1       |
| Euro OTC           | Evening primrose oil, refined   | Euro          | 1       |
| Euro Pharma/Phönix | Evening primrose oil, refined   | 2003029-01    | 4       |
| Euro/ Phönix       | Evening primrose oil, refined   | 1304018-02    | 1       |
| Euro/ Phönix       | Evening primrose oil, refined   | 2008037-02    | 2       |
| EUro/AHD           | Soy lecithin, liquid            | 1305019-01    | 1       |
| Euro/Gehe          | Evening primrose oil, refined   | 1710011-02    | 1       |
| Euro/Gehe          | Evening primrose oil, refined   | 1803006-01    | 1       |
| Euro/Gehe          | Evening primrose oil, refined   | 1901046-01    | 3       |
| EuRo/Noweda        | Evening primrose oil, refined   | 1710011-02    | 1       |
| Euro/Noweda        | Evening primrose oil, refined   | 1901046-01    | 1       |
| Euro/Phoenix       | Evening primrose oil, refined   | 1512005-02    | 2       |
| Euro/Phönix        | Evening primrose oil, refined   | 1304018-01    | 2       |
| Euro/Sanacorp      | Evening primrose oil, refined   | 1512005-01    | 1       |
| Euro/Sanacorp      | Almond oil, refined             | 1801030-01    | 1       |
| Euro/Sanacorp      | Evening primrose oil, refined   | 1803006-02    | 1       |
| Euro               | Almond oil, refined             | 1510014-01    | 1       |
| EuRoh/ Gehe        | Evening primrose oil, refined   | 2003029-01    | 1       |
| Euroo/Gehe         | Evening primrose oil, refined   | 1603048-01    | 1       |
| euro-oct           | Olive oil, native               | 1503047-02    | 1       |
| EuroPharma/Phönix  | Evening primrose oil, refined   | 2008037-02    | 1       |
| EuroPharm          | Evening primrose oil, refined   | 2105001-01    | 1       |
| EuroTOC / Noweda   | Evening primrose oil, refined   | 140700202     | 1       |
| Evonik/Sanacorp    | Evening primrose oil, refined   | 1911009-01    | 1       |
| Fagron             | Olive oil, native               |               | 1       |
| Fagron             | Almond oil, refined             | 1000004431    | 1       |
| Fagron             | Borage oil, refined, stabili... | 1000007871    | 1       |
| Fagron             | Oleyl oleate (stabilised)       | 11I08-N03     | 1       |
| Fagron             | Shea butter, refined            | 11J07-N08     | 1       |
| Fagron             | Oleyl oleate (stabilised)       | 11I08-N03     | 1       |
| Fagron             | Evening primrose oil, refined   | 1205023-02    | 1       |
| Fagron             | Shea butter, refined            | 121273        | 2       |
| Fagron             | Evening primrose oil, refined   | 12325101      | 2       |
| Fagron             | Almond oil, refined             | 12345         | 1       |
| Fagron             | Olive oil, native               | 1234567       | 1       |
| Fagron             | Olive oil, native               | 1235          | 1       |
| Fagron             | Sesame oil, refined             | 124494        | 2       |
| Fagron             | Almond oil, refined             | 126520        | 1       |
| Fagron             | Olive oil, native               | 129189        | 1       |
| Fagron             | Peanut oil, refined             | 12A05-N05     | 1       |
| Fagron             | Olive oil, native               | 12A18-N08     | 2       |
| Fagron             | Almond oil, refined             | 12A18-N09     | 1       |
| Fagron             | Peanut oil, refined             | 12c30-n02     | 1       |
| Fagron             | Peanut oil, refined             | 12C30-N02     | 1       |
| Fagron             | Evening primrose oil, refined   | 12e23-N06     | 1       |
| Fagron             | Avocado oil, refined            | 12F25-N12     | 1       |
| Fagron             | Shea butter, refined            | 12g12-n14     | 1       |
| Fagron             | Shea butter, refined            | 12G12-N14     | 1       |
| Fagron             | Codliver oil (type A)           | 12H15-N02     | 2       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Fagron   | Almond oil, refined             | 12H23-N01        | 1       |
| Fagron   | Avocado oil, refined            | 12H24-N02        | 1       |
| Fagron   | Peanut oil, refined             | 12H31-N05        | 4       |
| Fagron   | Olive oil, native               | 12I07-N07        | 2       |
| Fagron   | Peanut oil, refined             | 12J23-N01        | 2       |
| Fagron   | Peanut oil, refined             | 12J23-N01        | 1       |
| Fagron   | Almond oil, refined             | 12J26-N05        | 1       |
| Fagron   | Olive oil, native               | 12I07-N07        | 1       |
| Fagron   | Olive oil, native               | 13010904         | 1       |
| Fagron   | Olive oil, native               | 130190           | 2       |
| Fagron   | Peanut oil, refined             | 130723           | 1       |
| Fagron   | Peanut oil, refined             | 131943           | 2       |
| Fagron   | Almond oil, refined             | 13236411         | 1       |
| Fagron   | Olive oil, native               | 133026           | 2       |
| Fagron   | Peanut oil, refined             | 133498           | 1       |
| Fagron   | Almond oil, refined             | 13350001         | 2       |
| Fagron   | Avocado oil, refined            | 13361406         | 1       |
| Fagron   | Olive oil, native               | 139812           | 1       |
| Fagron   | Shea butter, refined            | 13C04-N01        | 5       |
| Fagron   | Olive oil, native               | 13c08-N06        | 1       |
| Fagron   | Olive oil, native               | 13C08-N06        | 5       |
| Fagron   | Almond oil, refined             | 13C25-N20        | 1       |
| Fagron   | Wheatgerm oil, refined          | 13D22-N13        | 1       |
| Fagron   | Evening primrose oil, refined   | 13E06-N09        | 3       |
| Fagron   | Evening primrose oil, refined   | 13E06-No9        | 1       |
| Fagron   | Olive oil, native               | 13G18-B08        | 1       |
| Fagron   | Olive oil, native               | 13G18-B08-286424 | 3       |
| Fagron   | Peanut oil, refined             | 13g30-n05        | 1       |
| Fagron   | Peanut oil, refined             | 13G30-N05        | 7       |
| Fagron   | Peanut oil, refined             | 13G30-N05        | 1       |
| Fagron   | Olive oil, native               | 13J25-B04        | 1       |
| Fagron   | Olive oil, native               | 13J25-B04-289441 | 3       |
| Fagron   | Peanut oil, refined             | 13j25b06291837   | 1       |
| Fagron   | Peanut oil, refined             | 13J25B06291837   | 1       |
| Fagron   | Peanut oil, refined             | 13J25-B06-291838 | 4       |
| Fagron   | Almond oil, refined             | 13K28-B01-288270 | 1       |
| Fagron   | Peanut oil, refined             | 14/10-B07-300426 | 1       |
| Fagron   | Peanut oil, refined             | 14/10-B07-300438 | 1       |
| Fagron   | Peanut oil, refined             | 14033601         | 1       |
| Fagron   | Peanut oil, refined             | 1410-B07-300438  | 1       |
| Fagron   | Peanut oil, refined             | 14246901         | 1       |
| Fagron   | Jobba Oil, native               | 14284202         | 1       |
| Fagron   | Peanut oil, refined             | 14355904         | 2       |
| Fagron   | Evening primrose oil, refined   | 145691           | 1       |
| Fagron   | Borage oil, refined, stabili... | 14A20-B03        | 1       |
| Fagron   | Olive oil, native               | 14B12-B06        | 1       |
| Fagron   | Oleyl oleate (stabilised)       | 14B14-B03-29219  | 1       |
| Fagron   | Oleyl oleate (stabilised)       | 14B14-B03-29295  | 1       |
| Fagron   | Evening primrose oil, refined   | 14C07-801-291800 | 1       |
| Fagron   | Evening primrose oil, refined   | 14C07-B01-291800 | 1       |
| Fagron   | Peanut oil, refined             | 14D11-B05-294672 | 2       |
| Fagron   | Peanut oil, refined             | 14D11-B05-294677 | 5       |
| Fagron   | Almond oil, refined             | 14D24-B07        | 1       |
| Fagron   | Almond oil, refined             | 14D24-B07-302332 | 1       |
| Fagron   | Almond oil, refined             | 14F04-B01        | 2       |
| Fagron   | Almond oil, refined             | 14F04B01294722   | 1       |
| Fagron   | Olive oil, native               | 14G08-B02-300074 | 5       |
| Fagron   | Evening primrose oil, refined   | 14H18-B04-297707 | 3       |
| Fagron   | Peanut oil, refined             | 14I10-B07-300438 | 3       |
| Fagron   | Peanut oil, refined             | 14I-10B07-300438 | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                     | Batch            | Spectra |
|----------|-------------------------------|------------------|---------|
| Fagron   | Almond oil, refined           | 14J01-B03        | 1       |
| Fagron   | Almond oil, refined           | 14J01-B03-302327 | 2       |
| Fagron   | Evening primrose oil, refined | 1506001-01       | 2       |
| Fagron   | Almond oil, refined           | 15127303         | 1       |
| Fagron   | Almond oil, refined           | 15127306         | 1       |
| Fagron   | Olive oil, native             | 15216308         | 1       |
| Fagron   | Olive oil, native             | 15216309         | 1       |
| Fagron   | Peanut oil, refined           | 15331506         | 1       |
| Fagron   | Olive oil, native             | 15399702         | 1       |
| Fagron   | Almond oil, refined           | 15409702         | 1       |
| Fagron   | Almond oil, refined           | 15409705         | 1       |
| Fagron   | Almond oil, refined           | 15409707         | 1       |
| Fagron   | Oleyl oleate (stabilised)     | 15410204         | 1       |
| Fagron   | Evening primrose oil, refined | 15417803         | 3       |
| Fagron   | Olive oil, native             | 15A27-B03        | 1       |
| Fagron   | Olive oil, native             | 15A27-B03-304709 | 6       |
| Fagron   | Peanut oil, refined           | 15B11B02304989   | 2       |
| Fagron   | Evening primrose oil, refined | 15C02-B99-305094 | 1       |
| Fagron   | Peanut oil, refined           | 15E07-B04        | 1       |
| Fagron   | Peanut oil, refined           | 15E07-B04-308779 | 2       |
| Fagron   | Almond oil, refined           | 15F04-B01        | 2       |
| Fagron   | Almond oil, refined           | 15F04-B01-309291 | 4       |
| Fagron   | Almond oil, refined           | 15H03-B07-314457 | 3       |
| Fagron   | Soy lecithin, liquid          | 1604034-01       | 2       |
| Fagron   | Peanut oil, refined           | 16071105         | 2       |
| Fagron   | Grape seed oil, refined       | 16092401         | 1       |
| Fagron   | Sesame oil, refined           | 16312505         | 2       |
| Fagron   | Almond oil, refined           | 16A05-B02        | 1       |
| Fagron   | Almond oil, refined           | 16A05-B02-320278 | 1       |
| Fagron   | Peanut oil, refined           | 16A27B04322519   | 1       |
| Fagron   | Peanut oil, refined           | 16A27-B04-322519 | 2       |
| Fagron   | Olive oil, native             | 16K24-01-329002  | 1       |
| Fagron   | Olive oil, native             | 16K24-B01-329002 | 2       |
| Fagron   | Almond oil, refined           | 16K30-B06        | 1       |
| Fagron   | Almond oil, refined           | 16K30-B07        | 1       |
| Fagron   | Almond oil, refined           | 16K30B07328711   | 1       |
| Fagron   | Almond oil, refined           | 16K30-B07-328711 | 1       |
| Fagron   | Almond oil, refined           | 17042203         | 1       |
| Fagron   | Peanut oil, refined           | 17042802         | 1       |
| Fagron   | Almond oil, refined           | 1707007-01       | 1       |
| Fagron   | Peanut oil, refined           | 17169018         | 1       |
| Fagron   | Sunflower oil, refined        | 17242101         | 2       |
| Fagron   | Evening primrose oil, refined | 17255801         | 1       |
| Fagron   | Olive oil, native             | 17361101         | 1       |
| Fagron   | Peanut oil, refined           | 17A10-B01-332760 | 4       |
| Fagron   | Peanut oil, refined           | 17A10-B01-335073 | 2       |
| Fagron   | Peanut oil, refined           | 17K16-B07-344245 | 4       |
| Fagron   | Peanut oil, refined           | 17K16-B07-347994 | 2       |
| Fagron   | Olive oil, native             | 18003205         | 2       |
| Fagron   | Evening primrose oil, refined | 18009106         | 2       |
| Fagron   | Evening primrose oil, refined | 1803006-01       | 1       |
| Fagron   | Evening primrose oil, refined | 1803006-02       | 1       |
| Fagron   | Almond oil, refined           | 18184109         | 1       |
| Fagron   | Almond oil, refined           | 18184113         | 3       |
| Fagron   | Olive oil, native             | 18208106         | 1       |
| Fagron   | Peanut oil, refined           | 18208202         | 1       |
| Fagron   | Evening primrose oil, refined | 18216203         | 2       |
| Fagron   | Evening primrose oil, refined | 18216208         | 2       |
| Fagron   | Shea butter, refined          | 18222305         | 2       |
| Fagron   | Soy oil, refined              | 18A-B04-525705   | 1       |

continued on the next page

continued from previous page

| Supplier                     | Substance                     | Batch            | Spectra |
|------------------------------|-------------------------------|------------------|---------|
| Fagron                       | Peanut oil, refined           | 18D13-B01-352516 | 4       |
| Fagron                       | Peanut oil, refined           | 18G28B01354810   | 2       |
| Fagron                       | Peanut oil, refined           | 18G28-B01-354810 | 2       |
| Fagron                       | Almond oil, refined           | 18J08-B02        | 1       |
| Fagron                       | Almond oil, refined           | 18J08-B02-360871 | 1       |
| Fagron                       | Peanut oil, refined           | 18K23-B01-357637 | 1       |
| Fagron                       | Olive oil, native             | 19001848         | 1       |
| Fagron                       | Peanut oil, refined           | 19E17-B01        | 1       |
| Fagron                       | Peanut oil, refined           | 19E17B01-362264  | 1       |
| Fagron                       | Peanut oil, refined           | 19E17-B01-362264 | 2       |
| Fagron                       | Peanut oil, refined           | 19J18-F01-365916 | 7       |
| Fagron                       | Peanut oil, refined           | 20G28-F07-373623 | 3       |
| Fagron                       | Almond oil, refined           | 281040           | 2       |
| Fagron                       | Olive oil, native             | 284144           | 2       |
| Fagron                       | Almond oil, refined           | 2ob03-f04-369480 | 1       |
| Fagron                       | Olive oil, native             | 301805           | 5       |
| Fagron                       | Olive oil, native             | 329002           | 1       |
| Fagron                       | Peanut oil, refined           | 5012A-01954      | 1       |
| Fagron                       | Codliver oil (type A)         | 5029209          | 1       |
| Fagron                       | Jojoba Oil, native            | 5194301          | 1       |
| Fagron                       | Peanut oil, refined           | 5314601          | 1       |
| Fagron                       | Almond oil, refined           | 5438301          | 2       |
| Fagron                       | Almond oil, refined           | 5615001          | 3       |
| Fagron                       | Oleyl oleate (stabilised)     | 725016           | 1       |
| Fagron                       | Oleyl oleate (stabilised)     | 7858448          | 1       |
| Fagron                       | Codliver oil (type A)         | 8002338002       | 1       |
| Fagron                       | Almond oil, refined           | 8002675001       | 2       |
| Fagron                       | Almond oil, refined           | 8003167001       | 1       |
| Fagron                       | Olive oil, native             | 8004194001       | 1       |
| Fagron                       | Almond oil, refined           | 8004548002       | 1       |
| Fagron                       | Peanut oil, refined           | 8004597002       | 2       |
| Fagron                       | Peanut oil, refined           | F01-3659106      | 1       |
| Fagron                       | Grape seed oil, refined       | N0000006050      | 2       |
| Fagron                       | Peanut oil, refined           | P101P102P103     | 1       |
| Farfalla Essen/ Bahnhof. . . | Shea butter, refined          | FA0130140        | 1       |
| Fargo/Anzag                  | Evening primrose oil, refined | 1704018-01       | 3       |
| Fargon/Gehe                  | Almond oil, refined           | 17207905         | 1       |
| Fargon/Gehe                  | Sesame oil, refined           | 5872901          | 1       |
| Fargon/Phoenix               | Peanut oil, refined           | 12A05-N05        | 1       |
| Fargon/Sanacorp              | Evening primrose oil, refined | 18216211         | 1       |
| Fargon                       | Peanut oil, refined           | 16J31-B05-329905 | 1       |
| Fargon                       | Olive oil, native             | 17236501         | 1       |
| Fargon                       | Evening primrose oil, refined | 13E06-N09        | 1       |
| Fiebig 02.10.12 ek: 5,13EUR  | Peanut oil, refined           | 5231601          | 1       |
| Fiebig 12.07.13 EK15,38. . . | Evening primrose oil, refined | 1210012-02       | 1       |
| Fiebig 21.02.13 ek: 2,16EUR  | Almond oil, refined           | 130145           | 1       |
| Fiebig/EuRho                 | Evening primrose oil, refined | 2003029-01       | 1       |
| Fiebig/Henr Lamotte          | Codliver oil (type A)         | 8004742003       | 3       |
| Fiebig/Lamotte               | Almond oil, refined           | 1000013112       | 1       |
| Fiebig/Lamotte               | Sesame oil, refined           | 7316137          | 1       |
| Fiebig/Medesign              | Sesame oil, refined           | 689299           | 1       |
| FIEBIG/SANMARK LIMITED       | Evening primrose oil, refined | 1803006-01       | 1       |
| Fiebig                       | Sesame oil, refined           | 1000003864       | 1       |
| Fiebig                       | Olive oil, native             | 12077702         | 1       |
| Fiebig                       | Jojoba Oil, native            | 15116904         | 2       |
| Fiebig                       | Evening primrose oil, refined | 1512005-02       | 1       |
| Fiebig                       | Olive oil, native             | 15399704         | 1       |
| Fiebig                       | Jojoba Oil, native            | 16070609         | 3       |
| Fiebig                       | Olive oil, native             | 1608006-02       | 1       |
| Fiebig                       | Evening primrose oil, refined | 16281301         | 1       |

continued on the next page



continued from previous page

| Supplier           | Substance                       | Batch            | Spectra |
|--------------------|---------------------------------|------------------|---------|
| Fiebig             | Borage oil, refined, stabili... | 17055401         | 1       |
| Fiebig             | Jobaba Oil, native              | 17073309         | 2       |
| Fiebig             | Evening primrose oil, refined   | 1710011-02       | 4       |
| Fiebig             | Almond oil, refined             | 1716508          | 1       |
| Fiebig             | Olive oil, native               | 17236501         | 2       |
| Fiebig             | Olive oil, native               | 17236502         | 1       |
| Fiebig             | Evening primrose oil, refined   | 17255801         | 2       |
| Fiebig             | Evening primrose oil, refined   | 17255803         | 1       |
| Fiebig             | Wheatgerm oil, refined          | 17290301         | 2       |
| Fiebig             | Sesame oil, refined             | 17332103         | 1       |
| Fiebig             | Almond oil, refined             | 18004502         | 1       |
| Fiebig             | Wheatgerm oil, refined          | 18009501         | 1       |
| Fiebig             | Wheatgerm oil, refined          | 18009505         | 1       |
| Fiebig             | Peanut oil, refined             | 18014405         | 1       |
| Fiebig             | Evening primrose oil, refined   | 1803006-01       | 1       |
| Fiebig             | Avocado oil, refined            | 18044905         | 2       |
| Fiebig             | Avocado oil, refined            | 18044914         | 1       |
| Fiebig             | Jobaba Oil, native              | 18057107         | 3       |
| Fiebig             | Almond oil, refined             | 18070603         | 1       |
| Fiebig             | Olive oil, native               | 18208101         | 1       |
| Fiebig             | Olive oil, native               | 18208106         | 1       |
| Fiebig             | Peanut oil, refined             | 18208202         | 1       |
| Fiebig             | Evening primrose oil, refined   | 18216206         | 1       |
| Fiebig             | Almond oil, refined             | 18295903         | 1       |
| Fiebig             | Almond oil, refined             | 18295914         | 1       |
| Fiebig             | Peanut oil, refined             | 18296002         | 1       |
| Fiebig             | Olive oil, native               | 20003049003      | 1       |
| Fiebig             | Olive oil, native               | 310866           | 1       |
| Fiebig             | Codliver oil (type A)           | 80000918001      | 1       |
| Fiebig             | Codliver oil (type A)           | 8001176004       | 1       |
| Fiebig             | Peanut oil, refined             | 800143002        | 1       |
| Fiebig             | Olive oil, native               | 8001431001       | 1       |
| Fiebig             | Olive oil, native               | 8001948002       | 1       |
| Fiebig             | Codliver oil (type A)           | 8002338002       | 5       |
| Fiebig             | Codliver oil (type A)           | 8002468002       | 9       |
| Fiebig             | Olive oil, native               | 8002656001       | 1       |
| Fiebig             | Olive oil, native               | 8003420001       | 1       |
| Fiebig             | Codliver oil (type A)           | 800372001        | 1       |
| Fiebig             | Codliver oil (type A)           | 8003727001       | 3       |
| Fiebig             | Jobaba Oil, native              | 8003732001       | 3       |
| Fiebig             | Almond oil, refined             | 8003885002       | 2       |
| Fiebig             | Codliver oil (type A)           | 8003906001       | 4       |
| Fiebig             | Codliver oil (type A)           | 8003906002       | 8       |
| Fiebig             | Olive oil, native               | 8004251002       | 2       |
| Fiebig             | Codliver oil (type A)           | 8004742002       | 4       |
| Fiebig             | Evening primrose oil, refined   | EP74611-1        | 1       |
| FiebigLamotte      | Jobaba Oil, native              | 1000011858       | 1       |
| Finteler Apotheke  | Evening primrose oil, refined   | 1703020-01       | 1       |
| Finteler Apotheke  | Almond oil, refined             | 8002653001       | 1       |
| Fischar            | Almond oil, refined             | 5438301          | 2       |
| Fischar            | Peanut oil, refined             | 5904100001       | 2       |
| Fischar            | Sunflower oil, refined          | 8004142001       | 1       |
| Fischer/Gehe       | Almond oil, refined             | 15127306         | 1       |
| Frago/Gehe         | Olive oil, native               | 16K24-B01-329002 | 2       |
| Frago/Noweda       | Olive oil, native               | 16K24-B01        | 1       |
| Franz Thome        | Shea butter, refined            | 400-15           | 1       |
| Gall Pharma        | Codliver oil (type A)           |                  | 1       |
| GallPharma/Phoenix | Codliver oil (type A)           | V-00010519       | 1       |
| Gatt-Koller        | Jobaba Oil, native              |                  | 1       |
| Gatt-Koller        | Jobaba Oil, native              | 1801970          | 4       |

continued on the next page



*continued from previous page*

| Supplier                   | Substance                     | Batch         | Spectra |
|----------------------------|-------------------------------|---------------|---------|
| Gatt-Koller                | Avocado oil, refined          | 1803162       | 5       |
| Gatt-Koller                | Sesame oil, refined           | 1803403       | 2       |
| Gatt-Koller                | Evening primrose oil, refined | 1803525       | 2       |
| Gatt-Koller                | Almond oil, refined           | 1803713       | 1       |
| Gatt-Koller                | Peanut oil, refined           | 1900111       | 1       |
| Gatt-Koller                | Avocado oil, refined          | 1900505       | 1       |
| Gatt-Koller                | Almond oil, refined           | 1900551       | 1       |
| Gatt-Koller                | Olive oil, native             | 1900963       | 1       |
| Gehe - Lamotte             | Soy lecithin, liquid          | 1305019-01    | 1       |
| Gehe - Lamotte             | Olive oil, native             | 5271504       | 1       |
| Gehe - Lamotte             | Almond oil, refined           | 5438302       | 1       |
| Gehe - Lamotte             | Olive oil, native             | 5470202       | 1       |
| Gehe - Lamotte             | Olive oil, native             | 5623601       | 1       |
| Gehe - Lamotte             | Olive oil, native             | 5671601       | 2       |
| Gehe / 23.01.13 Henry L... | Sesame oil, refined           | 122972        | 1       |
| Gehe / Vertanical          | Sesame oil, refined           | S0E1000016920 | 1       |
| Gehe / Weltecke            | Evening primrose oil, refined |               | 1       |
| GEHE 11.05.                | Almond oil, refined           | 15078404      | 1       |
| gehe 15.01.2014            | Avocado oil, refined          | 1305046-01    | 1       |
| Gehe 22.12.14              | Almond oil, refined           | 14215808      | 1       |
| Gehe 5.03.15               | Evening primrose oil, refined | 1407002-02    | 1       |
| Gehe amax                  | Almond oil, refined           | 1000012126    | 1       |
| Gehe amax                  | Peanut oil, refined           | 15331503      | 1       |
| Gehe amax                  | Almond oil, refined           | 16327302      | 1       |
| Gehe amax                  | Olive oil, native             | 18003205      | 2       |
| Gehe amax                  | Almond oil, refined           | 18070605      | 1       |
| Gehe amax                  | Almond oil, refined           | 18184114      | 2       |
| Gehe amax                  | Olive oil, native             | 19000227      | 1       |
| Gehe amax                  | Olive oil, native             | 19002974      | 2       |
| Gehe amax                  | Olive oil, native             | 20180713      | 1       |
| Gehe amax                  | Olive oil, native             | 294034        | 1       |
| Gehe amax                  | Olive oil, native             | 304113        | 1       |
| Gehe amax                  | Olive oil, native             | 308230        | 1       |
| Gehe amax                  | Olive oil, native             | 310868        | 1       |
| Gehe amax                  | Almond oil, refined           | 5919600001    | 1       |
| Gehe Kassel                | Almond oil, refined           | 14215814      | 1       |
| Gehe Laborchemie Apolda... | Jobba Oil, native             | 13011202      | 1       |
| gehe/ cealo                | Peanut oil, refined           | 15015104      | 1       |
| Gehe/ EuRho                | Peanut oil, refined           | 192485006     | 1       |
| Gehe/ Lamotte              | Almond oil, refined           | 8004039003    | 1       |
| Gehe/CaneaPharma           | Shea butter, refined          | SB1827        | 1       |
| Gehe/EuRho                 | Evening primrose oil, refined | 1704018-01    | 5       |
| Gehe/Hedinger              | Olive oil, native             | 306950        | 1       |
| Gehe/Henry Lamotte Oils... | Codliver oil (type A)         | 119929        | 1       |
| Gehe/Henry Lamotte Oils... | Almond oil, refined           | 5615001       | 2       |
| Gehe/Henry Lamotte Oils    | Almond oil, refined           | 1000012126    | 2       |
| Gehe/Henry Lamotte         | Almond oil, refined           | 1000004431    | 1       |
| gehe/Henry Lamotte         | Almond oil, refined           | 1000017183    | 1       |
| Gehe/Henry Lamotte         | Codliver oil (type A)         | 8002338002    | 2       |
| Gehe/Henry Lamotte         | Codliver oil (type A)         | 8002468002    | 1       |
| Gehe/Henry Lamotte         | Almond oil, refined           | 8003503002    | 1       |
| Gehe/Henry Lamotte         | Almond oil, refined           | 8005803006    | 1       |
| Gehe/Henry Lamotte         | Almond oil, refined           | 8007584001    | 1       |
| Gehe/henry                 | Almond oil, refined           | 8000915002    | 1       |
| Gehe/henry                 | Olive oil, native             | 8001431001    | 1       |
| Gehe/L10                   | Evening primrose oil, refined | 1803006-01    | 1       |
| Gehe/Lamotte               | Almond oil, refined           |               | 1       |
| Gehe/Lamotte               | Almond oil, refined           | 1000010093    | 1       |
| Gehe/Lamotte               | Almond oil, refined           | 8002653001    | 1       |
| Gehe/Lamotte               | Almond oil, refined           | 8003167001    | 2       |

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continued from previous page

| Supplier       | Substance                       | Batch      | Spectra |
|----------------|---------------------------------|------------|---------|
| Gehe/Lamotte   | Almond oil, refined             | 8003503001 | 1       |
| Gehe/Lamotte   | Almond oil, refined             | 8003885002 | 2       |
| Gehe/Lamotte   | Almond oil, refined             | 8004390001 | 2       |
| Gehe/Lamotte   | Codliver oil (type A)           | 8004742002 | 2       |
| Gehe/Lamotte   | Codliver oil (type A)           | 8005296003 | 6       |
| Gehe/lamotte   | Almond oil, refined             | 8007584001 | 1       |
| Gehe/Spinnrad  | Apricot kernel oil, refined     | 919301012  | 1       |
| Gehe/Vitalhaus | Flaxseed oil, native            | 160702     | 1       |
| Gehe           | Olive oil, native               |            | 1       |
| Gehe           | Almond oil, refined             | 1000010093 | 1       |
| Gehe           | Shea butter, refined            | 11079802   | 1       |
| Gehe           | Evening primrose oil, refined   | 1109004-02 | 1       |
| Gehe           | Sunflower oil, refined          | 11126606   | 1       |
| Gehe           | Shea butter, refined            | 11346509   | 1       |
| Gehe           | Olive oil, native               | 11C16-N08  | 1       |
| GEHE           | Almond oil, refined             | 12019      | 1       |
| Gehe           | Borage oil, refined, stabili... | 12027008   | 1       |
| Gehe           | Evening primrose oil, refined   | 12032908   | 1       |
| Gehe           | Flaxseed oil, native            | 12041701   | 1       |
| Gehe           | Peanut oil, refined             | 12041902   | 1       |
| Gehe           | Evening primrose oil, refined   | 1205023-02 | 1       |
| Gehe           | Evening primrose oil, refined   | 121112906  | 1       |
| Gehe           | Evening primrose oil, refined   | 12112906   | 1       |
| Gehe           | Grape seed oil, refined         | 12149204   | 1       |
| Gehe           | Borage oil, refined, stabili... | 12161203   | 1       |
| Gehe           | Oleyl oleate (stabilised)       | 12220207   | 1       |
| Gehe           | Sesame oil, refined             | 122972     | 1       |
| Gehe           | Evening primrose oil, refined   | 12325106   | 1       |
| Gehe           | Evening primrose oil, refined   | 12325110   | 1       |
| Gehe           | Evening primrose oil, refined   | 12325113   | 1       |
| Gehe           | Olive oil, native               | 12I07-N07  | 1       |
| Gehe           | Olive oil, native               | 13010911   | 1       |
| GEHE           | Almond oil, refined             | 13178003   | 1       |
| Gehe           | Almond oil, refined             | 13178004   | 1       |
| Gehe           | Almond oil, refined             | 13236403   | 1       |
| Gehe           | Jobba Oil, native               | 13287709   | 1       |
| Gehe           | Peanut oil, refined             | 13306103   | 1       |
| Gehe           | Peanut oil, refined             | 13306106   | 1       |
| Gehe           | Olive oil, native               | 13350103   | 1       |
| Gehe           | Sesame oil, refined             | 13397402   | 1       |
| Gehe           | Evening primrose oil, refined   | 140002501  | 1       |
| Gehe           | Evening primrose oil, refined   | 14010904   | 1       |
| Gehe           | Peanut oil, refined             | 14115405   | 1       |
| Gehe           | Avocado oil, refined            | 14170105   | 1       |
| Gehe           | Laurel oil                      | 14196705   | 1       |
| Gehe           | Almond oil, refined             | 14215809   | 1       |
| Gehe           | Oleyl oleate (stabilised)       | 14254503   | 1       |
| Gehe           | Evening primrose oil, refined   | 1425617    | 1       |
| Gehe           | Evening primrose oil, refined   | 14258610   | 1       |
| Gehe           | Evening primrose oil, refined   | 14258616   | 1       |
| Gehe           | Jobba Oil, native               | 14284208   | 1       |
| Gehe           | Peanut oil, refined             | 14355904   | 1       |
| Gehe           | Peanut oil, refined             | 15015103   | 1       |
| Gehe           | Peanut oil, refined             | 15015104   | 2       |
| Gehe           | Almond oil, refined             | 15078404   | 1       |
| Gehe           | Almond oil, refined             | 15078405   | 1       |
| Gehe           | Laurel oil                      | 15097501   | 1       |
| Gehe           | Evening primrose oil, refined   | 15171102   | 1       |
| Gehe           | Evening primrose oil, refined   | 15171110   | 2       |
| Gehe           | Almond oil, refined             | 15197401   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Gehe     | Almond oil, refined             | 15197402   | 1       |
| Gehe     | Almond oil, refined             | 15197409   | 1       |
| Gehe     | Almond oil, refined             | 15197412   | 1       |
| Gehe     | Peanut oil, refined             | 15273402   | 1       |
| Gehe     | Sunflower oil, refined          | 15296303   | 1       |
| Gehe     | Peanut oil, refined             | 15331503   | 3       |
| Gehe     | Jojoba Oil, native              | 15409903   | 2       |
| Gehe     | Evening primrose oil, refined   | 15417801   | 1       |
| Gehe     | Evening primrose oil, refined   | 15417805   | 1       |
| Gehe     | Evening primrose oil, refined   | 15417806   | 1       |
| Gehe     | Evening primrose oil, refined   | 15417808   | 1       |
| GEHE     | Evening primrose oil, refined   | 1605027-01 | 1       |
| Gehe     | Jojoba Oil, native              | 16070602   | 1       |
| Gehe     | Almond oil, refined             | 16071007   | 1       |
| Gehe     | Peanut oil, refined             | 16071101   | 1       |
| Gehe     | Peanut oil, refined             | 16071102   | 1       |
| Gehe     | Peanut oil, refined             | 16071103   | 1       |
| Gehe     | Olive oil, native               | 16212801   | 1       |
| Gehe     | Peanut oil, refined             | 16249502   | 3       |
| GEHE     | Borage oil, refined, stabili... | 16266011   | 1       |
| Gehe     | Sunflower oil, refined          | 16275804   | 1       |
| Gehe     | Evening primrose oil, refined   | 16281306   | 1       |
| Gehe     | Evening primrose oil, refined   | 16281309   | 3       |
| Gehe     | Almond oil, refined             | 16327302   | 1       |
| GEHE     | Almond oil, refined             | 16327302   | 1       |
| Gehe     | Almond oil, refined             | 16327308   | 3       |
| Gehe     | Evening primrose oil, refined   | 1704018-01 | 3       |
| GEHE     | Evening primrose oil, refined   | 1704018-01 | 1       |
| Gehe     | Almond oil, refined             | 17042203   | 3       |
| GEHE     | Almond oil, refined             | 17042203   | 1       |
| Gehe     | Almond oil, refined             | 17042204   | 1       |
| Gehe     | Peanut oil, refined             | 17042802   | 1       |
| GEHE     | Peanut oil, refined             | 17042802   | 2       |
| Gehe     | Evening primrose oil, refined   | 1710011-01 | 2       |
| GEHE     | Evening primrose oil, refined   | 1710011-01 | 1       |
| Gehe     | Evening primrose oil, refined   | 1710011-02 | 1       |
| Gehe     | Peanut oil, refined             | 17169010   | 1       |
| Gehe     | Almond oil, refined             | 17176501   | 1       |
| Gehe     | Almond oil, refined             | 17207905   | 1       |
| Gehe     | Flaxseed oil, native            | 17236401   | 2       |
| Gehe     | Evening primrose oil, refined   | 17255801   | 3       |
| Gehe     | Evening primrose oil, refined   | 17255802   | 1       |
| GEHE     | Borage oil, refined, stabili... | 17307801   | 1       |
| Gehe     | Peanut oil, refined             | 17328601   | 1       |
| Gehe     | Oleyl oleate (stabilised)       | 17358103   | 1       |
| Gehe     | Olive oil, native               | 17361101   | 1       |
| GEHE     | Olive oil, native               | 17361101   | 1       |
| Gehe     | Almond oil, refined             | 18000342   | 1       |
| GEHE     | Wheatgerm oil, refined          | 18000524   | 1       |
| GEHE     | Olive oil, native               | 18002118   | 1       |
| Gehe     | Olive oil, native               | 18003205   | 1       |
| Gehe     | Olive oil, native               | 18005453   | 1       |
| Gehe     | Almond oil, refined             | 18006808   | 1       |
| Gehe     | Evening primrose oil, refined   | 18009102   | 1       |
| Gehe     | Evening primrose oil, refined   | 18009106   | 1       |
| Gehe     | Evening primrose oil, refined   | 18009109   | 2       |
| GEHE     | Evening primrose oil, refined   | 18009111   | 1       |
| Gehe     | Evening primrose oil, refined   | 18009115   | 3       |
| Gehe     | Peanut oil, refined             | 18014405   | 1       |
| GEHE     | Almond oil, refined             | 18015007   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Gehe     | Almond oil, refined             | 18015008    | 2       |
| GEHE     | Almond oil, refined             | 18015008    | 1       |
| Gehe     | Evening primrose oil, refined   | 1803006-02  | 1       |
| Gehe     | Soy lecithin, liquid            | 1803030-1   | 1       |
| Gehe     | Avocado oil, refined            | 18044908    | 3       |
| Gehe     | Avocado oil, refined            | 18044913    | 1       |
| GEHE     | Grape seed oil, refined         | 18065201    | 1       |
| Gehe     | Almond oil, refined             | 1807007-01  | 1       |
| Gehe     | Almond oil, refined             | 18070602    | 1       |
| GEHE     | Almond oil, refined             | 18070602    | 1       |
| GEHE     | Almond oil, refined             | 18184102    | 1       |
| Gehe     | Almond oil, refined             | 18184108    | 1       |
| Gehe     | Almond oil, refined             | 18184113    | 1       |
| GEHE     | Almond oil, refined             | 18184113    | 3       |
| Gehe     | Codliver oil (type A)           | 18184501    | 1       |
| Gehe     | Olive oil, native               | 18208101    | 1       |
| Gehe     | Olive oil, native               | 18208102    | 1       |
| Gehe     | Olive oil, native               | 18208106    | 1       |
| Gehe     | Peanut oil, refined             | 18208202    | 1       |
| GEHE     | Evening primrose oil, refined   | 18216203    | 1       |
| GEHE     | Evening primrose oil, refined   | 18216215    | 1       |
| GEHE     | Shea butter, refined            | 18222305    | 1       |
| GEHE     | Wheatgerm oil, refined          | 18241002    | 1       |
| Gehe     | Oleyl oleate (stabilised)       | 18272005    | 1       |
| Gehe     | Decyl oleate                    | 18282506    | 1       |
| GEHE     | Almond oil, refined             | 18295902    | 1       |
| Gehe     | Peanut oil, refined             | 18296001    | 1       |
| Gehe     | Peanut oil, refined             | 18296002    | 1       |
| GEHE     | Peanut oil, refined             | 18296002    | 1       |
| Gehe     | Peanut oil, refined             | 18296007    | 1       |
| Gehe     | Avocado oil, refined            | 18306801    | 1       |
| Gehe     | Olive oil, native               | 18311906    | 1       |
| Gehe     | Olive oil, native               | 19000227    | 2       |
| Gehe     | Olive oil, native               | 19001848    | 1       |
| Gehe     | Olive oil, native               | 19002974    | 1       |
| Gehe     | Evening primrose oil, refined   | 1901046-01  | 1       |
| GEHE     | Almond oil, refined             | 19084511    | 1       |
| Gehe     | Evening primrose oil, refined   | 19164407    | 2       |
| Gehe     | Evening primrose oil, refined   | 19175401    | 1       |
| Gehe     | Olive oil, native               | 19212005    | 1       |
| Gehe     | Peanut oil, refined             | 19245006    | 1       |
| Gehe     | Borage oil, refined, stabili... | 192492003   | 4       |
| Gehe     | Evening primrose oil, refined   | 192982001   | 2       |
| Gehe     | Evening primrose oil, refined   | 192982004   | 1       |
| Gehe     | Olive oil, native               | 20000171    | 1       |
| Gehe     | Corn oil, refined               | 20000641001 | 1       |
| Gehe     | Olive oil, native               | 20003375    | 1       |
| Gehe     | Olive oil, native               | 20005601    | 2       |
| Gehe     | Evening primrose oil, refined   | 2001052004  | 1       |
| Gehe     | Almond oil, refined             | 21003729003 | 1       |
| Gehe     | Soy lecithin, liquid            | 21022111/2  | 1       |
| Gehe     | Olive oil, native               | 22000660    | 1       |
| Gehe     | Codliver oil (type A)           | 2613A-01985 | 1       |
| Gehe     | Olive oil, native               | 265359      | 1       |
| Gehe     | Olive oil, native               | 267376      | 1       |
| Gehe     | Olive oil, native               | 269674      | 2       |
| Gehe     | Olive oil, native               | 277050      | 2       |
| Gehe     | Olive oil, native               | 278583      | 1       |
| Gehe     | Olive oil, native               | 279609      | 1       |
| Gehe     | Olive oil, native               | 281209      | 2       |

continued on the next page

continued from previous page

| Supplier             | Substance                     | Batch      | Spectra |
|----------------------|-------------------------------|------------|---------|
| Gehe                 | Olive oil, native             | 282963     | 2       |
| Gehe                 | Olive oil, native             | 284144     | 1       |
| Gehe                 | Olive oil, native             | 288752     | 1       |
| Gehe                 | Olive oil, native             | 289094     | 1       |
| Gehe                 | Olive oil, native             | 297565     | 1       |
| Gehe                 | Olive oil, native             | 298007     | 2       |
| Gehe                 | Olive oil, native             | 298008     | 1       |
| Gehe                 | Olive oil, native             | 305002     | 1       |
| GEHE                 | Olive oil, native             | 305002     | 1       |
| Gehe                 | Olive oil, native             | 305003     | 2       |
| Gehe                 | Olive oil, native             | 306950     | 1       |
| GEHE                 | Olive oil, native             | 308229     | 1       |
| gehe                 | Peanut oil, refined           | 310007     | 1       |
| Gehe                 | Olive oil, native             | 310868     | 1       |
| Gehe                 | Olive oil, native             | 5107101    | 1       |
| Gehe                 | Codliver oil (type A)         | 5437202    | 1       |
| Gehe                 | Olive oil, native             | 5470202    | 1       |
| Gehe                 | Almond oil, refined           | 5615003    | 1       |
| Gehe                 | Almond oil, refined           | 5669601    | 1       |
| Gehe                 | Almond oil, refined           | 5703001    | 1       |
| Gehe                 | Codliver oil (type A)         | 5737704    | 1       |
| Gehe                 | Almond oil, refined           | 5748601    | 2       |
| Gehe                 | Almond oil, refined           | 5919600001 | 1       |
| Gehe                 | Almond oil, refined           | 7315801    | 1       |
| Gehe                 | Almond oil, refined           | 8000712001 | 2       |
| Gehe                 | Codliver oil (type A)         | 8000918001 | 1       |
| Gehe                 | Codliver oil (type A)         | 8002338002 | 3       |
| Gehe                 | Olive oil, native             | 8002366001 | 1       |
| Gehe                 | Almond oil, refined           | 8003885002 | 1       |
| Gehe                 | Almond oil, refined           | 8004548002 | 1       |
| Gehe                 | Almond oil, refined           | 8005803006 | 1       |
| Gehe                 | Almond oil, refined           | 8005803007 | 1       |
| Gehe                 | Evening primrose oil, refined | EP713711-1 | 1       |
| Gehe                 | Evening primrose oil, refined | EP745611-1 | 1       |
| Gehe                 | Evening primrose oil, refined | L416       | 1       |
| Gehe28.12..18        | Evening primrose oil, refined | 18216202   | 1       |
| Gehe-Henry           | Olive oil, native             | 8002026001 | 1       |
| Gehe-Henry           | Olive oil, native             | 8002366001 | 1       |
| Geibo/EuRho 26.5.21  | Evening primrose oil, refined | 2008037-02 | 1       |
| Geibo/EuRho 28.10.21 | Evening primrose oil, refined | 2105001-01 | 2       |
| Geibo/EuRho 4.6.21   | Evening primrose oil, refined | 2008037-01 | 1       |
| Grau / Sanacorp      | Almond oil, refined           | 18015007   | 1       |
| Greenvalley          | Evening primrose oil, refined |            | 1       |
| greenvalley          | Evening primrose oil, refined | 4000537    | 1       |
| GUMO                 | Almond oil, refined           | 1000012126 | 1       |
| GUMO                 | Peanut oil, refined           | 100015783  | 1       |
| Gumo                 | Olive oil, native             | 17001926   | 1       |
| GUMO                 | Almond oil, refined           | 8005803006 | 1       |
| GUMO                 | Almond oil, refined           | 8005936002 | 4       |
| GUMO                 | Almond oil, refined           | 8007584002 | 1       |
| H. Lamotte/ Gehe     | Olive oil, native             | 8003801001 | 1       |
| H. Lamotte/Gehe      | Olive oil, native             | 1000016418 | 1       |
| H. Lamotte/gehe      | Codliver oil (type A)         | 8003906001 | 1       |
| H. Lamotte/gehe      | Codliver oil (type A)         | 8005296002 | 1       |
| H. Lamotte/Noweda    | Almond oil, refined           | 1000002454 | 1       |
| H. Lamotte/Noweda    | Codliver oil (type A)         | 119929     | 2       |
| H. Lamotte/Noweda    | Almond oil, refined           | 5615003    | 1       |
| H. Lamotte/Noweda    | Olive oil, native             | 5671901    | 1       |
| H. Lamotte/Noweda    | Almond oil, refined           | 8000712001 | 2       |
| H. Lamotte/Sanacorp  | Peanut oil, refined           | 1000012961 | 1       |

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| Supplier                   | Substance                     | Batch      | Spectra |
|----------------------------|-------------------------------|------------|---------|
| H. Lamotte/Sanacorp        | Avocado oil, refined          | 100001532  | 1       |
| H. Lamotte                 | Almond oil, refined           | 5177001    | 2       |
| H.Lamotte / Anzag          | Almond oil, refined           | 5438302    | 1       |
| H.Lamotte / Gehe           | Avocado oil, refined          | 1000005537 | 1       |
| H.Lamotte / Gehe           | Almond oil, refined           | 8003167001 | 1       |
| H.Lamotte / Gehe           | Almond oil, refined           | 8004548002 | 1       |
| H.Lamotte Oils/Gehe/05...  | Peanut oil, refined           | 1000014700 | 1       |
| H.Lamotte/anzag 10.01.20   | Jojoba Oil, native            | 1000011858 | 1       |
| H.Lamotte/Anzag 16.04.19   | Jojoba Oil, native            | 8003732001 | 2       |
| H.Lamotte/Anzag 16.10.17   | Jojoba Oil, native            | 8002391001 | 8       |
| H.Lamotte/Anzag 18.11.16   | Jojoba Oil, native            | 8000469001 | 3       |
| H.Lamotte/anzag 30.12.16   | Jojoba Oil, native            | 5913600001 | 2       |
| H.Lamotte/Anzag            | Almond oil, refined           | 5438302    | 1       |
| H.Lamotte/Ebert            | Sesame oil, refined           | 1000005858 | 1       |
| H.Lamotte/Noweda           | Peanut oil, refined           | 1034       | 1       |
| H.Lamotte/Noweda           | Almond oil, refined           | 130145     | 2       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5214206    | 1       |
| H.Lamotte/Noweda           | Codliver oil (type A)         | 5228001    | 1       |
| H.Lamotte/Noweda           | Codliver oil (type A)         | 5228004    | 1       |
| H.Lamotte/Noweda           | Peanut oil, refined           | 5231601    | 1       |
| H.Lamotte/Noweda           | Olive oil, native             | 5232201    | 1       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5269301    | 2       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5415901    | 1       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5438301    | 2       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5438302    | 2       |
| H.Lamotte/Noweda           | Olive oil, native             | 5470202    | 1       |
| H.Lamotte/Noweda           | Peanut oil, refined           | 5473601    | 1       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5615001    | 3       |
| H.Lamotte/Noweda           | Peanut oil, refined           | 5699601    | 1       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5748601    | 2       |
| H.Lamotte/Noweda           | Codliver oil (type A)         | 5878701    | 1       |
| H.Lamotte/Noweda           | Peanut oil, refined           | 5904100001 | 1       |
| H.Lamotte/Noweda           | Almond oil, refined           | 5919600001 | 1       |
| H.Lamotte                  | Flaxseed oil, native          | 1000009024 | 1       |
| H.Lamotte                  | Olive oil, native             | 1000010861 | 1       |
| H.Lamotte                  | Peanut oil, refined           | 1000013880 | 1       |
| H.Lamotte                  | Almond oil, refined           | 8003885002 | 1       |
| H.Lamotte                  | Codliver oil (type A)         | 8003906002 | 1       |
| Hanry Lamotte Oils / No... | Flaxseed oil, native          | 1000000878 | 1       |
| Hanry Lamotte Oils / No... | Almond oil, refined           | 8000915001 | 1       |
| Hanry Lamotte Oils GmbH    | Peanut oil, refined           | 1000010888 | 1       |
| Hanry Lamotte oils GmbH    | Peanut oil, refined           | 1000013880 | 1       |
| Hanry Lamotte oils GmbH    | Peanut oil, refined           | 1000014700 | 1       |
| Hanry Lamotte oils GmbH    | Peanut oil, refined           | 1000017094 | 1       |
| Hanry Lamotte oils GmbH    | Almond oil, refined           | 8005803006 | 1       |
| Hanry Lamotte Oils         | Codliver oil (type A)         | 2101204    | 1       |
| Hänseler                   | Evening primrose oil, refined |            | 7       |
| Hedinger / Anzag           | Almond oil, refined           | 8005936002 | 2       |
| Hedinger/ Noweda           | Almond oil, refined           | 14139311   | 1       |
| Hedinger/Noweda            | Sesame oil, refined           | 1000005858 | 1       |
| Hedinger                   | Almond oil, refined           | 1000004431 | 1       |
| Hedinger                   | Evening primrose oil, refined | 14010915   | 5       |
| Hedinger                   | Peanut oil, refined           | 14355903   | 1       |
| Hedinger                   | Jojoba Oil, native            | 15409903   | 1       |
| Hedinger                   | Peanut oil, refined           | 18296002   | 1       |
| Hedinger                   | Avocado oil, refined          | 18306803   | 2       |
| Hedinger                   | Codliver oil (type A)         | 8000601001 | 1       |
| hen                        | Olive oil, native             | 8001648001 | 1       |
| hennry Lamotte oils        | Almond oil, refined           | 8002675001 | 1       |
| hennry Lamotte oils        | Almond oil, refined           | 8003503001 | 1       |

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| Supplier                   | Substance             | Batch           | Spectra |
|----------------------------|-----------------------|-----------------|---------|
| Henry Lamotte/Noweda       | Almond oil, refined   | 8003503001      | 1       |
| Henr                       | Sesame oil, refined   | 123826          | 1       |
| Henra Lamotte/Jenne        | Almond oil, refined   | 1000012126      | 2       |
| Henra Lamotte/Jenne        | Almond oil, refined   | 1000013565      | 2       |
| Henra Lamotte/Jenne        | Almond oil, refined   | 8005803006      | 1       |
| Henra Lamotte/Jenne        | Almond oil, refined   | 8005803007      | 1       |
| Henra Lamotte/Jenne        | Almond oil, refined   | 8005936002      | 2       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 1000012126      | 2       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 1000013565      | 2       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A) | 8005296003      | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8005803006      | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8005803007      | 1       |
| Henry L/Spangro            | Olive oil, native     | 8003420001      | 1       |
| Henry La Motte             | Almond oil, refined   | 5748601         | 2       |
| Henry Lam./ Phönix         | Almond oil, refined   | 5438302         | 1       |
| Henry Lamorte              | Olive oil, native     | 1000011651      | 1       |
| Henry Lamotte Oils GmbH    | Avocado oil, refined  | 8001641001      | 2       |
| Henry Lamott/Gehe          | Almond oil, refined   | 8004548002      | 1       |
| Henry Lamotte / Noweda...  | Olive oil, native     | 1000014032      | 2       |
| Henry Lamotte / Noweda...  | Almond oil, refined   | 8004548011      | 1       |
| Henry Lamotte / Sanaco...  | Almond oil, refined   | 8007584002      | 1       |
| Henry Lamotte / Sanaco...  | Almond oil, refined   | 1000010685      | 1       |
| Henry Lamotte / Sanaco...  | Olive oil, native     | 1000016418      | 1       |
| Henry Lamotte / Sanaco...  | Almond oil, refined   | 8005803007      | 1       |
| Henry Lamotte / Sanaco...  | Almond oil, refined   | 8005936002      | 2       |
| Henry Lamotte / 107        | Olive oil, native     | 1000012341      | 1       |
| Henry Lamotte / 2          | Almond oil, refined   | 1000010093      | 3       |
| Henry Lamotte / AHD        | Jobba Oil, native     | 5756401         | 1       |
| Henry Lamotte / Allianc... | Peanut oil, refined   | 1000012961      | 1       |
| Henry Lamotte / Allianc... | Almond oil, refined   | 8000915001      | 2       |
| Henry Lamotte / Anzag      | Almond oil, refined   | 125(8004039003) | 1       |
| Henry Lamotte / Anzag      | Almond oil, refined   | 126(8004390001) | 1       |
| Henry Lamotte / Anzag      | Almond oil, refined   | 127(8004548002) | 1       |
| Henry Lamotte / Anzag      | Almond oil, refined   | 129(8004548011) | 1       |
| Henry Lamotte / Anzag      | Codliver oil (type A) | 5641901         | 1       |
| Henry Lamotte / Anzag      | Codliver oil (type A) | 8000918001      | 2       |
| Henry Lamotte / Gehe       | Olive oil, native     | 1000010861      | 1       |
| henry lamotte / Gehe       | Peanut oil, refined   | 1000010888      | 1       |
| Henry Lamotte / GEHE       | Peanut oil, refined   | 1000010888      | 1       |
| Henry Lamotte / Gehe       | Sesame oil, refined   | 1000011866      | 2       |
| Henry Lamotte / Gehe       | Olive oil, native     | 8004067001      | 1       |
| Henry Lamotte / Gehe       | Almond oil, refined   | 8004390001      | 1       |
| Henry Lamotte / Gehe12     | Olive oil, native     | 8004499001      | 1       |
| Henry Lamotte / Jenne      | Almond oil, refined   | 1000012126      | 2       |
| Henry Lamotte / Jenne      | Almond oil, refined   | 1000013565      | 1       |
| Henry Lamotte / Krieger    | Almond oil, refined   | 8005803006      | 2       |
| Henry Lamotte / Krieger    | Almond oil, refined   | 8005936002      | 2       |
| Henry Lamotte / Noweda     | Almond oil, refined   | 1000010685      | 2       |
| Henry Lamotte / Noweda     | Olive oil, native     | 1000010861      | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined   | 1000012126      | 2       |
| Henry Lamotte / Noweda     | Olive oil, native     | 1000012617      | 1       |
| Henry Lamotte / Noweda     | Peanut oil, refined   | 1000012961      | 1       |
| Henry Lamotte / Noweda     | Olive oil, native     | 123773          | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined   | 5415901         | 1       |
| Henry Lamotte / Noweda     | Sesame oil, refined   | 5639301         | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined   | 5703001         | 1       |
| Henry Lamotte / Noweda     | Sesame oil, refined   | 5872001         | 2       |
| Henry Lamotte / Noweda     | Sesame oil, refined   | 8000531001      | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined   | 8000712001      | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined   | 8000915002      | 2       |

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| Supplier                   | Substance                       | Batch           | Spectra |
|----------------------------|---------------------------------|-----------------|---------|
| Henry Lamotte / Noweda     | Almond oil, refined             | 8001497001      | 3       |
| Henry Lamotte / Noweda     | Sesame oil, refined             | 8001557002      | 2       |
| Henry Lamotte / Noweda     | Almond oil, refined             | 8002653001      | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined             | 8003503001      | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined             | 8003885002      | 2       |
| Henry Lamotte / Noweda     | Almond oil, refined             | 8004039003      | 1       |
| Henry Lamotte / Noweda     | Olive oil, native               | 8004194001      | 1       |
| Henry Lamotte / Noweda     | Almond oil, refined             | 8004548002      | 2       |
| Henry Lamotte / Noweda     | Almond oil, refined             | 8004548011      | 1       |
| Henry Lamotte / Phoenix    | Olive oil, native               | 1000010861      | 1       |
| Henry Lamotte / Phoenix    | Almond oil, refined             | 1000013112      | 1       |
| Henry Lamotte / Phoenix    | Almond oil, refined             | 1000013565      | 1       |
| Henry Lamotte / Phoenix    | Peanut oil, refined             | 1000015783      | 1       |
| Henry Lamotte / Phoenix    | Peanut oil, refined             | 1000017094      | 1       |
| Henry Lamotte / Phoenix    | Almond oil, refined             | 8000915002      | 1       |
| Henry Lamotte / Phoenix    | Almond oil, refined             | 8005803007      | 1       |
| Henry Lamotte / Phoenix    | Almond oil, refined             | 8005936002      | 2       |
| Henry Lamotte / Phoenix    | Almond oil, refined             | 8007584002      | 1       |
| Henry Lamotte / Phönix     | Peanut oil, refined             | 1000013880      | 1       |
| Henry Lamotte / Phönix     | Almond oil, refined             | 8001497001      | 3       |
| Henry Lamotte / Phönix     | Codliver oil (type A)           | 8004742003      | 1       |
| Henry Lamotte / Phönix     | Olive oil, native               | 8004827001      | 1       |
| Henry Lamotte / Sanacorp   | Peanut oil, refined             | 1000010888      | 1       |
| Henry Lamotte / Sanacorp   | Peanut oil, refined             | 1000013880      | 1       |
| Henry Lamotte / Sanacorp   | Almond oil, refined             | 8003503001      | 1       |
| Henry Lamotte /            | Almond oil, refined             | 1000012126      | 2       |
| Henry Lamotte /            | Codliver oil (type A)           | 8005296002      | 1       |
| Henry Lamotte /            | Almond oil, refined             | 8005936002      | 1       |
| Henry Lamotte /AHD         | Evening primrose oil, refined   | 1000001044      | 1       |
| Henry Lamotte /AHD         | Evening primrose oil, refined   | 1000005123      | 1       |
| Henry Lamotte /Gehe        | Almond oil, refined             | 1000013112      | 1       |
| Henry Lamotte /Gehe        | Peanut oil, refined             | 1000014700      | 1       |
| Henry Lamotte /Jenne       | Almond oil, refined             | 128(1000010093) | 1       |
| Henry Lamotte /Jenne       | Almond oil, refined             | 8005803007      | 1       |
| Henry Lamotte /Noweda      | Almond oil, refined             | 10000010685     | 1       |
| Henry Lamotte /Noweda      | Almond oil, refined             | 10000013565     | 1       |
| Henry Lamotte /Noweda      | Flaxseed oil, native            | 1000015368      | 1       |
| Henry Lamotte /Phoenix     | Almond oil, refined             | 8001497001      | 1       |
| Henry Lamotte /Phoenix     | Almond oil, refined             | 8002675001      | 1       |
| Henry Lamotte /Phoenix     | Almond oil, refined             | 8003885002      | 1       |
| Henry Lamotte /Phoenix     | Almond oil, refined             | 8004039003      | 1       |
| Henry Lamotte /Phönix p... | Almond oil, refined             | 8003167001      | 1       |
| Henry Lamotte /Phönix p... | Almond oil, refined             | 8003503001      | 1       |
| Henry Lamotte Anzag        | Codliver oil (type A)           | 8002468002      | 1       |
| Henry Lamotte Anzag        | Codliver oil (type A)           | 8003727001      | 1       |
| Henry Lamotte Anzag        | Almond oil, refined             | 8004039003      | 1       |
| Henry lamotte Fiebig       | Almond oil, refined             | 1000012126      | 1       |
| Henry Lamotte GmbH Brem... | Olive oil, native               | 8003420001      | 1       |
| Henry Lamotte GmbH Bremen  | Borage oil, refined, stabili... | 122791          | 1       |
| Henry Lamotte GmbH, Mer... | Almond oil, refined             | 130145          | 1       |
| Henry Lamotte GmbH/ San... | Johoba Oil, native              | 80002391001     | 1       |
| Henry Lamotte GmbH/ San... | Almond oil, refined             | 8002653001      | 1       |
| Henry Lamotte GmbH/Gehe    | Almond oil, refined             | 1000012126      | 1       |
| Henry Lamotte GmbH/Hold... | Codliver oil (type A)           | 5228001         | 1       |
| Henry Lamotte GmbH/Hold... | Peanut oil, refined             | 5231601         | 1       |
| Henry Lamotte GmbH/Phönix  | Almond oil, refined             | 1000012126      | 1       |
| Henry Lamotte GmbH/Phönix  | Almond oil, refined             | 1000013112      | 2       |
| Henry Lamotte GmbH/Phönix  | Almond oil, refined             | 8003167001      | 1       |
| Henry Lamotte GmbH/Phönix  | Almond oil, refined             | 8005936002      | 1       |
| Henry Lamotte GmbH         | Almond oil, refined             | 1000010093      | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| Henry Lamotte GmbH         | Almond oil, refined             | 1000012126 | 1       |
| Henry Lamotte GmbH         | Peanut oil, refined             | 1000012961 | 1       |
| Henry Lamotte GmbH         | Codliver oil (type A)           | 5228004    | 1       |
| Henry Lamotte GmbH         | Almond oil, refined             | 5269301    | 1       |
| Henry Lamotte GmbH         | Codliver oil (type A)           | 5437202    | 1       |
| Henry Lamotte GmbH         | Borage oil, refined, stabili... | 5594400001 | 1       |
| Henry Lamotte GmbH         | Jojoba Oil, native              | 8000469001 | 3       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8000712001 | 3       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8001497001 | 1       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8003167001 | 1       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8003503001 | 2       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8003885002 | 2       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8004039003 | 1       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8004390001 | 1       |
| Henry Lamotte GmbH         | Almond oil, refined             | 8004548011 | 2       |
| Henry Lamotte GmbH         | Codliver oil (type A)           | 8004742003 | 1       |
| Henry Lamotte GmbH         | Olive oil, native               | 8004827001 | 1       |
| Henry Lamotte Noweda       | Olive oil, native               | 1000010861 | 1       |
| Henry Lamotte Oels GmbH    | Flaxseed oil, native            | 1000005198 | 1       |
| Henry Lamotte Oels GmbH    | Flaxseed oil, native            | 1000006422 | 1       |
| Henry Lamotte Oil / Gehe   | Peanut oil, refined             | 8004235001 | 1       |
| Henry Lamotte Oil          | Almond oil, refined             | 8000915001 | 1       |
| Henry Lamotte Oil          | Almond oil, refined             | 8000915002 | 1       |
| henry lamotte oils / Al... | Olive oil, native               | 1000012617 | 1       |
| henry lamotte oils / Al... | Almond oil, refined             | 8004548011 | 1       |
| henry lamotte oils / Al... | Almond oil, refined             | 8005803006 | 1       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 1000002454 | 1       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 1000003242 | 1       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 548302     | 1       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 5615003    | 2       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 5919600001 | 3       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 8000915002 | 2       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 8001497001 | 1       |
| Henry Lamotte Oils / Gehe  | Almond oil, refined             | 8002653001 | 3       |
| Henry Lamotte Oils / No... | Almond oil, refined             | 1000003242 | 2       |
| Henry Lamotte Oils / No... | Almond oil, refined             | 8000712001 | 1       |
| Henry Lamotte Oils / No... | Almond oil, refined             | 8003885002 | 1       |
| Henry lamotte Oils /Gehe   | Almond oil, refined             | 1000013112 | 1       |
| Henry lamotte Oils /Gehe   | Almond oil, refined             | 8005803007 | 1       |
| Henry Lamotte Oils GmBh... | Almond oil, refined             | 1000010685 | 1       |
| Henry Lamotte Oils GmBh... | Olive oil, native               | 1000011651 | 2       |
| Henry Lamotte Oils GmBh... | Almond oil, refined             | 1000013112 | 1       |
| Henry Lamotte Oils GmBh... | Codliver oil (type A)           | 8004742003 | 1       |
| Henry Lamotte Oils GmBh... | Olive oil, native               | 8004827001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8000915002 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8004251002 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000010093 | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000013565 | 2       |
| Henry Lamotte Oils GmbH... | Sesame oil, refined             | 1000013957 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 1000016418 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8001854001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8002653001 | 3       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8003167001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8003885002 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8004039003 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8004548002 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8005803006 | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8005936002 | 3       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8007584002 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 82675001   | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Henry Lamotte Oils GMBH... | Sesame oil, refined             | 1000013957  | 1       |
| Henry Lamotte Oils GmbH... | Sesame oil, refined             | 1000009220  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000010685  | 1       |
| Henry Lamotte Oils Gmbh... | Peanut oil, refined             | 1000014700  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8002653001  | 1       |
| Henry Lamotte oils GmbH... | Peanut oil, refined             | 1000013880  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8002868001  | 3       |
| Henry Lamotte Oils GmbH... | Sesame oil, refined             | 1000009220  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000010685  | 2       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 1000012617  | 1       |
| Henry Lamotte Oils Gmbh... | Olive oil, native               | 1000016418  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8003167001  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8004548011  | 1       |
| Henry Lamotte Oils Gmbh... | Almond oil, refined             | 8007584001  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8004039003  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8004067001  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8004499001  | 1       |
| Henry lamotte Oils Gmbh... | Avocado oil, refined            | 130243      | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8001854001  | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5615003     | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8003503001  | 2       |
| Henry Lamotte Oils GmbH... | Codliver oil (type A)           | 8003906002  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 1000012617  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 1000010861  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8005803006  | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined             | 1000013880  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8003801001  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 1000014032  | 1       |
| Henry Lamotte Oils GmbH... | Flaxseed oil, native            | 1000002971  | 1       |
| Henry Lamotte Oils GmbH... | Sesame oil, refined             | 1000003864  | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5438302     | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 124392      | 1       |
| Henry Lamotte Oils GMBH... | Flaxseed oil, native            | 12D05-N02   | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8003801001  | 1       |
| HENRY LAMOTTE OILS GmbH... | Almond oil, refined             | 1000010093  | 1       |
| Henry Lamotte Oils GmbH... | Codliver oil (type A)           | 8001215002  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000010093  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000010685  | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined             | 1000013880  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8004827001  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8002868001  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8003580002  | 1       |
| Henry Lamotte Oils GmbH... | Borage oil, refined, stabili... | 1000004932  | 1       |
| Henry Lamotte Oils GmbH... | Borage oil, refined, stabili... | 1000006205  | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined             | 1000010888  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8004067001  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 130145      | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1714U-01950 | 1       |
| Henry Lamotte Oils Gmbh... | Olive oil, native               | 5470202     | 1       |
| Henry Lamotte Oils Gmbh... | Almond oil, refined             | 5493001     | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5493001     | 1       |
| Henry Lamotte Oils GmbH... | Sesame oil, refined             | 1000003864  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000004431  | 2       |
| Henry Lamotte Oils GMBH... | Olive oil, native               | 1000010861  | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined             | 1000010888  | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000012126  | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined             | 1000014700  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 1000016418  | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined             | 5473601     | 2       |
| Henry Lamotte oils GmbH... | Codliver oil (type A)           | 5641901     | 1       |

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| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| Henry Lamotte oils GmbH... | Peanut oil, refined             | 5699601    | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8003167001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8003503001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8004548011 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000017183 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8005803007 | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000010685 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000012126 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 100010093  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8003580002 | 1       |
| Henry Lamotte Oils GmbH... | Codliver oil (type A)           | 8003727001 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 8004251002 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8004548002 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000010685 | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000013565 | 2       |
| henry lamotte oils gmbh... | Olive oil, native               | 8003580002 | 2       |
| henry lamotte oils gmbh... | Olive oil, native               | 8002366001 | 1       |
| Henry Lamotte Oils GmbH... | Sesame oil, refined             | 1000002705 | 1       |
| Henry Lamotte Oils GmbH... | Flaxseed oil, native            | 1000009915 | 1       |
| Henry Lamotte Oils GmbH... | Codliver oil (type A)           | 123823     | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5415901    | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5438301    | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5615001    | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5615001    | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5615003    | 1       |
| Henry Lamotte Oils GmbH... | Codliver oil (type A)           | 5641901    | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native               | 5734701    | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 5748601    | 3       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 8002675001 | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined             | 1000012961 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000013112 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined             | 1000013565 | 3       |
| Henry Lamotte Oils GmbH... | Codliver oil (type A)           | 8004742002 | 1       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A)           |            | 1       |
| Henry Lamotte Oils GmbH    | Avocado oil, refined            | 1000001098 | 1       |
| HENRY LAMOTTE OILS GmbH    | Avocado oil, refined            | 1000001451 | 1       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000002705 | 1       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000002705 | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined             | 1000003242 | 3       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000003864 | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined             | 1000004431 | 2       |
| Henry Lamotte Oils GmbH    | Olive oil, native               | 1000004908 | 1       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000005858 | 1       |
| Henry Lamotte Oils GmbH    | Borage oil, refined, stabili... | 1000006205 | 1       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000009220 | 1       |
| Henry Lamotte Oils GmbH    | Olive oil, native               | 1000010090 | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined             | 1000010093 | 4       |
| HENRY LAMOTTE OILS GmbH    | Almond oil, refined             | 1000010093 | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined             | 1000010685 | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined             | 1000010685 | 9       |
| HENRY LAMOTTE OILS GmbH    | Almond oil, refined             | 1000010685 | 1       |
| Henry Lamotte Oils GmbH    | Olive oil, native               | 1000010808 | 1       |
| Henry Lamotte Oils GmbH    | Sunflower oil, refined          | 1000010859 | 1       |
| Henry Lamotte Oils GmbH    | Olive oil, native               | 1000010861 | 1       |
| HENRY LAMOTTE OILS GmbH    | Olive oil, native               | 1000010861 | 1       |
| Henry Lamotte Oils GmbH    | Peanut oil, refined             | 1000010888 | 4       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000010906 | 1       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000011034 | 1       |
| Henry Lamotte Oils GmbH    | Peanut oil, refined             | 1000011859 | 2       |
| Henry Lamotte Oils GmbH    | Sesame oil, refined             | 1000011866 | 7       |

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| Supplier                | Substance                       | Batch             | Spectra |
|-------------------------|---------------------------------|-------------------|---------|
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 1000011916        | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 1000012126        | 6       |
| HENRY LAMOTTE OILS GmbH | Almond oil, refined             | 1000012126        | 1       |
| HENRY LAMOTTE OILS GmbH | Almond oil, refined             | 1000012126        | 1       |
| Henry Lamotte Oils GmbH | Olive oil, native               | 1000012341        | 3       |
| HENRY LAMOTTE OILS GmbH | Olive oil, native               | 1000012617        | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined             | 1000012961        | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 1000013112        | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 100001312         | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined             | 1000013128        | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 1000013565        | 12      |
| Henry Lamotte Oils GmbH | Sesame oil, refined             | 1000013957        | 3       |
| HENRY LAMOTTE OILS GmbH | Olive oil, native               | 1000014032        | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined             | 1000014700        | 3       |
| Henry Lamotte Oils GmbH | Peanut oil, refined             | 1000014700        | 1       |
| Henry Lamotte Oils GmbH | Sesame oil, refined             | 1000015599        | 2       |
| HENRY LAMOTTE OILS GmbH | Peanut oil, refined             | 1000015783        | 1       |
| Henry Lamotte Oils GmbH | Sunflower oil, refined          | 1000015924        | 1       |
| HENRY LAMOTTE OILS GmbH | Olive oil, native               | 1000016418        | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 1000017183        | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 1000017673        | 1       |
| Henry Lamotte Oils GmbH | Olive oil, native               | 100013127         | 1       |
| Henry Lamotte Oils GmbH | Avocado oil, refined            | 122490            | 2       |
| Henry Lamotte Oils GmbH | Sesame oil, refined             | 122972            | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 123108            | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 123420L900        | 1       |
| Henry Lamotte Oils GmbH | Sesame oil, refined             | 123488            | 1       |
| Henry Lamotte oils GmbH | Codliver oil (type A)           | 123823            | 3       |
| Henry Lamotte Oils GmbH | Olive oil, native               | 124392            | 1       |
| Henry Lamotte Oils GmbH | Avocado oil, refined            | 125529            | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 130143            | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 130145            | 2       |
| Henry Lamotte Oils GmbH | Avocado oil, refined            | 130243            | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 13032014B         | 1       |
| Henry Lamotte Oils GmbH | Borage oil, refined, stabili... | 130402            | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 16012014A         | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined             | 16071105          | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 16092013B         | 1       |
| Henry Lamotte Oils GMBH | Almond oil, refined             | 170316M8001497001 | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 17082015B         | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 18092014A         | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 260814A           | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 280913A           | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 29012015A         | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 291013A           | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 301214a           | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 30614A            | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 4931805           | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 5029205           | 3       |
| Henry Lamotte oils GmbH | Peanut oil, refined             | 5204402           | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 5214206           | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 5228001           | 2       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 5228004           | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 5269301           | 2       |
| Henry Lamotte Oils GmbH | Olive oil, native               | 5372701           | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 5415901           | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 5415901           | 2       |
| Henry Lamotte Oils GmbH | Codliver oil (type A)           | 5437202           | 3       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 5438301           | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined             | 5438302           | 1       |

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| Supplier                | Substance             | Batch       | Spectra |
|-------------------------|-----------------------|-------------|---------|
| henry lamotte oils gmbh | Olive oil, native     | 5464901     | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 5473601     | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 5493001     | 1       |
| Henry Lamotte oils GmbH | Codliver oil (type A) | 5529601     | 3       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 5529601     | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 5615001     | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 5615003     | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 5641901     | 1       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 5671901     | 2       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 5693101     | 2       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 5697901     | 4       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 5699601     | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 5703001     | 2       |
| Henry Lamotte Oils GmbH | Jojoba Oil, native    | 5732801     | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 5748601     | 1       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 5813601     | 1       |
| Henry Lamotte Oils GmbH | Sesame oil, refined   | 5872901     | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 5878701     | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 5904100091  | 1       |
| Henry Lamotte Oils GmbH | Jojoba Oil, native    | 5913600001  | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 5919600001  | 1       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 59211000001 | 1       |
| Henry Lamotte oils GmbH | Olive oil, native     | 5921100001  | 1       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 5921100001  | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 6082013A    | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 8000601001  | 4       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 8000652001  | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 8000666005  | 3       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8000712001  | 3       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8000725001  | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8000725001  | 6       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8000915001  | 7       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8000915002  | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8000915002  | 6       |
| henry lamotte oils gmbh | Codliver oil (type A) | 8000918001  | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 8000918001  | 5       |
| henry lamotte oils gmbh | Codliver oil (type A) | 8001176004  | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 8001176004  | 6       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 8001215002  | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 8001417003  | 3       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8001497001  | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8001497001  | 8       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8001497001  | 6       |
| HENRY LAMOTTE OILS GmbH | Almond oil, refined   | 8001497001  | 1       |
| Henry Lamotte oils GmbH | Olive oil, native     | 8001560001  | 2       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 8001560001  | 1       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 8001560001  | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 8001765001  | 3       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 8001943002  | 2       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 8001959001  | 3       |
| Henry Lamotte Oils GmbH | Olive oil, native     | 8002026001  | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 8002338002  | 1       |
| Henry Lamotte Oils GmbH | Codliver oil (type A) | 8002468002  | 1       |
| Henry Lamotte Oils GmbH | Avocado oil, refined  | 8002616001  | 1       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8002653001  | 7       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8002675001  | 3       |
| Henry Lamotte Oils GmbH | Sesame oil, refined   | 8002939002  | 1       |
| Henry Lamotte Oils GmbH | Peanut oil, refined   | 8003146001  | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8003167001  | 2       |
| Henry Lamotte Oils GmbH | Almond oil, refined   | 8003167001  | 2       |

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| Supplier                   | Substance             | Batch       | Spectra |
|----------------------------|-----------------------|-------------|---------|
| HENRY LAMOTTE OILS GmbH    | Almond oil, refined   | 8003167001  | 1       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8003420001  | 2       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8003503001  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8003503001  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8003503002  | 2       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8003580002  | 1       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8003801001  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8003885002  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8003885002  | 3       |
| HENRY LAMOTTE OILS GmbH    | Almond oil, refined   | 8003885002  | 2       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A) | 8003906001  | 3       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A) | 8003906002  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8004039001  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8004039003  | 5       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8004067001  | 2       |
| HENRY LAMOTTE OILS GmbH    | Olive oil, native     | 8004067001  | 1       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8004194001  | 1       |
| Henry Lamotte Oils GmbH    | Peanut oil, refined   | 8004235001  | 2       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8004251002  | 1       |
| Henry Lamotte Oils GmbH    | Peanut oil, refined   | 8004304002  | 5       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8004390001  | 6       |
| HENRY LAMOTTE OILS GmbH    | Almond oil, refined   | 8004390001  | 2       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8004499001  | 3       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8004548002  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8004548002  | 4       |
| HENRY LAMOTTE OILS GmbH    | Almond oil, refined   | 8004548002  | 2       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8004548007  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8004548011  | 8       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A) | 8004742002  | 2       |
| Henry Lamotte Oils GmbH    | Olive oil, native     | 8004827001  | 1       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A) | 8005296003  | 2       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8005803006  | 4       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8005803007  | 4       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8005936002  | 1       |
| Henry Lamotte Oils GmbH    | Almond oil, refined   | 8005936002  | 8       |
| Henry Lamotte Oils GMBH    | Almond oil, refined   | 8005936002  | 1       |
| HENRY LAMOTTE OILS GmbH    | Almond oil, refined   | 8005936002  | 2       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A) | 8007109001  | 1       |
| Henry Lamotte Oils GmbH    | Codliver oil (type A) | 8062015A    | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 1000013565  | 1       |
| henry lamotte oils GmbH/N  | Almond oil, refined   | 8000915001  | 2       |
| henry lamotte oils GmbH/N  | Almond oil, refined   | 8000915002  | 1       |
| Henry Lamotte Oils, Anzag  | Codliver oil (type A) | 123823      | 2       |
| Henry Lamotte Oils, Gehe   | Almond oil, refined   | 5438302     | 1       |
| Henry Lamotte Oils, Gehe   | Codliver oil (type A) | 5529601     | 1       |
| Henry Lamotte Oils/ Gehe   | Almond oil, refined   | 150001526/2 | 1       |
| Henry Lamotte Oils/ Now... | Almond oil, refined   | 1000012126  | 1       |
| Henry Lamotte Oils/ Pho... | Peanut oil, refined   | 1000010888  | 1       |
| Henry Lamotte Oils/Ebert   | Sesame oil, refined   | 1000007221  | 1       |
| Henry Lamotte Oils/GEHE    | Olive oil, native     | 1000010861  | 1       |
| Henry Lamotte Oils/Gehe    | Peanut oil, refined   | 1000010888  | 1       |
| Henry Lamotte Oils/Gehe    | Almond oil, refined   | 1000013112  | 1       |
| Henry Lamotte Oils/Gehe    | Almond oil, refined   | 5438302     | 2       |
| Henry Lamotte Oils/GEHE    | Codliver oil (type A) | 5693101     | 1       |
| Henry Lamotte Oils/GEHE    | Almond oil, refined   | 5748601     | 1       |
| Henry Lamotte Oils/Gehe    | Almond oil, refined   | 7315787     | 1       |
| Henry Lamotte Oils/Gehe    | Almond oil, refined   | 8001497001  | 2       |
| Henry Lamotte Oils/Gehe    | Codliver oil (type A) | 8002338002  | 1       |
| Henry Lamotte Oils/Gehe    | Almond oil, refined   | 8002653001  | 1       |
| Henry Lamotte Oils/GEHE    | Almond oil, refined   | 8002653001  | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Henry Lamotte Oils/Gehe    | Almond oil, refined             | 8003167001  | 1       |
| Henry Lamotte Oils/Gehe    | Almond oil, refined             | 8003503001  | 1       |
| Henry Lamotte Oils/Gehe    | Almond oil, refined             | 8003885002  | 2       |
| Henry Lamotte Oils/Geibo   | Almond oil, refined             | 1000010093  | 1       |
| Henry Lamotte Oils/Geibo   | Codliver oil (type A)           | 8005296002  | 1       |
| Henry Lamotte Oils/Noweda  | Flaxseed oil, native            | 1000002422  | 1       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 1000003242  | 1       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 1000010093  | 1       |
| Henry Lamotte Oils/Noweda  | Peanut oil, refined             | 1000014700  | 1       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 170318184   | 1       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 180808182   | 1       |
| Henry Lamotte Oils/Noweda  | Codliver oil (type A)           | 5529601     | 1       |
| Henry Lamotte Oils/Noweda  | Codliver oil (type A)           | 5878701     | 1       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 8000915002  | 2       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 8002653001  | 3       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 8002675001  | 1       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 8003503002  | 2       |
| Henry Lamotte Oils/Noweda  | Almond oil, refined             | 8004039003  | 1       |
| henry lamotte oils/noweda  | Almond oil, refined             | 8004390001  | 1       |
| Henry Lamotte Oils/Noweda  | Codliver oil (type A)           | 8004742003  | 1       |
| Henry Lamotte Oils/Phoe... | Olive oil, native               | 1000010861  | 3       |
| Henry Lamotte Oils/Phoe... | Almond oil, refined             | 1000012126  | 2       |
| Henry Lamotte Oils/Phoe... | Almond oil, refined             | 8004548002  | 1       |
| Henry Lamotte Oils/Phoe... | Codliver oil (type A)           | 8006235003  | 1       |
| Henry Lamotte Oils/Phönix  | Almond oil, refined             | 1000010093  | 1       |
| Henry Lamotte Oils/Phönix  | Sesame oil, refined             | 1000010906  | 2       |
| Henry Lamotte Oils/Phönix  | Peanut oil, refined             | 1000012961  | 1       |
| Henry Lamotte Oils/Phönix  | Peanut oil, refined             | 1000014700  | 1       |
| Henry Lamotte Oils/Phönix  | Almond oil, refined             | 8004548007  | 1       |
| Henry Lamotte Oils/Poenix  | Peanut oil, refined             | 100001088   | 1       |
| Henry Lamotte Oils/Sana... | Almond oil, refined             | 10000010093 | 1       |
| Henry Lamotte Oils/Sana... | Omega-3-fish oil                | 123780      | 1       |
| Henry Lamotte Oils/Sana... | Almond oil, refined             | 130145      | 1       |
| Henry Lamotte Oils/Sana... | Borage oil, refined, stabili... | 5402901     | 1       |
| Henry Lamotte Oils/Sana... | Almond oil, refined             | 5919600001  | 3       |
| Henry Lamotte Oils         | Almond oil, refined             | 1000003242  | 3       |
| Henry Lamotte Oils         | Almond oil, refined             | 1000004431  | 3       |
| Henry Lamotte Oils         | Sesame oil, refined             | 1000009220  | 2       |
| Henry Lamotte Oils         | Almond oil, refined             | 1000010093  | 2       |
| henry lamotte oils         | Flaxseed oil, native            | 1000010463  | 1       |
| Henry Lamotte oils         | Olive oil, native               | 1000010861  | 1       |
| Henry Lamotte Oils         | Peanut oil, refined             | 1000010888  | 1       |
| Henry Lamotte Oils         | Sesame oil, refined             | 1000010906  | 1       |
| Henry Lamotte Oils         | Almond oil, refined             | 1000012126  | 2       |
| Henry Lamotte Oils         | Olive oil, native               | 1000012617  | 1       |
| Henry Lamotte Oils         | Peanut oil, refined             | 1000012961  | 1       |
| Henry Lamotte Oils         | Peanut oil, refined             | 1000015783  | 1       |
| henry lamotte oils         | Sesame oil, refined             | 1000015959  | 1       |
| Henry Lamotte Oils         | Avocado oil, refined            | 122470      | 1       |
| Henry Lamotte Oils         | Sesame oil, refined             | 122972      | 1       |
| Henry Lamotte Oils         | Borage oil, refined, stabili... | 123118      | 1       |
| Henry Lamotte Oils         | Omega-3-fish oil                | 123305      | 1       |
| Henry Lamotte Oils         | Sesame oil, refined             | 123488      | 2       |
| Henry Lamotte Oils         | Codliver oil (type A)           | 16011901    | 1       |
| henry lamotte oils         | Jojoba Oil, native              | 5055401     | 1       |
| Henry Lamotte Oils         | Almond oil, refined             | 5214206     | 1       |
| Henry Lamotte Oils         | Codliver oil (type A)           | 5228001     | 1       |
| Henry Lamotte Oils         | Sesame oil, refined             | 5319201     | 2       |
| Henry Lamotte Oils         | Almond oil, refined             | 5415901     | 2       |
| henry lamotte oils         | Codliver oil (type A)           | 5437202     | 1       |

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| Supplier                   | Substance             | Batch      | Spectra |
|----------------------------|-----------------------|------------|---------|
| Henry Lamotte Oils         | Codliver oil (type A) | 5437202    | 2       |
| Henry Lamotte Oils         | Almond oil, refined   | 5438301    | 1       |
| Henry Lamotte Oils         | Almond oil, refined   | 5438302    | 5       |
| Henry Lamotte Oils         | Sesame oil, refined   | 5514801    | 2       |
| Henry Lamotte Oils         | Codliver oil (type A) | 5529601    | 2       |
| Henry Lamotte Oils         | Codliver oil (type A) | 5641901    | 1       |
| Henry Lamotte Oils         | Codliver oil (type A) | 5693101    | 1       |
| Henry Lamotte Oils         | Almond oil, refined   | 5703001    | 1       |
| Henry Lamotte Oils         | Almond oil, refined   | 5748601    | 3       |
| Henry Lamotte Oils         | Olive oil, native     | 5903400003 | 2       |
| Henry Lamotte Oils         | Almond oil, refined   | 5919600001 | 2       |
| Henry Lamotte Oils         | Almond oil, refined   | 8000725001 | 1       |
| Henry Lamotte Oils         | Olive oil, native     | 8000821001 | 1       |
| Henry Lamotte Oils         | Almond oil, refined   | 8000915001 | 1       |
| Henry Lamotte Oils         | Almond oil, refined   | 8001497001 | 4       |
| Henry Lamotte Oils         | Olive oil, native     | 8001648001 | 1       |
| Henry Lamotte Oils         | Codliver oil (type A) | 8002338002 | 4       |
| Henry Lamotte Oils         | Codliver oil (type A) | 8002468002 | 2       |
| Henry Lamotte Oils         | Almond oil, refined   | 8002653001 | 3       |
| Henry Lamotte Oils         | Almond oil, refined   | 8002675001 | 3       |
| Henry Lamotte Oils         | Almond oil, refined   | 8003167001 | 1       |
| Henry Lamotte Oils         | Olive oil, native     | 8003420001 | 1       |
| Henry Lamotte Oils         | Jojoba Oil, native    | 8003732001 | 1       |
| Henry Lamotte Oils         | Almond oil, refined   | 8004390001 | 1       |
| Henry Lamotte oils         | Olive oil, native     | 8004499001 | 3       |
| Henry Lamotte Oils         | Almond oil, refined   | 8004548011 | 1       |
| Henry Lamotte Oils         | Almond oil, refined   | 8005803007 | 2       |
| Henry Lamotte Oils         | Almond oil, refined   | 8007584001 | 1       |
| Henry Lamotte Oils         | Olive oil, native     | 8022366001 | 1       |
| HENRY LAMOTTE OIS GmbH     | Codliver oil (type A) | 800125002  | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native     | 1000010861 | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined   | 1000010888 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 1000012126 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native     | 1000012617 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native     | 1000014032 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native     | 1000016418 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 5703001    | 6       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 5919600001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 8000915001 | 2       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 8000915002 | 2       |
| Henry Lamotte Oils GmbH... | Olive oil, native     | 8003801001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 8003885002 | 1       |
| Henry Lamotte Oils GmbH... | Olive oil, native     | 8004499001 | 1       |
| Henry Lamotte Oils GmbH... | Almond oil, refined   | 8004548002 | 1       |
| Henry Lamotte Oils GmbH... | Peanut oil, refined   | 1000013880 | 1       |
| Henry Lamotte Sanacorp     | Almond oil, refined   | 100001216  | 1       |
| Henry Lamotte Sanacorp     | Almond oil, refined   | 8001497001 | 1       |
| Henry Lamotte Sanacorp     | Almond oil, refined   | 8002653001 | 1       |
| Henry Lamotte über Noweda  | Sesame oil, refined   | 1000013957 | 4       |
| Henry Lamotte über Noweda  | Sesame oil, refined   | 1000015599 | 2       |
| Henry Lamotte über Phönix  | Sesame oil, refined   | 1000011866 | 5       |
| Henry Lamotte über Phönix  | Almond oil, refined   | 1000012126 | 1       |
| Henry Lamotte über Phönix  | Almond oil, refined   | 1000013565 | 1       |
| Henry Lamotte über Phönix  | Sesame oil, refined   | 1000016689 | 1       |
| Henry Lamotte über Phönix  | Almond oil, refined   | 8005803007 | 3       |
| Henry Lamotte über Phönix  | Almond oil, refined   | 8005936002 | 2       |
| Henry Lamotte, Alliance... | Almond oil, refined   | 8004548011 | 1       |
| Henry Lamotte, Noweda      | Olive oil, native     | 5372701    | 1       |
| Henry Lamotte/ 11.05.13... | Almond oil, refined   | 5438301    | 1       |
| Henry Lamotte/ 26.06.13... | Sesame oil, refined   | 123488     | 1       |

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| Supplier                   | Substance            | Batch      | Spectra |
|----------------------------|----------------------|------------|---------|
| Henry Lamotte/ AH          | Almond oil, refined  | 8005936002 | 1       |
| Henry Lamotte/ AHD/ 08...  | Sesame oil, refined  | 1000010906 | 1       |
| Henry Lamotte/ Alliance... | Almond oil, refined  | 1000012126 | 2       |
| Henry Lamotte/ Alliance... | Almond oil, refined  | 8002675001 | 1       |
| Henry Lamotte/ Alliance... | Olive oil, native    | 8002868001 | 1       |
| Henry Lamotte/ Alliance... | Almond oil, refined  | 8003885002 | 1       |
| Henry Lamotte/ Alliance    | Olive oil, native    | 8001854001 | 1       |
| Henry Lamotte/ Alliance    | Almond oil, refined  | 8003885002 | 1       |
| Henry lamotte/ Alliance    | Almond oil, refined  | 8005936002 | 1       |
| Henry Lamotte/ Fiebig      | Sesame oil, refined  | 1000015599 | 1       |
| Henry Lamotte/ Gehe        | Almond oil, refined  | 1000010685 | 2       |
| Henry Lamotte/ Gehe        | Jojoba Oil, native   | 5913600001 | 1       |
| Henry Lamotte/ Gehe        | Almond oil, refined  | 8000712001 | 1       |
| Henry Lamotte/ Henry La... | Almond oil, refined  | 1000003242 | 19      |
| Henry Lamotte/ Henry La... | Almond oil, refined  | 8000915001 | 16      |
| Henry Lamotte/ Jenne       | Peanut oil, refined  | 1000013880 | 1       |
| Henry Lamotte/ Jenne       | Peanut oil, refined  | 1000017094 | 1       |
| Henry Lamotte/ Jenne       | Almond oil, refined  | 8004390001 | 1       |
| Henry Lamotte/ Krieger     | Almond oil, refined  | 1000010093 | 1       |
| Henry Lamotte/ Nowed       | Olive oil, native    | 1000004908 | 1       |
| Henry Lamotte/ Noweda      | Sesame oil, refined  | 1000002705 | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 1000004431 | 1       |
| Henry Lamotte/ Noweda      | Olive oil, native    | 1000004908 | 1       |
| Henry Lamotte/ Noweda      | Avocado oil, refined | 1000005537 | 1       |
| Henry Lamotte/ Noweda      | Sesame oil, refined  | 1000005858 | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 1000010093 | 2       |
| Henry Lamotte/ Noweda      | Avocado oil, refined | 1000011532 | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 1000012126 | 3       |
| Henry Lamotte/ Noweda      | Olive oil, native    | 124392     | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 5615001    | 3       |
| Henry Lamotte/ Noweda      | Sesame oil, refined  | 5639301    | 1       |
| Henry Lamotte/ NOWeda      | Sesame oil, refined  | 5872901    | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 5919600001 | 2       |
| Henry Lamotte/ Noweda      | Avocado oil, refined | 8002616001 | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 8002653001 | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 8002675001 | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 8004390001 | 3       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 8004548007 | 1       |
| Henry Lamotte/ Noweda      | Almond oil, refined  | 8005936002 | 1       |
| Henry Lamotte/ Phoenix     | Almond oil, refined  | 1000010093 | 1       |
| Henry Lamotte/ Phoenix     | Peanut oil, refined  | 1000015783 | 1       |
| Henry Lamotte/ Phoenix     | Almond oil, refined  | 8004039003 | 1       |
| Henry Lamotte/ Phoenix     | Almond oil, refined  | 8004548002 | 3       |
| Henry Lamotte/ Phoenix     | Almond oil, refined  | 8004548011 | 1       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 1000003242 | 2       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 1000004431 | 3       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 1000010685 | 1       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 8001497001 | 2       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 8002653001 | 2       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 8002675001 | 3       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 800275001  | 1       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 8003503001 | 1       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 8004548002 | 1       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 8005803006 | 1       |
| Henry Lamotte/ Phönix      | Almond oil, refined  | 8007584001 | 1       |
| Henry Lamotte/ Sana        | Olive oil, native    | 8002827001 | 1       |
| Henry Lamotte/ Sanacorp    | Peanut oil, refined  | 1000013880 | 1       |
| Henry Lamotte/ Sanacorp    | Peanut oil, refined  | 1000014700 | 1       |
| Henry Lamotte/ Sanacorp    | Almond oil, refined  | 8000712001 | 2       |
| Henry Lamotte/ Sanacorp    | Olive oil, native    | 8004067001 | 1       |

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| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| Henry Lamotte/ Sanacorp    | Jobaba Oil, native              | 8004998001 | 1       |
| Henry Lamotte/             | Peanut oil, refined             | 1000010888 | 1       |
| Henry Lamotte/AHC          | Olive oil, native               | 800156001  | 1       |
| Henry Lamotte/AHC          | Olive oil, native               | 8002366001 | 1       |
| Henry Lamotte/AHD          | Avocado oil, refined            | 1000004363 | 1       |
| Henry Lamotte/AHD          | Evening primrose oil, refined   | 1000005123 | 1       |
| Henry lamotte/AHD          | Sesame oil, refined             | 1000009220 | 1       |
| Henry Lamotte/AHD          | Sesame oil, refined             | 1000010906 | 1       |
| Henry Lamotte/AHD          | Almond oil, refined             | 1000012126 | 2       |
| Henry Lamotte/AHD          | Olive oil, native               | 17631101   | 1       |
| Henry Lamotte/AHD          | Evening primrose oil, refined   | 18009109   | 1       |
| Henry Lamotte/AHD          | Olive oil, native               | 8000821001 | 1       |
| Henry Lamotte/AHD          | Almond oil, refined             | 8000915001 | 2       |
| Henry Lamotte/AHD          | Almond oil, refined             | 8003503001 | 1       |
| Henry Lamotte/AHD          | Almond oil, refined             | 8004390001 | 2       |
| Henry Lamotte/Alli. HC     | Almond oil, refined             | 8005803006 | 1       |
| Henry Lamotte/Alli. HC     | Almond oil, refined             | 8005803007 | 1       |
| Henry Lamotte/Alliance H   | Almond oil, refined             | 5748601    | 1       |
| Henry Lamotte/Alliance ... | Olive oil, native               | 1000014032 | 1       |
| Henry Lamotte/Alliance ... | Jobaba Oil, native              | 5756401    | 1       |
| Henry Lamotte/Alliance     | Olive oil, native               | 1000010861 | 2       |
| Henry Lamotte/Alliance     | Almond oil, refined             | 1000012126 | 2       |
| Henry Lamotte/Alliance     | Olive oil, native               | 1000013127 | 1       |
| Henry Lamotte/Alliance     | Almond oil, refined             | 8002675001 | 1       |
| Henry Lamotte/Alliance     | Almond oil, refined             | 8003167001 | 1       |
| Henry Lamotte/Alliance     | Olive oil, native               | 8003801001 | 2       |
| Henry Lamotte/Alliance     | Codliver oil (type A)           | 8005296002 | 1       |
| Henry Lamotte/Alliance     | Almond oil, refined             | 8005936002 | 1       |
| Henry Lamotte/Anzag        | Avocado oil, refined            | 1000001098 | 2       |
| Henry Lamotte/Anzag        | Borage oil, refined, stabili... | 1000001388 | 1       |
| Henry Lamotte/Anzag        | Olive oil, native               | 123773     | 1       |
| Henry Lamotte/Anzag        | Evening primrose oil, refined   | 124363     | 2       |
| Henry Lamotte/Anzag        | Borage oil, refined, stabili... | 125354     | 1       |
| Henry Lamotte/Anzag        | Almond oil, refined             | 416E-01950 | 1       |
| Henry Lamotte/Anzag        | Olive oil, native               | 5272401    | 1       |
| Henry Lamotte/Anzag        | Borage oil, refined, stabili... | 5594400001 | 1       |
| Henry Lamotte/Anzag        | Olive oil, native               | 590340003  | 1       |
| Henry Lamotte/Anzag        | Olive oil, native               | 8000821001 | 1       |
| Henry Lamotte/Anzag        | Olive oil, native               | 8001648001 | 1       |
| Henry Lamotte/Gehe/24.0... | Codliver oil (type A)           | 8004742002 | 1       |
| Henry Lamotte/Gehe         | Almond oil, refined             | 1000003242 | 1       |
| Henry Lamotte/Gehe         | Almond oil, refined             | 1000010685 | 2       |
| Henry Lamotte/Gehe         | Olive oil, native               | 1000010861 | 1       |
| Henry Lamotte/Gehe         | Peanut oil, refined             | 1000010888 | 2       |
| Henry Lamotte/Gehe         | Sesame oil, refined             | 1000010906 | 1       |
| Henry Lamotte/Gehe         | Olive oil, native               | 1000012617 | 2       |
| Henry Lamotte/Gehe         | Peanut oil, refined             | 1000012961 | 2       |
| Henry Lamotte/Gehe         | Almond oil, refined             | 1000013112 | 1       |
| Henry Lamotte/Gehe         | Avocado oil, refined            | 1000013125 | 1       |
| Henry Lamotte/Gehe         | Almond oil, refined             | 1000013565 | 2       |
| Henry Lamotte/Gehe         | Olive oil, native               | 1000014032 | 1       |
| Henry Lamotte/Gehe         | Almond oil, refined             | 10093      | 1       |
| Henry Lamotte/Gehe         | Almond oil, refined             | 5415901    | 2       |
| Henry Lamotte/Gehe         | Olive oil, native               | 5903400003 | 1       |
| henry lamotte/gehe         | Almond oil, refined             | 8003503001 | 2       |
| Henry Lamotte/Gehe         | Olive oil, native               | 8004067001 | 1       |
| Henry Lamotte/Gehe         | Almond oil, refined             | 8005936002 | 1       |
| Henry Lamotte/Jenne        | Almond oil, refined             | 1000010093 | 1       |
| Henry Lamotte/Jenne        | Almond oil, refined             | 1000010685 | 1       |
| Henry Lamotte/Jenne        | Olive oil, native               | 1000010861 | 1       |

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| Supplier                   | Substance                     | Batch            | Spectra |
|----------------------------|-------------------------------|------------------|---------|
| Henry Lamotte/Jenne        | Almond oil, refined           | 1000012126       | 2       |
| Henry Lamotte/Jenne        | Almond oil, refined           | 121 (8003167001) | 1       |
| Henry Lamotte/Jenne        | Almond oil, refined           | 122 (8003503001) | 1       |
| Henry Lamotte/Jenne        | Almond oil, refined           | 123 (8003503001) | 1       |
| Henry Lamotte/Jenne        | Almond oil, refined           | 124 (8003885002) | 1       |
| Henry Lamotte/Jenne        | Peanut oil, refined           | 5204402          | 1       |
| Henry Lamotte/Jenne        | Almond oil, refined           | 8004390001       | 1       |
| Henry Lamotte/Jenne        | Almond oil, refined           | 8005936002       | 2       |
| Henry Lamotte/Kehr         | Olive oil, native             | 1000010861       | 1       |
| Henry Lamotte/Kehr         | Codliver oil (type A)         | 5529601          | 1       |
| Henry Lamotte/Kehr         | Olive oil, native             | 8000652001       | 1       |
| Henry Lamotte/Kehr         | Almond oil, refined           | 8000725001       | 1       |
| Henry Lamotte/Kehr         | Sesame oil, refined           | 8001557002       | 1       |
| Henry Lamotte/N/18.06.1... | Almond oil, refined           | 5438301          | 1       |
| Henry lamotte/N/PZN:004... | Olive oil, native             | 5372701          | 1       |
| Henry Lamotte/N/PZN:731... | Almond oil, refined           | 5438302          | 1       |
| Henry Lamotte/Noewda       | Almond oil, refined           | 1000004431       | 1       |
| Henry Lamotte/Noewda       | Almond oil, refined           | 8003503001       | 2       |
| Henry Lamotte/Now          | Almond oil, refined           | 8003503001       | 1       |
| Henry Lamotte/Noweda 12... | Almond oil, refined           | 8005803007       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 1000003242       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 1000004431       | 1       |
| Henry Lamotte/Noweda       | Evening primrose oil, refined | 1000005123       | 1       |
| Henry Lamotte/Noweda       | Olive oil, native             | 1000010090       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 1000010685       | 2       |
| Henry Lamotte/Noweda       | Olive oil, native             | 1000010808       | 2       |
| Henry Lamotte/Noweda       | Olive oil, native             | 1000010861       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 1000012126       | 3       |
| Henry Lamotte/Noweda       | Peanut oil, refined           | 1000012961       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 1000013565       | 1       |
| Henry Lamotte/Noweda       | Peanut oil, refined           | 1000013880       | 1       |
| Henry Lamotte/Noweda       | Peanut oil, refined           | 1000014700       | 2       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 100010685        | 1       |
| Henry Lamotte/Noweda       | Flaxseed oil, native          | 124116           | 1       |
| Henry Lamotte/Noweda       | Codliver oil (type A)         | 5529601          | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 5615003          | 1       |
| Henry Lamotte/Noweda       | Codliver oil (type A)         | 5641901          | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8000712001       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8000725001       | 1       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8000821001       | 1       |
| Henry Lamotte/Noweda       | Codliver oil (type A)         | 8001215002       | 1       |
| henry lamotte/Noweda       | Almond oil, refined           | 8001497001       | 1       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8001854001       | 2       |
| Henry Lamotte/Noweda       | Codliver oil (type A)         | 8002338002       | 1       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8002366001       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8002653001       | 4       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8002656001       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8002675001       | 1       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8002827001       | 1       |
| henry lamotte/Noweda       | Almond oil, refined           | 8003167001       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8003167001       | 1       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8003420001       | 1       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8003580002       | 2       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8003885002       | 8       |
| Henry Lamotte/Noweda       | Codliver oil (type A)         | 8003906002       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8004039003       | 3       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8004251002       | 1       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 80043390001      | 2       |
| Henry Lamotte/Noweda       | Almond oil, refined           | 8004390001       | 6       |
| Henry Lamotte/Noweda       | Olive oil, native             | 8004499001       | 1       |

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| Supplier               | Substance                     | Batch      | Spectra |
|------------------------|-------------------------------|------------|---------|
| Henry Lamotte/Noweda   | Almond oil, refined           | 8004548002 | 1       |
| Henry Lamotte/Noweda   | Almond oil, refined           | 8004548011 | 1       |
| Henry Lamotte/Noweda   | Almond oil, refined           | 8004548022 | 1       |
| Henry Lamotte/Noweda   | Codliver oil (type A)         | 8004742002 | 2       |
| Henry Lamotte/Noweda   | Codliver oil (type A)         | 8004742003 | 3       |
| Henry Lamotte/Noweda   | Olive oil, native             | 8004827001 | 1       |
| Henry Lamotte/Noweda   | Almond oil, refined           | 8005803006 | 2       |
| Henry Lamotte/PH       | Sesame oil, refined           | 1000010906 | 1       |
| Henry Lamotte/Phoenix  | Peanut oil, refined           | 1000010888 | 1       |
| Henry Lamotte/Phoenix  | Peanut oil, refined           | 1000012961 | 2       |
| Henry Lamotte/Phoenix  | Almond oil, refined           | 1000013565 | 1       |
| Henry Lamotte/Phoenix  | Peanut oil, refined           | 1000014700 | 1       |
| Henry Lamotte/Phoenix  | Almond oil, refined           | 1000017183 | 1       |
| Henry Lamotte/Phoenix  | Evening primrose oil, refined | 18009110   | 1       |
| Henry Lamotte/Phoenix  | Codliver oil (type A)         | 8001176004 | 1       |
| Henry Lamotte/Phoenix  | Olive oil, native             | 8001431001 | 1       |
| Henry Lamotte/Phoenix  | Olive oil, native             | 8001948002 | 1       |
| Henry Lamotte/Phoenix  | Almond oil, refined           | 8002675001 | 1       |
| Henry Lamotte/Phoenix  | Olive oil, native             | 8004499001 | 1       |
| Henry Lamotte/Phoenix1 | Almond oil, refined           | 8001497001 | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 1000003242 | 1       |
| Henry Lamotte/Phönix   | Olive oil, native             | 1000004908 | 1       |
| Henry Lamotte/Phönix   | Flaxseed oil, native          | 1000009915 | 1       |
| Henry Lamotte/Phönix   | Olive oil, native             | 1000010861 | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 1000012126 | 1       |
| Henry Lamotte/Phönix   | Peanut oil, refined           | 1000012961 | 1       |
| Henry Lamotte/Phönix   | Peanut oil, refined           | 1000013112 | 1       |
| Henry Lamotte/Phönix   | Olive oil, native             | 1000014032 | 1       |
| Henry Lamotte/Phönix   | Sesame oil, refined           | 1000015599 | 3       |
| Henry Lamotte/Phönix   | Olive oil, native             | 1000016418 | 1       |
| Henry Lamotte/Phönix   | Peanut oil, refined           | 17169001   | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 5438301    | 1       |
| Henry Lamotte/Phönix   | Codliver oil (type A)         | 5878701    | 1       |
| Henry Lamotte/Phönix   | Codliver oil (type A)         | 8000601001 | 1       |
| Henry Lamotte/Phönix   | Olive oil, native             | 8001648001 | 1       |
| Henry Lamotte/Phönix   | Olive oil, native             | 8001948002 | 1       |
| Henry Lamotte/Phönix   | Peanut oil, refined           | 8001959001 | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8002675001 | 3       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8003167001 | 3       |
| Henry Lamotte/Phönix   | Olive oil, native             | 8003420001 | 2       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8003503001 | 1       |
| Henry Lamotte/Phönix   | Codliver oil (type A)         | 8003727001 | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8003885002 | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8004039003 | 3       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8004390001 | 2       |
| Henry Lamotte/Phönix   | Olive oil, native             | 8004499001 | 1       |
| Henry Lamotte/Phönix   | Codliver oil (type A)         | 8005296002 | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8005803007 | 1       |
| Henry Lamotte/Phönix   | Almond oil, refined           | 8005936002 | 1       |
| Henry Lamotte/Poenix   | Almond oil, refined           | 1000010093 | 1       |
| Henry Lamotte/Poenix   | Almond oil, refined           | 8003467001 | 1       |
| Henry Lamotte/Poenix   | Almond oil, refined           | 8004039003 | 1       |
| Henry Lamotte/Pönix    | Olive oil, native             | 1000012341 | 1       |
| Henry Lamotte/Sana     | Avocado oil, refined          | 1000001098 | 1       |
| Henry Lamotte/Sanacorp | Almond oil, refined           | 1000010093 | 1       |
| Henry Lamotte/Sanacorp | Olive oil, native             | 1000010808 | 2       |
| Henry Lamotte/Sanacorp | Peanut oil, refined           | 1000010888 | 1       |
| Henry Lamotte/Sanacorp | Olive oil, native             | 1000011651 | 1       |
| Henry Lamotte/Sanacorp | Olive oil, native             | 1000012341 | 3       |
| Henry Lamotte/Sanacorp | Olive oil, native             | 1000013127 | 1       |

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| Supplier                   | Substance                       | Batch          | Spectra |
|----------------------------|---------------------------------|----------------|---------|
| Henry Lamotte/Sanacorp     | Peanut oil, refined             | 1000014700     | 1       |
| Henry Lamotte/Sanacorp     | Olive oil, native               | 1000014704     | 1       |
| Henry Lamotte/Sanacorp     | Olive oil, native               | 1000016418     | 1       |
| Henry Lamotte/Sanacorp     | Olive oil, native               | 100013127      | 2       |
| Henry Lamotte/Sanacorp     | Codliver oil (type A)           | 123823         | 1       |
| Henry Lamotte/Sanacorp     | Sesame oil, refined             | 123826         | 1       |
| Henry Lamotte/Sanacorp     | Almond oil, refined             | 130145         | 1       |
| Henry Lamotte/Sanacorp     | Codliver oil (type A)           | 5529601        | 1       |
| Henry Lamotte/Sanacorp     | Sunflower oil, refined          | 5738004        | 1       |
| henry lamotte/Sanacorp     | Jojoba Oil, native              | 5756401        | 7       |
| Henry Lamotte/Sanacorp     | Sesame oil, refined             | 8000531001     | 1       |
| Henry Lamotte/Sanacorp     | Olive oil, native               | 8000652001     | 1       |
| Henry Lamotte/Sanacorp     | Almond oil, refined             | 8000915002     | 8       |
| Henry Lamotte/Sanacorp     | Almond oil, refined             | 8001497001     | 3       |
| Henry Lamotte/Sanacorp     | Olive oil, native               | 8003801001     | 1       |
| Henry Lamotte/Sanacorp     | Olive oil, native               | 8004067001     | 1       |
| Henry Lamotte/Sanacorp     | Almond oil, refined             | 8004390001     | 1       |
| Henry Lamotte/Sanacorp     | Olive oil, native               | 8004499001     | 1       |
| Henry Lamotte/Spangro 2... | Codliver oil (type A)           | 8007109001     | 5       |
| Henry Lamotte/Spangro      | Almond oil, refined             | 8003167001     | 1       |
| Henry Lamotte/Spangro      | Codliver oil (type A)           | 8005296003     | 1       |
| Henry Lamotte/V.d.L.       | Codliver oil (type A)           | 5437202        | 1       |
| Henry Lamotte              | Olive oil, native               |                | 6       |
| Henry Lamotte              | Sesame oil, refined             | 10000009220    | 1       |
| Henry Lamotte              | Omega-3-fish oil                | 1000002451     | 1       |
| Henry Lamotte              | Almond oil, refined             | 1000002454     | 2       |
| Henry Lamotte              | Sesame oil, refined             | 1000002705     | 2       |
| Henry Lamotte              | Almond oil, refined             | 1000003242     | 13      |
| Henry Lamotte              | Flaxseed oil, native            | 1000003255     | 1       |
| Henry Lamotte              | Evening primrose oil, refined   | 1000003443     | 1       |
| Henry Lamotte              | Flaxseed oil, native            | 1000003598     | 1       |
| Henry Lamotte              | Codliver oil (type A)           | 1000004149L100 | 1       |
| Henry Lamotte              | Evening primrose oil, refined   | 1000004385     | 3       |
| Henry Lamotte              | Almond oil, refined             | 1000004431     | 3       |
| Henry Lamotte              | Evening primrose oil, refined   | 1000005123     | 5       |
| Henry Lamotte              | Sesame oil, refined             | 1000005858     | 1       |
| Henry Lamotte              | Borage oil, refined, stabili... | 1000006595     | 1       |
| Henry Lamotte              | Evening primrose oil, refined   | 1000007046     | 1       |
| Henry Lamotte              | Sesame oil, refined             | 1000007221     | 2       |
| Henry Lamotte              | Sesame oil, refined             | 1000009220     | 1       |
| Henry Lamotte              | Olive oil, native               | 1000010090     | 2       |
| Henry Lamotte              | Almond oil, refined             | 1000010093     | 10      |
| Henry Lamotte              | Almond oil, refined             | 1000010685     | 9       |
| Henry Lamotte              | Olive oil, native               | 1000010808     | 1       |
| Henry lamotte              | Sunflower oil, refined          | 1000010859     | 4       |
| Henry Lamotte              | Sunflower oil, refined          | 1000010859     | 1       |
| Henry Lamotte              | Olive oil, native               | 1000010861     | 6       |
| HENRY LAMOTTE              | Olive oil, native               | 1000010861     | 1       |
| Henry Lamotte              | Peanut oil, refined             | 1000010888     | 3       |
| Henry LAmotte              | Peanut oil, refined             | 1000010888     | 1       |
| Henry Lamotte              | Sesame oil, refined             | 1000010906     | 2       |
| Henry Lamotte              | Olive oil, native               | 10000114032    | 1       |
| Henry Lamotte              | Olive oil, native               | 1000011651     | 1       |
| Henry Lamotte              | Almond oil, refined             | 1000012126     | 17      |
| Henry Lamotte              | Olive oil, native               | 1000012341     | 1       |
| henry Lamotte              | Olive oil, native               | 1000012617     | 1       |
| Henry Lamotte              | Olive oil, native               | 1000012617     | 3       |
| Henry Lamotte              | Peanut oil, refined             | 1000012961     | 4       |
| Henry Lamotte              | Almond oil, refined             | 1000013112     | 1       |
| Henry LAmotte              | Flaxseed oil, native            | 1000013291     | 1       |

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| Supplier      | Substance                       | Batch        | Spectra |
|---------------|---------------------------------|--------------|---------|
| Henry Lamotte | Almond oil, refined             | 1000013565   | 6       |
| Henry Lamotte | Peanut oil, refined             | 1000013880   | 1       |
| Henry Lamotte | Olive oil, native               | 1000014032   | 1       |
| Henry Lamotte | Peanut oil, refined             | 1000014700   | 1       |
| Henry Lamotte | Avocado oil, refined            | 100001532    | 1       |
| Henry Lamotte | Sesame oil, refined             | 1000015599   | 1       |
| Henry Lamotte | Peanut oil, refined             | 1000015783   | 1       |
| Henry Lamotte | Olive oil, native               | 1000016418   | 3       |
| Henry Lamotte | Jojoba Oil, native              | 1000017116   | 1       |
| Henry Lamotte | Almond oil, refined             | 1000017183   | 3       |
| Henry lamotte | Sunflower oil, refined          | 10000180859  | 1       |
| Henry Lamotte | Evening primrose oil, refined   | 100005123    | 1       |
| Henry Lamotte | Almond oil, refined             | 100012126    | 1       |
| Henry Lamotte | Codliver oil (type A)           | 119929       | 1       |
| Henry Lamotte | Almond oil, refined             | 12061302     | 1       |
| Henry Lamotte | Evening primrose oil, refined   | 123121       | 1       |
| Henry Lamotte | Borage oil, refined, stabili... | 12345        | 1       |
| Henry Lamotte | Sesame oil, refined             | 123826       | 1       |
| Henry Lamotte | Sesame oil, refined             | 124494       | 1       |
| Henry Lamotte | Avocado oil, refined            | 130143       | 1       |
| Henry Lamotte | Almond oil, refined             | 130145       | 3       |
| Henry Lamotte | Evening primrose oil, refined   | 14258616     | 1       |
| Henry Lamotte | Borage oil, refined, stabili... | 145579       | 1       |
| Henry Lamotte | Borage oil, refined, stabili... | 145678       | 2       |
| henry lamotte | Evening primrose oil, refined   | 150827       | 3       |
| Henry Lamotte | Evening primrose oil, refined   | 160502701    | 1       |
| Henry Lamotte | Olive oil, native               | 16327402     | 1       |
| Henry Lamotte | Almond oil, refined             | 17042209     | 1       |
| Henry Lamotte | Peanut oil, refined             | 17042802     | 1       |
| Henry Lamotte | Almond oil, refined             | 18015002     | 1       |
| Henry Lamotte | Codliver oil (type A)           | 18101303     | 1       |
| Henry Lamotte | Avocado oil, refined            | 19000459003  | 1       |
| Henry Lamotte | Olive oil, native               | 191015090511 | 2       |
| Henry Lamotte | Codliver oil (type A)           | 20021413     | 1       |
| Henry Lamotte | Codliver oil (type A)           | 26111303     | 1       |
| Henry Lamotte | Codliver oil (type A)           | 26111402     | 1       |
| Henry Lamotte | Sesame oil, refined             | 2705         | 1       |
| Henry Lamotte | Sesame oil, refined             | 2x5639301    | 1       |
| Henry Lamotte | Codliver oil (type A)           | 5029207      | 1       |
| Henry Lamotte | Olive oil, native               | 5107101      | 1       |
| Henry Lamotte | Almond oil, refined             | 5177001      | 2       |
| Henry Lamotte | Jojoba Oil, native              | 5194301      | 1       |
| Henry Lamotte | Peanut oil, refined             | 5204402      | 1       |
| Henry Lamotte | Peanut oil, refined             | 520442       | 1       |
| Henry Lamotte | Codliver oil (type A)           | 5228001      | 1       |
| Henry Lamotte | Codliver oil (type A)           | 5228004      | 1       |
| Henry Lamotte | Olive oil, native               | 5232201      | 1       |
| Henry Lamotte | Olive oil, native               | 5271504      | 1       |
| Henry Lamotte | Olive oil, native               | 5272401      | 3       |
| Henry Lamotte | Sesame oil, refined             | 5319201      | 1       |
| Henry Lamotte | Almond oil, refined             | 5369301      | 1       |
| Henry Lamotte | Borage oil, refined, stabili... | 5402901      | 3       |
| Henry Lamotte | Jojoba Oil, native              | 5404201      | 1       |
| Henry Lamotte | Almond oil, refined             | 5415901      | 6       |
| Henry Lamotte | Jojoba Oil, native              | 5429201      | 3       |
| Henry Lamotte | Almond oil, refined             | 543802       | 1       |
| Henry Lamotte | Almond oil, refined             | 5438301      | 4       |
| Henry Lamotte | Almond oil, refined             | 5438302      | 3       |
| Henry Lamotte | Peanut oil, refined             | 5473601      | 1       |
| Henry Lamotte | Almond oil, refined             | 5493001      | 3       |

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| Supplier      | Substance              | Batch       | Spectra |
|---------------|------------------------|-------------|---------|
| Henry Lamotte | Sesame oil, refined    | 5514801     | 1       |
| henry lamotte | Codliver oil (type A)  | 5529601     | 1       |
| Henry Lamotte | Codliver oil (type A)  | 5529601     | 4       |
| Henry Lamotte | Peanut oil, refined    | 5592601     | 1       |
| Henry Lamotte | Almond oil, refined    | 5615001     | 4       |
| Henry Lamotte | Almond oil, refined    | 5615003     | 3       |
| Henry Lamotte | Almond oil, refined    | 5669601     | 1       |
| Henry Lamotte | Olive oil, native      | 5671601     | 1       |
| Henry Lamotte | Olive oil, native      | 5671901     | 3       |
| henry lamotte | Almond oil, refined    | 5675003     | 1       |
| henry lamotte | Codliver oil (type A)  | 5693101     | 1       |
| Henry Lamotte | Peanut oil, refined    | 5697901     | 2       |
| Henry Lamotte | Peanut oil, refined    | 5699601     | 2       |
| Henry Lamotte | Almond oil, refined    | 5703101     | 4       |
| Henry Lamotte | Joboba Oil, native     | 5732801     | 1       |
| Henry Lamotte | Olive oil, native      | 5734701     | 1       |
| Henry Lamotte | Sunflower oil, refined | 5738004     | 1       |
| Henry Lamotte | Sesame oil, refined    | 5744101     | 1       |
| Henry Lamotte | Almond oil, refined    | 5748401     | 2       |
| henry lamotte | Almond oil, refined    | 5748601     | 1       |
| Henry Lamotte | Almond oil, refined    | 5748601     | 9       |
| Henry Lamotte | Olive oil, native      | 5813601     | 2       |
| Henry Lamotte | Sesame oil, refined    | 5872901     | 1       |
| Henry Lamotte | Codliver oil (type A)  | 5878701     | 3       |
| Henry Lamotte | Olive oil, native      | 5891202     | 1       |
| Henry Lamotte | Peanut oil, refined    | 5904100001  | 2       |
| Henry Lamotte | Joboba Oil, native     | 5913600001  | 3       |
| Henry Lamotte | Almond oil, refined    | 5919600001  | 11      |
| Henry Lamotte | Olive oil, native      | 5921100001  | 1       |
| Henry Lamotte | Peanut oil, refined    | 611Erdnuss  | 1       |
| Henry Lamotte | Codliver oil (type A)  | 75860       | 1       |
| Henry Lamotte | Codliver oil (type A)  | 80000601001 | 1       |
| Henry Lamotte | Sesame oil, refined    | 8000531001  | 1       |
| Henry Lamotte | Codliver oil (type A)  | 8000601001  | 4       |
| Henry Lamotte | Codliver oil (type A)  | 800060101   | 1       |
| Henry Lamotte | Olive oil, native      | 8000652001  | 1       |
| Henry Lamotte | Peanut oil, refined    | 8000666005  | 3       |
| henry lamotte | Almond oil, refined    | 8000712001  | 3       |
| Henry lamotte | Almond oil, refined    | 8000712001  | 1       |
| Henry Lamotte | Almond oil, refined    | 8000712001  | 10      |
| Henry Lamotte | Almond oil, refined    | 8000725001  | 3       |
| Henry Lamotte | Olive oil, native      | 8000821001  | 2       |
| henry lamotte | Almond oil, refined    | 8000915001  | 1       |
| Henry Lamotte | Almond oil, refined    | 8000915001  | 5       |
| Henry Lamotte | Almond oil, refined    | 8000915002  | 4       |
| Henry Lamotte | Codliver oil (type A)  | 8000918001  | 4       |
| Henry Lamotte | Codliver oil (type A)  | 8001176004  | 2       |
| Henry Lamotte | Codliver oil (type A)  | 8001215002  | 12      |
| Henry Lamotte | Sunflower oil, refined | 8001230001  | 1       |
| henry lamotte | Almond oil, refined    | 8001497001  | 1       |
| Henry Lamotte | Almond oil, refined    | 8001497001  | 9       |
| Henry Lamotte | Almond oil, refined    | 8001548011  | 1       |
| Henry Lamotte | Sesame oil, refined    | 8001557002  | 3       |
| Henry Lamotte | Olive oil, native      | 8001560001  | 2       |
| Henry Lamotte | Olive oil, native      | 8001648001  | 1       |
| Henry Lamotte | Codliver oil (type A)  | 8001765001  | 3       |
| Henry Lamotte | Codliver oil (type A)  | 8002468002  | 2       |
| HENRY LAMOTTE | Codliver oil (type A)  | 8002468002  | 1       |
| Henry lamotte | Sunflower oil, refined | 8002491005  | 1       |
| Henry Lamotte | Avocado oil, refined   | 8002616001  | 1       |

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| Supplier                   | Substance              | Batch       | Spectra |
|----------------------------|------------------------|-------------|---------|
| Henry Lamotte              | Almond oil, refined    | 8002653001  | 10      |
| Henry Lamotte              | Olive oil, native      | 8002656001  | 1       |
| Henry Lamotte              | Almond oil, refined    | 8002675001  | 4       |
| Henry Lamotte              | Almond oil, refined    | 8003167001  | 11      |
| Henry Lamotte              | Almond oil, refined    | 8003503001  | 7       |
| Henry Lamotte              | Almond oil, refined    | 8003503002  | 5       |
| Henry Lamotte              | Olive oil, native      | 8003580002  | 1       |
| Henry lamotte              | Sunflower oil, refined | 8003598001  | 4       |
| Henry Lamotte              | Codliver oil (type A)  | 8003727001  | 8       |
| Henry Lamotte              | Codliver oil (type A)  | 80037277001 | 1       |
| Henry Lamotte              | Olive oil, native      | 8003801001  | 1       |
| Henry Lamotte              | Almond oil, refined    | 8003885002  | 5       |
| Henry Lamotte              | Codliver oil (type A)  | 8003906001  | 1       |
| Henry Lamotte              | Codliver oil (type A)  | 8003906002  | 1       |
| Henry Lamotte              | Almond oil, refined    | 8004039003  | 5       |
| Henry Lamotte              | Olive oil, native      | 8004067001  | 3       |
| HENRY LAMOTTE              | Olive oil, native      | 8004067001  | 1       |
| Henry Lamotte              | Olive oil, native      | 8004251002  | 1       |
| Henry lamotte              | Sunflower oil, refined | 8004261004  | 2       |
| Henry Lamotte              | Almond oil, refined    | 8004390001  | 6       |
| Henry Lamotte              | Olive oil, native      | 800449001   | 1       |
| Henry Lamotte              | Olive oil, native      | 8004499001  | 4       |
| Henry Lamotte              | Almond oil, refined    | 8004548002  | 5       |
| Henry Lamotte              | Almond oil, refined    | 8004548007  | 2       |
| Henry Lamotte              | Almond oil, refined    | 8004548011  | 10      |
| Henry Lamotte              | Almond oil, refined    | 800458011   | 1       |
| Henry Lamotte              | Codliver oil (type A)  | 8004742002  | 1       |
| Henry Lamotte              | Codliver oil (type A)  | 8004742003  | 1       |
| Henry Lamotte              | Olive oil, native      | 8004827001  | 2       |
| HENRY LAMOTTE              | Codliver oil (type A)  | 8005296002  | 1       |
| Henry Lamotte              | Codliver oil (type A)  | 8005296003  | 1       |
| Henry Lamotte              | Almond oil, refined    | 8005803006  | 4       |
| Henry Lamotte              | Almond oil, refined    | 8005803007  | 6       |
| henry lamotte              | Almond oil, refined    | 8005936002  | 1       |
| Henry Lamotte              | Almond oil, refined    | 8005936002  | 4       |
| Henry Lamotte              | Almond oil, refined    | 8007584002  | 6       |
| Henry Lamotte              | Codliver oil (type A)  | 800765001   | 1       |
| Henry Lamotte;VDL; 22,5... | Codliver oil (type A)  | 8000601001  | 1       |
| Henry LamotteOils/Gehe     | Almond oil, refined    | 8004039003  | 1       |
| Henry Lamotte Oils GmbH    | Flaxseed oil, native   | 1000005198  | 1       |
| Henry Laotte/Anzag         | Olive oil, native      | 8004499001  | 1       |
| Henry Laotte/Phönix        | Olive oil, native      | 20001867    | 1       |
| Henry Lomoote/Gehe         | Olive oil, native      | 8004067001  | 1       |
| Henry Lomoote/Noweda       | Sesame oil, refined    | 1000002705  | 1       |
| Henry Lomoote/Noweda       | Olive oil, native      | 1000010861  | 1       |
| henry lsmotte oils g       | Almond oil, refined    | 690454      | 1       |
| Henry, Noweda              | Olive oil, native      | 5232201     | 1       |
| Henry/AHD                  | Flaxseed oil, native   | 124337      | 2       |
| Henry/Gehe                 | Olive oil, native      | 8001854001  | 1       |
| Henry/Jenne                | Flaxseed oil, native   | 103277      | 3       |
| Henry/Krieger              | Almond oil, refined    | 8003885002  | 3       |
| Henry/Krieger              | Almond oil, refined    | 8004390001  | 1       |
| Henry/Noweda               | Sesame oil, refined    | 1000010906  | 4       |
| Henry/Noweda               | Sesame oil, refined    | 1000013957  | 5       |
| Henry/Phönix               | Almond oil, refined    | 1000004431  | 1       |
| Henry/Phönix               | Olive oil, native      | 1000010090  | 1       |
| Henry/phönix               | Almond oil, refined    | 1000010093  | 1       |
| Henry/phönix               | Almond oil, refined    | 8002653001  | 1       |
| Henry/phönix               | Peanut oil, refined    | 8003146001  | 1       |
| Henry/Phönix               | Almond oil, refined    | 8003167001  | 2       |

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| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| Henry/Phönix               | Olive oil, native               | 8004067001 | 1       |
| Henry/sana                 | Peanut oil, refined             | 65295      | 1       |
| Henry                      | Borage oil, refined, stabili... | 1000006205 | 1       |
| henry                      | Flaxseed oil, native            | 1000006801 | 1       |
| henry                      | Almond oil, refined             | 8003167001 | 1       |
| henry                      | Almond oil, refined             | 8004039003 | 1       |
| HenryLamotte/ Anzag        | Almond oil, refined             | 8004548011 | 1       |
| HenryLamotte/ Phönix       | Almond oil, refined             | 1000010685 | 1       |
| HenryLamotte/AHD           | Olive oil, native               | 1000010861 | 1       |
| HenryLamotte/AHD           | Olive oil, native               | 1000012617 | 1       |
| HenryLamotte/AHD           | Olive oil, native               | 8002821001 | 1       |
| HenryLamotte/AHD           | Olive oil, native               | 8003801001 | 1       |
| HenryLamotte/AHD           | Olive oil, native               | 8004499001 | 1       |
| HenryLamotte/Alliance H... | Olive oil, native               | 800358002  | 1       |
| HenryLamotte/Alliance H... | Almond oil, refined             | 8003885002 | 1       |
| HenryLamotte/Alliance H... | Almond oil, refined             | 8004548002 | 1       |
| HenryLamotte/Gehe          | Almond oil, refined             | 130145     | 3       |
| HenryLamotte/Gehe          | Codliver oil (type A)           | 8004742003 | 1       |
| HenryLamotte/Gehe          | Codliver oil (type A)           | 8006235003 | 1       |
| HenryLamotte/Noweda        | Olive oil, native               | 1000004908 | 5       |
| Henry-Lamotte/Noweda       | Sesame oil, refined             | 1000007221 | 2       |
| Henrylamotte/Noweda        | Olive oil, native               | 1000010090 | 1       |
| HenryLamotte/noweda        | Almond oil, refined             | 1000010685 | 2       |
| HenryLamotte/Noweda        | Almond oil, refined             | 1000010685 | 1       |
| HenryLamotte/Noweda        | Almond oil, refined             | 1000012126 | 1       |
| HenryLamotte/noweda        | Almond oil, refined             | 8000915002 | 1       |
| HenryLamotte/Noweda        | Codliver oil (type A)           | 8002338002 | 2       |
| HenryLamotte/Noweda        | Olive oil, native               | 8002827001 | 1       |
| HenryLamotte/Noweda        | Almond oil, refined             | 8004039003 | 1       |
| HenryLamotte/Noweda        | Olive oil, native               | 8004067001 | 1       |
| HenryLamotte/Noweda        | Almond oil, refined             | 8004390001 | 1       |
| HenryLamotte/noweda        | Almond oil, refined             | 800448011  | 1       |
| HenryLamotte/Noweda        | Olive oil, native               | 8004499001 | 3       |
| HenryLamotte/Noweda        | Almond oil, refined             | 8004548011 | 1       |
| HenryLamotte/Noweda        | Almond oil, refined             | 800458011  | 1       |
| HenryLamotte/Noweda        | Codliver oil (type A)           | 8005296002 | 1       |
| HenryLamotte/Noweda        | Codliver oil (type A)           | 8005296003 | 1       |
| HenryLamotte/Noweda        | Almond oil, refined             | 8005803007 | 2       |
| HenryLamotte/Noweda        | Almond oil, refined             | 8005936002 | 4       |
| HenryLamotte/Noweda        | Codliver oil (type A)           | 8007109001 | 1       |
| HenryLamotte/Phoenix       | Almond oil, refined             | 1000010093 | 2       |
| HenryLamotte/Phoenix       | Avocado oil, refined            | 130143     | 1       |
| HenryLamotte/Phoenix       | Sesame oil, refined             | 5135601    | 1       |
| HenryLamotte/Phoenix       | Peanut oil, refined             | 5231601    | 1       |
| HenryLamotte/Phoenix       | Almond oil, refined             | 5269301    | 2       |
| HenryLamotte/Phoenix       | Olive oil, native               | 5272401    | 4       |
| HenryLamotte/Phoenix       | Codliver oil (type A)           | 8003906001 | 1       |
| HenryLamotte/Phoenix       | Almond oil, refined             | 8004039003 | 1       |
| HenryLamotte/Phoenix       | Almond oil, refined             | 8004390001 | 2       |
| HenryLamotte/Phoenix       | Codliver oil (type A)           | 8004742002 | 1       |
| HenryLamotte/Phönix        | Almond oil, refined             | 8002653001 | 1       |
| HenryLamotte/Phönix        | Olive oil, native               | 8002827001 | 1       |
| HenryLamotte/Phönix        | Olive oil, native               | 8004499001 | 1       |
| HenryLamotte/Sanacorp      | Olive oil, native               | 1000010861 | 3       |
| HenryLamotte/Sanacorp      | Olive oil, native               | 1000012617 | 2       |
| HenryLamotte/Sanacorp      | Olive oil, native               | 1000014032 | 2       |
| HenryLamotte/Sanacorp      | Olive oil, native               | 1000016418 | 1       |
| HenryLamotte/Sanacorp      | Jojoba Oil, native              | 8000469001 | 1       |
| HenryLamotte               | Almond oil, refined             | 1000017183 | 1       |
| HenryLamotte               | Jojoba Oil, native              | 4957101    | 1       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| HenryLamotte               | Jojoba Oil, native              | 5172601     | 9       |
| HenryLamotte               | Jojoba Oil, native              | 5194301     | 1       |
| HenryLamotte               | Olive oil, native               | 5232201     | 2       |
| HenryLamotte               | Almond oil, refined             | 8001497001  | 1       |
| HenryLamotteOils/Gehe      | Almond oil, refined             | 8003503001  | 1       |
| HenryLamotteOils           | Sesame oil, refined             | 1000003864  | 1       |
| HenryLamotteOilsGmbH/Ph... | Almond oil, refined             | 5438302     | 2       |
| Hepart AG                  | Walnut oil, refined             | 12214904    | 1       |
| Herbasinica                | Almond oil, refined             | 14042707    | 2       |
| Herny Lamotte              | Jojoba Oil, native              | 5732801     | 1       |
| HerryLamotte GmbH          | Olive oil, native               | 1000010861  | 1       |
| Hery Lamotte oils GmbH     | Almond oil, refined             | 1000013112  | 1       |
| Hery Lamotte/AEP           | Peanut oil, refined             | 1000015783  | 1       |
| HL/N/25.02.13 PZN:3649899  | Olive oil, native               | 5283901     | 1       |
| Hnery Lamotte              | Almond oil, refined             | 8004548002  | 1       |
| Holdermann/Henry Lamott... | Almond oil, refined             | 5162801     | 2       |
| Holdermann                 | Grape seed oil, refined         | 12149212    | 1       |
| Holdermann                 | Avocado oil, refined            | 13361406    | 1       |
| Holdermann                 | Almond oil, refined             | 15078403    | 1       |
| Hubertus Apotheke          | Oleyl oleate (stabilised)       | 15410207    | 1       |
| Ichthyl Phönix             | Evening primrose oil, refined   | 12112912    | 1       |
| Ichthyl Phönix             | Wheatgerm oil, refined          | 12220302    | 1       |
| Ichthyl/ AEP               | Evening primrose oil, refined   | 18216212    | 1       |
| Ichthyl/Phönix             | Olive oil, native               | 274236      | 1       |
| ICRON                      | Flaxseed oil, native            | 170501A     | 1       |
| Idunn                      | Grape seed oil, refined         | 20182102    | 1       |
| J.H. Müller                | Olive oil, native               | 140115      | 1       |
| J.H. Müller                | Sunflower oil, refined          | 140229      | 1       |
| J.H. Müller                | Evening primrose oil, refined   | 140419      | 1       |
| J.H.Müller/direkt/01.08... | Almond oil, refined             | 130327      | 2       |
| J.H.Müller/direkt/17.05... | Almond oil, refined             | 130103      | 1       |
| J.H.Müller/direkt/17.05... | Evening primrose oil, refined   | 130127      | 1       |
| J.H.Müller/direkt/17.05... | Borage oil, refined, stabili... | 130302      | 1       |
| J.H.Müller                 | Evening primrose oil, refined   | 170832      | 1       |
| J.H.Müller                 | Evening primrose oil, refined   | 171220      | 1       |
| J.H.Müller                 | Evening primrose oil, refined   | 180234      | 1       |
| Jenne/Gall Pharma          | Codliver oil (type A)           |             | 1       |
| Jenne/HenryLamotte         | Almond oil, refined             | 8005936002  | 1       |
| jenne                      | Almond oil, refined             | 1000010685  | 1       |
| Jenne                      | Evening primrose oil, refined   | 1210012-02  | 1       |
| Jenne                      | Peanut oil, refined             | 16071104    | 1       |
| JENNE                      | Jojoba Oil, native              | 17073309    | 1       |
| Jenne                      | Sesame oil, refined             | 17177703    | 1       |
| Jenne                      | Sunflower oil, refined          | 17242101    | 1       |
| JENNE                      | Shea butter, refined            | 17287510    | 1       |
| JENNE                      | Olive oil, native               | 17361108    | 1       |
| Jenne                      | Sunflower oil, refined          | 18027005    | 1       |
| Jenne                      | Almond oil, refined             | 18070602    | 1       |
| Jenne                      | Olive oil, native               | 18208101    | 1       |
| Jenne                      | Olive oil, native               | 18208106    | 1       |
| Jenne                      | Almond oil, refined             | 19000779004 | 1       |
| Jenne                      | Evening primrose oil, refined   | 19164401    | 1       |
| Jenne                      | Evening primrose oil, refined   | 192982002   | 1       |
| Jenne                      | Almond oil, refined             | 20001624012 | 1       |
| Jenne                      | Evening primrose oil, refined   | 2008037-01  | 1       |
| Jenne                      | Codliver oil (type A)           | 8003727001  | 1       |
| Kastner                    | Peanut oil, refined             | 5592601     | 2       |
| Kehr / Lamotte             | Almond oil, refined             | 50115PML01  | 1       |
| Kehr / Lamotte             | Almond oil, refined             | 5214206     | 1       |
| Kehr/Henry Lamotte         | Olive oil, native               | 8003801001  | 1       |

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| Supplier | Substance                     | Batch        | Spectra |
|----------|-------------------------------|--------------|---------|
| Kehr     | Evening primrose oil, refined | 16281308     | 3       |
| Kehr     | Evening primrose oil, refined | 16281313     | 1       |
| Kehr     | Evening primrose oil, refined | 1704018-01   | 4       |
| Kehr     | Evening primrose oil, refined | 1710011-01   | 1       |
| Kehr     | Evening primrose oil, refined | 1911009-01   | 1       |
| Kehr     | Olive oil, native             | 308229       | 1       |
| Kehr     | Jojoba Oil, native            | 8000469001   | 1       |
| Kehr     | Almond oil, refined           | 8004039003   | 1       |
| Klenk    | Evening primrose oil, refined | 12112905     | 1       |
| Klenk    | Codliver oil (type A)         | 17344601     | 1       |
| Klenk    | Peanut oil, refined           | 18296009     | 1       |
| Klenk    | Codliver oil (type A)         | 5228004      | 2       |
| Klenk    | Almond oil, refined           | 5269301      | 2       |
| Kögl     | Almond oil, refined           |              | 1       |
| Kögl     | Almond oil, refined           | 109704172417 | 1       |
| Kögl     | Codliver oil (type A)         | 13202170617  | 2       |
| Kögl     | Avocado oil, refined          | 159805171917 | 3       |
| Kögl     | Evening primrose oil, refined | 161805171917 | 2       |
| Kögl     | Evening primrose oil, refined | 1700100      | 1       |
| Kögl     | Almond oil, refined           | 1700173      | 2       |
| Kögl     | Codliver oil (type A)         | 1700194      | 2       |
| Kögl     | Olive oil, native             | 1700561      | 1       |
| Kögl     | Jojoba Oil, native            | 1700876      | 7       |
| Kögl     | Sesame oil, refined           | 1700881      | 2       |
| Kögl     | Almond oil, refined           | 1701192      | 1       |
| Kögl     | Peanut oil, refined           | 1701232      | 1       |
| Kögl     | Almond oil, refined           | 1701851      | 1       |
| Kögl     | Sesame oil, refined           | 1702060      | 1       |
| Kögl     | Avocado oil, refined          | 1702199      | 2       |
| Kögl     | Evening primrose oil, refined | 1702248      | 1       |
| Kögl     | Olive oil, native             | 1702444      | 2       |
| Kögl     | Peanut oil, refined           | 1800078      | 1       |
| Kögl     | Almond oil, refined           | 1800278      | 1       |
| Kögl     | Avocado oil, refined          | 1800426      | 4       |
| Kögl     | Almond oil, refined           | 1800813      | 1       |
| Kögl     | Codliver oil (type A)         | 1800814      | 4       |
| Kögl     | Evening primrose oil, refined | 1800988      | 1       |
| Kögl     | Peanut oil, refined           | 1801368      | 1       |
| Kögl     | Peanut oil, refined           | 1801916      | 2       |
| Kögl     | Evening primrose oil, refined | 1802062      | 1       |
| Kögl     | Jojoba Oil, native            | 1802131      | 1       |
| Kögl     | Codliver oil (type A)         | 1802500      | 2       |
| Kögl     | Almond oil, refined           | 1802929      | 2       |
| Kögl     | Olive oil, native             | 1803441      | 1       |
| Kögl     | Avocado oil, refined          | 20171598     | 2       |
| Kögl     | Olive oil, native             | 20172174     | 2       |
| Kögl     | Almond oil, refined           | 20172414     | 2       |
| Kögl     | Peanut oil, refined           | 216906172917 | 1       |
| Kögl     | Codliver oil (type A)         | 242207172717 | 2       |
| Kögl     | Jojoba Oil, native            | 25302170717  | 1       |
| Kögl     | Jojoba Oil, native            | 25302171717  | 3       |
| Kögl     | Almond oil, refined           | 267608164216 | 1       |
| Kögl     | Olive oil, native             | 300609163816 | 1       |
| Kögl     | Olive oil, native             | 300609164116 | 1       |
| Kögl     | Sesame oil, refined           | 303709163816 | 1       |
| Kögl     | Codliver oil (type A)         | 355510164416 | 1       |
| Kögl     | Almond oil, refined           | 373411164816 | 1       |
| Kögl     | Peanut oil, refined           | 393021711179 | 1       |
| Kögl     | Peanut oil, refined           | 39302171717  | 1       |
| Kögl     | Avocado oil, refined          | 407211161117 | 2       |

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| Supplier                   | Substance                       | Batch          | Spectra |
|----------------------------|---------------------------------|----------------|---------|
| Kögl                       | Avocado oil, refined            | 407211164916   | 1       |
| Kögl                       | Peanut oil, refined             | 425612165116   | 3       |
| Kögl                       | Jobaba Oil, native              | 432212160117   | 2       |
| Kögl                       | Jobaba Oil, native              | 432212165116   | 1       |
| Kögl                       | Olive oil, native               | 44102170917    | 2       |
| Kögl                       | Olive oil, native               | 44102171417    | 1       |
| Kögl                       | Evening primrose oil, refined   | 446412160317   | 1       |
| Kögl                       | Almond oil, refined             | 485801170717   | 1       |
| Kögl                       | Almond oil, refined             | 65903171117    | 1       |
| Krieger/Henry Lamotte      | Flaxseed oil, native            | 1000010463     | 1       |
| Krieger/Lamotte            | Almond oil, refined             | 8001497001     | 1       |
| Krieger                    | Almond oil, refined             | 13350006       | 1       |
| Krieger                    | Olive oil, native               | 17361101       | 1       |
| Krieger                    | Almond oil, refined             | 19000779001    | 1       |
| Krieger/Lamotte/06.01.14   | Almond oil, refined             | 5438302        | 1       |
| Krieger/Lamotte/30.12.13   | Flaxseed oil, native            | 102503         | 1       |
| L 20/ Henry Lamotte        | Almond oil, refined             | 1000004431     | 1       |
| L 20/ Henry Lamotte        | Almond oil, refined             | 8002653001     | 2       |
| L10/HENRY LAMOTTE          | Almond oil, refined             | 8003167001     | 1       |
| L10                        | Sesame oil, refined             | 1000007221     | 1       |
| L10                        | Evening primrose oil, refined   | 1703020-01     | 1       |
| L12/Henry Lamotte          | Sesame oil, refined             | 1000005858     | 3       |
| L12/Henry Lamotte          | Almond oil, refined             | 8001497001     | 5       |
| L12/Henry Lamotte          | Sesame oil, refined             | 8001557002     | 2       |
| L12                        | Sesame oil, refined             | 10000007221    | 1       |
| L12                        | Sesame oil, refined             | 1000002705     | 2       |
| L12                        | Sesame oil, refined             | 1000009220     | 4       |
| L12                        | Laurel oil                      | 16275702       | 1       |
| L12                        | Olive oil, native               | 16327402       | 1       |
| L12                        | Olive oil, native               | 1637402        | 1       |
| L12                        | Evening primrose oil, refined   | 1704018-01     | 2       |
| L12                        | Oleyl oleate (stabilised)       | 17358103       | 1       |
| L12                        | Borage oil, refined, stabili... | 17361804       | 2       |
| L12                        | Jobaba Oil, native              | 18057105       | 1       |
| L12                        | Grape seed oil, refined         | 18065207       | 1       |
| L12                        | Decyl oleate                    | 18069402       | 1       |
| L12                        | Peanut oil, refined             | 18208202       | 2       |
| L12                        | Peanut oil, refined             | 18208207       | 2       |
| L12                        | Almond oil, refined             | 8002675001     | 1       |
| L12                        | Sesame oil, refined             | 8002939002     | 2       |
| L12                        | Almond oil, refined             | 8003167001     | 4       |
| L12                        | Almond oil, refined             | E1712007       | 1       |
| L20/ Henry Lamotte         | Almond oil, refined             | 8002675001     | 1       |
| L20/ Henry Lamotte         | Almond oil, refined             | 8003503002     | 1       |
| L20/Lamotte                | Almond oil, refined             | 1000003242     | 1       |
| L30                        | Almond oil, refined             | E1603022       | 1       |
| La Cura Wilco              | Jobaba Oil, native              | 2481           | 1       |
| LABORCHEMIE APOLDA GmbH... | Avocado oil, refined            | 8001641001     | 1       |
| Lam / Now                  | Codliver oil (type A)           | 8001765001     | 1       |
| Lam                        | Codliver oil (type A)           | 5878701        | 1       |
| Lametto/Alliance           | Almond oil, refined             | 8004548011     | 1       |
| Lamolle/Phoenix            | Peanut oil, refined             | 10000012961    | 1       |
| Lamotte / Sanacorp         | Codliver oil (type A)           | 80024680025600 | 1       |
| Lamotte Jenne              | Codliver oil (type A)           | 5228004        | 2       |
| Lamotte / 2                | Olive oil, native               | 1000013127     | 1       |
| Lamotte / AHC              | Almond oil, refined             | 1000003242     | 1       |
| Lamotte / AHC              | Almond oil, refined             | 1000010093     | 1       |
| Lamotte / AHC              | Olive oil, native               | 1000010808     | 1       |
| Lamotte / AHC              | Olive oil, native               | 1000012341     | 1       |
| Lamotte / AHD              | Olive oil, native               | 8002827001     | 1       |

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continued from previous page

| Supplier           | Substance                       | Batch       | Spectra |
|--------------------|---------------------------------|-------------|---------|
| Lamotte / Anzag    | Olive oil, native               | 1000016418  | 1       |
| Lamotte / Anzag    | Peanut oil, refined             | 1000017094  | 1       |
| Lamotte / Anzag    | Almond oil, refined             | 8004548002  | 1       |
| Lamotte / Anzag    | Almond oil, refined             | 8005936002  | 1       |
| Lamotte / Gehe     | Sesame oil, refined             | 1000007221  | 3       |
| Lamotte / GEHE     | Sesame oil, refined             | 1000009220  | 2       |
| Lamotte / Gehe     | Almond oil, refined             | 1000010685  | 2       |
| Lamotte / Gehe     | Almond oil, refined             | 1000013565  | 1       |
| Lamotte / Gehe     | Evening primrose oil, refined   | 123121      | 3       |
| Lamotte / Gehe     | Evening primrose oil, refined   | 123386      | 7       |
| Lamotte / Gehe     | Evening primrose oil, refined   | 124363      | 4       |
| Lamotte / Gehe     | Avocado oil, refined            | 130193      | 1       |
| Lamotte / Gehe     | Evening primrose oil, refined   | 145553      | 5       |
| Lamotte / Gehe     | Evening primrose oil, refined   | 145675      | 4       |
| Lamotte / Gehe     | Evening primrose oil, refined   | 145802      | 9       |
| Lamotte / Gehe     | Evening primrose oil, refined   | 150827      | 4       |
| Lamotte / Gehe     | Almond oil, refined             | 3968/V03/14 | 1       |
| Lamotte / Gehe     | Olive oil, native               | 5127501     | 1       |
| Lamotte / Gehe     | Olive oil, native               | 5283901     | 2       |
| Lamotte / Gehe     | Olive oil, native               | 5372701     | 2       |
| Lamotte / Gehe     | Peanut oil, refined             | 5404101     | 1       |
| Lamotte / Gehe     | Olive oil, native               | 5470202     | 1       |
| Lamotte / Gehe     | Almond oil, refined             | 5615001     | 1       |
| Lamotte / Gehe     | Codliver oil (type A)           | 5693101     | 1       |
| Lamotte / Gehe     | Almond oil, refined             | 5703101     | 2       |
| Lamotte / Gehe     | Olive oil, native               | 5734701     | 1       |
| Lamotte / Gehe     | Almond oil, refined             | 8000725001  | 2       |
| Lamotte / Gehe     | Olive oil, native               | 8003420001  | 1       |
| Lamotte / Gehe     | Codliver oil (type A)           | 8003727001  | 1       |
| Lamotte / Gehe     | Almond oil, refined             | 8003885002  | 2       |
| Lamotte / Gehe     | Olive oil, native               | 8004251002  | 2       |
| Lamotte / Gehe     | Codliver oil (type A)           | 8005296002  | 1       |
| Lamotte / Gehe     | Codliver oil (type A)           | 8007109001  | 1       |
| Lamotte / Gehe     | Olive oil, native               | L901        | 1       |
| Lamotte / Noweda   | Almond oil, refined             | 1000003242  | 2       |
| Lamotte / Noweda   | Almond oil, refined             | 1000010685  | 3       |
| Lamotte / Noweda   | Olive oil, native               | 1000010808  | 4       |
| Lamotte / Noweda   | Almond oil, refined             | 1000012126  | 1       |
| Lamotte / Noweda   | Almond oil, refined             | 1000013565  | 2       |
| Lamotte / Noweda   | Olive oil, native               | 1000017819  | 1       |
| Lamotte / Noweda   | Olive oil, native               | 124392      | 1       |
| Lamotte / Noweda   | Evening primrose oil, refined   | 145581      | 3       |
| Lamotte / Noweda   | Almond oil, refined             | 5615001     | 1       |
| Lamotte / Noweda   | Almond oil, refined             | 5615003     | 1       |
| Lamotte / Noweda   | Almond oil, refined             | 5748601     | 2       |
| Lamotte / Noweda   | Almond oil, refined             | 8001497001  | 2       |
| Lamotte / Noweda   | Almond oil, refined             | 8003167001  | 1       |
| Lamotte / Noweda   | Almond oil, refined             | 8004390001  | 1       |
| Lamotte / Noweda   | Almond oil, refined             | 8004548002  | 2       |
| Lamotte / Noweda   | Codliver oil (type A)           | 8004742003  | 1       |
| Lamotte / Noweda   | Codliver oil (type A)           | 8005296003  | 1       |
| Lamotte / Noweda   | Almond oil, refined             | 8005936002  | 1       |
| Lamotte / Phoenix  | Almond oil, refined             | 8004548011  | 1       |
| Lamotte / phönix   | Avocado oil, refined            | 1000004363  | 1       |
| Lamotte / Phönix   | Peanut oil, refined             | 1000010888  | 1       |
| Lamotte / Phönix   | Borage oil, refined, stabili... | 5594400001  | 1       |
| Lamotte / Phönix   | Olive oil, native               | 8001431001  | 1       |
| Lamotte / Phönix   | Almond oil, refined             | 8004390001  | 1       |
| Lamotte / Sanacorp | Sesame oil, refined             | 10000010906 | 2       |
| Lamotte / Sanacorp | Olive oil, native               | 1000012617  | 1       |

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continued from previous page

| Supplier                  | Substance                       | Batch             | Spectra |
|---------------------------|---------------------------------|-------------------|---------|
| Lamotte / Sanacorp        | Almond oil, refined             | 1000013565        | 1       |
| Lamotte / Sanacorp        | Olive oil, native               | 1000014032        | 2       |
| Lamotte / Sanacorp        | Olive oil, native               | 1000016418        | 1       |
| Lamotte / Sanacorp        | Olive oil, native               | 5283901           | 1       |
| lamotte / Sanacorp        | Almond oil, refined             | 5615003           | 1       |
| Lamotte / Sanacorp        | Codliver oil (type A)           | 8000601001        | 1       |
| Lamotte / Sanacorp        | Codliver oil (type A)           | 8000918001        | 4       |
| Lamotte / Sanacorp        | Almond oil, refined             | 8002675001        | 4       |
| Lamotte / Sanacorp        | Codliver oil (type A)           | Lamotte8000918001 | 1       |
| Lamotte / Noweda          | Olive oil, native               | 8001854001        | 1       |
| Lamotte / Phönix          | Almond oil, refined             | 8003167001        | 1       |
| Lamotte / Phönix          | Avocado oil, refined            | 8002616001        | 1       |
| Lamotte / Sanacorp        | Almond oil, refined             | 1000010685        | 1       |
| Lamotte GmbH              | Avocado oil, refined            | 1000001451        | 1       |
| Lamotte GmbH              | Olive oil, native               | 8001948002        | 1       |
| Lamotte Henry             | Almond oil, refined             | 1000004431        | 1       |
| Lamotte Henry             | Codliver oil (type A)           | 8001176004        | 1       |
| lamotte jenne             | Codliver oil (type A)           | 8000601001        | 1       |
| lamotte noweda,           | Almond oil, refined             | 5615001           | 1       |
| Lamotte Noweda            | Almond oil, refined             | 1000010093        | 1       |
| Lamotte Noweda            | Olive oil, native               | 8004499001        | 1       |
| Lamotte Noweda            | Almond oil, refined             | 8004548002        | 3       |
| Lamotte Noweda            | Almond oil, refined             | 8005936002        | 6       |
| Lamotte Oils GmbH / E     | Codliver oil (type A)           | 5437202           | 2       |
| Lamotte Oils GmbH / G     | Codliver oil (type A)           | 5228004           | 1       |
| lamotte oils GmbH / Gehe  | Peanut oil, refined             | 1000010888        | 1       |
| Lamotte Phönix            | Almond oil, refined             | 5214206           | 1       |
| Lamotte Phönix            | Olive oil, native               | 5271504           | 1       |
| Lamotte Phönix            | Olive oil, native               | 5272401           | 2       |
| Lamotte Sanacorp          | Jojoba Oil, native              | 5913600001        | 1       |
| Lamotte Sanacorp          | Jojoba Oil, native              | 8000469001        | 6       |
| Lamotte über Noweda       | Sesame oil, refined             | 1000002705        | 1       |
| Lamotte über Phoenix      | Sesame oil, refined             | 5639301           | 2       |
| Lamotte über Phoenix      | Almond oil, refined             | 5703001           | 1       |
| Lamotte über Phoenix      | Almond oil, refined             | 5748601           | 3       |
| Lamotte über Phoenix      | Sesame oil, refined             | 5821001           | 1       |
| Lamotte über Phoenix      | Sesame oil, refined             | 5872001           | 1       |
| Lamotte über Phoenix      | Sesame oil, refined             | 5872901           | 2       |
| Lamotte über Phoenix      | Sesame oil, refined             | 8000682001        | 2       |
| Lamotte über Phoenix      | Almond oil, refined             | 8000712001        | 2       |
| Lamotte über Phoenix      | Almond oil, refined             | 8000725001        | 1       |
| Lamotte über Sanacorp     | Borage oil, refined, stabili... | 125354            | 1       |
| Lamotte über Sanacorp     | Codliver oil (type A)           | 5641901           | 1       |
| Lamotte über Sanacorp     | Almond oil, refined             | 8000915001        | 3       |
| Lamotte über Sanacorp     | Almond oil, refined             | 8000915002        | 1       |
| Lamotte, Bremen/ Phönix   | Olive oil, native               | 1000011651        | 1       |
| Lamotte, Bremen           | Olive oil, native               | 1000012341        | 1       |
| Lamotte, Bremen           | Olive oil, native               | 1000013127        | 1       |
| Lamotte/ Alliance 28.0... | Almond oil, refined             | 1000013565        | 1       |
| Lamotte/ Alliance         | Sesame oil, refined             | 1000009220        | 1       |
| Lamotte/ Alliance         | Codliver oil (type A)           | 8004742002        | 1       |
| Lamotte/ Anzag            | Codliver oil (type A)           | 1000011373        | 1       |
| Lamotte/ Anzag            | Olive oil, native               | 5271504           | 1       |
| Lamotte/ Anzag            | Olive oil, native               | 5470202           | 2       |
| Lamotte/ Anzag            | Almond oil, refined             | 8002653001        | 1       |
| Lamotte/ Anzag            | Almond oil, refined             | 8003503001        | 2       |
| Lamotte/ Anzag            | Almond oil, refined             | 8004039003        | 1       |
| Lamotte/ Gehe             | Olive oil, native               | 1000011651        | 1       |
| Lamotte/ Gehe             | Almond oil, refined             | 8004548011        | 1       |
| Lamotte/ Gehe             | Almond oil, refined             | 8005803006        | 4       |

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| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Lamotte/ Noweda            | Sesame oil, refined             | 1000007221  | 1       |
| Lamotte/ Noweda            | Olive oil, native               | 1000010861  | 1       |
| Lamotte/ Noweda            | Sesame oil, refined             | 123488      | 1       |
| Lamotte/ Noweda            | Almond oil, refined             | 5415901     | 1       |
| Lamotte/ Noweda            | Codliver oil (type A)           | 5437202     | 4       |
| Lamotte/ Noweda            | Almond oil, refined             | 5438301     | 1       |
| Lamotte/ Noweda            | Codliver oil (type A)           | 8000918001  | 2       |
| Lamotte/ Noweda            | Almond oil, refined             | 8001497001  | 3       |
| Lamotte/ Noweda            | Almond oil, refined             | 8002675001  | 1       |
| Lamotte/ Noweda            | Olive oil, native               | 8004067001  | 1       |
| Lamotte/ Noweda            | Codliver oil (type A)           | 8005296002  | 1       |
| Lamotte/ Noweda            | Codliver oil (type A)           | A458        | 1       |
| lamotte/ Phoenix           | Sesame oil, refined             | 5744101     | 1       |
| Lamotte/ Phoenix           | Almond oil, refined             | 5748601     | 1       |
| Lamotte/ Phoenix           | Codliver oil (type A)           | 8001765001  | 2       |
| Lamotte/ Phoenix           | Codliver oil (type A)           | 8003906001  | 1       |
| Lamotte/ Phoenix           | Codliver oil (type A)           | 8003906002  | 1       |
| Lamotte/ Phönix            | Almond oil, refined             | 5438302     | 1       |
| Lamotte/ Sana              | Almond oil, refined             | 5669601     | 1       |
| Lamotte/ Sanacorb          | Sesame oil, refined             | 1000013957  | 1       |
| Lamotte/ Sanacorp          | Codliver oil (type A)           | 5029207     | 1       |
| Lamotte/ Sanacorp          | Codliver oil (type A)           | 5529601     | 2       |
| Lamotte/ Sanacorp          | Codliver oil (type A)           | 5693101     | 5       |
| Lamotte/ Sanacorp          | Codliver oil (type A)           | 8000601001  | 2       |
| Lamotte/ Sanacorp          | Codliver oil (type A)           | 8001176004  | 3       |
| Lamotte/ Sanacorp          | Codliver oil (type A)           | 8002338002  | 7       |
| Lamotte/ Sanacorp          | Almond oil, refined             | 8002675001  | 1       |
| Lamotte/ Sanacorp          | Almond oil, refined             | 8004039003  | 1       |
| Lamotte/ Sanacorp          | Almond oil, refined             | 8004548011  | 1       |
| Lamotte/ Sanacorp          | Codliver oil (type A)           | 8004742003  | 3       |
| Lamotte//AHD               | Evening primrose oil, refined   | 145581      | 2       |
| Lamotte/                   | Almond oil, refined             | 8005803006  | 1       |
| Lamotte/3                  | Almond oil, refined             | 5748401     | 1       |
| Lamotte/AHD/28.01.2020     | Olive oil, native               | 1000010861  | 1       |
| Lamotte/AHD                | Evening primrose oil, refined   | 10000001044 | 1       |
| Lamotte/AHD                | Evening primrose oil, refined   | 1000002386  | 1       |
| Lamotte/AHD                | Almond oil, refined             | 1000003242  | 2       |
| Lamotte/AHD                | Evening primrose oil, refined   | 1000004385  | 1       |
| Lamotte/AHD                | Evening primrose oil, refined   | 1000007046  | 1       |
| Lamotte/AHD                | Almond oil, refined             | 1000010685  | 1       |
| Lamotte/AHD                | Jobba Oil, native               | 1000011858  | 1       |
| Lamotte/AHD                | Evening primrose oil, refined   | 145581      | 2       |
| Lamotte/AHD                | Almond oil, refined             | 8003503002  | 4       |
| Lamotte/AHD                | Almond oil, refined             | 8003885002  | 1       |
| Lamotte/AHD                | Olive oil, native               | 8004067001  | 1       |
| Lamotte/AHD                | Almond oil, refined             | 8004548007  | 1       |
| Lamotte/AHD                | Almond oil, refined             | 8004548011  | 1       |
| Lamotte/AHD                | Codliver oil (type A)           | 8004742003  | 1       |
| Lamotte/Allia              | Sesame oil, refined             | 1000009220  | 1       |
| Lamotte/Allia              | Almond oil, refined             | 1000013565  | 1       |
| Lamotte/Allia              | Peanut oil, refined             | 1000013880  | 5       |
| Lamotte/Allia              | Almond oil, refined             | 1000017183  | 1       |
| Lamotte/Allia              | Almond oil, refined             | 8004548011  | 2       |
| Lamotte/Allia              | Almond oil, refined             | 8005803006  | 1       |
| Lamotte/Alliance 10.03...  | Sesame oil, refined             | 1000010906  | 1       |
| Lamotte/Alliance Health... | Peanut oil, refined             | 1000010888  | 1       |
| Lamotte/Alliance           | Evening primrose oil, refined   | 1000002386  | 1       |
| Lamotte/Alliance           | Borage oil, refined, stabili... | 1000006595  | 2       |
| Lamotte/Alliance           | Evening primrose oil, refined   | 1000008469  | 1       |
| Lamotte/Alliance           | Almond oil, refined             | 1000010685  | 3       |

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| Supplier                  | Substance                       | Batch       | Spectra |
|---------------------------|---------------------------------|-------------|---------|
| Lamotte/Alliance          | Olive oil, native               | 1000010861  | 1       |
| Lamotte/Alliance          | Olive oil, native               | 1000012341  | 1       |
| Lamotte/Alliance          | Almond oil, refined             | 1000013565  | 2       |
| Lamotte/Alliance          | Olive oil, native               | 1000014032  | 1       |
| Lamotte/Alliance          | Olive oil, native               | 1000014704  | 1       |
| Lamotte/Alliance          | Codliver oil (type A)           | 1000017673  | 2       |
| Lamotte/Alliance          | Borage oil, refined, stabili... | 125354      | 1       |
| Lamotte/Alliance          | Olive oil, native               | 5623601     | 1       |
| Lamotte/Alliance          | Olive oil, native               | 5891202     | 1       |
| Lamotte/Alliance          | Almond oil, refined             | 8002653001  | 1       |
| Lamotte/Alliance          | Almond oil, refined             | 8003167001  | 4       |
| Lamotte/Alliance          | Olive oil, native               | 8003420001  | 1       |
| Lamotte/Alliance          | Almond oil, refined             | 8003885002  | 1       |
| Lamotte/Alliance          | Almond oil, refined             | 8004039003  | 3       |
| Lamotte/Alliance          | Olive oil, native               | 8004499001  | 1       |
| Lamotte/Alliance          | Olive oil, native               | 8004827001  | 1       |
| Lamotte/Anzag 12.06.2012  | Almond oil, refined             | 5177001     | 1       |
| Lamotte/Anzag             | Sesame oil, refined             | 10000010906 | 1       |
| Lamotte/Anzag             | Almond oil, refined             | 1000004431  | 1       |
| Lamotte/Anzag             | Peanut oil, refined             | 1000010888  | 3       |
| Lamotte/ANzag             | Sesame oil, refined             | 1000010906  | 1       |
| Lamotte/Anzag             | Almond oil, refined             | 1000012126  | 1       |
| Lamotte/Anzag             | Sesame oil, refined             | 1000013957  | 1       |
| Lamotte/Anzag             | Peanut oil, refined             | 1000017094  | 1       |
| Lamotte/Anzag             | Almond oil, refined             | 130145      | 1       |
| Lamotte/Anzag             | Almond oil, refined             | 3516I-01950 | 1       |
| lamotte/anzag             | Almond oil, refined             | 5415901     | 3       |
| Lamotte/Anzag             | Olive oil, native               | 5671901     | 1       |
| Lamotte/Anzag             | Olive oil, native               | 5734701     | 1       |
| Lamotte/Anzag             | Olive oil, native               | 5813601     | 1       |
| Lamotte/Anzag             | Almond oil, refined             | 8000712001  | 4       |
| Lamotte/Anzag             | Codliver oil (type A)           | 8000918001  | 1       |
| Lamotte/Anzag             | Codliver oil (type A)           | 8002338002  | 2       |
| Lamotte/Anzag             | Almond oil, refined             | 8002653001  | 1       |
| Lamotte/Anzag             | Almond oil, refined             | 8002675001  | 2       |
| Lamotte/Anzag             | Codliver oil (type A)           | 8003727001  | 1       |
| Lamotte/Anzag             | Codliver oil (type A)           | 8003906002  | 1       |
| Lamotte/Anzag             | Codliver oil (type A)           | 800472002   | 1       |
| Lamotte/Anzag             | Almond oil, refined             | 8005936002  | 1       |
| Lamotte/E&J               | Sesame oil, refined             | 1000005858  | 1       |
| Lamotte/Ebert&Jacobi      | Almond oil, refined             | 5919600001  | 1       |
| Lamotte/Ebert             | Almond oil, refined             | 1000003242  | 1       |
| Lamotte/Ebert             | Almond oil, refined             | 5415901     | 1       |
| Lamotte/Ebert             | Almond oil, refined             | 8000725001  | 1       |
| Lamotte/Ebert             | Almond oil, refined             | 8000915001  | 1       |
| Lamotte/Ebert             | Almond oil, refined             | 8003167001  | 1       |
| Lamotte/Ebert             | Olive oil, native               | 8003420001  | 1       |
| Lamotte/Ebert             | Almond oil, refined             | 8003503002  | 2       |
| Lamotte/Ebert             | Olive oil, native               | 8003580002  | 1       |
| Lamotte/Ebert             | Olive oil, native               | 8003801001  | 1       |
| Lamotte/Ebert             | Almond oil, refined             | 8004039003  | 3       |
| Lamotte/Ebert+Jacobi      | Almond oil, refined             | 8004039003  | 2       |
| Lamotte/Fiebig 22.11...   | Peanut oil, refined             | 1000015783  | 1       |
| Lamotte/Fiebig 03.04.2... | Almond oil, refined             | 8005936002  | 1       |
| Lamotte/Fiebig            | Sesame oil, refined             | 100000386   | 1       |
| Lamotte/Fiebig            | Sesame oil, refined             | 1000005858  | 1       |
| Lamotte/Fiebig            | Sesame oil, refined             | 1000007221  | 1       |
| Lamotte/Fiebig            | Almond oil, refined             | 1000010685  | 1       |
| Lamotte/Fiebig            | Sesame oil, refined             | 1000010906  | 1       |
| Lamotte/Fiebig            | Almond oil, refined             | 1000012126  | 1       |

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| Supplier              | Substance             | Batch      | Spectra |
|-----------------------|-----------------------|------------|---------|
| Lamotte/Fiebig        | Peanut oil, refined   | 1000014700 | 2       |
| Lamotte/Fiebig        | Olive oil, native     | 1000016418 | 1       |
| Lamotte/Fiebig        | Sesame oil, refined   | 18331301   | 1       |
| Lamotte/Fiebig        | Codliver oil (type A) | 8001765001 | 4       |
| Lamotte/Fiebig        | Jobba Oil, native     | 8002391001 | 3       |
| Lamotte/gehe/03.02.21 | Peanut oil, refined   | 1000012961 | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 1000002454 | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 1000003242 | 4       |
| Lamotte/Gehe          | Almond oil, refined   | 1000004431 | 2       |
| Lamotte/Gehe          | Almond oil, refined   | 1000010685 | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 1000012126 | 4       |
| Lamotte/Gehe          | Almond oil, refined   | 1000013112 | 4       |
| Lamotte/Gehe          | Olive oil, native     | 1000013127 | 3       |
| Lamotte/Gehe          | Olive oil, native     | 1000014704 | 1       |
| lamotte/Gehe          | Codliver oil (type A) | 123823     | 1       |
| Lamotte/Gehe          | Omega-3-fish oil      | 124247     | 3       |
| Lamotte/Gehe          | Jobba Oil, native     | 5172601    | 1       |
| Lamotte/GEHE          | Peanut oil, refined   | 5204402    | 1       |
| Lamotte/gehe          | Almond oil, refined   | 5214206    | 1       |
| Lamotte/GEHE          | Almond oil, refined   | 5269301    | 2       |
| lamotte/Gehe          | Olive oil, native     | 5271504    | 1       |
| Lamotte/gehe          | Almond oil, refined   | 5274206    | 1       |
| lamotte/Gehe          | Almond oil, refined   | 5415901    | 3       |
| Lamotte/Gehe          | Almond oil, refined   | 5415901    | 6       |
| Lamotte/gehe          | Codliver oil (type A) | 5437202    | 4       |
| Lamotte/GEHE          | Codliver oil (type A) | 5437202    | 7       |
| Lamotte/Gehe          | Almond oil, refined   | 5438302    | 1       |
| Lamotte/GEHE          | Almond oil, refined   | 5438302    | 3       |
| lamotte/Gehe          | Codliver oil (type A) | 5529601    | 4       |
| lamotte/Gehe          | Peanut oil, refined   | 5592601    | 3       |
| lamotte/Gehe          | Almond oil, refined   | 5615001    | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 5615001    | 3       |
| Lamotte/Gehe          | Almond oil, refined   | 5615003    | 7       |
| lamotte/Gehe          | Codliver oil (type A) | 5641901    | 3       |
| Lamotte/gehe          | Codliver oil (type A) | 5693101    | 3       |
| Lamotte/Gehe          | Codliver oil (type A) | 5693101    | 3       |
| Lamotte/Gehe          | Almond oil, refined   | 5703101    | 2       |
| Lamotte/Gehe          | Jobba Oil, native     | 5732801    | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 5748401    | 2       |
| Lamotte/Gehe          | Almond oil, refined   | 5748601    | 5       |
| Lamotte/Gehe          | Codliver oil (type A) | 5878701    | 1       |
| Lamotte/Gehe          | Codliver oil (type A) | 8000601001 | 2       |
| Lamotte/Gehe          | Almond oil, refined   | 8000712001 | 2       |
| Lamotte/Gehe          | Almond oil, refined   | 8000725001 | 2       |
| Lamotte/Gehe          | Almond oil, refined   | 8000915002 | 3       |
| Lamotte/Gehe          | Codliver oil (type A) | 8000918001 | 1       |
| Lamotte/Gehe          | Codliver oil (type A) | 8001176004 | 1       |
| Lamotte/Gehe          | Codliver oil (type A) | 8001215002 | 2       |
| lamotte/gehe          | Almond oil, refined   | 8001497001 | 2       |
| Lamotte/Gehe          | Almond oil, refined   | 8001497001 | 4       |
| Lamotte/Gehe          | Codliver oil (type A) | 8002338002 | 3       |
| Lamotte/Gehe          | Codliver oil (type A) | 8002468002 | 2       |
| lamotte/gehe          | Almond oil, refined   | 8002653001 | 2       |
| Lamotte/Gehe          | Almond oil, refined   | 8002653001 | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 8002675001 | 2       |
| lamotte/gehe          | Almond oil, refined   | 8003167001 | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 8003167001 | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 8003503002 | 1       |
| Lamotte/Gehe          | Almond oil, refined   | 8003885002 | 1       |
| Lamotte/gehe          | Codliver oil (type A) | 8003906001 | 1       |

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| Supplier                   | Substance                     | Batch       | Spectra |
|----------------------------|-------------------------------|-------------|---------|
| Lamotte/Gehe               | Codliver oil (type A)         | 8003906001  | 1       |
| Lamotte/gehe               | Codliver oil (type A)         | 8003906002  | 2       |
| Lamotte/Gehe               | Codliver oil (type A)         | 8003906002  | 1       |
| Lamotte/Gehe               | Almond oil, refined           | 8004039003  | 2       |
| Lamotte/Gehe               | Almond oil, refined           | 8004390001  | 1       |
| Lamotte/Gehe               | Almond oil, refined           | 8004548002  | 1       |
| Lamotte/Gehe               | Almond oil, refined           | 80045480032 | 1       |
| Lamotte/Gehe               | Almond oil, refined           | 8004548011  | 2       |
| Lamotte/Gehe               | Codliver oil (type A)         | 8005296002  | 1       |
| Lamotte/Gehe               | Codliver oil (type A)         | 8005296003  | 1       |
| Lamotte/Gehe               | Almond oil, refined           | 8005936002  | 5       |
| Lamotte/Gehe               | Almond oil, refined           | 8007461004  | 1       |
| Lamotte/Gehe               | Almond oil, refined           | 8007584002  | 1       |
| Lamotte/Geibo              | Codliver oil (type A)         | 8000918001  | 2       |
| Lamotte/Geilenkirchen      | Peanut oil, refined           | 1000010888  | 1       |
| Lamotte/Geilenkirchen      | Peanut oil, refined           | 1000013880  | 1       |
| Lamotte/Geilenkirchen      | Almond oil, refined           | 8003167001  | 2       |
| Lamotte/GH/11.09.13        | Olive oil, native             | 5271504     | 1       |
| lamotte/Jenne              | Peanut oil, refined           | 5404101     | 1       |
| Lamotte/Jenne              | Almond oil, refined           | 8004548002  | 1       |
| Lamotte/Jenne              | Almond oil, refined           | 8005936002  | 2       |
| Lamotte/Kehr               | Almond oil, refined           | 1000012126  | 1       |
| Lamotte/Kehr               | Olive oil, native             | 8000821001  | 1       |
| Lamotte/Kehr               | Olive oil, native             | 8003580002  | 1       |
| Lamotte/Kehr               | Codliver oil (type A)         | 8003906002  | 1       |
| Lamotte/Kehr               | Almond oil, refined           | 8004039003  | 1       |
| Lamotte/Krieger            | Sesame oil, refined           | 1000005858  | 1       |
| Lamotte/Krieger            | Sesame oil, refined           | 1000007221  | 2       |
| Lamotte/Krieger            | Sesame oil, refined           | 1000010906  | 2       |
| Lamotte/Krieger            | Sesame oil, refined           | 1000015959  | 1       |
| Lamotte/Krieger            | Almond oil, refined           | 5081301     | 1       |
| Lamotte/Krieger            | Almond oil, refined           | 5177001     | 1       |
| Lamotte/Krieger            | Almond oil, refined           | 5269301     | 2       |
| Lamotte/Krieger            | Sesame oil, refined           | 5319201     | 1       |
| Lamotte/Krieger            | Almond oil, refined           | 8004390001  | 1       |
| Lamotte/L3                 | Codliver oil (type A)         | 123823      | 1       |
| Lamotte/L3                 | Sunflower oil, refined        | 5422401     | 1       |
| Lamotte/Lusanum            | Almond oil, refined           | 8004548002  | 1       |
| Lamotte/N/31.05.13/PZN:... | Almond oil, refined           | 5214206     | 1       |
| lamotte/Novatis            | Sesame oil, refined           | 1000010906  | 1       |
| lamotte/Novatis            | Peanut oil, refined           | 1000012961  | 1       |
| lamotte/Novatis            | Peanut oil, refined           | 10000144700 | 1       |
| lamotte/Novatis            | Peanut oil, refined           | 1000015783  | 1       |
| Lamotte/Nowe               | Codliver oil (type A)         | 8002468002  | 1       |
| Lamotte/Noweda 19.02.21    | Olive oil, native             | 1000014032  | 1       |
| Lamotte/Noweda/ 22.12.2... | Sesame oil, refined           | 1000013957  | 1       |
| Lamotte/Noweda             | Evening primrose oil, refined | 1000003443  | 1       |
| Lamotte/Noweda             | Almond oil, refined           | 1000004431  | 2       |
| lamotte/noweda             | Olive oil, native             | 1000004908  | 1       |
| Lamotte/Noweda             | Almond oil, refined           | 1000010093  | 2       |
| Lamotte/Noweda             | Almond oil, refined           | 1000010685  | 1       |
| Lamotte/Noweda             | Peanut oil, refined           | 1000010888  | 1       |
| Lamotte/Noweda             | Flaxseed oil, native          | 1000011055  | 1       |
| Lamotte/Noweda             | Almond oil, refined           | 1000012126  | 3       |
| Lamotte/Noweda             | Olive oil, native             | 1000012617  | 1       |
| Lamotte/Noweda             | Peanut oil, refined           | 1000012961  | 2       |
| Lamotte/Noweda             | Almond oil, refined           | 1000013565  | 1       |
| Lamotte/Noweda             | Peanut oil, refined           | 1000013880  | 2       |
| Lamotte/Noweda             | Peanut oil, refined           | 1000014700  | 2       |
| Lamotte/Noweda             | Flaxseed oil, native          | 103229      | 1       |

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continued from previous page

| Supplier        | Substance             | Batch       | Spectra |
|-----------------|-----------------------|-------------|---------|
| Lamotte/Noweda  | Almond oil, refined   | 130145      | 3       |
| Lamotte/noweda  | Sesame oil, refined   | 170713a     | 1       |
| LAMOTTE/NOWEDA  | Almond oil, refined   | 5415901     | 4       |
| Lamotte/Noweda  | Almond oil, refined   | 5438301     | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 5438302     | 1       |
| Lamotte/Noweda  | Olive oil, native     | 5464901     | 1       |
| LAMOTTE/NOWEDA  | Olive oil, native     | 5470202     | 1       |
| Lamotte/Noweda  | Codliver oil (type A) | 5529601     | 2       |
| lamotte/Noweda  | Almond oil, refined   | 5615001     | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 5615003     | 2       |
| LAMOTTE/NOWEDA  | Almond oil, refined   | 5615003     | 4       |
| lamotte/Noweda  | Almond oil, refined   | 74760       | 1       |
| Lamotte/Noweda  | Codliver oil (type A) | 8000601001  | 3       |
| lamotte/noweda  | Almond oil, refined   | 8000712001  | 2       |
| Lamotte/Noweda  | Almond oil, refined   | 8000712001  | 2       |
| Lamotte/Noweda  | Almond oil, refined   | 8000915001  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8000915002  | 1       |
| lamotte/noweda  | Olive oil, native     | 8001854001  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8002653001  | 3       |
| Lamotte/Noweda  | Olive oil, native     | 8002656001  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8002675001  | 1       |
| lamotte/noweda  | Olive oil, native     | 8002827001  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8003167001  | 4       |
| lamotte/noweda  | Almond oil, refined   | 8003503001  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8003503002  | 2       |
| Lamotte/Noweda  | Olive oil, native     | 8003580002  | 1       |
| Lamotte/Noweda  | Olive oil, native     | 8003801001  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8004039003  | 5       |
| Lamotte/Noweda  | Olive oil, native     | 8004067001  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8004390001  | 3       |
| Lamotte/Noweda  | Almond oil, refined   | 8004548011  | 2       |
| Lamotte/Noweda  | Codliver oil (type A) | 8004742002  | 1       |
| Lamotte/Noweda  | Codliver oil (type A) | 8005296003  | 1       |
| Lamotte/Noweda  | Almond oil, refined   | 8005803006  | 2       |
| Lamotte/Noweda  | Almond oil, refined   | 8005936002  | 3       |
| Lamotte/Noweda  | Codliver oil (type A) | 8006235003  | 1       |
| Lamotte/Otto    | Flaxseed oil, native  | 5757301     | 1       |
| Lamotte/Ph      | Almond oil, refined   | 8003503001  | 1       |
| Lamotte/Ph      | Almond oil, refined   | 8004548011  | 2       |
| Lamotte/Ph      | Almond oil, refined   | 8005936002  | 1       |
| Lamotte/Phoenix | Almond oil, refined   | 10000010685 | 1       |
| Lamotte/Phoenix | Flaxseed oil, native  | 1000009024  | 1       |
| Lamotte/Phoenix | Sesame oil, refined   | 1000009220  | 1       |
| lamotte/Phoenix | Almond oil, refined   | 1000010093  | 1       |
| Lamotte/Phoenix | Almond oil, refined   | 1000010093  | 5       |
| Lamotte/Phoenix | Almond oil, refined   | 1000010685  | 2       |
| Lamotte/Phoenix | Almond oil, refined   | 1000012126  | 4       |
| Lamotte/Phoenix | Almond oil, refined   | 1000013112  | 2       |
| Lamotte/Phoenix | Almond oil, refined   | 1000013565  | 2       |
| Lamotte/Phoenix | Peanut oil, refined   | 1000013880  | 1       |
| Lamotte/Phoenix | Peanut oil, refined   | 1000015783  | 1       |
| Lamotte/Phoenix | Almond oil, refined   | 1000017183  | 2       |
| Lamotte/Phoenix | Almond oil, refined   | 5415901     | 2       |
| Lamotte/Phoenix | Peanut oil, refined   | 5592601     | 1       |
| Lamotte/Phoenix | Almond oil, refined   | 5615001     | 1       |
| Lamotte/Phoenix | Almond oil, refined   | 5615003     | 2       |
| Lamotte/Phoenix | Peanut oil, refined   | 5699601     | 2       |
| Lamotte/Phoenix | Almond oil, refined   | 5703001     | 1       |
| Lamotte/Phoenix | Almond oil, refined   | 5748601     | 2       |
| Lamotte/Phoenix | Peanut oil, refined   | 5904100001  | 1       |

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continued from previous page

| Supplier        | Substance                       | Batch       | Spectra |
|-----------------|---------------------------------|-------------|---------|
| Lamotte/Phoenix | Almond oil, refined             | 5919600001  | 1       |
| Lamotte/Phoenix | Almond oil, refined             | 8000712001  | 4       |
| Lamotte/Phoenix | Codliver oil (type A)           | 8000918001  | 1       |
| Lamotte/Phoenix | Codliver oil (type A)           | 8002338002  | 10      |
| Lamotte/Phoenix | Olive oil, native               | 8002827001  | 2       |
| Lamotte/Phoenix | Olive oil, native               | 8002868001  | 1       |
| Lamotte/Phoenix | Almond oil, refined             | 8003167001  | 2       |
| Lamotte/Phoenix | Almond oil, refined             | 8003503001  | 1       |
| Lamotte/Phoenix | Olive oil, native               | 8003580002  | 1       |
| Lamotte/Phoenix | Olive oil, native               | 8003801001  | 2       |
| Lamotte/Phoenix | Almond oil, refined             | 8003885002  | 1       |
| Lamotte/Phoenix | Codliver oil (type A)           | 8003906002  | 1       |
| Lamotte/Phoenix | Almond oil, refined             | 8004039003  | 3       |
| Lamotte/Phoenix | Olive oil, native               | 8004251002  | 2       |
| Lamotte/Phoenix | Almond oil, refined             | 8004390001  | 3       |
| Lamotte/Phoenix | Olive oil, native               | 8004499001  | 1       |
| Lamotte/Phoenix | Almond oil, refined             | 8004548002  | 2       |
| Lamotte/Phoenix | Codliver oil (type A)           | 8004742003  | 1       |
| Lamotte/Phoenix | Almond oil, refined             | 8005803006  | 2       |
| Lamotte/Phoenix | Almond oil, refined             | 8005803007  | 3       |
| Lamotte/Phoenix | Almond oil, refined             | 8005936002  | 6       |
| Lamotte/Phoenix | Almond oil, refined             | 8007461004  | 1       |
| Lamotte/Phoenix | Almond oil, refined             | 8008836001  | 1       |
| Lamotte/Phönix  | Olive oil, native               | 1000004908  | 1       |
| Lamotte/Phönix  | Sesame oil, refined             | 1000009220  | 1       |
| Lamotte/Phönix  | Almond oil, refined             | 1000010093  | 1       |
| lamotte/Phönix  | Almond oil, refined             | 1000010685  | 2       |
| Lamotte/Phönix  | Almond oil, refined             | 1000010685  | 1       |
| Lamotte/Phönix  | Sunflower oil, refined          | 1000010859  | 2       |
| Lamotte/Phönix  | Olive oil, native               | 1000010861  | 1       |
| Lamotte/Phönix  | Sesame oil, refined             | 1000010906  | 1       |
| Lamotte/Phönix  | Almond oil, refined             | 1000012126  | 4       |
| Lamotte/Phönix  | Olive oil, native               | 1000012617  | 6       |
| Lamotte/Phönix  | Almond oil, refined             | 1000013112  | 1       |
| Lamotte/Phönix  | Olive oil, native               | 1000013127  | 1       |
| Lamotte/Phönix  | Peanut oil, refined             | 1000013880  | 1       |
| Lamotte/Phönix  | Olive oil, native               | 1000016418  | 3       |
| Lamotte/Phönix  | Olive oil, native               | 1000016420  | 2       |
| Lamotte/Phönix  | Peanut oil, refined             | 1000017094  | 1       |
| Lamotte/Phönix  | Codliver oil (type A)           | 123823      | 1       |
| Lamotte/Phönix  | Borage oil, refined, stabili... | 145579      | 1       |
| Lamotte/Phönix  | Peanut oil, refined             | 16071102    | 1       |
| Lamotte/Phönix  | Almond oil, refined             | 3243        | 1       |
| Lamotte/Phönix  | Almond oil, refined             | 5415901     | 1       |
| lamotte/phönix  | Almond oil, refined             | 5438302     | 1       |
| Lamotte/Phönix  | Almond oil, refined             | 5615003     | 1       |
| lamotte/Phönix  | Peanut oil, refined             | 5697901     | 1       |
| Lamotte/Phönix  | Almond oil, refined             | 5703101     | 2       |
| lamotte/Phönix  | Almond oil, refined             | 5748601     | 1       |
| Lamotte/Phönix  | Sesame oil, refined             | 58772901    | 1       |
| Lamotte/Phönix  | Codliver oil (type A)           | 5878701     | 3       |
| lamotte/phönix  | Almond oil, refined             | 5919600001  | 1       |
| Lamotte/Phönix  | Sesame oil, refined             | 8000531001  | 1       |
| Lamotte/Phönix  | Codliver oil (type A)           | 8000601001  | 1       |
| Lamotte/Phönix  | Almond oil, refined             | 8000725001  | 2       |
| Lamotte/Phönix  | Codliver oil (type A)           | 8001176004  | 1       |
| Lamotte/Phönix  | Codliver oil (type A)           | 8001215002  | 1       |
| Lamotte/Phönix  | Codliver oil (type A)           | 80023338002 | 1       |
| Lamotte/Phönix  | Codliver oil (type A)           | 8002338002  | 3       |
| Lamotte/Phönix  | Codliver oil (type A)           | 8002468002  | 3       |

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continued from previous page

| Supplier                   | Substance             | Batch      | Spectra |
|----------------------------|-----------------------|------------|---------|
| Lamotte/Phönix             | Sesame oil, refined   | 8002939002 | 3       |
| Lamotte/Phönix             | Peanut oil, refined   | 8003146001 | 1       |
| Lamotte/Phönix             | Almond oil, refined   | 8003167001 | 1       |
| Lamotte/Phönix             | Almond oil, refined   | 8003503001 | 1       |
| Lamotte/Phönix             | Almond oil, refined   | 8003503002 | 1       |
| Lamotte/Phönix             | Almond oil, refined   | 8003675001 | 1       |
| Lamotte/Phönix             | Codliver oil (type A) | 8003727001 | 2       |
| Lamotte/Phönix             | Codliver oil (type A) | 8003906002 | 3       |
| Lamotte/Phönix             | Almond oil, refined   | 8004039003 | 3       |
| Lamotte/Phönix             | Almond oil, refined   | 8004548002 | 3       |
| Lamotte/Phönix             | Codliver oil (type A) | 8004742002 | 1       |
| Lamotte/Phönix             | Codliver oil (type A) | 8004742003 | 1       |
| Lamotte/Phönix             | Almond oil, refined   | 8005936002 | 4       |
| Lamotte/Phönix             | Almond oil, refined   | 8007584002 | 1       |
| Lamotte/Phönix             | Sesame oil, refined   | 84280      | 1       |
| Lamotte/Poenix             | Almond oil, refined   | 8004039003 | 1       |
| Lamotte/PPL                | Almond oil, refined   | 8000712001 | 2       |
| Lamotte/Sana               | Almond oil, refined   | 1000010685 | 1       |
| Lamotte/Sana               | Almond oil, refined   | 1000012126 | 1       |
| Lamotte/Sana               | Almond oil, refined   | 1000013565 | 1       |
| Lamotte/Sana               | Almond oil, refined   | 8004548007 | 1       |
| Lamotte/Sana               | Almond oil, refined   | 8004548011 | 1       |
| Lamotte/Sana               | Almond oil, refined   | 8005936002 | 1       |
| Lamotte/Sanacorp 02.11...  | Almond oil, refined   | 5919600001 | 1       |
| Lamotte/Sanacorp 1702.2... | Almond oil, refined   | 1000017183 | 1       |
| Lamotte/Sanacorp           | Avocado oil, refined  | 1000001098 | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 1000002454 | 2       |
| Lamotte/Sanacorp           | Almond oil, refined   | 1000003242 | 2       |
| Lamotte/Sanacorp           | Almond oil, refined   | 1000010685 | 1       |
| Lamotte/Sanacorp           | Olive oil, native     | 1000010861 | 1       |
| Lamotte/sanacorp           | Peanut oil, refined   | 1000012961 | 1       |
| Lamotte/Sanacorp           | Omega-3-fish oil      | 123883     | 1       |
| Lamotte/Sanacorp           | Avocado oil, refined  | 124656     | 1       |
| Lamotte/Sanacorp           | Avocado oil, refined  | 125529     | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 130145     | 1       |
| Lamotte/Sanacorp           | Avocado oil, refined  | 130193     | 1       |
| Lamotte/Sanacorp           | Avocado oil, refined  | 130214     | 1       |
| Lamotte/Sanacorp           | Jobba Oil, native     | 5194301    | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5214206    | 1       |
| Lamotte/Sanacorp           | Olive oil, native     | 5271504    | 2       |
| Lamotte/Sanacorp           | Jobba Oil, native     | 5429201    | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5438301    | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5438302    | 3       |
| Lamotte/Sanacorp           | Olive oil, native     | 5470202    | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5615001    | 3       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5669601    | 2       |
| Lamotte/Sanacorp           | Olive oil, native     | 5671901    | 1       |
| Lamotte/Sanacorp           | Codliver oil (type A) | 5693101    | 3       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5703001    | 6       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5703101    | 1       |
| Lamotte/Sanacorp           | Sesame oil, refined   | 5744101    | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5748401    | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 5748601    | 14      |
| Lamotte/Sanacorp           | Sesame oil, refined   | 5872001    | 1       |
| Lamotte/Sanacorp           | Olive oil, native     | 8000652001 | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 8000712001 | 6       |
| Lamotte/Sanacorp           | Almond oil, refined   | 8000725001 | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 8000915002 | 1       |
| Lamotte/Sanacorp           | Codliver oil (type A) | 8000918001 | 1       |
| Lamotte/Sanacorp           | Almond oil, refined   | 8001497001 | 1       |

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| Supplier                | Substance             | Batch          | Spectra |
|-------------------------|-----------------------|----------------|---------|
| Lamotte/Sanacorp        | Olive oil, native     | 8002827001     | 1       |
| Lamotte/Sanacorp        | Almond oil, refined   | 8003503002     | 2       |
| Lamotte/Sanacorp        | Codliver oil (type A) | 8003906001     | 1       |
| Lamotte/Sanacorp        | Codliver oil (type A) | 8003906002     | 2       |
| Lamotte/Sanacorp        | Almond oil, refined   | 8004390001     | 1       |
| Lamotte/sanacorp        | Almond oil, refined   | 8004548002     | 1       |
| Lamotte/Sanacorp        | Almond oil, refined   | 8004548011     | 1       |
| Lamotte/Sanacorp        | Almond oil, refined   | 8005803006     | 1       |
| Lamotte/Sanacorp        | Almond oil, refined   | 8005803007     | 3       |
| Lamotte/Sanacorp        | Almond oil, refined   | 8748401        | 1       |
| LaMotte/Spangro         | Sesame oil, refined   | 1000010906     | 1       |
| LaMotte/Spangro         | Peanut oil, refined   | 1000012961     | 1       |
| Lamotte/Spangro         | Olive oil, native     | 5671901        | 1       |
| Lamotte/Spangro         | Olive oil, native     | 5891202        | 1       |
| Lamotte/Spangro         | Olive oil, native     | 5903400003     | 1       |
| Lamotte/Spangro         | Olive oil, native     | 8000652001     | 1       |
| LaMotte/Spangro         | Sesame oil, refined   | 8001557002     | 1       |
| Lamotte/Spangro         | Olive oil, native     | 8001648001     | 1       |
| Lamotte/Spangro         | Olive oil, native     | 8002366001     | 2       |
| Lamotte/Spangro         | Olive oil, native     | 8004194001     | 1       |
| Lamotte/Spangro         | Olive oil, native     | 8004251002     | 1       |
| LaMotte/Spangro         | Codliver oil (type A) | 8004742002     | 1       |
| LaMotte/Spangro         | Codliver oil (type A) | 80117604       | 1       |
| Lamotte/Spangro11.5.20  | Codliver oil (type A) | 8005296002     | 1       |
| Lamotte/Spangro11.5.21  | Olive oil, native     | 1000014032     | 1       |
| Lamotte/Spangro14.12.20 | Codliver oil (type A) | 8006235003     | 4       |
| Lamotte/Spangro29.9.20  | Olive oil, native     | 1000012617     | 1       |
| Lamotte/Stumpf          | Codliver oil (type A) | 5529601        | 1       |
| Lamotte/V.d.L.          | Codliver oil (type A) | 123823         | 1       |
| Lamotte/V.d.L.          | Olive oil, native     | 5464901        | 1       |
| Lamotte/V.d.L.          | Codliver oil (type A) | 5529601        | 4       |
| Lamotte                 | Avocado oil, refined  | 1000001451     | 1       |
| Lamotte                 | Almond oil, refined   | 1000002454     | 1       |
| Lamotte                 | Sesame oil, refined   | 1000002705     | 1       |
| Lamotte                 | Almond oil, refined   | 1000003242     | 4       |
| Lamotte                 | Almond oil, refined   | 1000004431     | 1       |
| Lamotte                 | Flaxseed oil, native  | 10000047735446 | 1       |
| Lamotte                 | Almond oil, refined   | 1000004815     | 1       |
| lamotte                 | Olive oil, native     | 1000004908     | 2       |
| Lamotte                 | Avocado oil, refined  | 1000005537     | 1       |
| Lamotte                 | Sesame oil, refined   | 1000005858     | 1       |
| lamotte                 | Almond oil, refined   | 1000010093     | 1       |
| Lamotte                 | Almond oil, refined   | 1000010093     | 2       |
| Lamotte                 | Almond oil, refined   | 1000010685     | 4       |
| Lamotte                 | Olive oil, native     | 1000010861     | 5       |
| Lamotte                 | Peanut oil, refined   | 1000010888     | 2       |
| Lamotte                 | Sesame oil, refined   | 1000010906     | 1       |
| Lamotte                 | Olive oil, native     | 1000011651     | 1       |
| Lamotte                 | Almond oil, refined   | 1000012126     | 2       |
| Lamotte                 | Olive oil, native     | 1000012617     | 1       |
| Lamotte                 | Peanut oil, refined   | 1000012961     | 1       |
| Lamotte                 | Almond oil, refined   | 1000013112     | 4       |
| Lamotte                 | Peanut oil, refined   | 1000013880     | 2       |
| Lamotte                 | Olive oil, native     | 1000014032     | 1       |
| Lamotte                 | Peanut oil, refined   | 1000017094     | 1       |
| Lamotte                 | Almond oil, refined   | 1000017183     | 1       |
| Lamotte                 | Sesame oil, refined   | 100003957      | 2       |
| Lamotte                 | Almond oil, refined   | 100017183      | 1       |
| Lamotte                 | Codliver oil (type A) | 119929         | 1       |
| Lamotte                 | Avocado oil, refined  | 122490         | 1       |

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| <b>Supplier</b> | <b>Substance</b>              | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------------------|--------------|----------------|
| Lamotte         | Sesame oil, refined           | 123488       | 2              |
| Lamotte         | Olive oil, native             | 123773       | 2              |
| Lamotte         | Codliver oil (type A)         | 123823       | 1              |
| Lamotte         | Sesame oil, refined           | 123826       | 3              |
| Lamotte         | Flaxseed oil, native          | 124116       | 2              |
| Lamotte         | Sesame oil, refined           | 124494       | 1              |
| Lamotte         | Avocado oil, refined          | 130143       | 1              |
| Lamotte         | Almond oil, refined           | 130145       | 6              |
| Lamotte         | Avocado oil, refined          | 130243       | 1              |
| Lamotte         | Evening primrose oil, refined | 145581       | 3              |
| Lamotte         | Almond oil, refined           | 19084506     | 1              |
| Lamotte         | Sesame oil, refined           | 4711A-02016  | 1              |
| lamotte         | Codliver oil (type A)         | 5029205      | 1              |
| Lamotte         | Jobba Oil, native             | 5172601      | 1              |
| Lamotte         | Peanut oil, refined           | 5204402      | 2              |
| Lamotte         | Almond oil, refined           | 5214206      | 6              |
| Lamotte         | Olive oil, native             | 5232201      | 3              |
| Lamotte         | Almond oil, refined           | 5269301      | 3              |
| Lamotte         | Olive oil, native             | 5272401      | 4              |
| Lamotte         | Olive oil, native             | 5372701      | 1              |
| Lamotte         | Almond oil, refined           | 5415901      | 12             |
| Lamotte         | Codliver oil (type A)         | 5437202      | 3              |
| lamotte         | Almond oil, refined           | 5438301      | 1              |
| Lamotte         | Almond oil, refined           | 5438301      | 6              |
| Lamotte         | Almond oil, refined           | 5438302      | 9              |
| Lamotte         | Olive oil, native             | 5464901      | 2              |
| Lamotte         | Olive oil, native             | 5470202      | 3              |
| Lamotte         | Peanut oil, refined           | 5473601      | 3              |
| Lamotte         | Almond oil, refined           | 548302       | 1              |
| Lamotte         | Sesame oil, refined           | 5514801      | 3              |
| Lamotte         | Codliver oil (type A)         | 5529601      | 2              |
| Lamotte         | Peanut oil, refined           | 5592601      | 1              |
| Lamotte         | Almond oil, refined           | 561001       | 1              |
| Lamotte         | Almond oil, refined           | 5615001      | 2              |
| lamotte         | Almond oil, refined           | 5615003      | 1              |
| Lamotte         | Almond oil, refined           | 5615003      | 6              |
| Lamotte         | Almond oil, refined           | 5669601      | 1              |
| Lamotte         | Codliver oil (type A)         | 5693101      | 6              |
| Lamotte         | Peanut oil, refined           | 5697901      | 2              |
| Lamotte         | Peanut oil, refined           | 5699501      | 1              |
| Lamotte         | Peanut oil, refined           | 5699601      | 3              |
| Lamotte         | Almond oil, refined           | 5703001      | 1              |
| Lamotte         | Almond oil, refined           | 5703101      | 1              |
| Lamotte         | Almond oil, refined           | 5713001      | 1              |
| Lamotte         | Jobba Oil, native             | 5732801      | 1              |
| Lamotte         | Sesame oil, refined           | 5744101      | 1              |
| Lamotte         | Almond oil, refined           | 5748601      | 7              |
| Lamotte         | Jobba Oil, native             | 5756401      | 2              |
| Lamotte         | Sesame oil, refined           | 582001       | 1              |
| Lamotte         | Sesame oil, refined           | 5872001      | 1              |
| Lamotte         | Sesame oil, refined           | 5872901      | 1              |
| Lamotte         | Codliver oil (type A)         | 5878701      | 5              |
| Lamotte         | Olive oil, native             | 5903400003   | 1              |
| Lamotte         | Almond oil, refined           | 5919600001   | 6              |
| Lamotte         | Sesame oil, refined           | 8000531001   | 3              |
| Lamotte         | Codliver oil (type A)         | 8000601001   | 3              |
| Lamotte         | Almond oil, refined           | 8000712001   | 11             |
| Lamotte         | Almond oil, refined           | 8000725001   | 2              |
| Lamotte         | Olive oil, native             | 8000821001   | 1              |
| Lamotte         | Almond oil, refined           | 8000915001   | 3              |

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continued from previous page

| Supplier            | Substance                     | Batch       | Spectra |
|---------------------|-------------------------------|-------------|---------|
| Lamotte             | Almond oil, refined           | 8000915002  | 4       |
| Lamotte             | Codliver oil (type A)         | 8000918001  | 4       |
| Lamotte             | Codliver oil (type A)         | 8001176004  | 1       |
| Lamotte             | Codliver oil (type A)         | 8001215002  | 2       |
| Lamotte             | Almond oil, refined           | 8001497001  | 4       |
| Lamotte             | Sesame oil, refined           | 8001557002  | 4       |
| Lamotte             | Avocado oil, refined          | 8001641001  | 2       |
| Lamotte             | Codliver oil (type A)         | 8001765001  | 4       |
| Lamotte             | Codliver oil (type A)         | 8002338002  | 7       |
| Lamotte             | Codliver oil (type A)         | 8002468002  | 1       |
| Lamotte             | Almond oil, refined           | 8002653001  | 4       |
| Lamotte             | Almond oil, refined           | 8002675001  | 6       |
| Lamotte             | Olive oil, native             | 8002827001  | 2       |
| Lamotte             | Almond oil, refined           | 80031670001 | 1       |
| Lamotte             | Almond oil, refined           | 8003167001  | 2       |
| Lamotte             | Almond oil, refined           | 8003503001  | 1       |
| Lamotte             | Almond oil, refined           | 8003503002  | 4       |
| Lamotte             | Codliver oil (type A)         | 8003727001  | 4       |
| Lamotte             | Olive oil, native             | 8003801001  | 2       |
| Lamotte             | Almond oil, refined           | 8003885001  | 1       |
| lamotte             | Almond oil, refined           | 8003885002  | 1       |
| Lamotte             | Almond oil, refined           | 8003885002  | 4       |
| Lamotte             | Almond oil, refined           | 80038885002 | 1       |
| Lamotte             | Codliver oil (type A)         | 8003906001  | 1       |
| Lamotte             | Codliver oil (type A)         | 8003906002  | 1       |
| Lamotte             | Almond oil, refined           | 8004039003  | 7       |
| Lamotte             | Olive oil, native             | 8004067001  | 1       |
| Lamotte             | Olive oil, native             | 8004194001  | 2       |
| Lamotte             | Almond oil, refined           | 8004390001  | 5       |
| Lamotte             | Olive oil, native             | 8004499001  | 1       |
| Lamotte             | Olive oil, native             | 800449901   | 1       |
| Lamotte             | Almond oil, refined           | 8004548011  | 4       |
| Lamotte             | Codliver oil (type A)         | 8004742002  | 1       |
| Lamotte             | Codliver oil (type A)         | 8004742003  | 5       |
| Lamotte             | Olive oil, native             | 8004827001  | 1       |
| Lamotte             | Jojoba Oil, native            | 8004998001  | 1       |
| Lamotte             | Codliver oil (type A)         | 8005296002  | 1       |
| Lamotte             | Almond oil, refined           | 8005936002  | 6       |
| Lamotte             | Codliver oil (type A)         | 8006235003  | 1       |
| Lamotte-Krieger     | Peanut oil, refined           | 1000015783  | 1       |
| Lamotte-Krieger     | Almond oil, refined           | 8007584001  | 1       |
| lamotte-phönix      | Almond oil, refined           | 1000013565  | 3       |
| LamotteTFiebig      | Almond oil, refined           | 8004390001  | 1       |
| Leyh Pharma/Phoenix | Olive oil, native             | 17038702    | 1       |
| Marktapotheke       | Peanut oil, refined           | 16071101    | 1       |
| medesign I.C.GmbH   | Evening primrose oil, refined | 694367      | 1       |
| Medesign/ Fiebig    | Sesame oil, refined           | 689298      | 1       |
| Medesign/Jenne      | Evening primrose oil, refined | 690548      | 1       |
| Medesign            | Evening primrose oil, refined | 690548      | 1       |
| MIDAS/Henry Lamotte | Almond oil, refined           | 1000010685  | 1       |
| Midas/Henry Lamotte | Codliver oil (type A)         | 8001176004  | 1       |
| Midas               | Almond oil, refined           | 1000002705  | 1       |
| Midas               | Sesame oil, refined           | 1000003864  | 2       |
| Midas               | Almond oil, refined           | 1000004431  | 2       |
| Midas               | Almond oil, refined           | 1000010093  | 1       |
| Midas               | Peanut oil, refined           | 16348001    | 2       |
| Midas               | Olive oil, native             | 17121602    | 1       |
| Midas               | Peanut oil, refined           | 17169001    | 1       |
| Midas               | Peanut oil, refined           | 17169010    | 1       |
| Midas               | Olive oil, native             | 17236501    | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Midas                      | Olive oil, native               | 17361106     | 1       |
| Midas                      | Olive oil, native               | 17361107     | 1       |
| Midas                      | Olive oil, native               | 18121101     | 1       |
| Midas                      | Olive oil, native               | 18208101     | 1       |
| Midas                      | Almond oil, refined             | 8003503001   | 1       |
| Midas                      | Almond oil, refined             | 8004039003   | 4       |
| Midas                      | Almond oil, refined             | 8004390001   | 4       |
| Midas                      | Almond oil, refined             | 8004548002   | 3       |
| MPK                        | Almond oil, refined             | 36480-127127 | 1       |
| müller                     | Evening primrose oil, refined   | 1401332X     | 1       |
| Nachprüfung                | Olive oil, native               | 123456       | 2       |
| Nachprüfung                | Peanut oil, refined             | 1426903      | 1       |
| Nachprüfung                | Avocado oil, refined            | 143637021    | 1       |
| Nachprüfung                | Borage oil, refined, stabili... | 1503412      | 1       |
| Nachtstung                 | Decyl oleate                    | 288/18       | 1       |
| Nachtkerzenöl, raffinat... | Evening primrose oil, refined   | 20004047008  | 1       |
| noveda                     | Evening primrose oil, refined   | 12112901     | 1       |
| Noveda                     | Avocado oil, refined            | 13129103     | 1       |
| Noweda / Henry Lamotte     | Flaxseed oil, native            | 119529       | 1       |
| Noweda / Henry Lamotte     | Flaxseed oil, native            | 119677       | 2       |
| Noweda / Henry Lamotte     | Almond oil, refined             | 130145       | 1       |
| Noweda / Henry Lamotte     | Almond oil, refined             | 5214206      | 3       |
| Noweda / Henry Lamotte     | Sunflower oil, refined          | 5422401      | 1       |
| Noweda / Henry Lamotte     | Codliver oil (type A)           | 5437202      | 1       |
| Noweda / Henry Lamotte     | Almond oil, refined             | 5748601      | 1       |
| Noweda / Henry Lamotte     | Almond oil, refined             | 8000725001   | 1       |
| Noweda / Lamotte Oil       | Codliver oil (type A)           | 8005296003   | 1       |
| Noweda / Lamotte Oil       | Almond oil, refined             | 8005936002   | 2       |
| Noweda 07.09.2019          | Evening primrose oil, refined   | 1901046-01   | 2       |
| Noweda 14.6.2019           | Olive oil, native               | 18311906     | 1       |
| Noweda 19.12.2019          | Evening primrose oil, refined   | 19164401     | 1       |
| Noweda 21.02.2015          | Olive oil, native               | 14182302     | 1       |
| noveda allcura 4.05.18 ... | Evening primrose oil, refined   | L404         | 1       |
| noveda am 17.08.2018       | Evening primrose oil, refined   | 171001102    | 1       |
| Noweda am 28.09.2017       | Olive oil, native               | 17121602     | 1       |
| Noweda Lamotte GmbH        | Almond oil, refined             | 5919600001   | 1       |
| noveda/anzag               | Borage oil, refined, stabili... | 18295804     | 1       |
| noveda/anzag               | Almond oil, refined             | 18295903     | 1       |
| Noweda/EuRho               | Evening primrose oil, refined   | BTR340388-01 | 1       |
| Noweda/henry lamotte GmbH  | Codliver oil (type A)           | 8005296002   | 1       |
| Noweda/Henry Lamotte Oi... | Almond oil, refined             | 8004390001   | 1       |
| Noweda/Henry Lamotte Oils  | Sesame oil, refined             | 5872901      | 1       |
| Noweda/Henry Lamotte       | Olive oil, native               | 1000010861   | 1       |
| Noweda/Henry Lamotte       | Codliver oil (type A)           | 5529601      | 2       |
| Noweda/Henry Lamotte       | Almond oil, refined             | 5615003      | 4       |
| Noweda/Henry Lamotte       | Almond oil, refined             | 5748501      | 1       |
| Noweda/Henry Lamotte       | Codliver oil (type A)           | 8000601001   | 2       |
| Noweda/Henry Lamotte       | Almond oil, refined             | 8000915001   | 1       |
| Noweda/Henry Lamotte       | Codliver oil (type A)           | 8003906002   | 1       |
| Noweda/Henry Lamotte       | Almond oil, refined             | 10000013565  | 1       |
| Noweda/Henry               | Almond oil, refined             | 8003503002   | 1       |
| Noweda/Henry               | Olive oil, native               | 8004499001   | 1       |
| noveda/Ichtyol             | Almond oil, refined             | 5438302      | 2       |
| Noweda/Lamotte 28.07.2...  | Olive oil, native               | 1000016418   | 1       |
| Noweda/Lamotte             | Almond oil, refined             | 5438302      | 3       |
| Noweda/Lamotte             | Almond oil, refined             | 5748601      | 1       |
| Noweda/Lamotte             | Olive oil, native               | 5813601      | 1       |
| Noweda/Lamotte             | Almond oil, refined             | 5919600001   | 1       |
| Noweda/Lamotte             | Almond oil, refined             | 8000712001   | 3       |
| Noweda/Lamotte             | Almond oil, refined             | 8000915001   | 1       |

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continued from previous page

| Supplier          | Substance                       | Batch         | Spectra |
|-------------------|---------------------------------|---------------|---------|
| Noweda/Lamotte    | Almond oil, refined             | 8003503001    | 1       |
| Noweda/Lamotte    | Almond oil, refined             | 8004039003    | 1       |
| Noweda/Lamotte    | Codliver oil (type A)           | 8007109001    | 1       |
| Noweda/pharmachem | Olive oil, native               | 18208106      | 1       |
| Noweda/Vertanical | Sesame oil, refined             | 92011         | 1       |
| noweda            | Olive oil, native               |               | 1       |
| Noweda            | Olive oil, native               | 1000010861    | 1       |
| Noweda            | Sesame oil, refined             | 1000013957    | 1       |
| Noweda            | Flaxseed oil, native            | 1000016786    | 1       |
| Noweda            | Almond oil, refined             | 11078806      | 1       |
| Noweda            | Peanut oil, refined             | 11313905      | 1       |
| Noweda            | Peanut oil, refined             | 11B16-N02     | 2       |
| Noweda            | Evening primrose oil, refined   | 1205023-01    | 5       |
| Noweda            | Oleyl oleate (stabilised)       | 12067704      | 3       |
| Noweda            | Olive oil, native               | 12077702      | 2       |
| Noweda            | Almond oil, refined             | 12080803      | 2       |
| Noweda            | Olive oil, native               | 12141309      | 1       |
| Noweda            | Peanut oil, refined             | 12274302      | 1       |
| Noweda            | Peanut oil, refined             | 123508        | 1       |
| Noweda            | Borage oil, refined, stabili... | 12355203      | 2       |
| Noweda            | Almond oil, refined             | 12357101      | 1       |
| Noweda            | Peanut oil, refined             | 12C30-N02     | 1       |
| Noweda            | Grape seed oil, refined         | 13065309      | 1       |
| Noweda            | Evening primrose oil, refined   | 13121807      | 1       |
| Noweda            | Borage oil, refined, stabili... | 13136504      | 1       |
| Noweda            | Borage oil, refined, stabili... | 13170606      | 1       |
| Noweda            | Almond oil, refined             | 13178003      | 1       |
| Noweda            | Almond oil, refined             | 13178011      | 2       |
| Noweda            | Almond oil, refined             | 13236411      | 2       |
| Noweda            | Olive oil, native               | 13350102      | 1       |
| Noweda            | Peanut oil, refined             | 13358804      | 1       |
| Noweda            | Borage oil, refined, stabili... | 13372101      | 1       |
| Noweda            | Borage oil, refined, stabili... | 13372104      | 1       |
| Noweda            | Almond oil, refined             | 13H08-N11     | 1       |
| Noweda            | Evening primrose oil, refined   | 14010904      | 1       |
| Noweda            | Evening primrose oil, refined   | 1407002-02    | 1       |
| Noweda            | Peanut oil, refined             | 1410B07300438 | 1       |
| Noweda            | Wheatgerm oil, refined          | 14356003      | 1       |
| Noweda            | Evening primrose oil, refined   | 1509005-01    | 2       |
| Noweda            | Evening primrose oil, refined   | 15171109      | 2       |
| Noweda            | Almond oil, refined             | 15197404      | 1       |
| Noweda            | Oleyl oleate (stabilised)       | 15321706      | 1       |
| Noweda            | Olive oil, native               | 15399702      | 1       |
| Noweda            | Soy lecithin, liquid            | 1604034-01    | 1       |
| Noweda            | Evening primrose oil, refined   | 1605027-01    | 1       |
| Noweda            | Peanut oil, refined             | 16071104      | 1       |
| Noweda            | Evening primrose oil, refined   | 1608008-01    | 2       |
| Noweda            | Evening primrose oil, refined   | 16281308      | 3       |
| Noweda            | Oleyl oleate (stabilised)       | 17013008      | 1       |
| Noweda            | Evening primrose oil, refined   | 1704018       | 1       |
| Noweda            | Evening primrose oil, refined   | 1704018-01    | 1       |
| Noweda            | Evening primrose oil, refined   | 1710011-01    | 2       |
| Noweda            | Olive oil, native               | 17121610      | 1       |
| Noweda            | Olive oil, native               | 17236505      | 1       |
| Noweda            | Peanut oil, refined             | 17328601      | 2       |
| Noweda            | Sesame oil, refined             | 17332103      | 1       |
| Noweda            | Oleyl oleate (stabilised)       | 17358103      | 2       |
| Noweda            | Evening primrose oil, refined   | 1755802       | 1       |
| Noweda            | Olive oil, native               | 18003205      | 1       |
| Noweda            | Evening primrose oil, refined   | 18009101      | 1       |

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| <b>Supplier</b> | <b>Substance</b>              | <b>Batch</b> | <b>Spectra</b> |
|-----------------|-------------------------------|--------------|----------------|
| Noweda          | Evening primrose oil, refined | 18009110     | 1              |
| Noweda          | Peanut oil, refined           | 18014405     | 1              |
| Noweda          | Evening primrose oil, refined | 1803006-01   | 2              |
| Noweda          | Evening primrose oil, refined | 1803006-02   | 2              |
| Noweda          | Soy lecithin, liquid          | 1803030-01   | 1              |
| Noweda          | Avocado oil, refined          | 18044901     | 2              |
| Noweda          | Avocado oil, refined          | 18044908     | 1              |
| Noweda          | Jobba Oil, native             | 18057105     | 1              |
| Noweda          | Jobba Oil, native             | 18057107     | 1              |
| Noweda          | Flaxseed oil, native          | 18120901     | 1              |
| Noweda          | Sunflower oil, refined        | 18121004     | 1              |
| Noweda          | Almond oil, refined           | 18184102     | 1              |
| Noweda          | Almond oil, refined           | 18184113     | 1              |
| Noweda          | Olive oil, native             | 18208106     | 1              |
| Noweda          | Olive oil, native             | 18208107     | 1              |
| Noweda          | Peanut oil, refined           | 18208202     | 2              |
| Noweda          | Evening primrose oil, refined | 18216202     | 2              |
| Noweda          | Evening primrose oil, refined | 18216207     | 1              |
| Noweda          | Corn oil, refined             | 1824606      | 1              |
| Noweda          | Almond oil, refined           | 18295902     | 2              |
| Noweda          | Almond oil, refined           | 18295903     | 1              |
| Noweda          | Almond oil, refined           | 18295909     | 2              |
| Noweda          | Avocado oil, refined          | 18306808     | 1              |
| Noweda          | Avocado oil, refined          | 19000459011  | 1              |
| Noweda          | Olive oil, native             | 19001848     | 2              |
| Noweda          | Evening primrose oil, refined | 1901046-01   | 1              |
| Noweda          | Almond oil, refined           | 19084506     | 1              |
| Noweda          | Flaxseed oil, native          | 19099401     | 1              |
| Noweda          | Evening primrose oil, refined | 1911009-01   | 5              |
| Noweda          | Evening primrose oil, refined | 19164401     | 1              |
| Noweda          | Evening primrose oil, refined | 19164407     | 2              |
| Noweda          | Evening primrose oil, refined | 19175401     | 4              |
| Noweda          | Olive oil, native             | 19212001     | 1              |
| Noweda          | Peanut oil, refined           | 192485011    | 1              |
| Noweda          | Flaxseed oil, native          | 192554003    | 2              |
| Noweda          | Evening primrose oil, refined | 192982001    | 3              |
| Noweda          | Evening primrose oil, refined | 192982002    | 1              |
| Noweda          | Evening primrose oil, refined | 192982011    | 1              |
| Noweda          | Evening primrose oil, refined | 20001052003  | 1              |
| Noweda          | Evening primrose oil, refined | 20001052009  | 1              |
| Noweda          | Olive oil, native             | 20001410002  | 1              |
| Noweda          | Olive oil, native             | 20001867     | 1              |
| Noweda          | Almond oil, refined           | 20003418004  | 1              |
| Noweda          | Peanut oil, refined           | 20003610006  | 1              |
| Noweda          | Evening primrose oil, refined | 20004047009  | 1              |
| Noweda          | Evening primrose oil, refined | 2003029-01   | 1              |
| Noweda          | Almond oil, refined           | 2009004-01   | 1              |
| Noweda          | Evening primrose oil, refined | 2105001-01   | 1              |
| Noweda          | Olive oil, native             | 267376       | 1              |
| Noweda          | Olive oil, native             | 268118       | 1              |
| Noweda          | Olive oil, native             | 272270       | 2              |
| Noweda          | Olive oil, native             | 277050       | 2              |
| Noweda          | Olive oil, native             | 284143       | 1              |
| Noweda          | Almond oil, refined           | 294784       | 1              |
| Noweda          | Olive oil, native             | 295282       | 1              |
| Noweda          | Almond oil, refined           | 308919       | 1              |
| Noweda          | Codliver oil (type A)         | 4537202      | 1              |
| Noweda          | Peanut oil, refined           | 5103001      | 1              |
| Noweda          | Almond oil, refined           | 5177001      | 4              |
| Noweda          | Codliver oil (type A)         | 5228001      | 1              |

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continued from previous page

| Supplier                   | Substance                       | Batch          | Spectra |
|----------------------------|---------------------------------|----------------|---------|
| Noweda                     | Almond oil, refined             | 5269301        | 4       |
| Noweda                     | Codliver oil (type A)           | 5529601        | 4       |
| Noweda                     | Almond oil, refined             | 5748601        | 2       |
| Noweda                     | Olive oil, native               | 5813601        | 1       |
| Noweda                     | Codliver oil (type A)           | 8003906002     | 2       |
| Noweda                     | Almond oil, refined             | 8004039003     | 1       |
| noweda                     | Almond oil, refined             | 8004548011     | 3       |
| Noweda                     | Codliver oil (type A)           | 8004742002     | 1       |
| noweda                     | Almond oil, refined             | 8005803006     | 2       |
| Noweda                     | Almond oil, refined             | 884548007      | 1       |
| Noweda                     | Evening primrose oil, refined   | E1106072       | 1       |
| Noweda-Henry               | Olive oil, native               | 5891202        | 1       |
| paesel + lorei             | Grape seed oil, refined         | N0000006051    | 1       |
| Paesel und Lorei           | Grape seed oil, refined         | N0000004666    | 1       |
| Paesel+Lorei GmbH          | Grape seed oil, refined         | N0000004667    | 1       |
| Pala                       | Peanut oil, refined             | 18296007       | 1       |
| PG-Naturpharm              | Borage oil, refined, stabili... | 397-045        | 2       |
| PG-Naturpharma/ Phönix     | Borage oil, refined, stabili... | 202-058        | 1       |
| PG-Naturpharma/Sanacorp    | Evening primrose oil, refined   | 711-098        | 1       |
| Ph.Eur.7.0                 | Almond oil, refined             | 13350003       | 1       |
| Ph.Eur.8.2                 | Evening primrose oil, refined   | 14H18B04297708 | 1       |
| Ph.Eur/AHD                 | Evening primrose oil, refined   | 1901046-01     | 1       |
| Ph.Oele                    | Codliver oil (type A)           | 8005296002     | 4       |
| Ph/Euro                    | Evening primrose oil, refined   | 1710011-01     | 1       |
| Ph/Henry Lamotte           | Codliver oil (type A)           | 8003727001     | 2       |
| Pharma Wenigerode/Phönix   | Sesame oil, refined             | 92011          | 4       |
| Pharma Wernigerode GmbH    | Sesame oil, refined             | 92011          | 8       |
| Pharmachem /Phönix         | Sesame oil, refined             | S0E1000014055  | 5       |
| Pharmachem/AHD             | Olive oil, native               | 13324703       | 1       |
| Pharmachem/Noweda          | Almond oil, refined             | 8000712001     | 1       |
| Phoenix (Henry Lamotte ... | Almond oil, refined             | 5269301        | 1       |
| PHOENIX 03.03.2014         | Olive oil, native               | 1305014-01     | 1       |
| PHOENIX 03.06.2014         | Almond oil, refined             | 14042705       | 1       |
| Phoenix 04.07.2019 6,71EUR | Evening primrose oil, refined   | 18216214       | 1       |
| Phoenix 04.12.14           | Evening primrose oil, refined   | 14010905       | 1       |
| PHOENIX 08.05.2014         | Evening primrose oil, refined   | 14002501       | 1       |
| Phoenix 14.2.2019          | Flaxseed oil, native            | 18120904       | 1       |
| PHOENIX 15.05.2014         | Borage oil, refined, stabili... | 13372104       | 1       |
| pHOENIX 18.02.2014         | Codliver oil (type A)           | 5529601        | 1       |
| Phoenix 19.01.2019         | Avocado oil, refined            | 18044914       | 1       |
| Phoenix 19.03.2014         | Avocado oil, refined            | 13129102       | 1       |
| Phoenix 25.03.2017 6,79EUR | Evening primrose oil, refined   | 16281305       | 1       |
| Phoenix 25.7.2018          | Borage oil, refined, stabili... | 18080501       | 1       |
| Phoenix 29.04.2014         | Avocado oil, refined            | 13361406       | 1       |
| Phoenix 3.08.18            | Olive oil, native               | 17361106       | 1       |
| Phoenix 3.2.2014           | Olive oil, native               | 13350102       | 1       |
| Phoenix Göttingen 07.01... | Sesame oil, refined             | 1000007221     | 1       |
| Phoenix/ Henry Lamotte     | Almond oil, refined             | 1000010685     | 1       |
| Phoenix/ Lamotte           | Almond oil, refined             | 5438301        | 2       |
| Phoenix/HenryLamotte       | Almond oil, refined             | 1000013565     | 1       |
| Phoenix/HenryLamotte       | Codliver oil (type A)           | 1000017673     | 1       |
| Phoenix/HenryLamotte       | Almond oil, refined             | 8005803007     | 1       |
| Phoenix/HenryLamotte       | Codliver oil (type A)           | 8006235003     | 3       |
| Phoenix/HenryLamotte       | Codliver oil (type A)           | 8007109001     | 4       |
| Phoenix/Lamotte            | Almond oil, refined             | 5214206        | 1       |
| Phoenix/Lamotte            | Almond oil, refined             | 5415901        | 1       |
| Phoenix/Lamotte            | Sesame oil, refined             | 5634501        | 1       |
| Phoenix/Lamotte            | Codliver oil (type A)           | 8003727001     | 1       |
| Phoenix/Lamotte            | Codliver oil (type A)           | 8003906061     | 1       |
| Phoenix/Lamotte            | Codliver oil (type A)           | 8004742002     | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch      | Spectra |
|----------|---------------------------------|------------|---------|
| Phoenix  | Peanut oil, refined             | 1000010888 | 1       |
| Phoenix  | Peanut oil, refined             | 1000013880 | 1       |
| Phoenix  | Almond oil, refined             | 1000017183 | 2       |
| Phoenix  | Peanut oil, refined             | 100013880  | 1       |
| Phoenix  | Codliver oil (type A)           | 11315303   | 1       |
| Phoenix  | Borage oil, refined, stabili... | 12355203   | 1       |
| Phoenix  | Peanut oil, refined             | 13306106   | 1       |
| Phoenix  | Olive oil, native               | 13350103   | 1       |
| Phoenix  | Peanut oil, refined             | 13358803   | 1       |
| Phoenix  | Evening primrose oil, refined   | 14002503   | 1       |
| Phoenix  | Evening primrose oil, refined   | 1401033-01 | 1       |
| Phoenix  | Olive oil, native               | 1406009-01 | 1       |
| Phoenix  | Evening primrose oil, refined   | 1407002-02 | 1       |
| Phoenix  | Peanut oil, refined             | 14115405   | 1       |
| Phoenix  | Olive oil, native               | 14118603   | 1       |
| Phoenix  | Oleyl oleate (stabilised)       | 14129007   | 1       |
| Phoenix  | Borage oil, refined, stabili... | 14161906   | 1       |
| Phoenix  | Sesame oil, refined             | 14170004   | 1       |
| Phoenix  | Evening primrose oil, refined   | 14258604   | 1       |
| Phoenix  | Peanut oil, refined             | 14355905   | 1       |
| Phoenix  | Wheatgerm oil, refined          | 15374101   | 1       |
| Phoenix  | Evening primrose oil, refined   | 15417802   | 1       |
| Phoenix  | Evening primrose oil, refined   | 15417803   | 1       |
| Phoenix  | Olive oil, native               | 16035310   | 1       |
| Phoenix  | Olive oil, native               | 16035311   | 1       |
| Phoenix  | Evening primrose oil, refined   | 1605027-01 | 1       |
| Phoenix  | Wheatgerm oil, refined          | 16137403   | 1       |
| Phoenix  | Borage oil, refined, stabili... | 16266011   | 1       |
| Phoenix  | Sesame oil, refined             | 16312501   | 1       |
| Phoenix  | Wheatgerm oil, refined          | 16321301   | 2       |
| Phoenix  | Almond oil, refined             | 16327304   | 1       |
| Phoenix  | Almond oil, refined             | 163327303  | 1       |
| Phoenix  | Peanut oil, refined             | 16348001   | 1       |
| Phoenix  | Oleyl oleate (stabilised)       | 17013014   | 2       |
| Phoenix  | Evening primrose oil, refined   | 1703020-01 | 2       |
| Phoenix  | Peanut oil, refined             | 17042802   | 1       |
| Phoenix  | Evening primrose oil, refined   | 171011-02  | 1       |
| phoenix  | Olive oil, native               | 17121602   | 1       |
| Phoenix  | Olive oil, native               | 17121606   | 1       |
| Phoenix  | Peanut oil, refined             | 17169010   | 1       |
| Phoenix  | Almond oil, refined             | 17176503   | 1       |
| Phoenix  | Peanut oil, refined             | 17328601   | 1       |
| Phoenix  | Oleyl oleate (stabilised)       | 17358101   | 1       |
| phoenix  | Olive oil, native               | 17361101   | 1       |
| Phoenix  | Peanut oil, refined             | 18014402   | 1       |
| Phoenix  | Almond oil, refined             | 18015007   | 1       |
| Phoenix  | Evening primrose oil, refined   | 1803006-02 | 2       |
| Phoenix  | Decyl oleate                    | 18069407   | 1       |
| Phoenix  | Codliver oil (type A)           | 18080801   | 1       |
| Phoenix  | Almond oil, refined             | 18184101   | 1       |
| Phoenix  | Almond oil, refined             | 18184107   | 1       |
| Phoenix  | Olive oil, native               | 18208101   | 1       |
| Phoenix  | Wheatgerm oil, refined          | 18241006   | 1       |
| Phoenix  | Almond oil, refined             | 18295901   | 1       |
| Phoenix  | Almond oil, refined             | 18295908   | 1       |
| Phoenix  | Almond oil, refined             | 18295915   | 1       |
| Phoenix  | Peanut oil, refined             | 18296002   | 3       |
| Phoenix  | Peanut oil, refined             | 18296009   | 1       |
| Phoenix  | Avocado oil, refined            | 18306804   | 1       |
| Phoenix  | Olive oil, native               | 18311910   | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Phoenix                    | Evening primrose oil, refined   | 1901046-01   | 4       |
| Phoenix                    | Olive oil, native               | 19076105     | 1       |
| phoenix                    | Olive oil, native               | 19076109     | 1       |
| Phoenix                    | Olive oil, native               | 19076109     | 1       |
| Phoenix                    | Almond oil, refined             | 19084505     | 1       |
| Phoenix                    | Olive oil, native               | 191370512    | 1       |
| Phoenix                    | Almond oil, refined             | 19187101     | 1       |
| Phoenix                    | Peanut oil, refined             | 192485006    | 1       |
| Phoenix                    | Evening primrose oil, refined   | 20001052003  | 3       |
| Phoenix                    | Olive oil, native               | 20001410002  | 1       |
| Phoenix                    | Peanut oil, refined             | 20001473008  | 1       |
| Phoenix                    | Oleyl oleate (stabilised)       | 20002648002  | 1       |
| Phoenix                    | Olive oil, native               | 20003049003  | 1       |
| Phoenix                    | Peanut oil, refined             | 200036110014 | 1       |
| Phoenix                    | Evening primrose oil, refined   | 200302901    | 1       |
| Phoenix                    | Evening primrose oil, refined   | 2003029-01   | 1       |
| Phoenix                    | Evening primrose oil, refined   | 2008037-02   | 1       |
| Phoenix                    | Olive oil, native               | 21000836002  | 1       |
| Phoenix                    | Peanut oil, refined             | 21001091003  | 1       |
| Phoenix                    | Decyl oleate                    | 3061         | 1       |
| Phoenix                    | Peanut oil, refined             | 3100         | 1       |
| Phoenix                    | Olive oil, native               | 3101         | 1       |
| Phoenix                    | Avocado oil, refined            | 311166       | 1       |
| Phoenix                    | Peanut oil, refined             | 3189         | 1       |
| Phoenix                    | Almond oil, refined             | 3202         | 1       |
| Phoenix                    | Olive oil, native               | 3203         | 1       |
| Phoenix                    | Almond oil, refined             | 5269301      | 1       |
| Phoenix                    | Olive oil, native               | 5470202      | 1       |
| Phoenix                    | Codliver oil (type A)           | 8002338002   | 1       |
| Phoenix                    | Codliver oil (type A)           | 8002468002   | 1       |
| Phoenix                    | Sesame oil, refined             | 8002939002   | 1       |
| Phoenix                    | Almond oil, refined             | 8003167001   | 1       |
| Phoenix                    | Codliver oil (type A)           | 8003727001   | 1       |
| Phoenix                    | Codliver oil (type A)           | 8003906002   | 2       |
| Phoenix                    | Olive oil, native               | 8004067001   | 1       |
| Phoenix                    | Codliver oil (type A)           | 8005296003   | 1       |
| Phoenix                    | Codliver oil (type A)           | 8007109001   | 1       |
| Phoenix                    | Evening primrose oil, refined   | AP869100N    | 1       |
| Phoenix                    | Evening primrose oil, refined   | EP704511-2   | 1       |
| Phönix , 03.09.13          | Almond oil, refined             | 13178003     | 1       |
| Phönix / Alliance Healt... | Borage oil, refined, stabili... | 16266002     | 1       |
| Phönix / Alliance Healt... | Avocado oil, refined            | 17038802     | 1       |
| Phönix / Henry Lamotte ... | Peanut oil, refined             | 1000010888   | 1       |
| Phönix 09.11.12            | Olive oil, native               | 272270       | 1       |
| Phönix 11.02.2019          | Olive oil, native               | 19076109     | 1       |
| Phönix 11.11.2019          | Avocado oil, refined            | 18306802     | 1       |
| Phönix 12.12.12            | Sesame oil, refined             | 12054508     | 1       |
| Phönix 14.01.15            | Borage oil, refined, stabili... | 14203004     | 1       |
| Phönix 15.01.2014          | Avocado oil, refined            | 279025       | 1       |
| Phönix 18.11.2013          | Evening primrose oil, refined   | 13121808     | 1       |
| Phönix 25.09.2019          | Peanut oil, refined             | 18296009     | 1       |
| Phönix 27.01.2014          | Evening primrose oil, refined   | 1304018-01   | 1       |
| Phönix aep                 | Almond oil, refined             | 18014402     | 1       |
| Phönix Gotha               | Almond oil, refined             | 12153501     | 1       |
| Phönix Gotha               | Peanut oil, refined             | 13129202     | 1       |
| Phönix Gotha               | Peanut oil, refined             | 13306103     | 1       |
| Phönix Gotha               | Olive oil, native               | 15216308     | 1       |
| Phönix Gotha               | Peanut oil, refined             | 15273403     | 1       |
| Phönix Gotha               | Olive oil, native               | 17001926     | 1       |
| Phönix Gotha               | Almond oil, refined             | 18015007     | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|---------------------------------|--------------|----------------|
| Phönix Gotha               | Almond oil, refined             | 18184107     | 1              |
| Phönix Gotha               | Almond oil, refined             | 18295902     | 1              |
| Phönix Gotha               | Olive oil, native               | 19002974     | 1              |
| Phönix Gotha               | Peanut oil, refined             | 19059205     | 1              |
| Phönix Gotha               | Almond oil, refined             | 19187102     | 1              |
| Phönix Gotha               | Peanut oil, refined             | 192485007    | 1              |
| Phönix Gotha               | Olive oil, native               | 277049       | 1              |
| Phönix Gotha               | Peanut oil, refined             | 310007       | 1              |
| Phönix, 07.11.2011         | Olive oil, native               | 278583       | 1              |
| Phönix, 17.06.2013         | Almond oil, refined             | 5438301      | 1              |
| Phönix/ Caesar&Loretz G... | Almond oil, refined             | 19000779004  | 2              |
| Phönix/ Henry Lamotte      | Olive oil, native               | 1000014032   | 3              |
| Phönix/ Lamotte            | Almond oil, refined             | 5615001      | 1              |
| Phönix/ Lamotte            | Almond oil, refined             | 5615003      | 2              |
| Phönix/Fagon               | Almond oil, refined             | 18015003     | 1              |
| Phönix/Henry Lamotte oi... | Codliver oil (type A)           | 8003906001   | 3              |
| Phönix/Henry Lamotte oi... | Codliver oil (type A)           | 8005296003   | 1              |
| Phönix/Henry lamotte oils  | Flaxseed oil, native            | 1000011055   | 1              |
| Phönix/Henry Lamotte       | Codliver oil (type A)           | 8003906001   | 1              |
| Phönix/Henry Lamotte       | Almond oil, refined             | 8005936002   | 1              |
| Phönix/Lamotte             | Codliver oil (type A)           |              | 1              |
| Phönix/Lamotte             | Almond oil, refined             | 1000003242   | 1              |
| Phönix/Lamotte             | Olive oil, native               | 5272401      | 1              |
| phönix                     | Olive oil, native               |              | 3              |
| Phönix                     | Sesame oil, refined             | 1000009222   | 1              |
| Phönix                     | Olive oil, native               | 1000010090   | 2              |
| Phönix                     | Olive oil, native               | 1000010808   | 1              |
| Phönix                     | Olive oil, native               | 1000011651   | 2              |
| Phönix                     | Almond oil, refined             | 1000012126   | 1              |
| Phönix                     | Almond oil, refined             | 100001216    | 1              |
| Phönix                     | Flaxseed oil, native            | 1000015368   | 1              |
| Phönix                     | Almond oil, refined             | 100002126    | 1              |
| phönix                     | Evening primrose oil, refined   | 1210012-02   | 1              |
| phönix                     | Almond oil, refined             | 12153505     | 1              |
| Phönix                     | Borage oil, refined, stabili... | 12161207     | 1              |
| Phönix                     | Olive oil, native               | 12274106     | 1              |
| Phönix                     | Peanut oil, refined             | 12274302     | 2              |
| phönix                     | Olive oil, native               | 13010904     | 1              |
| Phönix                     | Almond oil, refined             | 13178004     | 1              |
| Phönix                     | Peanut oil, refined             | 13358801     | 1              |
| phönix                     | Evening primrose oil, refined   | 139798       | 1              |
| Phönix                     | Oleyl oleate (stabilised)       | 14005001     | 1              |
| phönix                     | Evening primrose oil, refined   | 14010915     | 1              |
| Phönix                     | Olive oil, native               | 14118606     | 1              |
| Phönix                     | Evening primrose oil, refined   | 150827       | 1              |
| phönix                     | Codliver oil (type A)           | 15201201     | 1              |
| Phönix                     | Olive oil, native               | 15216308     | 1              |
| Phönix                     | Olive oil, native               | 15399702     | 1              |
| Phönix                     | Almond oil, refined             | 15409710     | 1              |
| Phönix                     | Oleyl oleate (stabilised)       | 15410207     | 1              |
| Phönix                     | Evening primrose oil, refined   | 1603048-01   | 1              |
| Phönix                     | Almond oil, refined             | 16071006     | 2              |
| phönix                     | Codliver oil (type A)           | 16074301     | 1              |
| phönix                     | Avocado oil, refined            | 16185908     | 1              |
| Phönix                     | Olive oil, native               | 16212803     | 1              |
| phönix                     | Wheatgerm oil, refined          | 16321301     | 1              |
| Phönix                     | Almond oil, refined             | 16327302     | 2              |
| PHÖNIX                     | Almond oil, refined             | 16327302     | 1              |
| Phönix                     | Almond oil, refined             | 16327303     | 1              |
| Phönix                     | Olive oil, native               | 16327402     | 1              |

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continued from previous page

| Supplier | Substance                     | Batch       | Spectra |
|----------|-------------------------------|-------------|---------|
| PHÖNIX   | Olive oil, native             | 16327402    | 1       |
| Phönix   | Olive oil, native             | 16327406    | 1       |
| Phönix   | Olive oil, native             | 17001926    | 1       |
| Phönix   | Oleyl oleate (stabilised)     | 17013014    | 1       |
| Phönix   | Olive oil, native             | 17038702    | 1       |
| phönix   | Avocado oil, refined          | 17038802    | 1       |
| Phönix   | Evening primrose oil, refined | 1704018-01  | 2       |
| Phönix   | Peanut oil, refined           | 17042802    | 1       |
| Phönix   | Evening primrose oil, refined | 1710011-02  | 2       |
| Phönix   | Olive oil, native             | 17121610    | 1       |
| PHÖNIX   | Codliver oil (type A)         | 17137805    | 1       |
| Phönix   | Almond oil, refined           | 17176502    | 2       |
| Phönix   | Almond oil, refined           | 17207907    | 1       |
| Phönix   | Decyl oleate                  | 17215601    | 1       |
| Phönix   | Wheatgerm oil, refined        | 17216701    | 1       |
| PHÖNIX   | Wheatgerm oil, refined        | 17216705    | 1       |
| PHÖNIX   | Olive oil, native             | 17236501    | 1       |
| Phönix   | Evening primrose oil, refined | 17255801    | 1       |
| Phonix   | Oleyl oleate (stabilised)     | 17358103    | 1       |
| Phönix   | Oleyl oleate (stabilised)     | 17358109    | 3       |
| phönix   | Olive oil, native             | 17361101    | 1       |
| PHÖNIX   | Olive oil, native             | 17361106    | 1       |
| Phonix   | Olive oil, native             | 17361107    | 1       |
| Phönix   | Olive oil, native             | 17361107    | 1       |
| Phönix   | Olive oil, native             | 18002119    | 1       |
| Phönix   | Olive oil, native             | 18003205    | 4       |
| Phönix   | Avocado oil, refined          | 18007501    | 1       |
| PHÖNIX   | Evening primrose oil, refined | 18009103    | 1       |
| Phönix   | Peanut oil, refined           | 18014405    | 1       |
| PHÖNIX   | Almond oil, refined           | 18015002    | 1       |
| Phönix   | Evening primrose oil, refined | 1803006-01  | 2       |
| Phönix   | Olive oil, native             | 18208101    | 1       |
| PHÖNIX   | Olive oil, native             | 18208101    | 2       |
| Phönix   | Olive oil, native             | 18208110    | 1       |
| Phönix   | Peanut oil, refined           | 18208202    | 2       |
| Phönix   | Wheatgerm oil, refined        | 18241012    | 1       |
| Phönix   | Almond oil, refined           | 18295908    | 1       |
| PHÖNIX   | Almond oil, refined           | 18295910    | 1       |
| Phönix   | Avocado oil, refined          | 18306808    | 2       |
| Phönix   | Olive oil, native             | 19000452003 | 1       |
| Phönix   | Almond oil, refined           | 19000779001 | 4       |
| Phönix   | Olive oil, native             | 19006021    | 1       |
| Phönix   | Peanut oil, refined           | 19059205    | 1       |
| Phönix   | Olive oil, native             | 19076104    | 1       |
| Phönix   | Evening primrose oil, refined | 1911009-01  | 5       |
| Phönix   | Olive oil, native             | 19212001    | 1       |
| Phönix   | Evening primrose oil, refined | 192982004   | 2       |
| Phönix   | Olive oil, native             | 20000171    | 2       |
| Phönix   | Evening primrose oil, refined | 20001052005 | 3       |
| Phönix   | Olive oil, native             | 20001410003 | 1       |
| Phönix   | Almond oil, refined           | 20003201    | 1       |
| PHÖNIX   | Peanut oil, refined           | 20003610006 | 1       |
| Phönix   | Olive oil, native             | 20032       | 1       |
| Phönix   | Olive oil, native             | 200371604   | 1       |
| Phönix   | Almond oil, refined           | 21001240006 | 1       |
| Phönix   | Olive oil, native             | 21003239002 | 1       |
| Phönix   | Almond oil, refined           | 21003729006 | 1       |
| PHÖNIX   | Evening primrose oil, refined | 2105001-02  | 1       |
| Phönix   | Almond oil, refined           | 298745      | 1       |

continued on the next page



*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b>              | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|-------------------------------|------------------|----------------|
| Phönix                     | Peanut oil, refined           | 5204402          | 1              |
| Phönix                     | Peanut oil, refined           | 5404101          | 1              |
| Phönix                     | Almond oil, refined           | 543801           | 1              |
| Phönix                     | Almond oil, refined           | 5438301          | 1              |
| Phönix                     | Peanut oil, refined           | 5473601          | 1              |
| Phönix                     | Almond oil, refined           | 8000915001       | 1              |
| phönix                     | Almond oil, refined           | 8001497001       | 1              |
| Phönix                     | Olive oil, native             | 8002026001       | 1              |
| Phönix                     | Olive oil, native             | 8002366001       | 1              |
| Phönix                     | Olive oil, native             | 8002656001       | 1              |
| Phönix                     | Almond oil, refined           | 8003167001       | 2              |
| Phönix                     | Olive oil, native             | 8003420001       | 1              |
| Phönix                     | Olive oil, native             | 8003580002       | 2              |
| phönix                     | Almond oil, refined           | 8004039003       | 2              |
| Phönix                     | Olive oil, native             | 8004251002       | 1              |
| Phönix                     | Peanut oil, refined           | 8004304002       | 1              |
| Phönix                     | Almond oil, refined           | 8004548002       | 1              |
| Phönix                     | Almond oil, refined           | 8004548011       | 3              |
| Phönix                     | Almond oil, refined           | 8005803006       | 1              |
| Phönix                     | Almond oil, refined           | 8005936002       | 1              |
| Phytocomm                  | Almond oil, refined           | 15197406         | 1              |
| Prima Vera                 | Almond oil, refined           | 8603152          | 1              |
| Primavera 19.10.15         | Evening primrose oil, refined | 774J232          | 1              |
| Primavera 19.10.15         | Almond oil, refined           | 944H23           | 1              |
| Primavera Wareneingang...  | Almond oil, refined           | 792D23           | 1              |
| Primavera Wareneingang...  | Jojoba Oil, native            | 747A23           | 1              |
| Primavera (14.06.2018)     | Almond oil, refined           | 444C26           | 2              |
| Primavera (14.06.2018)     | Jojoba Oil, native            | 59E26            | 1              |
| Primavera (14.06.2018)     | Almond oil, refined           | 60E26            | 1              |
| Primavera WE 29.03.17 -... | Almond oil, refined           | 241C25           | 1              |
| Primavera/ Primavera       | Jojoba Oil, native            | 273J27           | 2              |
| Primavera/ Primavera       | Jojoba Oil, native            | 410M27           | 2              |
| Primavera/ Primavera       | Jojoba Oil, native            | 728D28(00599H27) | 2              |
| Primavera/AHD              | Evening primrose oil, refined | 304A27           | 1              |
| Primavera/AHD              | Avocado oil, refined          | 575G27           | 1              |
| Primavera/Direkt           | Almond oil, refined           | 737K25           | 1              |
| Primavera/Primavera        | Jojoba Oil, native            | 513M23           | 2              |
| Primavera/Primavera        | Jojoba Oil, native            | 747A23           | 1              |
| Primavera/Primavera        | Jojoba Oil, native            | 782B24           | 2              |
| Primavera/Sanacorp         | Almond oil, refined           | 682E25           | 1              |
| Primavera/Sanacorp         | Almond oil, refined           | 912L25           | 1              |
| Primavera                  | Wheatgerm oil, refined        | 1048L25          | 1              |
| Primavera                  | Almond oil, refined           | 11G23            | 2              |
| Primavera                  | Almond oil, refined           | 12H24            | 1              |
| Primavera                  | Almond oil, refined           | 141D27           | 1              |
| Primavera                  | Almond oil, refined           | 143D27           | 2              |
| Primavera                  | Almond oil, refined           | 15510141         | 1              |
| Primavera                  | Almond oil, refined           | 1551041          | 2              |
| Primavera                  | Jojoba Oil, native            | 17009133         | 1              |
| Primavera                  | Jojoba Oil, native            | 19307131         | 1              |
| Primavera                  | Jojoba Oil, native            | 218H26           | 1              |
| Primavera                  | Evening primrose oil, refined | 225K26           | 1              |
| Primavera                  | Jojoba Oil, native            | 235B27           | 2              |
| Primavera                  | Almond oil, refined           | 241C25           | 4              |
| Primavera                  | Jojoba Oil, native            | 241H23           | 2              |
| Primavera                  | Almond oil, refined           | 243C25           | 1              |
| Primavera                  | Evening primrose oil, refined | 2611142          | 1              |
| Primavera                  | Almond oil, refined           | 298H25           | 3              |
| Primavera                  | Jojoba Oil, native            | 3009J22          | 1              |
| Primavera                  | Jojoba Oil, native            | 300F27           | 1              |

*continued on the next page*



continued from previous page

| Supplier                   | Substance                     | Batch            | Spectra |
|----------------------------|-------------------------------|------------------|---------|
| Primavera                  | Jobaba Oil, native            | 342L26           | 3       |
| Primavera                  | Jobaba Oil, native            | 352F23           | 2       |
| Primavera                  | Wheatgerm oil, refined        | 3606132          | 1       |
| Primavera                  | Apricot kernel oil, refined   | 3612131          | 1       |
| Primavera                  | Jobaba Oil, native            | 361L25           | 1       |
| Primavera                  | Almond oil, refined           | 3808131          | 2       |
| Primavera                  | Almond oil, refined           | 381F26           | 3       |
| Primavera                  | Almond oil, refined           | 382L27           | 1       |
| Primavera                  | Almond oil, refined           | 410K27           | 3       |
| Primavera                  | Jobaba Oil, native            | 410M27           | 1       |
| Primavera                  | Jobaba Oil, native            | 427D25           | 2       |
| Primavera                  | Almond oil, refined           | 444C26           | 1       |
| Primavera                  | Almond oil, refined           | 480K23           | 1       |
| Primavera                  | Almond oil, refined           | 4811131          | 1       |
| Primavera                  | Almond oil, refined           | 511E25           | 1       |
| Primavera                  | Jobaba Oil, native            | 535L24           | 4       |
| Primavera                  | Jobaba Oil, native            | 537F24           | 1       |
| Primavera                  | Almond oil, refined           | 552K25           | 1       |
| Primavera                  | Jobaba Oil, native            | 59E26            | 3       |
| Primavera                  | Almond oil, refined           | 60E26            | 1       |
| Primavera                  | Jobaba Oil, native            | 63J24            | 1       |
| Primavera                  | Jobaba Oil, native            | 681A26           | 3       |
| Primavera                  | Jobaba Oil, native            | 717K23           | 1       |
| Primavera                  | Almond oil, refined           | 7708L22          | 1       |
| Primavera                  | Almond oil, refined           | 82B23            | 2       |
| Primavera                  | Avocado oil, refined          | 83M26            | 1       |
| Primavera                  | Jobaba Oil, native            | 883G25           | 3       |
| Primavera                  | Sesame oil, refined           | 9A26             | 2       |
| Primavera                  | Almond oil, refined           | 218D24           | 1       |
| Primavera                  | Almond oil, refined           | 21D24            | 1       |
| Purren Apotheke            | Peanut oil, refined           | 11313905         | 1       |
| PVL                        | Avocado oil, refined          | 2410131          | 1       |
| PVL                        | Avocado oil, refined          | 2807133          | 1       |
| Raben-Apotheke Mildenau    | Avocado oil, refined          | 1402027-01       | 1       |
| Raben-Apotheke Mildenau    | Decyl oleate                  | 14814-B03-292195 | 1       |
| Raben-Apotheke Mildenau    | Olive oil, native             | 5623601          | 1       |
| Raben-Apotheke Mildenau    | Olive oil, native             | 5891202          | 3       |
| Resana GmbH / GEHE         | Peanut oil, refined           | 1805-5943        | 1       |
| Resana GmbH                | Olive oil, native             | 1811-6110        | 1       |
| Resana GmbH                | Olive oil, native             | 1905-6233        | 1       |
| Resana GmbH                | Peanut oil, refined           | 1908-6406        | 1       |
| Resana/Fiebig              | Almond oil, refined           | 1708-5766        | 1       |
| Resana                     | Corn oil, refined             | 1208-3678        | 1       |
| Resana                     | Corn oil, refined             | 1308-4063        | 1       |
| Resana                     | Peanut oil, refined           | 1508-5053        | 1       |
| Resana                     | Olive oil, native             | 1806-5973        | 1       |
| Resana                     | Peanut oil, refined           | 1908-6406        | 1       |
| Rondell Apotheke           | Evening primrose oil, refined | 1506001-01       | 1       |
| Röntgen                    | Olive oil, native             | 18003205         | 1       |
| Röntgen                    | Olive oil, native             | 19006021         | 1       |
| Röntgen                    | Olive oil, native             | 21001644         | 1       |
| S.Binder                   | Olive oil, native             | 284144           | 1       |
| s.Prüfprotokoll            | Flaxseed oil, native          |                  | 1       |
| Sana/EuRho                 | Evening primrose oil, refined | 1911009-01       | 1       |
| Sana                       | Almond oil, refined           | 20003418004      | 1       |
| Sanacop WE:18.11.17 100... | Shea butter, refined          | 17085809         | 1       |
| Sanacop                    | Almond oil, refined           |                  | 4       |
| Sanacoro W.E:16.03.18 ...  | Almond oil, refined           | 8003503002       | 1       |
| Sanacorp / Hedinger        | Avocado oil, refined          | 1605034-01       | 1       |
| Sanacorp / Henry Lamotte   | Codliver oil (type A)         | 8002468002       | 1       |

continued on the next page

*continued from previous page*

| Supplier                    | Substance                       | Batch            | Spectra |
|-----------------------------|---------------------------------|------------------|---------|
| Sanacorp / Henry Lamotte    | Codliver oil (type A)           | 8004742003       | 1       |
| Sanacorp /Lamotte           | Codliver oil (type A)           | 8001215002       | 4       |
| Sanacorp 107                | Flaxseed oil, native            | 19164501         | 1       |
| Sanacorp 107                | Evening primrose oil, refined   | 2003029-01       | 1       |
| Sanacorp 18.03.14 EK 10...  | Olive oil, native               | 13G18-B08-286423 | 1       |
| Sanacorp 21.01.15 EK 10...  | Olive oil, native               | 14G08-B02-300073 | 1       |
| Sanacorp 24.05.2017 2,84EUR | Almond oil, refined             | 17042203         | 1       |
| Sanacorp W.E: 01.02.18 ...  | Borage oil, refined, stabili... | 17307801         | 2       |
| Sanacorp WE:04.02.2017 ...  | Almond oil, refined             | 8001497001       | 1       |
| sanacorp WE:28.12.17 E...   | Shea butter, refined            | 17085815         | 1       |
| Sanacorp, 11.03.17, 5,46EUR | Almond oil, refined             | 16327309         | 2       |
| Sanacorp, 16.02.17, 3,04EUR | Avocado oil, refined            | 16104702         | 1       |
| Sanacorp, 4,88EUR, 18.1.17  | Almond oil, refined             | 16327303         | 1       |
| Sanacorp,31.03.17, 5,20EUR  | Avocado oil, refined            | 16185908         | 1       |
| Sanacorp/ Abis Pharma       | Shea butter, refined            | keine            | 2       |
| Sanacorp/ Lamotte           | Olive oil, native               | 1000010090       | 3       |
| Sanacorp/ Lamotte           | Almond oil, refined             | 1000010093       | 2       |
| Sanacorp/ Lamotte           | Codliver oil (type A)           | 8003906002       | 1       |
| Sanacorp/ Lamotte           | Olive oil, native               | 8004194001       | 1       |
| Sanacorp/ Lamotte           | Olive oil, native               | 8004251002       | 6       |
| Sanacorp/ Lamotte           | Codliver oil (type A)           | 8004742003       | 3       |
| Sanacorp/ Lamotte           | Codliver oil (type A)           | 8005296003       | 1       |
| Sanacorp/ Lamotte           | Codliver oil (type A)           | 8006235003       | 1       |
| Sanacorp/ Lamotte           | Codliver oil (type A)           | 800709001        | 1       |
| Sanacorp/Henry Lamotte ...  | Almond oil, refined             | 8003167001       | 3       |
| Sanacorp/Lamotte            | Peanut oil, refined             | 1000014700       | 1       |
| Sanacorp/Lamotte            | Peanut oil, refined             | 1000015783       | 1       |
| Sanacorp                    | Olive oil, native               |                  | 1       |
| Sanacorp                    | Wheatgerm oil, refined          | 1/AKD2           | 1       |
| Sanacorp                    | Olive oil, native               | 1/AKD4           | 2       |
| Sanacorp                    | Sesame oil, refined             | 1000002705       | 1       |
| Sanacorp                    | Sesame oil, refined             | 1000010906       | 3       |
| Sanacorp                    | Sesame oil, refined             | 1000011034       | 2       |
| Sanacorp                    | Sesame oil, refined             | 1000011866       | 1       |
| Sanacorp                    | Almond oil, refined             | 1000012126       | 1       |
| Sanacorp                    | Peanut oil, refined             | 1000012961       | 1       |
| Sanacorp                    | Peanut oil, refined             | 1000015783       | 1       |
| Sanacorp                    | Oleyl oleate (stabilised)       | 12067705         | 1       |
| Sanacorp                    | Almond oil, refined             | 12080803         | 1       |
| Sanacorp                    | Olive oil, native               | 12141306         | 2       |
| Sanacorp                    | Oleyl oleate (stabilised)       | 12220208         | 1       |
| Sanacorp                    | Olive oil, native               | 12274108         | 1       |
| Sanacorp                    | Peanut oil, refined             | 12274302         | 2       |
| Sanacorp                    | Evening primrose oil, refined   | 12325111         | 1       |
| Sanacorp                    | Evening primrose oil, refined   | 12325114         | 1       |
| Sanacorp                    | Almond oil, refined             | 12357102         | 3       |
| Sanacorp                    | Almond oil, refined             | 12357103         | 1       |
| Sanacorp                    | Avocado oil, refined            | 1304039-01       | 1       |
| Sanacorp                    | Oleyl oleate (stabilised)       | 13096402         | 1       |
| Sanacorp                    | Evening primrose oil, refined   | 13121809         | 2       |
| Sanacorp                    | Evening primrose oil, refined   | 13121814         | 1       |
| Sanacorp                    | Peanut oil, refined             | 13129203         | 1       |
| sanacorp                    | Olive oil, native               | 13147004         | 1       |
| Sanacorp                    | Almond oil, refined             | 13178004         | 1       |
| Sanacorp                    | Almond oil, refined             | 13236406         | 1       |
| Sanacorp                    | Almond oil, refined             | 13350007         | 1       |
| Sanacorp                    | Borage oil, refined, stabili... | 13372106         | 1       |
| Sanacorp                    | Oleyl oleate (stabilised)       | 13378403         | 2       |
| Sanacorp                    | Olive oil, native               | 13C08-N06        | 1       |
| sanacorp                    | Shea butter, refined            | 14033310         | 1       |

*continued on the next page*

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| Sanacorp | Evening primrose oil, refined   | 1407002-01  | 1       |
| Sanacorp | Almond oil, refined             | 1413935     | 1       |
| Sanacorp | Avocado oil, refined            | 14170104    | 1       |
| Sanacorp | Borage oil, refined, stabili... | 14203006    | 1       |
| Sanacorp | Evening primrose oil, refined   | 14258606    | 1       |
| Sanacorp | Olive oil, native               | 14306903    | 1       |
| sanacorp | Olive oil, native               | 14306904    | 1       |
| Sanacorp | Peanut oil, refined             | 14355904    | 1       |
| Sanacorp | Almond oil, refined             | 15078401    | 1       |
| Sanacorp | Almond oil, refined             | 15078405    | 1       |
| Sanacorp | Decyl oleate                    | 15082206    | 1       |
| Sanacorp | Olive oil, native               | 15112705    | 1       |
| sanacorp | Olive oil, native               | 15112706    | 1       |
| Sanacorp | Avocado oil, refined            | 15155206    | 1       |
| Sanacorp | Evening primrose oil, refined   | 1517110     | 1       |
| Sanacorp | Evening primrose oil, refined   | 15171104    | 1       |
| Sanacorp | Evening primrose oil, refined   | 15171109    | 1       |
| Sanacorp | Soy oil, refined                | 15289402    | 1       |
| Sanacorp | Jobaba Oil, native              | 16070609    | 1       |
| Sanacorp | Evening primrose oil, refined   | 16281305    | 1       |
| Sanacorp | Evening primrose oil, refined   | 16281313    | 1       |
| Sanacorp | Peanut oil, refined             | 16348001    | 1       |
| Sanacorp | Peanut oil, refined             | 17042802    | 2       |
| Sanacorp | Evening primrose oil, refined   | 1710011-01  | 1       |
| Sanacorp | Peanut oil, refined             | 17169010    | 1       |
| Sanacorp | Peanut oil, refined             | 17169018    | 1       |
| Sanacorp | Almond oil, refined             | 17176502    | 1       |
| Sanacorp | Almond oil, refined             | 17176507    | 2       |
| Sanacorp | Almond oil, refined             | 17176512    | 2       |
| Sanacorp | Olive oil, native               | 17236501    | 2       |
| Sanacorp | Evening primrose oil, refined   | 17255801    | 1       |
| Sanacorp | Flaxseed oil, native            | 18001720    | 1       |
| Sanacorp | Olive oil, native               | 18002119    | 2       |
| Sanacorp | Olive oil, native               | 18005453    | 2       |
| Sanacorp | Almond oil, refined             | 18006808    | 1       |
| Sanacorp | Avocado oil, refined            | 18007502    | 1       |
| Sanacorp | Evening primrose oil, refined   | 18009106    | 1       |
| Sanacorp | Evening primrose oil, refined   | 18009109    | 2       |
| Sanacorp | Evening primrose oil, refined   | 18009114    | 1       |
| Sanacorp | Evening primrose oil, refined   | 180300601   | 1       |
| Sanacorp | Jobaba Oil, native              | 18057107    | 1       |
| Sanacorp | Almond oil, refined             | 18070605    | 2       |
| Sanacorp | Olive oil, native               | 18121101    | 1       |
| Sanacorp | Almond oil, refined             | 18184107    | 1       |
| Sanacorp | Almond oil, refined             | 18184113    | 1       |
| Sanacorp | Peanut oil, refined             | 18208202    | 1       |
| Sanacorp | Evening primrose oil, refined   | 18216201    | 1       |
| Sanacorp | Evening primrose oil, refined   | 18216202    | 1       |
| Sanacorp | Almond oil, refined             | 18295901    | 1       |
| Sanacorp | Almond oil, refined             | 18295909    | 2       |
| Sanacorp | Almond oil, refined             | 18295915    | 1       |
| Sanacorp | Peanut oil, refined             | 18296001    | 1       |
| Sanacorp | Olive oil, native               | 18311901    | 1       |
| Sanacorp | Olive oil, native               | 18311906    | 1       |
| Sanacorp | Sesame oil, refined             | 18331308    | 2       |
| Sanacorp | Almond oil, refined             | 19000779001 | 2       |
| Sanacorp | Olive oil, native               | 19001848    | 1       |
| Sanacorp | Evening primrose oil, refined   | 1901046-01  | 1       |
| Sanacorp | Sunflower oil, refined          | 19046506    | 1       |
| Sanacorp | Peanut oil, refined             | 19059205    | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch          | Spectra |
|----------------------------|---------------------------------|----------------|---------|
| Sanacorp                   | Peanut oil, refined             | 19059208       | 1       |
| Sanacorp                   | Almond oil, refined             | 19084502       | 1       |
| Sanacorp                   | Almond oil, refined             | 19084506       | 1       |
| Sanacorp                   | Almond oil, refined             | 19084510       | 1       |
| Sanacorp                   | Evening primrose oil, refined   | 19164407       | 1       |
| Sanacorp                   | Almond oil, refined             | 19187101       | 1       |
| sanacorp                   | Almond oil, refined             | 19187102       | 1       |
| Sanacorp                   | Almond oil, refined             | 19187102       | 1       |
| Sanacorp                   | Evening primrose oil, refined   | 192982011      | 3       |
| Sanacorp                   | Sesame oil, refined             | 20000741003    | 1       |
| Sanacorp                   | Evening primrose oil, refined   | 20001052001    | 1       |
| Sanacorp                   | Olive oil, native               | 20001410002    | 1       |
| Sanacorp                   | Peanut oil, refined             | 20001473004    | 1       |
| Sanacorp                   | Almond oil, refined             | 20001624004    | 1       |
| Sanacorp                   | Olive oil, native               | 20001867       | 1       |
| Sanacorp                   | Flaxseed oil, native            | 20002883       | 1       |
| Sanacorp                   | Olive oil, native               | 273659         | 1       |
| Sanacorp                   | Olive oil, native               | 277050         | 1       |
| Sanacorp                   | Olive oil, native               | 279609         | 1       |
| Sanacorp                   | Olive oil, native               | 308229         | 1       |
| Sanacorp                   | Jojoba Oil, native              | 30948          | 1       |
| sanacorp                   | Jojoba Oil, native              | 418601031      | 1       |
| Sanacorp                   | Olive oil, native               | 5/AKD13        | 1       |
| Sanacorp                   | Almond oil, refined             | 5214206        | 2       |
| Sanacorp                   | Almond oil, refined             | 5269301        | 2       |
| Sanacorp                   | Almond oil, refined             | 5415901        | 2       |
| Sanacorp                   | Almond oil, refined             | 5438302        | 1       |
| Sanacorp                   | Borage oil, refined, stabili... | 619204581      | 1       |
| Sanacorp                   | Avocado oil, refined            | 713301202      | 1       |
| Sanacorp                   | Jojoba Oil, native              | 80002391001    | 2       |
| Sanacorp                   | Almond oil, refined             | 8001497001     | 1       |
| Sanacorp                   | Codliver oil (type A)           | 8002468002     | 1       |
| Sanacorp                   | Almond oil, refined             | 8003503001     | 1       |
| Sanacorp                   | Almond oil, refined             | 8003503002     | 1       |
| Sanacorp                   | Jojoba Oil, native              | 8003732001     | 1       |
| Sanacorp                   | Almond oil, refined             | 8005803007     | 2       |
| Sanacorp                   | Almond oil, refined             | 807584002      | 1       |
| Sanacorp                   | Evening primrose oil, refined   | AP144174       | 1       |
| Sanacorp                   | Evening primrose oil, refined   | BTR36050-01    | 1       |
| Sanacorp                   | Evening primrose oil, refined   | EP745611-1     | 1       |
| Sanacorp                   | Evening primrose oil, refined   | EP848211-1     | 1       |
| Sanacorp                   | Codliver oil (type A)           | Lamotte5641901 | 1       |
| Sanacorp                   | Evening primrose oil, refined   | Med1001078     | 1       |
| Sanacorp;13.05.15; 2,94EUR | Peanut oil, refined             | 14355905       | 1       |
| Sanacorp                   | Wheatgerm oil, refined          | 19143201       | 1       |
| Sanacorp                   | Almond oil, refined             | 19187101       | 1       |
| SANMARK Lim./Gehe          | Evening primrose oil, refined   | 1901046-01     | 1       |
| Sanmark Limited/ Allian... | Evening primrose oil, refined   | 1911009-01     | 1       |
| sanmark limited/gehe       | Evening primrose oil, refined   | 2003029-01     | 1       |
| Sanmark Limited/Noweda     | Evening primrose oil, refined   | EP848211-1     | 1       |
| Sanmark Limited/Sanacorp   | Evening primrose oil, refined   | 2003029        | 1       |
| Sanmark Limited            | Evening primrose oil, refined   | 160800801      | 1       |
| SANMARK LIMITED            | Evening primrose oil, refined   | 1704018-01     | 1       |
| SANMARK LIMITED            | Evening primrose oil, refined   | 1710011-02     | 3       |
| Sanmark Limited            | Evening primrose oil, refined   | 1901046-01     | 1       |
| Sanmark Limited            | Evening primrose oil, refined   | 1911009-01     | 4       |
| Sanmark Limited            | Evening primrose oil, refined   | 2003029-01     | 4       |
| Sanmark Limited            | Evening primrose oil, refined   | 2008037-02     | 1       |
| Sanmark Limited            | Evening primrose oil, refined   | BTR340388-01   | 1       |
| SANMARK LIMITED            | Evening primrose oil, refined   | BTR340388-01   | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Sanmark Limited            | Evening primrose oil, refined   | BTR34951201  | 1       |
| Sanmark Limited            | Evening primrose oil, refined   | BTR360506-01 | 1       |
| SANMARK LIMITED            | Evening primrose oil, refined   | EP713711-1   | 1       |
| Sanmark Limited            | Evening primrose oil, refined   | EP848211-1   | 1       |
| Sanmark Ltd./Sanacorp      | Evening primrose oil, refined   | 1608008-01   | 1       |
| Sanmark/AHD                | Evening primrose oil, refined   | 1901046-01   | 1       |
| Sanmark/Jenne/11.06.20     | Evening primrose oil, refined   | BTR340388-01 | 1       |
| Sanmark/Noweda             | Evening primrose oil, refined   | 1710011-02   | 1       |
| Sanmark/noweda             | Evening primrose oil, refined   | 1803006-01   | 1       |
| Sanmark/Noweda             | Evening primrose oil, refined   | 1901046-01   | 1       |
| Sanmark/Phoenix            | Evening primrose oil, refined   | BTR340388-01 | 6       |
| Sanmark/Phoenix            | Evening primrose oil, refined   | BTR349512-01 | 3       |
| Sanmark/Phoenix            | Evening primrose oil, refined   | BTR360506-01 | 2       |
| Sanmark/Phönix             | Evening primrose oil, refined   | 2003029-01   | 4       |
| Sanmark/Phönix             | Evening primrose oil, refined   | EP848211-1   | 1       |
| Sanmark/Sanacorp           | Evening primrose oil, refined   | 1803006-02   | 1       |
| Sanmark/Sanacorp           | Evening primrose oil, refined   | BTR349512-01 | 1       |
| Sanmark                    | Evening primrose oil, refined   | 2003029      | 1       |
| sanmark                    | Evening primrose oil, refined   | BTR349512-01 | 2       |
| Sanmarkt/Noweda            | Evening primrose oil, refined   | 1704018-01   | 4       |
| Sanmarl Limited / Gaibo    | Evening primrose oil, refined   | BTR360506-01 | 1       |
| Schubert / Phoenix         | Sunflower oil, refined          | 1423F0-2027  | 2       |
| Schupp                     | Almond oil, refined             | 17010        | 1       |
| Sheabutter Import Franz... | Shea butter, refined            | 14-3-0001    | 1       |
| Sheabutter Import Franz... | Shea butter, refined            | 14314-18515  | 1       |
| Sheabutter-Import Franz... | Shea butter, refined            | 1205355      | 2       |
| Sheabutter-Import Franz... | Shea butter, refined            | 413-0001     | 1       |
| Spangro 03.12.2018         | Evening primrose oil, refined   | EP745611-1   | 1       |
| Spangro 15.3.2019          | Olive oil, native               | 18208110     | 2       |
| Spangro 19.5.14            | Almond oil, refined             | 5615001      | 1       |
| Spangro 22.10.2018         | Avocado oil, refined            | 1000005537   | 1       |
| Spangro 24.03.2014         | Olive oil, native               | 13350104     | 1       |
| Spangro                    | Olive oil, native               | 5107101      | 1       |
| Spangropharm               | Avocado oil, refined            | 13361402     | 1       |
| Spangropharm               | Codliver oil (type A)           | 5529601      | 1       |
| Spinnrad / Alliance Hea... | Borage oil, refined, stabili... | 1217204583   | 1       |
| Spinnrad / Sanacorp 05...  | Evening primrose oil, refined   | 518204551    | 1       |
| Spinnrad / Sanacorp 30...  | Evening primrose oil, refined   | 518404552    | 2       |
| Spinnrad GmbH              | Evening primrose oil, refined   | 516204552    | 1       |
| Spinnrad GmbH              | Borage oil, refined, stabili... | 616204581    | 1       |
| Spinnrad GmbH              | Almond oil, refined             | 713301223    | 1       |
| Spinnrad GmbH              | Almond oil, refined             | 913301224    | 1       |
| Spinnrad GmbH              | Avocado oil, refined            | 916301202    | 1       |
| Spinnrad/ Noweda           | Borage oil, refined, stabili... | 418204581    | 1       |
| Spinnrad/ Noweda           | Almond oil, refined             | 419101222    | 1       |
| Spinnrad/AHD               | Avocado oil, refined            | 720301202    | 1       |
| Spinnrad/Gehe              | Grape seed oil, refined         | 419301551    | 1       |
| Spinnrad/Noweda            | Evening primrose oil, refined   | 519404551    | 2       |
| Spinnrad/Phoenix           | Almond oil, refined             | 219401071    | 1       |
| Spinnrad/Phönix            | Almond oil, refined             | 118401071    | 1       |
| Spinnrad/Phönix            | Shea butter, refined            | 416300182    | 1       |
| Spinnrad/Phönix            | Borage oil, refined, stabili... | 619204581    | 1       |
| Spinnrad/Sanacorp          | Borage oil, refined, stabili... | 1018204582   | 2       |
| Spinnrad/Sanacorp          | Olive oil, native               | 18208110     | 1       |
| Spinnrad                   | Borage oil, refined, stabili... | 1018204582   | 5       |
| Spinnrad                   | Borage oil, refined, stabili... | 1115204582   | 1       |
| Spinnrad                   | Evening primrose oil, refined   | 1116204553   | 1       |
| spinnrad                   | Avocado oil, refined            | 1118301202   | 1       |
| Spinnrad                   | Almond oil, refined             | 118401071    | 2       |
| Spinnrad                   | Almond oil, refined             | 1215048093   | 1       |

continued on the next page

continued from previous page

| Supplier             | Substance                       | Batch            | Spectra |
|----------------------|---------------------------------|------------------|---------|
| Spinnrad             | Evening primrose oil, refined   | 1218404553       | 1       |
| Spinnrad             | Almond oil, refined             | 1219101224       | 1       |
| Spinnrad             | Shea butter, refined            | 217300181        | 1       |
| Spinnrad             | Sesame oil, refined             | 219601091        | 1       |
| Spinnrad             | Jobaba Oil, native              | 220601031        | 1       |
| Spinnrad             | Jobaba Oil, native              | 315601031        | 1       |
| Spinnrad             | Almond oil, refined             | 316101221        | 3       |
| Spinnrad             | Jobaba Oil, native              | 319601031        | 1       |
| Spinnrad             | Sesame oil, refined             | 319601092        | 2       |
| spinnrad             | Sesame oil, refined             | 320601091        | 1       |
| Spinnrad             | Jobaba Oil, native              | 416601031        | 1       |
| Spinnrad             | Almond oil, refined             | 418048091        | 1       |
| Spinnrad             | Borage oil, refined, stabili... | 418204581        | 2       |
| Spinnrad             | Avocado oil, refined            | 418301201        | 1       |
| Spinnrad             | Evening primrose oil, refined   | 519404551        | 1       |
| Spinnrad             | Borage oil, refined, stabili... | 617204582        | 1       |
| Spinnrad             | Avocado oil, refined            | 618301212        | 1       |
| Spinnrad             | Borage oil, refined, stabili... | 619204581        | 1       |
| Spinnrad             | Borage oil, refined, stabili... | 820204582        | 2       |
| Spinnrad             | Avocado oil, refined            | 917301202        | 1       |
| Spinrad              | Jobaba Oil, native              | 617601032        | 1       |
| Spirig /Noweda       | Evening primrose oil, refined   | 1407002-01       | 1       |
| Stifts-Apotheke      | Borage oil, refined, stabili... | 15305002         | 1       |
| Stumpf / Hedinger    | Codliver oil (type A)           | 5878701          | 1       |
| Stumpf/Henry Lamotte | Codliver oil (type A)           | 119929           | 1       |
| Stumpf/Henry Lamotte | Codliver oil (type A)           | 123823           | 1       |
| Stumpf/Henry Lamotte | Flaxseed oil, native            | 124116           | 1       |
| Stumpf/Henry Lamotte | Evening primrose oil, refined   | 145691           | 1       |
| Stumpf/Henry Lamotte | Almond oil, refined             | 5415901          | 2       |
| Stumpf/Henry Lamotte | Almond oil, refined             | 5438301          | 3       |
| Stumpf/Henry Lamotte | Almond oil, refined             | 5438302          | 4       |
| Stumpf/Henry Lamotte | Almond oil, refined             | 5493001          | 4       |
| Stumpf/Henry Lamotte | Codliver oil (type A)           | 5693101          | 1       |
| Stumpf/Henry Lamotte | Almond oil, refined             | 5748601          | 2       |
| Stumpf/Henry Lamotte | Almond oil, refined             | 5919600001       | 2       |
| SysKem Chemie        | Oleyl oleate (stabilised)       | 35885            | 1       |
| SysKem Chemie        | Oleyl oleate (stabilised)       | 8002060413       | 1       |
| TAOASIS GmbH         | Evening primrose oil, refined   | 1804A0479-6728   | 1       |
| Taoasis GmbH         | Evening primrose oil, refined   | 1909A1892-9083CN | 1       |
| Taoasis GmbH         | Jobaba Oil, native              | 5445301-112580   | 1       |
| Taoasis/Anzag        | Jobaba Oil, native              | 133535-123190    | 1       |
| Taoasis/Anzag        | Jobaba Oil, native              | 2a5890402        | 1       |
| Taoasis/Anzag        | Jobaba Oil, native              | 2a5890402-121152 | 1       |
| Taoasis/Anzag        | Jobaba Oil, native              | 5815901-118834   | 3       |
| Taoasis/Anzag        | Jobaba Oil, native              | 5864501-119639   | 1       |
| Taoasis/Noweda       | Evening primrose oil, refined   | 11878BCNN02      | 1       |
| Taoasis/Noweda       | Almond oil, refined             | 130973           | 1       |
| taoasis/Noweda       | Evening primrose oil, refined   | 37282-115267     | 1       |
| Taoasis/Phoenix      | Almond oil, refined             | 103325-1265      | 1       |
| Taoasis/Phönix       | Evening primrose oil, refined   | A128740          | 1       |
| Taoasis/Sanacorp     | Avocado oil, refined            | 126503-160A1196  | 1       |
| Taoasis/Sanacorp     | Avocado oil, refined            | 127660           | 1       |
| Taoasis/Sanacorp     | Avocado oil, refined            | 1606A1034-126013 | 1       |
| Taoasis/Taoasis      | Almond oil, refined             | 103944-1719      | 1       |
| Taoasis/Taoasis      | Evening primrose oil, refined   | 1300866-123338   | 1       |
| Taoasis/Taoasis      | Evening primrose oil, refined   | 16091186-126920  | 1       |
| Taoasis/Taoasis      | Evening primrose oil, refined   | 1707A0307-2507   | 1       |
| Taoasis              | Avocado oil, refined            |                  | 1       |
| Taoasis              | Almond oil, refined             | 102235-111893    | 1       |
| Taoasis              | Almond oil, refined             | 103325-1265      | 1       |

continued on the next page



continued from previous page

| Supplier      | Substance                     | Batch            | Spectra |
|---------------|-------------------------------|------------------|---------|
| Taoasis       | Almond oil, refined           | 103944-1719      | 1       |
| Taoasis       | Almond oil, refined           | 104542-6050      | 1       |
| Taoasis       | Almond oil, refined           | 118979-108698    | 1       |
| Taoasis       | Almond oil, refined           | 119249-109910    | 1       |
| Taoasis       | Evening primrose oil, refined | 120161-93968     | 1       |
| Taoasis       | Evening primrose oil, refined | 12096-99883      | 2       |
| Taoasis       | Almond oil, refined           | 12842-116104     | 1       |
| Taoasis       | Almond oil, refined           | 130973-116149    | 1       |
| Taoasis       | Almond oil, refined           | 130973-118607    | 1       |
| Taoasis       | Almond oil, refined           | 132805-118635    | 1       |
| Taoasis       | Jojoba Oil, native            | 133535-123190    | 2       |
| Taoasis       | Jojoba Oil, native            | 133535-123399    | 1       |
| Taoasis       | Almond oil, refined           | 133805-120282    | 1       |
| Taoasis       | Almond oil, refined           | 134032-120671    | 1       |
| Taoasis       | Almond oil, refined           | 134475-1215919   | 1       |
| Taoasis       | Almond oil, refined           | 135831-121621    | 2       |
| Taoasis       | Jojoba Oil, native            | 137640-123934    | 1       |
| Taoasis       | Jojoba Oil, native            | 140545-127891    | 1       |
| Taoasis       | Jojoba Oil, native            | 141161-1819      | 2       |
| Taoasis       | Jojoba Oil, native            | 141161-217A      | 1       |
| Taoasis       | Jojoba Oil, native            | 141161-347       | 1       |
| Taoasis       | Jojoba Oil, native            | 143650-1819      | 1       |
| Taoasis       | Jojoba Oil, native            | 143650-3342      | 2       |
| Taoasis       | Jojoba Oil, native            | 143650-3436      | 1       |
| Taoasis       | Jojoba Oil, native            | 148266-6547      | 1       |
| Taoasis       | Jojoba Oil, native            | 150964-10281     | 1       |
| Taoasis       | Jojoba Oil, native            | 150964-8450      | 1       |
| Taoasis       | Jojoba Oil, native            | 151214-125861    | 4       |
| Taoasis       | Jojoba Oil, native            | 151214-127674    | 1       |
| Taoasis       | Evening primrose oil, refined | 16091186-126868  | 1       |
| Taoasis       | Evening primrose oil, refined | 1707A0307-2507   | 1       |
| Taoasis       | Evening primrose oil, refined | 1707A307-2506    | 1       |
| Taoasis       | Olive oil, native             | 17236501         | 1       |
| Taoasis       | Almond oil, refined           | 19103325-1991    | 1       |
| Taoasis       | Almond oil, refined           | 19103325-896     | 1       |
| Taoasis       | Almond oil, refined           | 19103616-1718    | 1       |
| Taoasis       | Almond oil, refined           | 22-896           | 1       |
| Taoasis       | Jojoba Oil, native            | 2A5890402-121152 | 2       |
| Taoasis       | Almond oil, refined           | 31952-123336     | 1       |
| Taoasis       | Almond oil, refined           | 33489-124674     | 1       |
| Taoasis       | Jojoba Oil, native            | 3403UY           | 1       |
| Taoasis       | Almond oil, refined           | 34371-125478     | 1       |
| Taoasis       | Almond oil, refined           | 35171-125735     | 1       |
| Taoasis       | Almond oil, refined           | 3548810          | 1       |
| Taoasis       | Evening primrose oil, refined | 3723-107968      | 1       |
| Taoasis       | Almond oil, refined           | 37293-128349     | 1       |
| Taoasis       | Evening primrose oil, refined | 3788-116147      | 1       |
| Taoasis       | Evening primrose oil, refined | 3843-121697      | 2       |
| Taoasis       | Jojoba Oil, native            | 4674401-67053    | 1       |
| Taoasis       | Jojoba Oil, native            | 5225101-108329   | 1       |
| Taoasis       | Jojoba Oil, native            | 5336301-109515   | 1       |
| Taoasis       | Jojoba Oil, native            | 5336301-111368   | 1       |
| Taoasis       | Jojoba Oil, native            | 5406801-111216   | 1       |
| Taoasis       | Jojoba Oil, native            | 5406801-111877   | 1       |
| Taoasis       | Jojoba Oil, native            | 5445301-112580   | 2       |
| Taoasis       | Almond oil, refined           | 5452701-111421   | 1       |
| Taoasis       | Almond oil, refined           | 5511701-1113571  | 1       |
| Taoasis       | Almond oil, refined           | 5511701-113571   | 1       |
| Taoasis       | Avocado oil, refined          | 92010-105977     | 1       |
| taosis/Phönix | Apricot kernel oil, refined   | 134933-124392    | 1       |

continued on the next page



*continued from previous page*

| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Taoasis                    | Sesame oil, refined             | 1929         | 1       |
| Th. Geyer                  | Olive oil, native               | 17038702     | 2       |
| Th. Geyer                  | Shea butter, refined            | 18236002     | 1       |
| THC/ Phönix Pharma Eink... | Almond oil, refined             | 128843       | 1       |
| THC/ Phönix Pharma Eink... | Borage oil, refined, stabili... | 141603       | 1       |
| Tilary                     | Grape seed oil, refined         | N0000002752  | 1       |
| Tilary                     | Grape seed oil, refined         | N0000008106  | 1       |
| Tilrag GmbH                | Grape seed oil, refined         | N0000008088  | 1       |
| tilray / Sanacorp          | Grape seed oil, refined         | N000000413   | 1       |
| tilray / Sanacorp          | Grape seed oil, refined         | N0000006850  | 1       |
| tilray / Sanacorp          | Grape seed oil, refined         | N0000008083  | 3       |
| tilray / Sanacorp          | Grape seed oil, refined         | N0000008413  | 1       |
| tilray / Sanacorp          | Grape seed oil, refined         | N0000008543  | 1       |
| tilray / Sanacorp          | Grape seed oil, refined         | N0000008847  | 1       |
| tilray / Sanacorp          | Grape seed oil, refined         | N000006119   | 1       |
| Tilray Deutschland GmbH... | Grape seed oil, refined         | N0000008080  | 12      |
| Tilray Deutschland GmbH... | Grape seed oil, refined         | N0000007111  | 1       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000006852  | 2       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008105  | 1       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008106  | 2       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008398  | 9       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008413  | 1       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008414  | 1       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008543  | 3       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008548  | 1       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008842  | 3       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008845  | 4       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008847  | 1       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000008849  | 5       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000009342  | 4       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000009346  | 1       |
| Tilray Deutschland GmbH    | Grape seed oil, refined         | N0000009347  | 4       |
| Tilray Gehe                | Grape seed oil, refined         | N00000006115 | 1       |
| Tilray Gehe                | Grape seed oil, refined         | N0000006850  | 1       |
| Tilray GmbH                | Grape seed oil, refined         | N0000007111  | 1       |
| Tilray GmbH                | Grape seed oil, refined         | N0000008083  | 2       |
| Tilray GmbH                | Grape seed oil, refined         | N0000008105  | 1       |
| Tilray GmbH                | Grape seed oil, refined         | N0000008203  | 2       |
| Tilray GmbH                | Grape seed oil, refined         | N0000008398  | 1       |
| Tilray GmbH                | Grape seed oil, refined         | N0000008413  | 2       |
| Tilray GmbH                | Grape seed oil, refined         | N0000008414  | 1       |
| Tilray über Paesel und ... | Grape seed oil, refined         | N0000005242  | 2       |
| Tilray über Paesel und ... | Grape seed oil, refined         | N0000006051  | 1       |
| Tilray/ Alliance Health... | Grape seed oil, refined         | N0000004669  | 2       |
| Tilray/Gehe                | Grape seed oil, refined         | N0000008398  | 1       |
| Tilray/Gehe                | Grape seed oil, refined         | N0000008548  | 1       |
| Tilray/Gehe                | Grape seed oil, refined         | N0000008842  | 1       |
| Tilray/Gehe                | Grape seed oil, refined         | N0000009343  | 1       |
| Tilray/Gehe                | Grape seed oil, refined         | N0000009346  | 1       |
| Tilray                     | Grape seed oil, refined         | N00000006115 | 1       |
| Tilray                     | Grape seed oil, refined         | N0000004666  | 1       |
| Tilray                     | Grape seed oil, refined         | N0000004667  | 1       |
| Tilray                     | Grape seed oil, refined         | N0000006053  | 1       |
| Tilray                     | Grape seed oil, refined         | N0000006115  | 5       |
| Tilray                     | Grape seed oil, refined         | N0000006728  | 1       |
| Tilray                     | Grape seed oil, refined         | N0000006849  | 1       |
| Tilray                     | Grape seed oil, refined         | N0000006850  | 1       |
| Tilray                     | Grape seed oil, refined         | N0000006852  | 2       |
| Tilray                     | Grape seed oil, refined         | N0000008083  | 1       |
| Tilray                     | Grape seed oil, refined         | N0000008105  | 1       |

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| Supplier                     | Substance                     | Batch              | Spectra |
|------------------------------|-------------------------------|--------------------|---------|
| Tilray                       | Grape seed oil, refined       | N0000008203        | 2       |
| Tilray                       | Grape seed oil, refined       | N0000008414        | 1       |
| Tilray                       | Grape seed oil, refined       | N0000008548        | 1       |
| VDL 06.05.Preis 6,70         | Avocado oil, refined          | 700325//05R06      | 1       |
| VDL 21.05;Preis 9,84         | Almond oil, refined           | 13236406//05R05    | 1       |
| VDL Nachliefer; 10.7.15. ... | Olive oil, native             | 291374             | 2       |
| VDL                          | Codliver oil (type A)         | 5878701            | 1       |
| VDL;                         | Wheatgerm oil, refined        | 13261603           | 1       |
| VDL;11.3.16;2,77EUR          | Avocado oil, refined          | 15268203           | 1       |
| VDL;11.3.16;3,45EUR          | Wheatgerm oil, refined        | 15374101           | 2       |
| VDL;2.51EUR;22.06.15         | Flaxseed oil, native          | 15116702           | 1       |
| VDL;22.05.15;11.47EUR        | Almond oil, refined           | 14215807           | 1       |
| VDL;3,44EUR;22.05.15         | Wheatgerm oil, refined        | 14356001           | 1       |
| Vertanical GmbH              | Sesame oil, refined           | S0E1000011400-V001 | 1       |
| Vertanical / Ebert           | Sesame oil, refined           | 92011              | 1       |
| Vertanical GmbH              | Sesame oil, refined           | 92011              | 3       |
| Vertanical GmbH              | Sesame oil, refined           | S0E1000014055      | 7       |
| Vertanical GmbH              | Sesame oil, refined           | S0E1000014055-V001 | 1       |
| Vertanical GmbH              | Sesame oil, refined           | S0E12000014055     | 1       |
| Vertanical Herstellkit       | Sesame oil, refined           | 92021A             | 1       |
| Vertanical/Anzag             | Sesame oil, refined           | 92011              | 1       |
| Vertanical/Noweda            | Sesame oil, refined           | S0E10000           | 1       |
| Vertanical/Noweda            | Sesame oil, refined           | S0E1000014055      | 2       |
| Vertanical/Phönix            | Sesame oil, refined           | 92011              | 2       |
| Vertanical/Phönix            | Sesame oil, refined           | S0E1000014055      | 1       |
| Vertanical/Phönix            | Sesame oil, refined           | S0E1000014055-V001 | 1       |
| Vertanical                   | Sesame oil, refined           | 2071127            | 1       |
| vertanical                   | Sesame oil, refined           | 92011              | 2       |
| Vertanical                   | Sesame oil, refined           | 92011              | 9       |
| Vertanical                   | Sesame oil, refined           | S0E1000014055      | 2       |
| Voegele                      | Walnut oil, refined           | 2013113013         | 2       |
| Vögele                       | Walnut oil, refined           | 2017113718         | 1       |
| WE:Phönix 25.08.2016 EK. ... | Almond oil, refined           | 1000003242         | 2       |
| Weltecke /Noweda             | Jojoba Oil, native            | 89010416           | 1       |
| Weltecke GmbH                | Evening primrose oil, refined | 80011115           | 1       |
| weltecke/Noweda              | Evening primrose oil, refined | 80010212           | 1       |
| Weltecke                     | Evening primrose oil, refined | 80011012           | 1       |
| Welteckes                    | Evening primrose oil, refined | 80010318           | 1       |
| Wepa/ Phoenix                | Avocado oil, refined          | 17038802           | 1       |
| wilco                        | Jojoba Oil, native            | 2480               | 1       |
| Wolf Handelsgesellschaft     | Olive oil, native             | 128972ES           | 1       |
| Wolf Handelsgesellschaft     | Sunflower oil, refined        | 1692305SK          | 1       |
| Wolf Handelsgesellschaft     | Sunflower oil, refined        | 1822313            | 1       |
| Wolf-Apotheke                | Evening primrose oil, refined | 15417802           | 2       |
| Wolfvital                    | Olive oil, native             | W48B041            | 1       |
| Wolfvital                    | Shea butter, refined          | W68B058            | 1       |
| xxx                          | Almond oil, refined           |                    | 1       |

- 261 725 spectra from 1294 *Apo-Ident* customers from a total of 47 897 batches from a further 319 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Triglycerides* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose,

all relevant spectra of the various substances were compared with *Triglycerides* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 6490          | 0              | 60 669        |
| <b>Type B</b> | 0              | 6335          | 0              | 100 448       |
| <b>Type C</b> | 0              | 26 886        | 98             | 261 427       |

The substance/substance group *Triglycerides* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9803 %) | 100.0000 % (> 99.9076 %) |
| <b>Type B</b> | 100.0000 % (> 99.9677 %) | 100.0000 % (> 99.9053 %) |
| <b>Type C</b> | 100.0000 % (> 99.6886 %) | 99.6368 % (> 99.6257 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Triglycerides* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in main model | Distance in second-stage model |
|-------------------------------------------|------------------------|--------------------------------|
| Softisan <sup>®</sup> 378                 | 12.54                  | —                              |
| Permethrin 25% solution                   | 25.01                  | —                              |
| Softisan <sup>®</sup> 649                 | 26.61                  | —                              |
| Sorbitan trioleate                        | 27.60                  | —                              |
| Wool alcohol ointment DAB                 | 30.17                  | —                              |
| Paraffin, yellow                          | 30.81                  | —                              |
| Salicylic acid concentrate 5%, white p... | 31.49                  | —                              |
| Paraffin, white                           | 32.50                  | —                              |
| Wool fat                                  | 34.93                  | —                              |
| Pasta Cordes <sup>®</sup>                 | 35.79                  | —                              |
| Metronidazole 25% in white petrolatum     | 36.59                  | —                              |
| Castor oil, virgin                        | 38.16                  | —                              |
| Isopropyl palmitate                       | 39.17                  | —                              |
| Emulsifying hydrophobic base gel DAC      | 39.19                  | —                              |
| Eye ointment, emulsifying DAC             | 39.56                  | —                              |
| Paraffin, light liquid                    | 40.19                  | —                              |
| Hydrophilic ointment DAB                  | 40.76                  | —                              |
| Triglycerides, medium-chain               | 41.83                  | —                              |
| Hydrophobic base gel DAC                  | 41.97                  | —                              |
| Paraffin, liquid                          | 45.24                  | —                              |
| Citronella oil                            | 45.63                  | —                              |
| Triglycerol diisostearate                 | 45.82                  | —                              |

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| Substanz                                  | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Unguentum Cordes®                         | 46.67                     | —                                 |
| Castor oil, refined                       | 47.40                     | —                                 |
| Wool alcohol ointment SR with white pa... | 47.87                     | —                                 |
| Squalane                                  | 48.28                     | —                                 |
| Guaiazulene 25%, water-soluble            | 49.87                     | —                                 |
| Bitter orange oil                         | 57.13                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Triglycerides* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30647     | 31350                  | 1.64                            | 46.51                              |
| 30679     | 31729                  | 2.12                            | 87.80                              |
| 30754     | 35299                  | 5.50                            | 32.17                              |
| 30840     | 33060                  | 4.44                            | 31.05                              |
| 30855     | 31775                  | 2.92                            | 70.57                              |
| 30863     | 31496                  | 8.39                            | 32.17                              |
| 30873     | 31350                  | 4.71                            | 46.94                              |
| 30878     | 31361                  | 5.31                            | 70.06                              |
| 30981     | 30981                  | 0.00                            | 65.71                              |
| 31016     | 31016                  | 0.00                            | 56.53                              |
| 31034     | 31523                  | 1.11                            | 31.79                              |
| 31121     | 31121                  | 0.00                            | 63.77                              |
| 31122     | 31122                  | 0.00                            | 35.77                              |
| 31161     | 31161                  | 0.00                            | 62.22                              |
| 31172     | 31172                  | 0.00                            | 78.15                              |
| 31178     | 31729                  | 4.40                            | 85.63                              |
| 31215     | 31215                  | 0.00                            | 47.75                              |
| 31216     | 31216                  | 0.00                            | 64.86                              |
| 31217     | 31217                  | 0.00                            | 54.23                              |
| 31246     | 31246                  | 0.00                            | 31.66                              |
| 31250     | 31250                  | 0.00                            | 28.60                              |
| 31274     | 31274                  | 0.00                            | 52.93                              |
| 31322     | 31322                  | 0.00                            | 47.05                              |
| 31326     | 33064                  | 5.04                            | 85.28                              |
| 31332     | 31332                  | 0.00                            | 49.96                              |
| 31336     | 31336                  | 0.00                            | 33.57                              |
| 31337     | 31770                  | 1.62                            | 36.68                              |
| 31344     | 31274                  | 2.05                            | 53.41                              |
| 31346     | 31801                  | 1.64                            | 31.60                              |
| 31350     | 31350                  | 0.00                            | 45.14                              |
| 31356     | 32195                  | 1.35                            | 32.97                              |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31361            | 31361                      | 0.00                                | 65.08                                  |
| 31362            | 32334                      | 3.49                                | 62.47                                  |
| 31374            | 31274                      | 2.05                                | 52.82                                  |
| 31375            | 31375                      | 0.00                                | 27.60                                  |
| 31376            | 34716                      | 2.23                                | 45.08                                  |
| 31378            | 35782                      | 3.85                                | 56.44                                  |
| 31380            | 31216                      | 2.13                                | 64.36                                  |
| 31382            | 31382                      | 0.00                                | 36.08                                  |
| 31384            | 31161                      | 3.02                                | 61.77                                  |
| 31460            | 31460                      | 0.00                                | 66.98                                  |
| 31482            | 31322                      | 1.40                                | 46.03                                  |
| 31491            | 31491                      | 0.00                                | 55.32                                  |
| 31496            | 31496                      | 0.00                                | 32.46                                  |
| 31513            | 31513                      | 0.00                                | 28.12                                  |
| 31519            | 31322                      | 3.39                                | 45.50                                  |
| 31523            | 31523                      | 0.00                                | 28.51                                  |
| 31540            | 31729                      | 2.40                                | 87.37                                  |
| 31572            | 31572                      | 0.00                                | 65.93                                  |
| 31582            | 31513                      | 6.39                                | 31.26                                  |
| 31584            | 31382                      | 1.23                                | 36.84                                  |
| 31585            | 31801                      | 3.87                                | 35.11                                  |
| 31589            | 31460                      | 2.98                                | 66.89                                  |
| 31609            | 31609                      | 0.00                                | 51.08                                  |
| 31662            | 31801                      | 2.00                                | 33.82                                  |
| 31677            | 31361                      | 6.52                                | 67.53                                  |
| 31729            | 31729                      | 0.00                                | 89.21                                  |
| 31770            | 31770                      | 0.00                                | 36.38                                  |
| 31775            | 31775                      | 0.00                                | 68.49                                  |
| 31792            | 31729                      | 0.79                                | 88.97                                  |
| 31801            | 31801                      | 0.00                                | 32.11                                  |
| 31825            | 31361                      | 5.29                                | 64.10                                  |
| 31826            | 31513                      | 5.95                                | 30.66                                  |
| 31833            | 31833                      | 0.00                                | 31.91                                  |
| 31834            | 34643                      | 3.00                                | 59.41                                  |
| 31875            | 31729                      | 6.98                                | 84.09                                  |
| 32186            | 32186                      | 0.00                                | 31.49                                  |
| 32188            | 32188                      | 0.00                                | 35.22                                  |
| 32195            | 32195                      | 0.00                                | 31.72                                  |
| 32300            | 31513                      | 9.47                                | 30.62                                  |
| 32301            | 31513                      | 4.16                                | 27.79                                  |
| 32334            | 32334                      | 0.00                                | 60.58                                  |
| 32457            | 32457                      | 0.00                                | 32.13                                  |
| 32680            | 32680                      | 0.00                                | 32.62                                  |
| 32683            | 32683                      | 0.00                                | 27.86                                  |
| 32729            | 31161                      | 3.89                                | 57.65                                  |
| 32730            | 35043                      | 5.43                                | 55.75                                  |
| 32745            | 31217                      | 3.25                                | 52.85                                  |
| 32746            | 31161                      | 3.75                                | 60.27                                  |
| 32931            | 34666                      | 3.47                                | 29.26                                  |
| 32990            | 33085                      | 1.50                                | 33.77                                  |
| 32991            | 32457                      | 3.39                                | 33.74                                  |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 33059            | 33059                      | 0.00                                | 33.76                                  |
| 33060            | 33060                      | 0.00                                | 30.48                                  |
| 33063            | 33063                      | 0.00                                | 35.04                                  |
| 33064            | 33064                      | 0.00                                | 75.99                                  |
| 33067            | 33067                      | 0.00                                | 35.27                                  |
| 33070            | 33070                      | 0.00                                | 31.06                                  |
| 33085            | 33085                      | 0.00                                | 33.08                                  |
| 33254            | 34807                      | 4.67                                | 45.23                                  |
| 33255            | 31122                      | 2.65                                | 34.41                                  |
| 33309            | 33309                      | 0.00                                | 60.71                                  |
| 33472            | 31016                      | 2.70                                | 57.74                                  |
| 33510            | 35579                      | 3.65                                | 63.00                                  |
| 33876            | 34300                      | 3.63                                | 44.41                                  |
| 33880            | 31172                      | 1.63                                | 78.90                                  |
| 33916            | 33916                      | 0.00                                | 65.86                                  |
| 33917            | 33917                      | 0.00                                | 50.14                                  |
| 34300            | 34300                      | 0.00                                | 47.79                                  |
| 34437            | 34437                      | 0.00                                | 53.73                                  |
| 34441            | 34441                      | 0.00                                | 46.84                                  |
| 34521            | 35045                      | 3.53                                | 34.15                                  |
| 34522            | 33064                      | 4.94                                | 85.27                                  |
| 34602            | 34602                      | 0.00                                | 56.77                                  |
| 34617            | 34617                      | 0.00                                | 34.12                                  |
| 34643            | 34643                      | 0.00                                | 63.12                                  |
| 34663            | 34663                      | 0.00                                | 42.83                                  |
| 34666            | 34666                      | 0.00                                | 29.99                                  |
| 34691            | 34807                      | 1.75                                | 45.91                                  |
| 34701            | 31609                      | 3.48                                | 51.49                                  |
| 34711            | 34711                      | 0.00                                | 43.66                                  |
| 34713            | 34713                      | 0.00                                | 59.59                                  |
| 34716            | 34716                      | 0.00                                | 41.75                                  |
| 34718            | 34718                      | 0.00                                | 42.86                                  |
| 34721            | 34721                      | 0.00                                | 59.85                                  |
| 34751            | 34751                      | 0.00                                | 33.90                                  |
| 34753            | 34753                      | 0.00                                | 29.58                                  |
| 34807            | 34807                      | 0.00                                | 46.58                                  |
| 35018            | 35018                      | 0.00                                | 36.16                                  |
| 35038            | 35038                      | 0.00                                | 30.08                                  |
| 35043            | 35043                      | 0.00                                | 53.27                                  |
| 35045            | 35045                      | 0.00                                | 30.35                                  |
| 35046            | 35046                      | 0.00                                | 60.05                                  |
| 35053            | 35053                      | 0.00                                | 32.31                                  |
| 35055            | 35055                      | 0.00                                | 41.34                                  |
| 35056            | 35056                      | 0.00                                | 63.26                                  |
| 35057            | 35057                      | 0.00                                | 61.72                                  |
| 35271            | 35271                      | 0.00                                | 54.31                                  |
| 35286            | 31361                      | 5.70                                | 64.19                                  |
| 35288            | 33064                      | 5.35                                | 80.73                                  |
| 35299            | 35299                      | 0.00                                | 34.40                                  |
| 35467            | 34437                      | 3.39                                | 53.38                                  |
| 35579            | 35579                      | 0.00                                | 67.56                                  |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 35740            | 34711                      | 10.24                               | 40.13                                  |
| 35747            | 31361                      | 4.25                                | 63.72                                  |
| 35779            | 35779                      | 0.00                                | 48.00                                  |
| 35780            | 35780                      | 0.00                                | 52.21                                  |
| 35782            | 35782                      | 0.00                                | 57.55                                  |
| 35784            | 35784                      | 0.00                                | 39.25                                  |
| 35785            | 35785                      | 0.00                                | 54.68                                  |
| 35818            | 35055                      | 2.17                                | 38.84                                  |
| 35823            | 35055                      | 0.53                                | 40.42                                  |
| 35847            | 34437                      | 1.56                                | 49.24                                  |
| 36164            | 36164                      | 0.00                                | 24.11                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Triglycerides, medium-chain</b>                               |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 31483-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Triglycerides, medium-chain; Oleum neutrale

### Special notes

When selecting the *Triglycerides, medium-chain* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group   | Type A | Type B | Type C |
|-----------------------------|--------|--------|--------|
| Triglycerides, medium-chain | 7      | 24     | 901    |

## Second-stage model

For differentiation of the substance/substance group *Triglycerides, medium-chain* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Triglycerides, medium-chain*:

| Supplier | Substance           | Batch            | Sample ID | Spectra | Certificate        |
|----------|---------------------|------------------|-----------|---------|--------------------|
| Caelo    | Triglycerides, m... | 13392404         | 31483     | 60      | AR-14-FG-012976-01 |
| Caelo    | Triglycerides, m... | 13348507         | 31484     | 60      | 20131028           |
| Euro OTC | Triglycerides, m... | 1402019-01       | 31485     | 60      | 20140317           |
| Euro OTC | Triglycerides, m... | 1509022          | 31771     | 60      | 20151007*          |
| Euro OTC | Triglycerides, m... | 1511011          | 31804     | 60      | 20151125*          |
| Euro OTC | Triglycerides, m... | 1601050          | 31955     | 60      | 20160218*          |
| Fagron   | Triglycerides, m... | 18G13-B01-363706 | 34674     | 40      | 20180824           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 400 spectra of 7 reference samples from the substance/substance group *Triglycerides, medium-chain*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 7 different batches.
- 66 759 spectra from a total of 1372 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 970 spectra of 24 reference samples from the substance/substance group *Triglycerides, medium-chain*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 24 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                   | Batch            | Sample ID | Spectra |
|----------|-----------------------------|------------------|-----------|---------|
| Caelo    | Triglycerides, medium-chain | 161243           | 32204     | 40      |
| Caelo    | Triglycerides, medium-chain | 162385           | 32697     | 40      |
| Caelo    | Triglycerides, medium-chain | 170160           | 33077     | 40      |
| Caelo    | Triglycerides, medium-chain | 170784           | 33312     | 40      |
| Caelo    | Triglycerides, medium-chain | 172177           | 33672     | 40      |
| Caelo    | Triglycerides, medium-chain | 191294           | 34607     | 40      |
| Caelo    | Triglycerides, medium-chain | 191993           | 34608     | 40      |
| Caelo    | Triglycerides, medium-chain | 191951           | 34609     | 40      |
| Caelo    | Triglycerides, medium-chain | 192781           | 34715     | 40      |
| Caelo    | Triglycerides, medium-chain | 20000549         | 35035     | 40      |
| Euro OTC | Triglycerides, medium-chain | 1603041          | 32278     | 40      |
| Euro OTC | Triglycerides, medium-chain | 1606035          | 32464     | 40      |
| Euro OTC | Triglycerides, medium-chain | 1701023          | 32983     | 40      |
| Euro OTC | Triglycerides, medium-chain | 1709014          | 33845     | 40      |
| Euro OTC | Triglycerides, medium-chain | 1801034          | 33997     | 40      |
| Euro OTC | Triglycerides, medium-chain | 1812014          | 34429     | 40      |
| Euro OTC | Triglycerides, medium-chain | 2002001          | 34827     | 40      |
| Euro OTC | Triglycerides, medium-chain | 2005031          | 35068     | 40      |
| Euro OTC | Triglycerides, medium-chain | 2007018          | 35084     | 40      |
| Euro OTC | Triglycerides, medium-chain | 2011015          | 35137     | 40      |
| Euro OTC | Triglycerides, medium-chain | 2107028          | 35622     | 50      |
| Euro OTC | Triglycerides, medium-chain | 2201033          | 36042     | 40      |
| Euro OTC | Triglycerides, medium-chain | 2205015          | 36278     | 40      |
| Fagron   | Triglycerides, medium-chain | 19I30-F03-365618 | 34761     | 40      |

- 106 393 spectra from a total of 2477 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 7543 spectra from 1103 *Apo-Ident* customers from 922 batches from the substance/substance group *Triglycerides, medium-chain*.
- Among them are spectra of independent samples from 897 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                                                                       | Substance                   | Batch       | Spectra |
|--------------------------------------------------------------------------------|-----------------------------|-------------|---------|
| /Sanacorp 02.05.2016<br>00000000<br>ACM<br>AEP Direkt<br>AHC<br>AHD 23.12.2014 | Triglycerides, medium-chain | 125597      | 1       |
|                                                                                | Triglycerides, medium-chain | 13E24-N04   | 3       |
|                                                                                | Triglycerides, medium-chain | 1406016-01  | 1       |
|                                                                                | Triglycerides, medium-chain | 15272004    | 1       |
|                                                                                | Triglycerides, medium-chain | 103899      | 1       |
|                                                                                | Triglycerides, medium-chain | KNC0254J15  | 5       |
|                                                                                | Triglycerides, medium-chain | 20003429006 | 1       |
|                                                                                | Triglycerides, medium-chain | 192866001   | 1       |
|                                                                                | Triglycerides, medium-chain | 14219003    | 1       |
|                                                                                |                             |             |         |

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| Supplier                   | Substance                   | Batch              | Spectra |
|----------------------------|-----------------------------|--------------------|---------|
| AHD/Bioletics              | Triglycerides, medium-chain | 123999             | 1       |
| AHD/Bioletics              | Triglycerides, medium-chain | 128842             | 1       |
| AHD/Bioletics              | Triglycerides, medium-chain | 139107             | 1       |
| AHD/Bionorica ethics       | Triglycerides, medium-chain | 125596             | 1       |
| AHD/Bionorica ethics       | Triglycerides, medium-chain | 127732             | 1       |
| AHD/THCPharma              | Triglycerides, medium-chain | 105041             | 1       |
| AHD                        | Triglycerides, medium-chain | 123999             | 1       |
| AHD                        | Triglycerides, medium-chain | 17361002           | 3       |
| AHD                        | Triglycerides, medium-chain | 18118808           | 2       |
| AHD                        | Triglycerides, medium-chain | 18238902           | 2       |
| AHD                        | Triglycerides, medium-chain | 1902005-02         | 1       |
| AHD                        | Triglycerides, medium-chain | 192866001          | 2       |
| Alliance Healthcare 08...  | Triglycerides, medium-chain | 1812014-01         | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 105041             | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 116691             | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 125595             | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 1302004-02         | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 135057             | 3       |
| Alliance Healthcare        | Triglycerides, medium-chain | 139107             | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 1606035-01         | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 1801034-01         | 1       |
| Alliance Healthcare        | Triglycerides, medium-chain | 283811             | 1       |
| Alliance Heasth            | Triglycerides, medium-chain | 15H03-B03-525271   | 1       |
| Alliance/Bionorica         | Triglycerides, medium-chain | 107080             | 1       |
| Alliance/Fargon            | Triglycerides, medium-chain | 15H03-B03-525331   | 1       |
| Allianz                    | Triglycerides, medium-chain | 120015             | 1       |
| Anzag 11.10.12             | Triglycerides, medium-chain | 11301109           | 1       |
| Anzag/Ethics               | Triglycerides, medium-chain | 109952             | 1       |
| Anzag/Henry Lamotte        | Triglycerides, medium-chain | 1504029-02         | 1       |
| Anzag                      | Triglycerides, medium-chain | 12078604           | 2       |
| Anzag                      | Triglycerides, medium-chain | 12256505           | 1       |
| Anzag                      | Triglycerides, medium-chain | 16124304           | 1       |
| Anzag                      | Triglycerides, medium-chain | 18118807           | 1       |
| Anzag                      | Triglycerides, medium-chain | 98569              | 2       |
| apo-ident/ Phönix          | Triglycerides, medium-chain | 1601050-01         | 1       |
| Apo-Ident/Noweda           | Triglycerides, medium-chain | 1606035-02         | 1       |
| ApoIdent                   | Triglycerides, medium-chain | 1709014-02         | 1       |
| apo-ident                  | Triglycerides, medium-chain | 2007018-01         | 1       |
| Apomi                      | Triglycerides, medium-chain | 180325             | 1       |
| apomix                     | Triglycerides, medium-chain | 116587             | 1       |
| Aurora Deutschland GmbH    | Triglycerides, medium-chain | 148381             | 1       |
| Aurora Deutschland GmbH    | Triglycerides, medium-chain | 20-187             | 2       |
| Aurora GmH                 | Triglycerides, medium-chain | 148381             | 2       |
| Aurora                     | Triglycerides, medium-chain | 148381             | 1       |
| Aurora                     | Triglycerides, medium-chain | 20-187             | 2       |
| Aurora                     | Triglycerides, medium-chain | 201874200-15203430 | 1       |
| Aurora                     | Triglycerides, medium-chain | 201874200-1880597  | 1       |
| Aurora                     | Triglycerides, medium-chain | 20-454             | 2       |
| Aurora                     | Triglycerides, medium-chain | 20-455             | 1       |
| Aurora                     | Triglycerides, medium-chain | 20-456             | 2       |
| Beiersdorf / Gehe          | Triglycerides, medium-chain | 1805020-01         | 1       |
| Binorica ethics/Phönix     | Triglycerides, medium-chain | 125596             | 1       |
| Binorica ethics/Phönix     | Triglycerides, medium-chain | 125597             | 1       |
| bio                        | Triglycerides, medium-chain | 105038             | 1       |
| Bionirca ethics / Allia... | Triglycerides, medium-chain | 109951             | 1       |
| Bionorca                   | Triglycerides, medium-chain | 145766             | 2       |
| Bionorica ethics           | Triglycerides, medium-chain | 129880             | 2       |
| Bionorica ethics           | Triglycerides, medium-chain | 132615             | 2       |
| Bionorica ethics           | Triglycerides, medium-chain | 153220             | 1       |
| Bionorica / Alliance He... | Triglycerides, medium-chain | 116637             | 1       |

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| Supplier                   | Substance                   | Batch                                  | Spectra |
|----------------------------|-----------------------------|----------------------------------------|---------|
| Bionorica / Alliance He... | Triglycerides, medium-chain | 120017                                 | 1       |
| Bionorica / Alliance He... | Triglycerides, medium-chain | 123997                                 | 1       |
| Bionorica / Alliance       | Triglycerides, medium-chain | 103902                                 | 1       |
| Bionorica / Alliance       | Triglycerides, medium-chain | 129878                                 | 1       |
| Bionorica / Anzag          | Triglycerides, medium-chain | 123997                                 | 1       |
| Bionorica / E              | Triglycerides, medium-chain | 123999                                 | 2       |
| Bionorica / E              | Triglycerides, medium-chain | 123999(Miglyol                         | 1       |
| Bionorica / Gehe           | Triglycerides, medium-chain | 123999                                 | 1       |
| Bionorica / Gehe           | Triglycerides, medium-chain | 125596                                 | 1       |
| Bionorica / Gehe           | Triglycerides, medium-chain | 129878                                 | 1       |
| Bionorica / Gehe           | Triglycerides, medium-chain | 132615                                 | 1       |
| Bionorica / Kehr           | Triglycerides, medium-chain | 125597                                 | 1       |
| Bionorica / Krieger        | Triglycerides, medium-chain | 129879                                 | 1       |
| Bionorica / Krieger        | Triglycerides, medium-chain | 129880                                 | 1       |
| Bionorica / Krieger        | Triglycerides, medium-chain | 139105                                 | 2       |
| Bionorica / Krieger        | Triglycerides, medium-chain | 145768                                 | 1       |
| bionorica / Phoenix / 0... | Triglycerides, medium-chain | 94874                                  | 1       |
| Bionorica / Phoenix 03...  | Triglycerides, medium-chain | 116643                                 | 1       |
| bionorica / Phoenix Lei... | Triglycerides, medium-chain | 95087                                  | 1       |
| Bionorica / Phoenix        | Triglycerides, medium-chain | 139105                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 120015                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 125597                                 | 2       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 127731                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 129876                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 129880                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 135058                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 137100                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 2x0000128842                           | 1       |
| Bionorica / Sanacorp       | Triglycerides, medium-chain | 120015                                 | 1       |
| Bionorica / Sanacorp       | Triglycerides, medium-chain | 123015                                 | 2       |
| Bionorica / Sanacorp       | Triglycerides, medium-chain | 139105                                 | 1       |
| Bionorica / Sanacorp       | Triglycerides, medium-chain | 141602                                 | 1       |
| Bionorica / Ebert          | Triglycerides, medium-chain | 103901                                 | 1       |
| Bionorica / Ebert          | Triglycerides, medium-chain | 107078                                 | 1       |
| Bionorica / G              | Triglycerides, medium-chain | 129878                                 | 1       |
| Bionorica / Gehe 11.02.19  | Triglycerides, medium-chain | 125596                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 116640                                 | 2       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 116692                                 | 1       |
| Bionorica / Phönix         | Triglycerides, medium-chain | 120015                                 | 2       |
| Bionorica 15.05.20         | Triglycerides, medium-chain |                                        | 1       |
| Bionorica Dronabinol-Set   | Triglycerides, medium-chain | 107078                                 | 1       |
| Bionorica ethi             | Triglycerides, medium-chain | 128839                                 | 2       |
| Bionorica ethics / Ph...   | Triglycerides, medium-chain | 135058(DronabinolTropfenset0000142331) | 2       |
| Bionorica ethics / Ph...   | Triglycerides, medium-chain | 139105                                 | 2       |
| Bionorica ethics / Ph...   | Triglycerides, medium-chain | 139107                                 | 2       |
| bionorica ethics über ...  | Triglycerides, medium-chain | 129880                                 | 2       |
| bionorica ethics über ...  | Triglycerides, medium-chain | 132615                                 | 2       |
| bionorica ethics über ...  | Triglycerides, medium-chain | 139105                                 | 1       |
| bionorica ethics über ...  | Triglycerides, medium-chain | 141603                                 | 2       |
| bionorica ethics über ...  | Triglycerides, medium-chain | 141604                                 | 3       |
| bionorica ethics über ...  | Triglycerides, medium-chain | 145767                                 | 4       |
| bionorica ethics über ...  | Triglycerides, medium-chain | 145768                                 | 2       |
| Bionorica Ethics / Alli... | Triglycerides, medium-chain | 129879                                 | 1       |
| Bionorica ethics / Alli... | Triglycerides, medium-chain | 109951                                 | 1       |
| Bionorica ethics / Alli... | Triglycerides, medium-chain | 127731                                 | 2       |
| Bionorica ethics / Alli... | Triglycerides, medium-chain | 127732                                 | 1       |
| Bionorica Ethics / Gehe    | Triglycerides, medium-chain | 116638                                 | 1       |
| Bionorica Ethics / Gehe    | Triglycerides, medium-chain | 116642                                 | 1       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 125597                                 | 3       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 128841                                 | 1       |

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| Supplier                   | Substance                   | Batch   | Spectra |
|----------------------------|-----------------------------|---------|---------|
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 128843  | 1       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 129876  | 2       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 132615  | 1       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 139107  | 3       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 141602  | 1       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 141604  | 1       |
| Bionorica Ethics / Noweda  | Triglycerides, medium-chain | 153403  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 103901  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 105039  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 107080  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 109949  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 109951  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 116642  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 125596  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 127731  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 127732  | 2       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 128842  | 2       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 128843  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 129878  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 129880  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 132615  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 135058  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 139107  | 4       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 141602  | 1       |
| Bionorica ethics / Phoe... | Triglycerides, medium-chain | 319105  | 1       |
| Bionorica ethics GmbH/B... | Triglycerides, medium-chain | 129877  | 1       |
| Bionorica ethics GmbH/P... | Triglycerides, medium-chain | 129878  | 1       |
| Bionorica ethics GmbH      | Triglycerides, medium-chain | 128839  | 1       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 137100  | 1       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 138595  | 2       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 139105  | 4       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 139448  | 1       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 140133  | 3       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 141267  | 4       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 141602  | 2       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 143967  | 1       |
| Bionorica Ethics GmbH      | Triglycerides, medium-chain | 145051  | 1       |
| Bionorica ethics GmbH      | Triglycerides, medium-chain | 250696  | 1       |
| Bionorica Ethics/ AHD      | Triglycerides, medium-chain | 128843  | 1       |
| Bionorica Ethics/ AHD      | Triglycerides, medium-chain | 129876  | 1       |
| Bionorica Ethics/ AHD      | Triglycerides, medium-chain | 132615  | 1       |
| Bionorica Ethics/ AHD      | Triglycerides, medium-chain | 139105  | 1       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 129877  | 2       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 132615  | 2       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 135056  | 2       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 139105  | 2       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 141602  | 2       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 141603  | 4       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 141604  | 1       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 1416040 | 1       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 145765  | 10      |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 153219  | 4       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 269421  | 1       |
| Bionorica ethics/ Biono... | Triglycerides, medium-chain | 326151  | 1       |
| Bionorica Ethics/ Gehe     | Triglycerides, medium-chain | 127731  | 1       |
| Bionorica Ethics/ Gehe     | Triglycerides, medium-chain | 129876  | 2       |
| Bionorica Ethics/ Gehe     | Triglycerides, medium-chain | 141603  | 1       |
| Bionorica ethics/ Gehe     | Triglycerides, medium-chain | 150694  | 1       |
| Bionorica ethics/ Kehr ... | Triglycerides, medium-chain | 139107  | 2       |
| Bionorica ethics/ Nowed... | Triglycerides, medium-chain | 141604  | 1       |

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| Supplier                   | Substance                   | Batch         | Spectra |
|----------------------------|-----------------------------|---------------|---------|
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 128841        | 1       |
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 128843        | 1       |
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 129878        | 2       |
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 129879        | 1       |
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 135058        | 1       |
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 139105        | 1       |
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 141267        | 1       |
| Bionorica ethics/ Noweda   | Triglycerides, medium-chain | 145051        | 2       |
| Bionorica Ethics/ Phoenix  | Triglycerides, medium-chain | 232615        | 1       |
| Bionorica Ethics/ Sanac... | Triglycerides, medium-chain | 154616        | 1       |
| Bionorica ethics/ Sanac... | Triglycerides, medium-chain | 156199        | 1       |
| Bionorica ethics/AHCA      | Triglycerides, medium-chain | 116646        | 1       |
| Bionorica ethics/AHCA      | Triglycerides, medium-chain | 1409952       | 1       |
| Bionorica ethics/AHD       | Triglycerides, medium-chain | 3(0000109950) | 1       |
| Bionorica ethics/AHD       | Triglycerides, medium-chain | 4(0000116692) | 1       |
| Bionorica ethics/AHD       | Triglycerides, medium-chain | 5(171102)     | 1       |
| Bionorica ethics/AHD       | Triglycerides, medium-chain | 6(0000116646) | 1       |
| Bionorica ethics/AHD       | Triglycerides, medium-chain | 7(0000116643) | 1       |
| Bionorica ethics/Allian... | Triglycerides, medium-chain | 116646        | 1       |
| Bionorica ethics/Allian... | Triglycerides, medium-chain | 125596        | 3       |
| Bionorica Ethics/Anzag     | Triglycerides, medium-chain | 135058        | 1       |
| Bionorica ethics/Bionor... | Triglycerides, medium-chain | 139107        | 1       |
| Bionorica ethics/Bionor... | Triglycerides, medium-chain | 145765        | 1       |
| Bionorica ethics/Ebert     | Triglycerides, medium-chain | 128842        | 1       |
| Bionorica ethics/Ebert     | Triglycerides, medium-chain | 129878        | 1       |
| Bionorica ethics/Ebert     | Triglycerides, medium-chain | 137367        | 1       |
| Bionorica Ethics/Fiebig    | Triglycerides, medium-chain | 116638        | 1       |
| Bionorica Ethics/Fiebig    | Triglycerides, medium-chain | 116639        | 1       |
| Bionorica Ethics/Gehe 0... | Triglycerides, medium-chain | 129880        | 1       |
| Bionorica Ethics/Gehe 0... | Triglycerides, medium-chain | 107081        | 1       |
| Bionorica Ethics/Gehe 1... | Triglycerides, medium-chain | 132615        | 1       |
| Bionorica ethics/Gehe      | Triglycerides, medium-chain | 127731        | 1       |
| Bionorica ethics/Gehe      | Triglycerides, medium-chain | 128842        | 2       |
| Bionorica Ethics/Gehe      | Triglycerides, medium-chain | 128843        | 1       |
| Bionorica Ethics/Gehe      | Triglycerides, medium-chain | 129878        | 1       |
| Bionorica ethics/Kehr ,... | Triglycerides, medium-chain | 145768        | 2       |
| Bionorica ethics/Kehr ,... | Triglycerides, medium-chain | 139105        | 1       |
| Bionorica ethics/Kehr      | Triglycerides, medium-chain | 123999        | 1       |
| Bionorica ethics/Kehr      | Triglycerides, medium-chain | 125597        | 1       |
| Bionorica ethics/Kehr      | Triglycerides, medium-chain | 128842        | 1       |
| Bionorica ethics/Kehr      | Triglycerides, medium-chain | 95082         | 1       |
| Bionorica ethics/Krieger   | Triglycerides, medium-chain | 129876        | 1       |
| Bionorica ethics/Krieger   | Triglycerides, medium-chain | 129879        | 3       |
| Bionorica ethics/Krieger   | Triglycerides, medium-chain | 129880        | 2       |
| Bionorica ethics/Krieger   | Triglycerides, medium-chain | 132615        | 1       |
| Bionorica ethics/Krieger   | Triglycerides, medium-chain | 135058        | 3       |
| Bionorica ethics/Krieger   | Triglycerides, medium-chain | 141603        | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 105039        | 2       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 107077        | 2       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 125596        | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 125597        | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 127731        | 1       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 127733        | 1       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 128840        | 1       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 128841        | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 128842        | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 128843        | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 129876        | 1       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 129877        | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 135058        | 1       |

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| Supplier                   | Substance                   | Batch   | Spectra |
|----------------------------|-----------------------------|---------|---------|
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 139105  | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 139107  | 4       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 139107  | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 139448  | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 141603  | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 141604  | 1       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 142331  | 2       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 145767  | 3       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 145767  | 2       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 149852  | 1       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 150935  | 2       |
| Bionorica ethics/Noweda    | Triglycerides, medium-chain | 2887817 | 1       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 85113   | 3       |
| Bionorica Ethics/Noweda    | Triglycerides, medium-chain | 95112   | 1       |
| Bionorica Ethics/Phoeni. . | Triglycerides, medium-chain | 145765  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 109949  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 109950  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 116639  | 2       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 116641  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 116642  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 116646  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 123014  | 2       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 123997  | 3       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 123999  | 2       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 139107  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 141604  | 2       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 145768  | 2       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 154427  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 156506  | 1       |
| Bionorica ethics/Phoenix   | Triglycerides, medium-chain | 170517  | 2       |
| Bionorica ethics/Phönix. . | Triglycerides, medium-chain | 129877  | 4       |
| Bionorica Ethics/Phönix. . | Triglycerides, medium-chain | 127780  | 1       |
| Bionorica ethics/phönix    | Triglycerides, medium-chain | 123997  | 1       |
| Bionorica ethics/Phönix    | Triglycerides, medium-chain | 129879  | 1       |
| Bionorica ethics/phönix    | Triglycerides, medium-chain | 141603  | 2       |
| Bionorica ethics/Sanaco. . | Triglycerides, medium-chain | 150930  | 1       |
| Bionorica Ethics/Sanacorp  | Triglycerides, medium-chain | 116640  | 2       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 116692  | 1       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 12399   | 1       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 125597  | 1       |
| Bionorica Ethics/Sanacorp  | Triglycerides, medium-chain | 125597  | 3       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 127732  | 1       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 128841  | 3       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 128842  | 2       |
| Bionorica Ethics/Sanacorp  | Triglycerides, medium-chain | 129878  | 1       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 129880  | 4       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 132615  | 4       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 135058  | 1       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 139105  | 1       |
| Bionorica Ethics/Sanacorp  | Triglycerides, medium-chain | 139105  | 1       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 139107  | 3       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 141602  | 1       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 141603  | 2       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 141604  | 2       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 145767  | 4       |
| Bionorica Ethics/Sanacorp  | Triglycerides, medium-chain | 145767  | 2       |
| Bionorica ethics/Sanacorp  | Triglycerides, medium-chain | 145768  | 7       |
| Bionorica Ethics/Sanacorp  | Triglycerides, medium-chain | 145768  | 3       |
| Bionorica ethics/Sanaco. . | Triglycerides, medium-chain | 97884   | 1       |
| Bionorica ethics/Sanaco. . | Triglycerides, medium-chain | 93569   | 1       |

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| <b>Supplier</b>          | <b>Substance</b>            | <b>Batch</b> | <b>Spectra</b> |
|--------------------------|-----------------------------|--------------|----------------|
| Bionorica ethics/Spangro | Triglycerides, medium-chain | 141604       | 1              |
| Bionorica ethics/Spangro | Triglycerides, medium-chain | 145767       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 103898       | 3              |
| Bionorica Ethics         | Triglycerides, medium-chain | 103898       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 103899       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 103899       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 103901       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 105038       | 4              |
| Bionorica Ethics         | Triglycerides, medium-chain | 105038       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 105039       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 105039       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 105040       | 1              |
| bionorica ethics         | Triglycerides, medium-chain | 105044       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 105044       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 107077       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 107077       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 107078       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 107079       | 2              |
| Bionorica Ethics         | Triglycerides, medium-chain | 107079       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 107080       | 2              |
| Bionorica Ethics         | Triglycerides, medium-chain | 107080       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 107081       | 3              |
| Bionorica Ethics         | Triglycerides, medium-chain | 109709       | 1              |
| bionorica ethics         | Triglycerides, medium-chain | 109948       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 109948       | 2              |
| Bionorica Ethics         | Triglycerides, medium-chain | 109949       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 109950       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 109950       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 109951       | 4              |
| Bionorica Ethics         | Triglycerides, medium-chain | 109951       | 4              |
| Bionorica ethics         | Triglycerides, medium-chain | 109952       | 2              |
| Bionorica Ethics         | Triglycerides, medium-chain | 109953       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 109959       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 116638       | 2              |
| Bionorica Ethics         | Triglycerides, medium-chain | 116638       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 116639       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 116639       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 116640       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 116640       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 116641       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 116642       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 116643       | 3              |
| Bionorica ethics         | Triglycerides, medium-chain | 116645       | 2              |
| Bionorica Ethics         | Triglycerides, medium-chain | 116646       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 116687       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 116688       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 116688       | 3              |
| bionorica ethics         | Triglycerides, medium-chain | 116689       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 116689       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 116692       | 4              |
| Bionorica Ethics         | Triglycerides, medium-chain | 116692       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 120015       | 1              |
| Bionorica Ethics         | Triglycerides, medium-chain | 120015       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 120016       | 2              |
| Bionorica Ethics         | Triglycerides, medium-chain | 120016       | 2              |
| Bionorica ethics         | Triglycerides, medium-chain | 120017       | 4              |
| Bionorica Ethics         | Triglycerides, medium-chain | 120017       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 121317       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 123013       | 1              |
| Bionorica ethics         | Triglycerides, medium-chain | 123015       | 2              |

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| Supplier         | Substance                   | Batch   | Spectra |
|------------------|-----------------------------|---------|---------|
| Bionorica Ethics | Triglycerides, medium-chain | 123015  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 123997  | 8       |
| Bionorica Ethics | Triglycerides, medium-chain | 123997  | 4       |
| Bionorica ethics | Triglycerides, medium-chain | 123998  | 4       |
| Bionorica ethics | Triglycerides, medium-chain | 123999  | 15      |
| Bionorica Ethics | Triglycerides, medium-chain | 123999  | 2       |
| Bionorica ethics | Triglycerides, medium-chain | 125596  | 4       |
| Bionorica Ethics | Triglycerides, medium-chain | 125596  | 6       |
| Bionorica ethics | Triglycerides, medium-chain | 125597  | 12      |
| Bionorica Ethics | Triglycerides, medium-chain | 125597  | 3       |
| Bionorica ethics | Triglycerides, medium-chain | 127250  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 127731  | 4       |
| Bionorica ethics | Triglycerides, medium-chain | 127732  | 7       |
| Bionorica Ethics | Triglycerides, medium-chain | 127732  | 1       |
| Bionorica Ethics | Triglycerides, medium-chain | 127733  | 5       |
| bionorica ethics | Triglycerides, medium-chain | 127780  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 128840  | 5       |
| Bionorica Ethics | Triglycerides, medium-chain | 128840  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 128841  | 2       |
| Bionorica Ethics | Triglycerides, medium-chain | 128841  | 2       |
| Bionorica ethics | Triglycerides, medium-chain | 128842  | 11      |
| Bionorica Ethics | Triglycerides, medium-chain | 128842  | 1       |
| bionorica ethics | Triglycerides, medium-chain | 128843  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 128843  | 2       |
| Bionorica ethics | Triglycerides, medium-chain | 129876  | 5       |
| Bionorica Ethics | Triglycerides, medium-chain | 129876  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 129877  | 28      |
| Bionorica Ethics | Triglycerides, medium-chain | 129877  | 2       |
| Bionorica ethics | Triglycerides, medium-chain | 129878  | 2       |
| Bionorica Ethics | Triglycerides, medium-chain | 129878  | 3       |
| Bionorica ethics | Triglycerides, medium-chain | 129879  | 3       |
| Bionorica Ethics | Triglycerides, medium-chain | 129879  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 129880  | 7       |
| Bionorica Ethics | Triglycerides, medium-chain | 129880  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 132615  | 8       |
| Bionorica Ethics | Triglycerides, medium-chain | 132615  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 135056  | 1       |
| Bionorica Ethics | Triglycerides, medium-chain | 135056  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 135058  | 2       |
| Bionorica Ethics | Triglycerides, medium-chain | 135058  | 1       |
| bionorica ethics | Triglycerides, medium-chain | 135958  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 137367  | 1       |
| bionorica ethics | Triglycerides, medium-chain | 138508  | 1       |
| bionorica ethics | Triglycerides, medium-chain | 139105  | 3       |
| Bionorica ethics | Triglycerides, medium-chain | 139105  | 38      |
| Bionorica Ethics | Triglycerides, medium-chain | 139105  | 9       |
| Bionorica ethics | Triglycerides, medium-chain | 1391050 | 1       |
| bionorica ethics | Triglycerides, medium-chain | 139107  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 139107  | 11      |
| Bionorica Ethics | Triglycerides, medium-chain | 139107  | 3       |
| bionorica ethics | Triglycerides, medium-chain | 140133  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 141602  | 5       |
| Bionorica Ethics | Triglycerides, medium-chain | 141602  | 1       |
| bionorica ethics | Triglycerides, medium-chain | 141603  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 141603  | 7       |
| Bionorica Ethics | Triglycerides, medium-chain | 141603  | 3       |
| bionorica ethics | Triglycerides, medium-chain | 141604  | 1       |
| Bionorica ethics | Triglycerides, medium-chain | 141604  | 5       |
| bionorica ethics | Triglycerides, medium-chain | 145382  | 1       |
| bionorica ethics | Triglycerides, medium-chain | 145765  | 1       |

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| Supplier                | Substance                   | Batch             | Spectra |
|-------------------------|-----------------------------|-------------------|---------|
| Bionorica ethics        | Triglycerides, medium-chain | 145765            | 5       |
| Bionorica Ethics        | Triglycerides, medium-chain | 145765            | 3       |
| Bionorica ethics        | Triglycerides, medium-chain | 145766            | 1       |
| bionorica ethics        | Triglycerides, medium-chain | 145767            | 2       |
| Bionorica ethics        | Triglycerides, medium-chain | 145767            | 3       |
| Bionorica Ethics        | Triglycerides, medium-chain | 145767            | 5       |
| Bionorica ethics        | Triglycerides, medium-chain | 145768            | 11      |
| Bionorica Ethics        | Triglycerides, medium-chain | 145768            | 2       |
| Bionorica Ethics        | Triglycerides, medium-chain | 156199            | 1       |
| Bionorica ethics        | Triglycerides, medium-chain | 156506            | 1       |
| bionorica ethics        | Triglycerides, medium-chain | 157871            | 2       |
| Bionorica Ethics        | Triglycerides, medium-chain | 16689             | 1       |
| Bionorica ethics        | Triglycerides, medium-chain | 170517            | 1       |
| Bionorica ethics        | Triglycerides, medium-chain | 171102            | 1       |
| Bionorica ethics        | Triglycerides, medium-chain | 266724            | 1       |
| Bionorica ethics        | Triglycerides, medium-chain | 271674/0000277854 | 2       |
| Bionorica Ethics        | Triglycerides, medium-chain | 283811            | 1       |
| Bionorica Ethics        | Triglycerides, medium-chain | 62424             | 3       |
| Bionorica Ethics        | Triglycerides, medium-chain | 75316             | 1       |
| Bionorica ethics        | Triglycerides, medium-chain | 91713             | 2       |
| Bionorica ethics        | Triglycerides, medium-chain | 94875             | 1       |
| Bionorica Ethics        | Triglycerides, medium-chain | 94875             | 1       |
| Bionorica Ethics        | Triglycerides, medium-chain | 94879             | 1       |
| Bionorica Ethics        | Triglycerides, medium-chain | 95079             | 1       |
| Bionorica Ethics        | Triglycerides, medium-chain | 95112             | 1       |
| Bionorica Ethics        | Triglycerides, medium-chain | 98570             | 3       |
| bionorica ethics-Noweda | Triglycerides, medium-chain | 128842            | 1       |
| bionorica ethics-Noweda | Triglycerides, medium-chain | 128843            | 1       |
| bionorica ethics-Noweda | Triglycerides, medium-chain | 129880            | 1       |
| bionorica ethics-Noweda | Triglycerides, medium-chain | 139107            | 1       |
| Bionorica etics         | Triglycerides, medium-chain | 116643            | 1       |
| Bionorica etics         | Triglycerides, medium-chain | 120017            | 1       |
| bionorica gehe          | Triglycerides, medium-chain | 139107            | 1       |
| Bionorica SE/Gehe       | Triglycerides, medium-chain | 145767            | 1       |
| Bionorica SE/Noweda     | Triglycerides, medium-chain | 125596            | 1       |
| Bionorica SE/Noweda     | Triglycerides, medium-chain | 129876            | 1       |
| Bionorica SE/Phönix     | Triglycerides, medium-chain | 116643            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 107080            | 2       |
| Bionorica SE            | Triglycerides, medium-chain | 116638            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 116640            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 116689            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 120015            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 120016            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 123015            | 2       |
| Bionorica SE            | Triglycerides, medium-chain | 125597            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 127732            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 129876            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 129880            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 132615            | 3       |
| Bionorica SE            | Triglycerides, medium-chain | 139105            | 2       |
| Bionorica SE            | Triglycerides, medium-chain | 139107            | 7       |
| Bionorica SE            | Triglycerides, medium-chain | 141602            | 7       |
| Bionorica SE            | Triglycerides, medium-chain | 141603            | 2       |
| Bionorica SE            | Triglycerides, medium-chain | 145765            | 16      |
| Bionorica SE            | Triglycerides, medium-chain | 145767            | 4       |
| Bionorica SE            | Triglycerides, medium-chain | 148242            | 2       |
| Bionorica SE            | Triglycerides, medium-chain | 150694            | 1       |
| Bionorica SE            | Triglycerides, medium-chain | 156199            | 1       |
| Bionorica/ AHD          | Triglycerides, medium-chain | 120017            | 1       |
| Bionorica/ AHD          | Triglycerides, medium-chain | 123999            | 1       |

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| Supplier                   | Substance                   | Batch          | Spectra |
|----------------------------|-----------------------------|----------------|---------|
| Bionorica/ AHD             | Triglycerides, medium-chain | 125597         | 1       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 128842         | 2       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 129876         | 4       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 135058         | 1       |
| Bionorica/ Alliance        | Triglycerides, medium-chain | 116639         | 1       |
| Bionorica/ Alliance        | Triglycerides, medium-chain | 116641         | 1       |
| Bionorica/ Alliance        | Triglycerides, medium-chain | 125595         | 1       |
| Bionorica/ Alliance        | Triglycerides, medium-chain | 125596         | 1       |
| Bionorica/ Alliance        | Triglycerides, medium-chain | 129876         | 1       |
| Bionorica/ Alliance        | Triglycerides, medium-chain | 141602         | 1       |
| Bionorica/ Alliance        | Triglycerides, medium-chain | 145767         | 1       |
| Bionorica/ Allianve        | Triglycerides, medium-chain | 135056         | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 10(0000123999) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 12(0000251649) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 13(0000125596) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 14(0000125596) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 15(0000127732) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 16(0000127732) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 17(0000127731) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 18(0000128842) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 19(0000128841) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 20(0000128843) | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 8(0000126132)  | 1       |
| Bionorica/ Anzag           | Triglycerides, medium-chain | 9(0000123015)  | 1       |
| Bionorica/ Gehe 05.04.19   | Triglycerides, medium-chain | 127732         | 1       |
| Bionorica/ Gehe 10.05.19   | Triglycerides, medium-chain | 127731         | 1       |
| Bionorica/ Gehe 15.05.19   | Triglycerides, medium-chain | 125597         | 1       |
| Bionorica/ Gehe 17.09.2... | Triglycerides, medium-chain | 129876         | 1       |
| Bionorica/ Gehe            | Triglycerides, medium-chain | 120016         | 1       |
| Bionorica/ Gehe            | Triglycerides, medium-chain | 127731         | 1       |
| Bionorica/ Gehe            | Triglycerides, medium-chain | 127732         | 1       |
| Bionorica/ Gehe            | Triglycerides, medium-chain | 128841         | 2       |
| Bionorica/ Gehe            | Triglycerides, medium-chain | 128843         | 1       |
| Bionorica/ Gehe            | Triglycerides, medium-chain | 129876         | 1       |
| Bionorica/ Krieger         | Triglycerides, medium-chain | 128842         | 1       |
| Bionorica/ Noweda          | Triglycerides, medium-chain | 109950         | 1       |
| Bionorica/ Noweda          | Triglycerides, medium-chain | 120017         | 1       |
| Bionorica/ Otto Gk         | Triglycerides, medium-chain | 139107         | 1       |
| Bionorica/ Otto Gk         | Triglycerides, medium-chain | 141603         | 3       |
| Bionorica/ Otto Gk         | Triglycerides, medium-chain | 141604         | 1       |
| Bionorica/ Otto Gk         | Triglycerides, medium-chain | 145768         | 2       |
| bionorica/ Phoenix Leip... | Triglycerides, medium-chain | 103900         | 1       |
| bionorica/ Phoenix Leip... | Triglycerides, medium-chain | 98569          | 1       |
| Bionorica/ Phönix Lab      | Triglycerides, medium-chain | 127733         | 3       |
| Bionorica/ Phönix Lab      | Triglycerides, medium-chain | 132615         | 5       |
| Bionorica/ Phönix Lab      | Triglycerides, medium-chain | 135056         | 3       |
| Bionorica/ Phönix Lab      | Triglycerides, medium-chain | 141602         | 4       |
| Bionorica/ Phönix          | Triglycerides, medium-chain | 129876         | 1       |
| Bionorica/ Phönix          | Triglycerides, medium-chain | 139105         | 2       |
| Bionorica/ Phönix          | Triglycerides, medium-chain | 139107         | 1       |
| Bionorica/ Phönix          | Triglycerides, medium-chain | 145763         | 1       |
| Bionorica/ Sanacorp        | Triglycerides, medium-chain | 107077         | 1       |
| Bionorica/ Sanacorp        | Triglycerides, medium-chain | 171102         | 1       |
| Bionorica/                 | Triglycerides, medium-chain | 107078         | 1       |
| Bionorica/ AEP             | Triglycerides, medium-chain | 145766         | 1       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 109709         | 1       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 120016         | 1       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 123013         | 1       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 123997         | 2       |
| Bionorica/ AHD             | Triglycerides, medium-chain | 123999         | 2       |

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continued from previous page

| Supplier                   | Substance                   | Batch  | Spectra |
|----------------------------|-----------------------------|--------|---------|
| Bionorica/AHD              | Triglycerides, medium-chain | 125597 | 1       |
| Bionorica/AHD              | Triglycerides, medium-chain | 129880 | 2       |
| Bionorica/AHD              | Triglycerides, medium-chain | 133557 | 2       |
| Bionorica/AHD              | Triglycerides, medium-chain | 135058 | 1       |
| Bionorica/AHD              | Triglycerides, medium-chain | 141602 | 1       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 109949 | 1       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 109950 | 2       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 109951 | 1       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 109952 | 1       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 116638 | 1       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 116639 | 2       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 116640 | 1       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 116642 | 2       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 116643 | 3       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 116687 | 2       |
| Bionorica/Alliance Heal... | Triglycerides, medium-chain | 116689 | 1       |
| Bionorica/Alliance         | Triglycerides, medium-chain | 117113 | 1       |
| Bionorica/Anzag            | Triglycerides, medium-chain | 10538  | 1       |
| Bionorica/Anzag            | Triglycerides, medium-chain | 129879 | 1       |
| Bionorica/Anzag            | Triglycerides, medium-chain | 135058 | 2       |
| Bionorica/Anzag            | Triglycerides, medium-chain | 139105 | 1       |
| Bionorica/Anzag            | Triglycerides, medium-chain | 139107 | 3       |
| Bionorica/Anzag            | Triglycerides, medium-chain | 98569  | 1       |
| Bionorica/Fiebig           | Triglycerides, medium-chain | 116687 | 1       |
| BIONORICA/GEHE 26.06.18    | Triglycerides, medium-chain | 116687 | 1       |
| BIONORICA/GEHE 15.03.19    | Triglycerides, medium-chain | 125597 | 1       |
| Bionorica/Gehe 26.06.2019  | Triglycerides, medium-chain | 128842 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 105039 | 1       |
| BIONORICA/GEHE             | Triglycerides, medium-chain | 109950 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 116638 | 2       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 116639 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 120016 | 1       |
| BIONORICA/GEHE             | Triglycerides, medium-chain | 120017 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 123997 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 123998 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 125595 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 125597 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 127732 | 1       |
| BIONORICA/GEHE             | Triglycerides, medium-chain | 127732 | 2       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 128843 | 1       |
| BIONORICA/GEHE             | Triglycerides, medium-chain | 129876 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 129877 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 129879 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 129880 | 1       |
| Bionorica/Gehe             | Triglycerides, medium-chain | 139107 | 1       |
| bionorica/Gehe             | Triglycerides, medium-chain | 141602 | 1       |
| Bionorica/Jenne 03.09.2... | Triglycerides, medium-chain | 139107 | 1       |
| Bionorica/kehr 27.08.2020  | Triglycerides, medium-chain | 141603 | 1       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 109951 | 1       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 116686 | 1       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 123997 | 1       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 129878 | 1       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 129879 | 1       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 132615 | 4       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 139105 | 1       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 141602 | 2       |
| Bionorica/Kehr             | Triglycerides, medium-chain | 151130 | 1       |
| Bionorica/Krieger          | Triglycerides, medium-chain | 109949 | 1       |
| Bionorica/Krieger          | Triglycerides, medium-chain | 109950 | 1       |
| Bionorica/Krieger          | Triglycerides, medium-chain | 116638 | 1       |

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continued from previous page

| Supplier                    | Substance                   | Batch       | Spectra |
|-----------------------------|-----------------------------|-------------|---------|
| Bionorica/Krieger           | Triglycerides, medium-chain | 116642      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 120016      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 120017      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 123997      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 123999      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 125596      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 125597      | 2       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 127732      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 128842      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 138508      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 139107      | 1       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 141602      | 2       |
| Bionorica/Krieger           | Triglycerides, medium-chain | 98569       | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 103899      | 2       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 103900      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 103902      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 105038      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 107079      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 107080      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 123999      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 127731      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 127732      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 128839      | 1       |
| BIONORICA/Noweda            | Triglycerides, medium-chain | 128842      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 128843      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 129878      | 2       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 129879      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 132615      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 135058      | 3       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 137100      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 138037      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 139105      | 4       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 139107      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 141602      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 141604      | 4       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 143550      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 145382      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 148242      | 2       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 149852      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 153403      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 153782      | 3       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 154616      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 155597      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 156506      | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 93566       | 1       |
| Bionorica/Noweda            | Triglycerides, medium-chain | 98573       | 1       |
| bionorica/Phoenix/29.12.... | Triglycerides, medium-chain | 95080       | 1       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 107078      | 1       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 116036      | 1       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 116642      | 1       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 123014      | 2       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 123999      | 2       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 127732      | 1       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 128843      | 4       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 129876      | 2       |
| Bionorica/phoenix           | Triglycerides, medium-chain | 1318A-03960 | 1       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 132615      | 5       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 145767      | 7       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 154616      | 2       |
| Bionorica/Phoenix           | Triglycerides, medium-chain | 171102      | 1       |

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| <b>Supplier</b>            | <b>Substance</b>            | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-----------------------------|--------------|----------------|
| Bionorica/Phönix IE1125... | Triglycerides, medium-chain | 128843       | 5              |
| Bionorica/Phönix Pharma    | Triglycerides, medium-chain | 128840       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 105038       | 3              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 109953       | 2              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 116587       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 116642       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 120015       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 123997       | 3              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 123998       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 127732       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 127733       | 2              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 128839       | 4              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 129876       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 129877       | 7              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 129880       | 5              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 132615       | 3              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 135056       | 5              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 135058       | 1              |
| bionorica/Phönix           | Triglycerides, medium-chain | 139105       | 2              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 139105       | 12             |
| bionorica/Phönix           | Triglycerides, medium-chain | 139107       | 3              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 141602       | 8              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 141603       | 1              |
| Bionorica/Phönix           | Triglycerides, medium-chain | 257537       | 1              |
| Bionorica/Sanacorp 03.0... | Triglycerides, medium-chain | 14604        | 1              |
| Bionorica/Sanacorp WE:     | Triglycerides, medium-chain | 85532        | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 109952       | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 116640       | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 123013       | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 123997       | 2              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 123999       | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 125596       | 2              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 127732       | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 128841       | 2              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 129876       | 2              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 129880       | 5              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 132615       | 3              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 135058       | 2              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 139107       | 7              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 139448       | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 147079       | 1              |
| Bionorica/Sanacorp         | Triglycerides, medium-chain | 149852       | 1              |
| Bionorica                  | Triglycerides, medium-chain |              | 1              |
| Bionorica                  | Triglycerides, medium-chain | 103899       | 2              |
| Bionorica                  | Triglycerides, medium-chain | 103902       | 4              |
| Bionorica                  | Triglycerides, medium-chain | 105038       | 3              |
| bionorica                  | Triglycerides, medium-chain | 107077       | 1              |
| Bionorica                  | Triglycerides, medium-chain | 107077       | 1              |
| Bionorica                  | Triglycerides, medium-chain | 107078       | 1              |
| Bionorica                  | Triglycerides, medium-chain | 107079       | 4              |
| Bionorica                  | Triglycerides, medium-chain | 107080       | 2              |
| Bionorica                  | Triglycerides, medium-chain | 109950       | 3              |
| Bionorica                  | Triglycerides, medium-chain | 109951       | 1              |
| Bionorica                  | Triglycerides, medium-chain | 109953       | 2              |
| Bionorica                  | Triglycerides, medium-chain | 116637       | 2              |
| Bionorica                  | Triglycerides, medium-chain | 116638       | 1              |
| Bionorica                  | Triglycerides, medium-chain | 116639       | 1              |
| Bionorica                  | Triglycerides, medium-chain | 116640       | 1              |
| Bionorica                  | Triglycerides, medium-chain | 116643       | 4              |
| Bionorica                  | Triglycerides, medium-chain | 116645       | 3              |

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continued from previous page

| Supplier  | Substance                   | Batch        | Spectra |
|-----------|-----------------------------|--------------|---------|
| Bionorica | Triglycerides, medium-chain | 116646       | 2       |
| Bionorica | Triglycerides, medium-chain | 116688       | 1       |
| Bionorica | Triglycerides, medium-chain | 116693       | 2       |
| Bionorica | Triglycerides, medium-chain | 120015       | 4       |
| Bionorica | Triglycerides, medium-chain | 120016       | 2       |
| Bionorica | Triglycerides, medium-chain | 120017       | 1       |
| Bionorica | Triglycerides, medium-chain | 123015       | 1       |
| Bionorica | Triglycerides, medium-chain | 123997       | 6       |
| Bionorica | Triglycerides, medium-chain | 123998       | 8       |
| Bionorica | Triglycerides, medium-chain | 123999       | 6       |
| Bionorica | Triglycerides, medium-chain | 125596       | 8       |
| Bionorica | Triglycerides, medium-chain | 125597       | 6       |
| BIONORICA | Triglycerides, medium-chain | 125597       | 1       |
| Bionorica | Triglycerides, medium-chain | 126132       | 1       |
| Bionorica | Triglycerides, medium-chain | 127731       | 2       |
| bionorica | Triglycerides, medium-chain | 127732       | 1       |
| Bionorica | Triglycerides, medium-chain | 127732       | 2       |
| Bionorica | Triglycerides, medium-chain | 127733       | 2       |
| Bionorica | Triglycerides, medium-chain | 128839       | 12      |
| bionorica | Triglycerides, medium-chain | 128841       | 1       |
| Bionorica | Triglycerides, medium-chain | 128841       | 2       |
| Bionorica | Triglycerides, medium-chain | 128842       | 6       |
| Bionorica | Triglycerides, medium-chain | 128843       | 8       |
| Bionorica | Triglycerides, medium-chain | 12903        | 1       |
| Bionorica | Triglycerides, medium-chain | 129876       | 6       |
| Bionorica | Triglycerides, medium-chain | 129877       | 4       |
| Bionorica | Triglycerides, medium-chain | 129878       | 2       |
| Bionorica | Triglycerides, medium-chain | 129879       | 3       |
| Bionorica | Triglycerides, medium-chain | 129880       | 9       |
| Bionorica | Triglycerides, medium-chain | 132615       | 9       |
| Bionorica | Triglycerides, medium-chain | 135056       | 6       |
| Bionorica | Triglycerides, medium-chain | 135058       | 3       |
| Bionorica | Triglycerides, medium-chain | 139105       | 16      |
| Bionorica | Triglycerides, medium-chain | 139107       | 9       |
| Bionorica | Triglycerides, medium-chain | 141602       | 2       |
| Bionorica | Triglycerides, medium-chain | 141603       | 4       |
| Bionorica | Triglycerides, medium-chain | 141604       | 8       |
| Bionorica | Triglycerides, medium-chain | 145765       | 4       |
| Bionorica | Triglycerides, medium-chain | 145767       | 2       |
| bionorica | Triglycerides, medium-chain | 145768       | 1       |
| Bionorica | Triglycerides, medium-chain | 145768       | 3       |
| Bionorica | Triglycerides, medium-chain | 150930       | 1       |
| Bionorica | Triglycerides, medium-chain | 153220       | 1       |
| Bionorica | Triglycerides, medium-chain | 153782       | 1       |
| Bionorica | Triglycerides, medium-chain | 156506       | 1       |
| Bionorica | Triglycerides, medium-chain | 180325       | 1       |
| Bionorica | Triglycerides, medium-chain | 191062609    | 1       |
| Bionorica | Triglycerides, medium-chain | 200901609    | 1       |
| Bionorica | Triglycerides, medium-chain | 201111011    | 1       |
| Bionorica | Triglycerides, medium-chain | 250696       | 1       |
| Bionorica | Triglycerides, medium-chain | 269421       | 1       |
| Bionorica | Triglycerides, medium-chain | 275765288005 | 1       |
| Bionorica | Triglycerides, medium-chain | 283811       | 2       |
| Bionorica | Triglycerides, medium-chain | 4817A-03960  | 1       |
| Bionorica | Triglycerides, medium-chain | 58448        | 11      |
| Bionorica | Triglycerides, medium-chain | 69719        | 2       |
| Bionorica | Triglycerides, medium-chain | 79406        | 1       |
| Bionorica | Triglycerides, medium-chain | 87112        | 2       |
| Bionorica | Triglycerides, medium-chain | 87113        | 1       |
| Bionorica | Triglycerides, medium-chain | 91715        | 1       |

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| <b>Supplier</b>            | <b>Substance</b>            | <b>Batch</b>    | <b>Spectra</b> |
|----------------------------|-----------------------------|-----------------|----------------|
| Bionorica                  | Triglycerides, medium-chain | 91719           | 2              |
| bionorica                  | Triglycerides, medium-chain | 93574           | 1              |
| Bionorica                  | Triglycerides, medium-chain | 95080           | 1              |
| Bionorica                  | Triglycerides, medium-chain | 9673            | 1              |
| Bionorica                  | Triglycerides, medium-chain | 98569           | 1              |
| Bionoricaethics (Dronab... | Triglycerides, medium-chain | 128843(0137640) | 1              |
| Bionoricaethics / K        | Triglycerides, medium-chain | 120017          | 1              |
| Bionoricaethics / K        | Triglycerides, medium-chain | 120017(Miglyol  | 1              |
| BionoricaEthics / Phöni... | Triglycerides, medium-chain | 127733          | 8              |
| BionoricaEthics/ Bionor... | Triglycerides, medium-chain | 129880          | 1              |
| BionoricaEthics/ Bionor... | Triglycerides, medium-chain | 139105          | 2              |
| Bionoricaethics/ E (Dro... | Triglycerides, medium-chain | 170517          | 1              |
| BionoricaEthics/ Phönix... | Triglycerides, medium-chain | 145767          | 1              |
| BionoricaEthics/ Phönix    | Triglycerides, medium-chain | 128840          | 1              |
| BionoricaEthics/AHD        | Triglycerides, medium-chain | 132615          | 1              |
| BionoricaEthics/Fiebig     | Triglycerides, medium-chain | 109952          | 1              |
| BionoricaEthics/Noweda     | Triglycerides, medium-chain |                 | 1              |
| BionoricaEthics/Noweda     | Triglycerides, medium-chain | 105038          | 1              |
| BionoricaEthics/Noweda     | Triglycerides, medium-chain | 105041          | 1              |
| Bionoricaethics/Phoenix    | Triglycerides, medium-chain | 139105          | 1              |
| BionoricaEthics            | Triglycerides, medium-chain | 116643          | 2              |
| Bionoricaethics            | Triglycerides, medium-chain | 1391050         | 1              |
| BionoricaEthics            | Triglycerides, medium-chain | 141604          | 2              |
| BionoricaEthics            | Triglycerides, medium-chain | 145768          | 2              |
| bionoricaEthiks/Phoenix    | Triglycerides, medium-chain | 116687          | 1              |
| bionoricaEthiks/Phoenix    | Triglycerides, medium-chain | 145767          | 1              |
| bionoricaEthiks/Phoenix    | Triglycerides, medium-chain | 147079          | 1              |
| BionoricPhoenix            | Triglycerides, medium-chain | 958448          | 1              |
| Bionornica                 | Triglycerides, medium-chain | 125597          | 1              |
| Bionrica Ethics GmbH       | Triglycerides, medium-chain | 129878          | 1              |
| Bombastus                  | Triglycerides, medium-chain | 116587          | 1              |
| Bombastus                  | Triglycerides, medium-chain | 123997          | 1              |
| Bombastus                  | Triglycerides, medium-chain | 14098306        | 1              |
| Bombastus                  | Triglycerides, medium-chain | 15139608        | 1              |
| Bombastus                  | Triglycerides, medium-chain | 1603041-02      | 1              |
| Bombastus                  | Triglycerides, medium-chain | 17236202        | 2              |
| Bombastus                  | Triglycerides, medium-chain | 17361001        | 1              |
| Bombastus                  | Triglycerides, medium-chain | 1801034-01      | 1              |
| Bombastus                  | Triglycerides, medium-chain | 308509          | 1              |
| Bombastus                  | Triglycerides, medium-chain | 58/18           | 1              |
| Caelo                      | Triglycerides, medium-chain |                 | 4              |
| Caelo                      | Triglycerides, medium-chain | 1001008-01      | 1              |
| Caelo                      | Triglycerides, medium-chain | 101001          | 1              |
| Caelo                      | Triglycerides, medium-chain | 10124307        | 1              |
| Caelo                      | Triglycerides, medium-chain | 10194002        | 1              |
| Caelo                      | Triglycerides, medium-chain | 10356205        | 1              |
| Caelo                      | Triglycerides, medium-chain | 10356208        | 1              |
| Caelo                      | Triglycerides, medium-chain | 103899          | 1              |
| Caelo                      | Triglycerides, medium-chain | 103900          | 1              |
| Caelo                      | Triglycerides, medium-chain | 105041          | 5              |
| Caelo                      | Triglycerides, medium-chain | 1060001         | 2              |
| Caelo                      | Triglycerides, medium-chain | 1060010         | 1              |
| Caelo                      | Triglycerides, medium-chain | 107080          | 1              |
| Caelo                      | Triglycerides, medium-chain | 109948          | 3              |
| Caelo                      | Triglycerides, medium-chain | 11(0000125596)  | 1              |
| Caelo                      | Triglycerides, medium-chain | 11031502        | 1              |
| Caelo                      | Triglycerides, medium-chain | 11051706        | 1              |
| Caelo                      | Triglycerides, medium-chain | 11154601        | 1              |
| Caelo                      | Triglycerides, medium-chain | 11154602        | 3              |
| Caelo                      | Triglycerides, medium-chain | 1115805         | 2              |

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| Supplier | Substance                   | Batch      | Spectra |
|----------|-----------------------------|------------|---------|
| Caelo    | Triglycerides, medium-chain | 1115811    | 2       |
| Caelo    | Triglycerides, medium-chain | 11207501   | 1       |
| Caelo    | Triglycerides, medium-chain | 11207502   | 2       |
| Caelo    | Triglycerides, medium-chain | 11207503   | 1       |
| Caelo    | Triglycerides, medium-chain | 11301106   | 13      |
| Caelo    | Triglycerides, medium-chain | 11301109   | 1       |
| Caelo    | Triglycerides, medium-chain | 116637     | 1       |
| Caelo    | Triglycerides, medium-chain | 116638     | 2       |
| Caelo    | Triglycerides, medium-chain | 116640     | 1       |
| Caelo    | Triglycerides, medium-chain | 116641     | 1       |
| Caelo    | Triglycerides, medium-chain | 116643     | 1       |
| Caelo    | Triglycerides, medium-chain | 116646     | 1       |
| Caelo    | Triglycerides, medium-chain | 116688     | 2       |
| Caelo    | Triglycerides, medium-chain | 116689     | 1       |
| Caelo    | Triglycerides, medium-chain | 116690     | 4       |
| Caelo    | Triglycerides, medium-chain | 116691     | 2       |
| Caelo    | Triglycerides, medium-chain | 116692     | 1       |
| Caelo    | Triglycerides, medium-chain | 11D29-N01  | 1       |
| Caelo    | Triglycerides, medium-chain | 12078603   | 12      |
| Caelo    | Triglycerides, medium-chain | 12078604   | 15      |
| Caelo    | Triglycerides, medium-chain | 12078605   | 2       |
| Caelo    | Triglycerides, medium-chain | 12079604   | 1       |
| Caelo    | Triglycerides, medium-chain | 1210002-01 | 1       |
| Caelo    | Triglycerides, medium-chain | 12101303   | 1       |
| Caelo    | Triglycerides, medium-chain | 12253802   | 4       |
| Caelo    | Triglycerides, medium-chain | 1225604    | 1       |
| Caelo    | Triglycerides, medium-chain | 1225605    | 1       |
| Caelo    | Triglycerides, medium-chain | 12256504   | 6       |
| Caelo    | Triglycerides, medium-chain | 12256505   | 20      |
| Caelo    | Triglycerides, medium-chain | 1226505    | 1       |
| Caelo    | Triglycerides, medium-chain | 123015     | 2       |
| Caelo    | Triglycerides, medium-chain | 12356901   | 7       |
| Caelo    | Triglycerides, medium-chain | 12356903   | 9       |
| Caelo    | Triglycerides, medium-chain | 12356904   | 1       |
| Caelo    | Triglycerides, medium-chain | 12356908   | 22      |
| Caelo    | Triglycerides, medium-chain | 12356909   | 4       |
| Caelo    | Triglycerides, medium-chain | 123997     | 2       |
| Caelo    | Triglycerides, medium-chain | 123998     | 3       |
| Caelo    | Triglycerides, medium-chain | 123999     | 3       |
| Caelo    | Triglycerides, medium-chain | 125596     | 6       |
| Caelo    | Triglycerides, medium-chain | 1256504    | 1       |
| Caelo    | Triglycerides, medium-chain | 1256505    | 1       |
| Caelo    | Triglycerides, medium-chain | 127732     | 3       |
| Caelo    | Triglycerides, medium-chain | 128841     | 1       |
| Caelo    | Triglycerides, medium-chain | 128842     | 1       |
| Caelo    | Triglycerides, medium-chain | 128843     | 1       |
| Caelo    | Triglycerides, medium-chain | 129866002  | 1       |
| Caelo    | Triglycerides, medium-chain | 129878     | 1       |
| Caelo    | Triglycerides, medium-chain | 1302004-01 | 1       |
| Caelo    | Triglycerides, medium-chain | 130200402  | 1       |
| Caelo    | Triglycerides, medium-chain | 13081205   | 1       |
| Caelo    | Triglycerides, medium-chain | 13095304   | 12      |
| Caelo    | Triglycerides, medium-chain | 13095306   | 3       |
| Caelo    | Triglycerides, medium-chain | 13098601   | 16      |
| Caelo    | Triglycerides, medium-chain | 13098605   | 5       |
| Caelo    | Triglycerides, medium-chain | 13124310   | 1       |
| Caelo    | Triglycerides, medium-chain | 13159607   | 1       |
| Caelo    | Triglycerides, medium-chain | 13177101   | 9       |
| Caelo    | Triglycerides, medium-chain | 13177102   | 21      |
| Caelo    | Triglycerides, medium-chain | 13177111   | 1       |

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| Supplier | Substance                   | Batch            | Spectra |
|----------|-----------------------------|------------------|---------|
| Caelo    | Triglycerides, medium-chain | 13210301         | 1       |
| Caelo    | Triglycerides, medium-chain | 13348501         | 5       |
| Caelo    | Triglycerides, medium-chain | 13348502         | 8       |
| Caelo    | Triglycerides, medium-chain | 13348503         | 9       |
| Caelo    | Triglycerides, medium-chain | 13348506         | 5       |
| Caelo    | Triglycerides, medium-chain | 13392404         | 2       |
| Caelo    | Triglycerides, medium-chain | 135058           | 2       |
| Caelo    | Triglycerides, medium-chain | 139105           | 1       |
| Caelo    | Triglycerides, medium-chain | 139107           | 1       |
| Caelo    | Triglycerides, medium-chain | 140133           | 1       |
| Caelo    | Triglycerides, medium-chain | 14098305         | 1       |
| Caelo    | Triglycerides, medium-chain | 14098306         | 3       |
| Caelo    | Triglycerides, medium-chain | 14101704         | 1       |
| Caelo    | Triglycerides, medium-chain | 1411009-02       | 2       |
| Caelo    | Triglycerides, medium-chain | 141602           | 1       |
| Caelo    | Triglycerides, medium-chain | 141603           | 1       |
| Caelo    | Triglycerides, medium-chain | 14219003         | 14      |
| Caelo    | Triglycerides, medium-chain | 14219007         | 12      |
| Caelo    | Triglycerides, medium-chain | 14219009         | 10      |
| Caelo    | Triglycerides, medium-chain | 14330503         | 1       |
| Caelo    | Triglycerides, medium-chain | 14380802         | 18      |
| Caelo    | Triglycerides, medium-chain | 14380803         | 10      |
| Caelo    | Triglycerides, medium-chain | 14380804         | 29      |
| Caelo    | Triglycerides, medium-chain | 145768           | 1       |
| Caelo    | Triglycerides, medium-chain | 146(18238902)    | 1       |
| Caelo    | Triglycerides, medium-chain | 149852           | 1       |
| Caelo    | Triglycerides, medium-chain | 14G25-B03-302294 | 1       |
| Caelo    | Triglycerides, medium-chain | 15012016         | 1       |
| Caelo    | Triglycerides, medium-chain | 1504029-01       | 1       |
| Caelo    | Triglycerides, medium-chain | 150402902        | 1       |
| Caelo    | Triglycerides, medium-chain | 1504029-02       | 1       |
| Caelo    | Triglycerides, medium-chain | 150518           | 1       |
| Caelo    | Triglycerides, medium-chain | 15080603         | 1       |
| Caelo    | Triglycerides, medium-chain | 15139604         | 18      |
| Caelo    | Triglycerides, medium-chain | 15139605         | 23      |
| Caelo    | Triglycerides, medium-chain | 15139607         | 24      |
| Caelo    | Triglycerides, medium-chain | 15139608         | 34      |
| Caelo    | Triglycerides, medium-chain | 15239310         | 2       |
| Caelo    | Triglycerides, medium-chain | 15239802         | 1       |
| Caelo    | Triglycerides, medium-chain | 15242006         | 1       |
| Caelo    | Triglycerides, medium-chain | 15270004         | 1       |
| Caelo    | Triglycerides, medium-chain | 1527003          | 1       |
| Caelo    | Triglycerides, medium-chain | 1527005          | 1       |
| Caelo    | Triglycerides, medium-chain | 15272003         | 39      |
| Caelo    | Triglycerides, medium-chain | 15272004         | 48      |
| Caelo    | Triglycerides, medium-chain | 15272005         | 38      |
| Caelo    | Triglycerides, medium-chain | 15272006         | 18      |
| Caelo    | Triglycerides, medium-chain | 15272007         | 17      |
| Caelo    | Triglycerides, medium-chain | 15272008         | 3       |
| Caelo    | Triglycerides, medium-chain | 152722005        | 1       |
| Caelo    | Triglycerides, medium-chain | 152722007        | 1       |
| Caelo    | Triglycerides, medium-chain | 15374201         | 1       |
| Caelo    | Triglycerides, medium-chain | 15376911         | 5       |
| Caelo    | Triglycerides, medium-chain | 1537908          | 1       |
| Caelo    | Triglycerides, medium-chain | 15379602/170314M | 1       |
| Caelo    | Triglycerides, medium-chain | 15379606         | 1       |
| Caelo    | Triglycerides, medium-chain | 15379608         | 30      |
| Caelo    | Triglycerides, medium-chain | 15379609         | 22      |
| Caelo    | Triglycerides, medium-chain | 1537961          | 1       |
| Caelo    | Triglycerides, medium-chain | 15379610         | 20      |

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| Supplier | Substance                   | Batch              | Spectra |
|----------|-----------------------------|--------------------|---------|
| Caelo    | Triglycerides, medium-chain | 15379611           | 15      |
| Caelo    | Triglycerides, medium-chain | 15379612           | 20      |
| Caelo    | Triglycerides, medium-chain | 15379690           | 1       |
| Caelo    | Triglycerides, medium-chain | 153799612          | 1       |
| Caelo    | Triglycerides, medium-chain | 15385501           | 1       |
| Caelo    | Triglycerides, medium-chain | 1539605            | 1       |
| Caelo    | Triglycerides, medium-chain | 1572003            | 1       |
| Caelo    | Triglycerides, medium-chain | 1572005            | 1       |
| Caelo    | Triglycerides, medium-chain | 1572006            | 1       |
| Caelo    | Triglycerides, medium-chain | 15H03-B03(BTM-Set) | 1       |
| Caelo    | Triglycerides, medium-chain | 15H03-B03-312351   | 1       |
| Caelo    | Triglycerides, medium-chain | 15H03-B03-328583   | 1       |
| Caelo    | Triglycerides, medium-chain | 15H03-B03-525120   | 1       |
| Caelo    | Triglycerides, medium-chain | 15H03-B03-525271   | 1       |
| Caelo    | Triglycerides, medium-chain | 15H03-B03-525331   | 1       |
| Caelo    | Triglycerides, medium-chain | 15H-B03-525120     | 1       |
| Caelo    | Triglycerides, medium-chain | 15H-B03-525331     | 1       |
| Caelo    | Triglycerides, medium-chain | 1601050-01         | 5       |
| Caelo    | Triglycerides, medium-chain | 1603041-02         | 3       |
| Caelo    | Triglycerides, medium-chain | 1606035-01         | 2       |
| Caelo    | Triglycerides, medium-chain | 1606035-02         | 1       |
| Caelo    | Triglycerides, medium-chain | 1606035-03         | 3       |
| Caelo    | Triglycerides, medium-chain | 1612307            | 1       |
| Caelo    | Triglycerides, medium-chain | 16124304           | 15      |
| Caelo    | Triglycerides, medium-chain | 161243047          | 1       |
| Caelo    | Triglycerides, medium-chain | 16124306/170518M   | 1       |
| Caelo    | Triglycerides, medium-chain | 16124307           | 90      |
| Caelo    | Triglycerides, medium-chain | 16124308           | 28      |
| Caelo    | Triglycerides, medium-chain | 16124309           | 1       |
| Caelo    | Triglycerides, medium-chain | 16124310           | 1       |
| Caelo    | Triglycerides, medium-chain | 16238501           | 1       |
| Caelo    | Triglycerides, medium-chain | 16238504           | 1       |
| Caelo    | Triglycerides, medium-chain | 16238508           | 1       |
| Caelo    | Triglycerides, medium-chain | 16288504           | 1       |
| Caelo    | Triglycerides, medium-chain | 16H18-B01          | 2       |
| Caelo    | Triglycerides, medium-chain | 16H18-B01-331028   | 1       |
| Caelo    | Triglycerides, medium-chain | 16H18-B01-525506   | 1       |
| Caelo    | Triglycerides, medium-chain | 17004301           | 1       |
| Caelo    | Triglycerides, medium-chain | 1701007            | 1       |
| Caelo    | Triglycerides, medium-chain | 170116002          | 1       |
| Caelo    | Triglycerides, medium-chain | 17016001           | 61      |
| Caelo    | Triglycerides, medium-chain | 17016002           | 35      |
| Caelo    | Triglycerides, medium-chain | 1701600201115811   | 1       |
| Caelo    | Triglycerides, medium-chain | 17016007           | 95      |
| Caelo    | Triglycerides, medium-chain | 1701600711/2019    | 1       |
| Caelo    | Triglycerides, medium-chain | 17016008           | 25      |
| Caelo    | Triglycerides, medium-chain | 17016601           | 1       |
| Caelo    | Triglycerides, medium-chain | 170420MT/16124308  | 1       |
| Caelo    | Triglycerides, medium-chain | 1706007            | 1       |
| Caelo    | Triglycerides, medium-chain | 17076001           | 1       |
| Caelo    | Triglycerides, medium-chain | 17076008           | 1       |
| Caelo    | Triglycerides, medium-chain | 171123M/17016009   | 1       |
| Caelo    | Triglycerides, medium-chain | 17118807           | 1       |
| Caelo    | Triglycerides, medium-chain | 17162701           | 1       |
| Caelo    | Triglycerides, medium-chain | 17194901           | 2       |
| Caelo    | Triglycerides, medium-chain | 17194902           | 12      |
| Caelo    | Triglycerides, medium-chain | 17236202           | 84      |
| Caelo    | Triglycerides, medium-chain | 17236203           | 32      |
| Caelo    | Triglycerides, medium-chain | 17322107           | 1       |
| Caelo    | Triglycerides, medium-chain | 17326202           | 1       |

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continued from previous page

| Supplier | Substance                   | Batch              | Spectra |
|----------|-----------------------------|--------------------|---------|
| Caelo    | Triglycerides, medium-chain | 17361001           | 120     |
| Caelo    | Triglycerides, medium-chain | 17361002           | 34      |
| Caelo    | Triglycerides, medium-chain | 17361003           | 1       |
| Caelo    | Triglycerides, medium-chain | 17F16-B02          | 2       |
| Caelo    | Triglycerides, medium-chain | 17F16-B02-341874   | 1       |
| Caelo    | Triglycerides, medium-chain | 18008807           | 1       |
| Caelo    | Triglycerides, medium-chain | 180103401          | 1       |
| Caelo    | Triglycerides, medium-chain | 1801034-01         | 3       |
| Caelo    | Triglycerides, medium-chain | 1801034-02         | 2       |
| Caelo    | Triglycerides, medium-chain | 180109M/17236204   | 1       |
| Caelo    | Triglycerides, medium-chain | 180206M/17236204   | 1       |
| Caelo    | Triglycerides, medium-chain | 1803111            | 2       |
| Caelo    | Triglycerides, medium-chain | 18031307           | 1       |
| Caelo    | Triglycerides, medium-chain | 18048203           | 2       |
| Caelo    | Triglycerides, medium-chain | 1805020            | 1       |
| Caelo    | Triglycerides, medium-chain | 1805020-01         | 2       |
| Caelo    | Triglycerides, medium-chain | 180607             | 4       |
| Caelo    | Triglycerides, medium-chain | 18110105           | 1       |
| Caelo    | Triglycerides, medium-chain | 18111309           | 1       |
| Caelo    | Triglycerides, medium-chain | 181118807          | 1       |
| Caelo    | Triglycerides, medium-chain | 181188001          | 1       |
| Caelo    | Triglycerides, medium-chain | 18118801           | 92      |
| Caelo    | Triglycerides, medium-chain | 18118802           | 15      |
| Caelo    | Triglycerides, medium-chain | 18118803           | 2       |
| Caelo    | Triglycerides, medium-chain | 18118804           | 1       |
| Caelo    | Triglycerides, medium-chain | 18118807           | 118     |
| Caelo    | Triglycerides, medium-chain | 18118808           | 22      |
| Caelo    | Triglycerides, medium-chain | 18118808P-181227-9 | 1       |
| Caelo    | Triglycerides, medium-chain | 181188802          | 1       |
| Caelo    | Triglycerides, medium-chain | 1812014-01         | 5       |
| Caelo    | Triglycerides, medium-chain | 18121703           | 1       |
| Caelo    | Triglycerides, medium-chain | 1818801            | 4       |
| Caelo    | Triglycerides, medium-chain | 1818807            | 2       |
| Caelo    | Triglycerides, medium-chain | 1818808            | 1       |
| Caelo    | Triglycerides, medium-chain | 1821953            | 1       |
| Caelo    | Triglycerides, medium-chain | 18235901           | 1       |
| Caelo    | Triglycerides, medium-chain | 18238901           | 96      |
| Caelo    | Triglycerides, medium-chain | 18238902           | 47      |
| Caelo    | Triglycerides, medium-chain | 182390003          | 1       |
| Caelo    | Triglycerides, medium-chain | 18239003           | 106     |
| Caelo    | Triglycerides, medium-chain | 18239004           | 37      |
| Caelo    | Triglycerides, medium-chain | 183238901          | 1       |
| Caelo    | Triglycerides, medium-chain | 18A19B04           | 1       |
| Caelo    | Triglycerides, medium-chain | 18A19-B04-525713   | 1       |
| Caelo    | Triglycerides, medium-chain | 18A19-B04-525821   | 1       |
| Caelo    | Triglycerides, medium-chain | 18G13-B01-353059   | 1       |
| Caelo    | Triglycerides, medium-chain | 18G13-B01-526004   | 1       |
| Caelo    | Triglycerides, medium-chain | 19012203           | 1       |
| Caelo    | Triglycerides, medium-chain | 1902005-01         | 3       |
| Caelo    | Triglycerides, medium-chain | 1902005-02         | 2       |
| Caelo    | Triglycerides, medium-chain | 190302002          | 1       |
| Caelo    | Triglycerides, medium-chain | 19055101           | 2       |
| Caelo    | Triglycerides, medium-chain | 19055103           | 1       |
| Caelo    | Triglycerides, medium-chain | 19055104           | 2       |
| Caelo    | Triglycerides, medium-chain | 19055105           | 1       |
| Caelo    | Triglycerides, medium-chain | 19055106           | 2       |
| Caelo    | Triglycerides, medium-chain | 190591206          | 1       |
| Caelo    | Triglycerides, medium-chain | 190600001          | 1       |
| Caelo    | Triglycerides, medium-chain | 190600002          | 3       |
| Caelo    | Triglycerides, medium-chain | 19060001           | 70      |

continued on the next page

continued from previous page

| Supplier | Substance                   | Batch               | Spectra |
|----------|-----------------------------|---------------------|---------|
| Caelo    | Triglycerides, medium-chain | 19060002            | 27      |
| Caelo    | Triglycerides, medium-chain | 19060002P-191206-2  | 1       |
| Caelo    | Triglycerides, medium-chain | 19060003            | 1       |
| Caelo    | Triglycerides, medium-chain | 19060004            | 42      |
| Caelo    | Triglycerides, medium-chain | 19060005            | 19      |
| Caelo    | Triglycerides, medium-chain | 1906001             | 1       |
| Caelo    | Triglycerides, medium-chain | 19060010            | 50      |
| Caelo    | Triglycerides, medium-chain | 19060011            | 30      |
| Caelo    | Triglycerides, medium-chain | 1906002             | 1       |
| Caelo    | Triglycerides, medium-chain | 1906004             | 1       |
| Caelo    | Triglycerides, medium-chain | 1906005             | 1       |
| Caelo    | Triglycerides, medium-chain | 19245202            | 4       |
| Caelo    | Triglycerides, medium-chain | 19245203            | 2       |
| Caelo    | Triglycerides, medium-chain | 19245205            | 3       |
| Caelo    | Triglycerides, medium-chain | 19266008            | 1       |
| Caelo    | Triglycerides, medium-chain | 192805005           | 1       |
| Caelo    | Triglycerides, medium-chain | 19286001            | 1       |
| Caelo    | Triglycerides, medium-chain | 19286002            | 1       |
| Caelo    | Triglycerides, medium-chain | 192866001           | 32      |
| Caelo    | Triglycerides, medium-chain | 192866001P-200518-5 | 1       |
| Caelo    | Triglycerides, medium-chain | 192866002           | 79      |
| Caelo    | Triglycerides, medium-chain | 192866003           | 26      |
| Caelo    | Triglycerides, medium-chain | 192866005           | 52      |
| Caelo    | Triglycerides, medium-chain | 192866008           | 47      |
| Caelo    | Triglycerides, medium-chain | 192866009           | 16      |
| Caelo    | Triglycerides, medium-chain | 19286603            | 3       |
| Caelo    | Triglycerides, medium-chain | 19286605            | 1       |
| Caelo    | Triglycerides, medium-chain | 19286608            | 2       |
| Caelo    | Triglycerides, medium-chain | 192931002           | 5       |
| Caelo    | Triglycerides, medium-chain | 19293101            | 4       |
| Caelo    | Triglycerides, medium-chain | 19293102            | 4       |
| Caelo    | Triglycerides, medium-chain | 1930-f03-526161     | 1       |
| Caelo    | Triglycerides, medium-chain | 1960001             | 1       |
| Caelo    | Triglycerides, medium-chain | 200002281002        | 1       |
| Caelo    | Triglycerides, medium-chain | 200002916003        | 1       |
| Caelo    | Triglycerides, medium-chain | 200003585002        | 2       |
| Caelo    | Triglycerides, medium-chain | 20000699002         | 4       |
| Caelo    | Triglycerides, medium-chain | 20000699003         | 2       |
| Caelo    | Triglycerides, medium-chain | 20000699004         | 1       |
| Caelo    | Triglycerides, medium-chain | 20000747004         | 1       |
| Caelo    | Triglycerides, medium-chain | 20002281001         | 8       |
| Caelo    | Triglycerides, medium-chain | 20002281003         | 4       |
| Caelo    | Triglycerides, medium-chain | 20002916002         | 1       |
| Caelo    | Triglycerides, medium-chain | 20002916004         | 3       |
| Caelo    | Triglycerides, medium-chain | 20003429001         | 12      |
| Caelo    | Triglycerides, medium-chain | 20003429004         | 39      |
| Caelo    | Triglycerides, medium-chain | 20003429006         | 22      |
| Caelo    | Triglycerides, medium-chain | 20003429008         | 6       |
| Caelo    | Triglycerides, medium-chain | 20003429009         | 5       |
| Caelo    | Triglycerides, medium-chain | 2000342900ca6       | 1       |
| Caelo    | Triglycerides, medium-chain | 2000343001          | 1       |
| Caelo    | Triglycerides, medium-chain | 2000344003          | 1       |
| Caelo    | Triglycerides, medium-chain | 20003443001         | 4       |
| Caelo    | Triglycerides, medium-chain | 20003443003         | 2       |
| Caelo    | Triglycerides, medium-chain | 20003443004         | 1       |
| Caelo    | Triglycerides, medium-chain | 2000358002          | 2       |
| Caelo    | Triglycerides, medium-chain | 20003585002         | 40      |
| Caelo    | Triglycerides, medium-chain | 2002916002          | 1       |
| Caelo    | Triglycerides, medium-chain | 200329004           | 1       |
| Caelo    | Triglycerides, medium-chain | 2011015-01          | 1       |

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| Supplier                   | Substance                   | Batch          | Spectra |
|----------------------------|-----------------------------|----------------|---------|
| Caelo                      | Triglycerides, medium-chain | 2014030260     | 1       |
| Caelo                      | Triglycerides, medium-chain | 20165321       | 1       |
| Caelo                      | Triglycerides, medium-chain | 20270312-3     | 1       |
| Caelo                      | Triglycerides, medium-chain | 21001100001    | 1       |
| Caelo                      | Triglycerides, medium-chain | 21002266003    | 3       |
| Caelo                      | Triglycerides, medium-chain | 21002661002    | 2       |
| Caelo                      | Triglycerides, medium-chain | 21002661004    | 1       |
| Caelo                      | Triglycerides, medium-chain | 21003328001    | 2       |
| Caelo                      | Triglycerides, medium-chain | 21003328010    | 1       |
| Caelo                      | Triglycerides, medium-chain | 21003817002    | 1       |
| Caelo                      | Triglycerides, medium-chain | 21003817003    | 6       |
| Caelo                      | Triglycerides, medium-chain | 2101305        | 1       |
| Caelo                      | Triglycerides, medium-chain | 21071804       | 1       |
| Caelo                      | Triglycerides, medium-chain | 2113Q01998     | 1       |
| Caelo                      | Triglycerides, medium-chain | 23041803       | 1       |
| Caelo                      | Triglycerides, medium-chain | 23082013B      | 1       |
| Caelo                      | Triglycerides, medium-chain | 23339200034431 | 1       |
| Caelo                      | Triglycerides, medium-chain | 241018E-02     | 1       |
| Caelo                      | Triglycerides, medium-chain | 27071702       | 1       |
| Caelo                      | Triglycerides, medium-chain | 27101202       | 1       |
| Caelo                      | Triglycerides, medium-chain | 28111806       | 1       |
| Caelo                      | Triglycerides, medium-chain | 29/18          | 1       |
| Caelo                      | Triglycerides, medium-chain | 31051303       | 1       |
| Caelo                      | Triglycerides, medium-chain | 3113506        | 1       |
| Caelo                      | Triglycerides, medium-chain | 3336           | 1       |
| Caelo                      | Triglycerides, medium-chain | 3413I-01998    | 1       |
| Caelo                      | Triglycerides, medium-chain | 4110i-01998    | 1       |
| Caelo                      | Triglycerides, medium-chain | 4420E-03960    | 1       |
| Caelo                      | Triglycerides, medium-chain | 4817A-01998    | 1       |
| Caelo                      | Triglycerides, medium-chain | 50775165       | 1       |
| Caelo                      | Triglycerides, medium-chain | 59/AKD7        | 1       |
| Caelo                      | Triglycerides, medium-chain | 60492256       | 1       |
| Caelo                      | Triglycerides, medium-chain | 6051503        | 1       |
| Caelo                      | Triglycerides, medium-chain | 6061201        | 1       |
| Caelo                      | Triglycerides, medium-chain | 613A-01998     | 1       |
| Caelo                      | Triglycerides, medium-chain | 614M1998       | 1       |
| Caelo                      | Triglycerides, medium-chain | 618E-01998     | 1       |
| Caelo                      | Triglycerides, medium-chain | 71142383       | 2       |
| Caelo                      | Triglycerides, medium-chain | 8011301        | 1       |
| Caelo                      | Triglycerides, medium-chain | 90600041       | 1       |
| Caelo                      | Triglycerides, medium-chain | 928660021      | 1       |
| Caelo                      | Triglycerides, medium-chain | 95084          | 5       |
| Caelo                      | Triglycerides, medium-chain | AKD5           | 1       |
| Caelo                      | Triglycerides, medium-chain | Caelo          | 1       |
| Caelo                      | Triglycerides, medium-chain | ch17016007     | 1       |
| Caelo                      | Triglycerides, medium-chain | CHB19060004    | 2       |
| Caelo                      | Triglycerides, medium-chain | F12-3661800    | 1       |
| Caelo                      | Triglycerides, medium-chain | GT-8009020616  | 1       |
| Caelo                      | Triglycerides, medium-chain | MI20190508_01  | 1       |
| Caeolo/Ahd                 | Triglycerides, medium-chain | 18238901       | 1       |
| Caeolo/Noweda              | Triglycerides, medium-chain | 15379608       | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 15272006       | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 192866003      | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 192866005      | 2       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 17236202       | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 18238902       | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 18239005       | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 190600001      | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 19060004       | 2       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 19060001       | 2       |

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continued from previous page

| Supplier                   | Substance                   | Batch            | Spectra |
|----------------------------|-----------------------------|------------------|---------|
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 19060005         | 1       |
| Caesar & Loretz GmbH / ... | Triglycerides, medium-chain | 19060011         | 5       |
| Caesar & Loretz GmbH Hi... | Triglycerides, medium-chain | 15379610         | 1       |
| Caesar & Loretz GmbH, P... | Triglycerides, medium-chain | 17016001         | 1       |
| Caesar & Loretz GmbH/ G... | Triglycerides, medium-chain | 192866002        | 1       |
| Caesar & Loretz GmbH/ G... | Triglycerides, medium-chain | 192866005        | 1       |
| Caesar & Loretz GmbH/ J... | Triglycerides, medium-chain | 20003429006      | 1       |
| Caesar & Loretz GmbH/ M... | Triglycerides, medium-chain | 19060001         | 1       |
| Caesar & Loretz GmbH/ P... | Triglycerides, medium-chain | 19060010         | 1       |
| Caesar & Loretz GmbH/ P... | Triglycerides, medium-chain | 192866005        | 1       |
| Caesar & Loretz GmbH/ P... | Triglycerides, medium-chain | 192866008        | 2       |
| Caesar & Loretz GmbH/ P... | Triglycerides, medium-chain | 192866009        | 2       |
| Caesar & Loretz GmbH/ S... | Triglycerides, medium-chain | 192866009        | 1       |
| Caesar & Loretz GmbH/AHD   | Triglycerides, medium-chain | 18239003         | 1       |
| Caesar & Loretz GmbH/An... | Triglycerides, medium-chain | 192866005        | 1       |
| Caesar & Loretz GmbH/Fi... | Triglycerides, medium-chain | 18239003         | 1       |
| Caesar & Loretz GmbH/Fi... | Triglycerides, medium-chain | 20003429004      | 1       |
| Caesar & Loretz GmbH/Gehe  | Triglycerides, medium-chain | 18238901         | 1       |
| Caesar & Loretz GmbH/Gehe  | Triglycerides, medium-chain | 18239003         | 2       |
| Caesar & Loretz GmbH/GEHE  | Triglycerides, medium-chain | 19060001         | 1       |
| Caesar & Loretz GmbH/Gehe  | Triglycerides, medium-chain | 19060010         | 1       |
| Caesar & Loretz GmbH/Gehe  | Triglycerides, medium-chain | 192866002        | 2       |
| Caesar & Loretz GmbH/Gehe  | Triglycerides, medium-chain | 192866008        | 1       |
| Caesar & Loretz GmbH/Gehe  | Triglycerides, medium-chain | 20003429004      | 3       |
| Caesar & Loretz GmbH/Gehe  | Triglycerides, medium-chain | 20003585002      | 1       |
| Caesar & Loretz GmbH/Je... | Triglycerides, medium-chain | 19060010         | 1       |
| Caesar & Loretz GmbH/K     | Triglycerides, medium-chain | 125596           | 1       |
| Caesar & Loretz GmbH/Kehr  | Triglycerides, medium-chain | 192866002        | 1       |
| Caesar & Loretz GmbH/Kr... | Triglycerides, medium-chain | 20003429004      | 1       |
| Caesar & Loretz GmbH/No... | Triglycerides, medium-chain | 19060011         | 5       |
| Caesar & Loretz GmbH/P     | Triglycerides, medium-chain | 192866002        | 1       |
| Caesar & Loretz GmbH/Ph... | Triglycerides, medium-chain | 18239003         | 2       |
| Caesar & Loretz GmbH/ph... | Triglycerides, medium-chain | 19060001         | 1       |
| Caesar & Loretz GmbH/Sana  | Triglycerides, medium-chain | 18238901         | 1       |
| Caesar & Loretz GmbH/Sa... | Triglycerides, medium-chain | 18238902         | 1       |
| Caesar & Loretz GmbH/Sa... | Triglycerides, medium-chain | 19060001         | 1       |
| Caesar & Loretz GmbH/Sa... | Triglycerides, medium-chain | 19060010         | 2       |
| Caesar & Loretz GmbH/Sa... | Triglycerides, medium-chain | 192866002        | 1       |
| Caesar & Loretz GmbH/Sa... | Triglycerides, medium-chain | 192866005        | 1       |
| Caesar & Loretz GmbH/Sa... | Triglycerides, medium-chain | 192866008        | 1       |
| Caesar & Loretz GmbH/Sa... | Triglycerides, medium-chain | 20003585002      | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 116642           | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 12078603         | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 13098601         | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 17361002         | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 17F16-B02-525622 | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 18118801         | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 1812014-01       | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 18238901         | 10      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 18238902         | 2       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 18239003         | 27      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 18239004         | 7       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 18239007         | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19055106         | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 190600001        | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 190600002        | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19060001         | 16      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19060002         | 10      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19060004         | 9       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19060005         | 8       |

continued on the next page

continued from previous page

| Supplier                   | Substance                   | Batch            | Spectra |
|----------------------------|-----------------------------|------------------|---------|
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19060010         | 16      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19060011         | 19      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19060012         | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 192866001        | 14      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 192866002        | 22      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 192866003        | 16      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 192866005        | 15      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 192866008        | 14      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 192866009        | 10      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 1928660505       | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 19I30-F03        | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 20003429001      | 7       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 20003429004      | 10      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 20003429006      | 6       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 20003429008      | 2       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 20003429009      | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 20003585001      | 1       |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 20003585002      | 14      |
| Caesar & Loretz GmbH       | Triglycerides, medium-chain | 21003817003      | 3       |
| Caesar & Loretz GmbHSan... | Triglycerides, medium-chain | 19060005         | 1       |
| Caesar & Loretz Hilden/... | Triglycerides, medium-chain | 19060004         | 1       |
| Caesar & Loretz/AHD        | Triglycerides, medium-chain | 19060010         | 1       |
| Caesar & Loretz/AHD        | Triglycerides, medium-chain | 192866002        | 1       |
| Caesar & Loretz/AHD        | Triglycerides, medium-chain | 20003429004      | 1       |
| Caesar & Loretz/Noweda     | Triglycerides, medium-chain | 192866008        | 1       |
| Caesar & Loretz            | Triglycerides, medium-chain | 16124307         | 1       |
| Caesar & Loretz            | Triglycerides, medium-chain | 18118807         | 1       |
| Caesar Loretz              | Triglycerides, medium-chain | 19055101         | 1       |
| Caesar und Loretz GmbH     | Triglycerides, medium-chain | 17016007         | 1       |
| Caesar und Loretz GmbH     | Triglycerides, medium-chain | 17361001         | 1       |
| Caesar&Lorenz              | Triglycerides, medium-chain | 17016001         | 1       |
| Caesar&Lorenz              | Triglycerides, medium-chain | 20003585002      | 1       |
| Caesar&Loretz GmbH         | Triglycerides, medium-chain | 192866002        | 1       |
| Caesar&lorenz,Phoenix      | Triglycerides, medium-chain | 13177102         | 1       |
| Caesar&lorenz,Phoenix      | Triglycerides, medium-chain | 14219003         | 1       |
| Caesar/Alliance            | Triglycerides, medium-chain | 14219007         | 1       |
| Caesar/Noweda              | Triglycerides, medium-chain | 11301104         | 1       |
| Caesar/Noweda              | Triglycerides, medium-chain | 13177109         | 1       |
| Caesar                     | Triglycerides, medium-chain | 17016007         | 1       |
| Caleo/Phönix               | Triglycerides, medium-chain | 14380803         | 1       |
| candoro                    | Triglycerides, medium-chain | 10000004         | 1       |
| Cannamedical / Phönix      | Triglycerides, medium-chain | CKI90MGANG       | 1       |
| Cannamedical               | Triglycerides, medium-chain | CKI90MGANG       | 1       |
| Caolo- Phönix              | Triglycerides, medium-chain | 14098306         | 1       |
| Caolo/NOWEDA               | Triglycerides, medium-chain | 18118802         | 1       |
| Cealo/Kehr                 | Triglycerides, medium-chain | 20000699001      | 1       |
| Cealo                      | Triglycerides, medium-chain | 16124307         | 1       |
| Ceasar & Loretz GmbH / ... | Triglycerides, medium-chain | 18238901         | 1       |
| celo/phönix                | Triglycerides, medium-chain | 13095306         | 1       |
| Cremer Oleo GmbH & Co K... | Triglycerides, medium-chain | 15H03-B03-525120 | 1       |
| Defektur                   | Triglycerides, medium-chain | 1710910-b        | 1       |
| Delta                      | Triglycerides, medium-chain | 17361001         | 1       |
| Dr. Wolff/Gehe             | Triglycerides, medium-chain | 1801034-02       | 1       |
| Ebert 12.10.16             | Triglycerides, medium-chain | 15379611         | 1       |
| Ebert                      | Triglycerides, medium-chain | 13098601         | 1       |
| eigen                      | Triglycerides, medium-chain | 2819I-03960      | 1       |
| eigen                      | Triglycerides, medium-chain | 4619Q-03960      | 1       |
| eigene Herstellung         | Triglycerides, medium-chain | 1712907-a        | 1       |
| Ethics/Noweda              | Triglycerides, medium-chain | 128842           | 3       |
| Ethics/Phönix              | Triglycerides, medium-chain | 2880050000304322 | 1       |

continued on the next page



continued from previous page

| Supplier       | Substance                   | Batch       | Spectra |
|----------------|-----------------------------|-------------|---------|
| ethis          | Triglycerides, medium-chain | 156506      | 1       |
| EuRho / 11     | Triglycerides, medium-chain | 2007018-01  | 1       |
| EuRho GEHE     | Triglycerides, medium-chain | 1902005-01  | 1       |
| EuRho/ NOWEDA  | Triglycerides, medium-chain | 1902005-02  | 1       |
| EuRho/ Phönix  | Triglycerides, medium-chain | 1606035-03  | 1       |
| EuRho/AHD      | Triglycerides, medium-chain | 2011015-01  | 1       |
| EuRho/Now      | Triglycerides, medium-chain | 1801034-01  | 1       |
| Eurho/Phoenix  | Triglycerides, medium-chain | 13095303    | 2       |
| EuRho/Phönix   | Triglycerides, medium-chain | 13020004-02 | 1       |
| EuRho/Phönix   | Triglycerides, medium-chain | 1411009-01  | 2       |
| EuRho/Phönix   | Triglycerides, medium-chain | 1411009-02  | 1       |
| EuRho/Phönix   | Triglycerides, medium-chain | 1504029-02  | 1       |
| EuRho/Sanacorp | Triglycerides, medium-chain | 1812014-01  | 1       |
| EuRho/Sanacorp | Triglycerides, medium-chain | 1902005-02  | 1       |
| EuRho/VDL      | Triglycerides, medium-chain | 1801034-02  | 1       |
| EuRho          | Triglycerides, medium-chain | 1111037-01  | 1       |
| Eurho          | Triglycerides, medium-chain | 1205015-01  | 1       |
| EuRho          | Triglycerides, medium-chain | 1406016-01  | 1       |
| EuRho          | Triglycerides, medium-chain | 1504029-01  | 1       |
| EuRho          | Triglycerides, medium-chain | 1504029-02  | 1       |
| EuRho          | Triglycerides, medium-chain | 1603041-02  | 2       |
| EuRho          | Triglycerides, medium-chain | 160603501   | 1       |
| EuRho          | Triglycerides, medium-chain | 1801034-01  | 3       |
| EuRho          | Triglycerides, medium-chain | 1801034-02  | 1       |
| EuRho          | Triglycerides, medium-chain | 1902005-02  | 1       |
| EuRho          | Triglycerides, medium-chain | 2107028-01  | 1       |
| EuRho          | Triglycerides, medium-chain | 4121201     | 1       |
| Euro / AHD     | Triglycerides, medium-chain | 1902005-01  | 1       |
| Euro OTC       | Triglycerides, medium-chain |             | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1007009-01  | 1       |
| Euro OTC       | Triglycerides, medium-chain | 108502001   | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1105005-01  | 2       |
| Euro OTC       | Triglycerides, medium-chain | 1111037-01  | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1144252     | 3       |
| Euro OTC       | Triglycerides, medium-chain | 1147194     | 1       |
| Euro OTC       | Triglycerides, medium-chain | 116688      | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1205015-01  | 3       |
| Euro OTC       | Triglycerides, medium-chain | 1210002-01  | 5       |
| Euro OTC       | Triglycerides, medium-chain | 127733      | 6       |
| Euro OTC       | Triglycerides, medium-chain | 130200401   | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1302004-01  | 13      |
| Euro OTC       | Triglycerides, medium-chain | 1302004-02  | 8       |
| Euro OTC       | Triglycerides, medium-chain | 1309025-01  | 2       |
| Euro OTC       | Triglycerides, medium-chain | 1402019-01  | 2       |
| Euro OTC       | Triglycerides, medium-chain | 1406016-01  | 5       |
| Euro OTC       | Triglycerides, medium-chain | 1411009-002 | 1       |
| Euro OTC       | Triglycerides, medium-chain | 141100901   | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1411009-01  | 8       |
| Euro OTC       | Triglycerides, medium-chain | 141100902   | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1411009-02  | 6       |
| Euro OTC       | Triglycerides, medium-chain | 15040129-02 | 1       |
| Euro OTC       | Triglycerides, medium-chain | 150402901   | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1504029-01  | 10      |
| Euro OTC       | Triglycerides, medium-chain | 1504029-02  | 13      |
| Euro OTC       | Triglycerides, medium-chain | 150902201   | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1509022-01  | 4       |
| Euro OTC       | Triglycerides, medium-chain | 1509022-01G | 1       |
| Euro OTC       | Triglycerides, medium-chain | 151101101   | 1       |
| Euro OTC       | Triglycerides, medium-chain | 1511011-01  | 19      |
| Euro OTC       | Triglycerides, medium-chain | 1511011-1   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                   | Batch                | Spectra |
|----------|-----------------------------|----------------------|---------|
| Euro OTC | Triglycerides, medium-chain | 15379610             | 1       |
| Euro OTC | Triglycerides, medium-chain | 15379612             | 1       |
| Euro OTC | Triglycerides, medium-chain | 1600105001           | 1       |
| Euro OTC | Triglycerides, medium-chain | 160105               | 1       |
| Euro OTC | Triglycerides, medium-chain | 160105001            | 2       |
| Euro OTC | Triglycerides, medium-chain | 1601050-01           | 49      |
| Euro OTC | Triglycerides, medium-chain | 160150-01            | 1       |
| Euro OTC | Triglycerides, medium-chain | 16030410             | 1       |
| Euro OTC | Triglycerides, medium-chain | 1603041-01           | 6       |
| Euro OTC | Triglycerides, medium-chain | 160304102            | 4       |
| Euro OTC | Triglycerides, medium-chain | 1603041-02           | 30      |
| Euro OTC | Triglycerides, medium-chain | 160427               | 1       |
| Euro OTC | Triglycerides, medium-chain | 1606035-01           | 34      |
| Euro OTC | Triglycerides, medium-chain | 160603502            | 1       |
| Euro OTC | Triglycerides, medium-chain | 1606035-02           | 26      |
| Euro OTC | Triglycerides, medium-chain | 1606035-03           | 12      |
| Euro OTC | Triglycerides, medium-chain | 160635-01            | 1       |
| Euro OTC | Triglycerides, medium-chain | 1701023-01           | 8       |
| Euro OTC | Triglycerides, medium-chain | 17016002             | 1       |
| Euro OTC | Triglycerides, medium-chain | 170901401            | 1       |
| Euro OTC | Triglycerides, medium-chain | 1709014-01           | 35      |
| Euro OTC | Triglycerides, medium-chain | 1709014-01-20180404M | 1       |
| Euro OTC | Triglycerides, medium-chain | 170901402            | 3       |
| Euro OTC | Triglycerides, medium-chain | 1709014-02           | 25      |
| Euro OTC | Triglycerides, medium-chain | 180103401            | 2       |
| Euro OTC | Triglycerides, medium-chain | 1801034-01           | 61      |
| Euro OTC | Triglycerides, medium-chain | 180103402            | 2       |
| Euro OTC | Triglycerides, medium-chain | 1801034-02           | 30      |
| Euro OTC | Triglycerides, medium-chain | 180502001            | 5       |
| Euro OTC | Triglycerides, medium-chain | 1805020-01           | 44      |
| Euro OTC | Triglycerides, medium-chain | 18118801             | 1       |
| Euro OTC | Triglycerides, medium-chain | 18118807             | 2       |
| Euro OTC | Triglycerides, medium-chain | 1812012-1            | 1       |
| Euro OTC | Triglycerides, medium-chain | 1812014_01           | 1       |
| Euro OTC | Triglycerides, medium-chain | 181201401            | 1       |
| Euro OTC | Triglycerides, medium-chain | 1812014-01           | 66      |
| Euro OTC | Triglycerides, medium-chain | 1812014-1            | 1       |
| Euro OTC | Triglycerides, medium-chain | 19020005-02          | 1       |
| Euro OTC | Triglycerides, medium-chain | 1902005_02           | 1       |
| Euro OTC | Triglycerides, medium-chain | 1902005-01           | 41      |
| Euro OTC | Triglycerides, medium-chain | 190200502            | 2       |
| Euro OTC | Triglycerides, medium-chain | 1902005-02           | 60      |
| Euro OTC | Triglycerides, medium-chain | 1902005-2005031-01   | 1       |
| Euro OTC | Triglycerides, medium-chain | 1902005-42           | 1       |
| Euro OTC | Triglycerides, medium-chain | 200200101            | 1       |
| Euro OTC | Triglycerides, medium-chain | 2002001-01           | 18      |
| Euro OTC | Triglycerides, medium-chain | 2005031              | 1       |
| Euro OTC | Triglycerides, medium-chain | 2005031-01           | 43      |
| Euro OTC | Triglycerides, medium-chain | 2007018              | 1       |
| Euro OTC | Triglycerides, medium-chain | 200701801            | 2       |
| Euro OTC | Triglycerides, medium-chain | 2007018-01           | 30      |
| Euro OTC | Triglycerides, medium-chain | 2011015-01           | 28      |
| Euro OTC | Triglycerides, medium-chain | 2107028-01           | 5       |
| Euro OTC | Triglycerides, medium-chain | 2201033-01           | 1       |
| Euro OTC | Triglycerides, medium-chain | 221033-01            | 1       |
| Euro OTC | Triglycerides, medium-chain | 2614A-01998          | 1       |
| Euro OTC | Triglycerides, medium-chain | 41141312             | 1       |
| Euro OTC | Triglycerides, medium-chain | 58448                | 2       |
| Euro OTC | Triglycerides, medium-chain | 61140578             | 2       |
| Euro OTC | Triglycerides, medium-chain | 67940                | 2       |

continued on the next page



continued from previous page

| Supplier                   | Substance                   | Batch            | Spectra |
|----------------------------|-----------------------------|------------------|---------|
| Euro OTC                   | Triglycerides, medium-chain | 700282           | 2       |
| Euro OTC                   | Triglycerides, medium-chain | 71142383         | 1       |
| Euro OTC                   | Triglycerides, medium-chain | 71143373         | 4       |
| Euro OTC                   | Triglycerides, medium-chain | 71161892         | 1       |
| Euro OTC                   | Triglycerides, medium-chain | 71161992         | 6       |
| Euro OTC                   | Triglycerides, medium-chain | 8003093001       | 1       |
| Euro OTC                   | Triglycerides, medium-chain | 81146263         | 6       |
| Euro OTC                   | Triglycerides, medium-chain | 81147353         | 9       |
| Euro OTC                   | Triglycerides, medium-chain | 91144781         | 3       |
| Euro OTC                   | Triglycerides, medium-chain | GT-8009020616    | 1       |
| Euro/ Phönix               | Triglycerides, medium-chain | 1117Q-01998      | 1       |
| Euro/Phönix                | Triglycerides, medium-chain | 1805020-01       | 1       |
| Euro/Phönix                | Triglycerides, medium-chain | 1902005-01       | 2       |
| Euro/Phönix                | Triglycerides, medium-chain | 81146263         | 1       |
| euro                       | Triglycerides, medium-chain | 1812014          | 1       |
| Fa. Bionorica/ Fa. Krie... | Triglycerides, medium-chain | 132615           | 1       |
| Fagron                     | Triglycerides, medium-chain |                  | 3       |
| Fagron                     | Triglycerides, medium-chain | 105040           | 1       |
| Fagron                     | Triglycerides, medium-chain | 107076           | 1       |
| Fagron                     | Triglycerides, medium-chain | 109948           | 1       |
| Fagron                     | Triglycerides, medium-chain | 10K09-0031       | 1       |
| Fagron                     | Triglycerides, medium-chain | 110321           | 1       |
| Fagron                     | Triglycerides, medium-chain | 116638           | 1       |
| Fagron                     | Triglycerides, medium-chain | 116646           | 1       |
| Fagron                     | Triglycerides, medium-chain | 11G28-N07        | 1       |
| Fagron                     | Triglycerides, medium-chain | 11L19-N20        | 1       |
| Fagron                     | Triglycerides, medium-chain | 12/04-N07        | 1       |
| Fagron                     | Triglycerides, medium-chain | 120604           | 2       |
| Fagron                     | Triglycerides, medium-chain | 1210002-01       | 3       |
| Fagron                     | Triglycerides, medium-chain | 12A20-N16        | 1       |
| Fagron                     | Triglycerides, medium-chain | 12C27-N02        | 1       |
| Fagron                     | Triglycerides, medium-chain | 12I04-N07        | 8       |
| Fagron                     | Triglycerides, medium-chain | 12K07-N22        | 5       |
| Fagron                     | Triglycerides, medium-chain | 12I04-N07        | 1       |
| Fagron                     | Triglycerides, medium-chain | 130502           | 1       |
| Fagron                     | Triglycerides, medium-chain | 13E24-N04        | 14      |
| Fagron                     | Triglycerides, medium-chain | 13H02N03         | 1       |
| Fagron                     | Triglycerides, medium-chain | 13H02-N03        | 1       |
| Fagron                     | Triglycerides, medium-chain | 13J21-N06        | 1       |
| Fagron                     | Triglycerides, medium-chain | 13j25-b11        | 1       |
| Fagron                     | Triglycerides, medium-chain | 140514           | 1       |
| Fagron                     | Triglycerides, medium-chain | 14D08-N01        | 1       |
| Fagron                     | Triglycerides, medium-chain | 14D11-N01        | 1       |
| Fagron                     | Triglycerides, medium-chain | 14G25B03         | 1       |
| Fagron                     | Triglycerides, medium-chain | 14G25-B03        | 4       |
| Fagron                     | Triglycerides, medium-chain | 14G25-B03-296937 | 6       |
| Fagron                     | Triglycerides, medium-chain | 14G25-B03-302294 | 14      |
| Fagron                     | Triglycerides, medium-chain | 14G25-B03-305014 | 1       |
| Fagron                     | Triglycerides, medium-chain | 14K28-N01        | 4       |
| Fagron                     | Triglycerides, medium-chain | 150518           | 5       |
| Fagron                     | Triglycerides, medium-chain | 15403-B03-318529 | 1       |
| Fagron                     | Triglycerides, medium-chain | 15D24-B03-307759 | 2       |
| Fagron                     | Triglycerides, medium-chain | 15D24B03525046   | 1       |
| Fagron                     | Triglycerides, medium-chain | 15D24-B03-525046 | 3       |
| Fagron                     | Triglycerides, medium-chain | 15H03-318529     | 1       |
| Fagron                     | Triglycerides, medium-chain | 15H03-B03        | 5       |
| Fagron                     | Triglycerides, medium-chain | 15H03-B03_318529 | 1       |
| Fagron                     | Triglycerides, medium-chain | 15H03B03312315   | 1       |
| Fagron                     | Triglycerides, medium-chain | 15H03B03-312351  | 1       |
| Fagron                     | Triglycerides, medium-chain | 15H03-B03-312351 | 12      |

continued on the next page

continued from previous page

| Supplier | Substance                   | Batch              | Spectra |
|----------|-----------------------------|--------------------|---------|
| Fagron   | Triglycerides, medium-chain | 15H03-B03-312924   | 5       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-318529   | 11      |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-318530   | 3       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03322735    | 1       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-322735   | 5       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-325574   | 2       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-328583   | 3       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-525120   | 8       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-525189   | 2       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-525225   | 2       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-525271   | 7       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-525331   | 5       |
| Fagron   | Triglycerides, medium-chain | 15H03-B03-525383   | 1       |
| Fagron   | Triglycerides, medium-chain | 15H03-Bo3-311235   | 1       |
| Fagron   | Triglycerides, medium-chain | 15H03-Bo3-318529   | 1       |
| Fagron   | Triglycerides, medium-chain | 160427             | 2       |
| Fagron   | Triglycerides, medium-chain | 1606035-01         | 1       |
| Fagron   | Triglycerides, medium-chain | 161123             | 4       |
| Fagron   | Triglycerides, medium-chain | 16124308           | 1       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01          | 8       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01_525477   | 1       |
| Fagron   | Triglycerides, medium-chain | 16h18-b01-331028   | 1       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-331028   | 8       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-331028/1 | 1       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-52477    | 1       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-525420   | 9       |
| Fagron   | Triglycerides, medium-chain | 16H-18-B01-525420  | 1       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-525477   | 3       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-525506   | 12      |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-525526   | 1       |
| Fagron   | Triglycerides, medium-chain | 16h18-b01-525531   | 1       |
| Fagron   | Triglycerides, medium-chain | 16H18-B01-525531   | 3       |
| Fagron   | Triglycerides, medium-chain | 170517             | 10      |
| Fagron   | Triglycerides, medium-chain | 171209             | 7       |
| Fagron   | Triglycerides, medium-chain | 17236203           | 3       |
| Fagron   | Triglycerides, medium-chain | 17361001           | 2       |
| Fagron   | Triglycerides, medium-chain | 17F16-802          | 2       |
| Fagron   | Triglycerides, medium-chain | 17F16-B02          | 8       |
| Fagron   | Triglycerides, medium-chain | 17F16-B02_525622   | 1       |
| Fagron   | Triglycerides, medium-chain | 17f16-b02-340113   | 1       |
| Fagron   | Triglycerides, medium-chain | 17F16-B02-340113   | 7       |
| Fagron   | Triglycerides, medium-chain | 17F16B02-341874    | 1       |
| Fagron   | Triglycerides, medium-chain | 17F16-B02-341874   | 6       |
| Fagron   | Triglycerides, medium-chain | 17F16-B02-525621   | 6       |
| Fagron   | Triglycerides, medium-chain | 17f16-b02-525622   | 1       |
| Fagron   | Triglycerides, medium-chain | 17F16-B02-525622   | 19      |
| Fagron   | Triglycerides, medium-chain | 17F16-B02-525657   | 5       |
| Fagron   | Triglycerides, medium-chain | 17F16-B02-525662   | 1       |
| Fagron   | Triglycerides, medium-chain | 17-F16-B02-341874  | 1       |
| Fagron   | Triglycerides, medium-chain | 17H16-B02-525657   | 1       |
| Fagron   | Triglycerides, medium-chain | 1801034-01         | 1       |
| Fagron   | Triglycerides, medium-chain | 1805020-01         | 1       |
| Fagron   | Triglycerides, medium-chain | 180607             | 3       |
| Fagron   | Triglycerides, medium-chain | 181026/1003        | 1       |
| Fagron   | Triglycerides, medium-chain | 18118801           | 2       |
| Fagron   | Triglycerides, medium-chain | 18118807           | 1       |
| Fagron   | Triglycerides, medium-chain | 181201401          | 1       |
| Fagron   | Triglycerides, medium-chain | 181217             | 1       |
| Fagron   | Triglycerides, medium-chain | 18239003           | 1       |
| Fagron   | Triglycerides, medium-chain | 18A19/B04/348506   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                   | Batch             | Spectra |
|----------|-----------------------------|-------------------|---------|
| Fagron   | Triglycerides, medium-chain | 18A19-04-348506   | 1       |
| Fagron   | Triglycerides, medium-chain | 18A19-B014-525725 | 2       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04         | 25      |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-345025  | 5       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-348506  | 3       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-348507  | 1       |
| Fagron   | Triglycerides, medium-chain | 18A19B04350476    | 1       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-350476  | 6       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-525704  | 2       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-525705  | 13      |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-525713  | 11      |
| Fagron   | Triglycerides, medium-chain | 18A19B04525725    | 1       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04525725   | 1       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-525725  | 15      |
| Fagron   | Triglycerides, medium-chain | 18a19-b04-525726  | 1       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-525726  | 17      |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-525800  | 3       |
| Fagron   | Triglycerides, medium-chain | 18A19-B04-525821  | 4       |
| Fagron   | Triglycerides, medium-chain | 18a19-bo4-350476  | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13             | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-801-526004  | 2       |
| Fagron   | Triglycerides, medium-chain | 18G13B01          | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01         | 14      |
| Fagron   | Triglycerides, medium-chain | 18G13-B01_525948  | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-0031    | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-352212  | 4       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-353059  | 8       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-353926  | 1       |
| Fagron   | Triglycerides, medium-chain | 18g13-b01-355309  | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-355309  | 10      |
| Fagron   | Triglycerides, medium-chain | 18G13B01357639    | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-357639  | 4       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-363706  | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-525781  | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13B01525837    | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-525837  | 7       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-525871  | 6       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-525912  | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-525948  | 3       |
| Fagron   | Triglycerides, medium-chain | 18g13-b01-525975  | 1       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-525975  | 4       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-526004  | 10      |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-526039  | 4       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-526063  | 9       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-526102  | 6       |
| Fagron   | Triglycerides, medium-chain | 18G13-B01-52871   | 1       |
| Fagron   | Triglycerides, medium-chain | 18G-B01-525975    | 1       |
| Fagron   | Triglycerides, medium-chain | 19/30-F03-526160  | 1       |
| Fagron   | Triglycerides, medium-chain | 19/30-F03-526162  | 1       |
| Fagron   | Triglycerides, medium-chain | 19/30-F03-526163  | 2       |
| Fagron   | Triglycerides, medium-chain | 1902005-02        | 1       |
| Fagron   | Triglycerides, medium-chain | 190902            | 1       |
| Fagron   | Triglycerides, medium-chain | 190I30-F03-526162 | 1       |
| Fagron   | Triglycerides, medium-chain | 191015            | 2       |
| Fagron   | Triglycerides, medium-chain | 19130-F03-526162  | 1       |
| Fagron   | Triglycerides, medium-chain | 19130-F03-526162  | 1       |
| Fagron   | Triglycerides, medium-chain | 1930-f03          | 1       |
| Fagron   | Triglycerides, medium-chain | 1930-F03-365619   | 1       |
| Fagron   | Triglycerides, medium-chain | 1930-F03-526162   | 1       |
| Fagron   | Triglycerides, medium-chain | 19I30-F03         | 8       |

continued on the next page

continued from previous page

| Supplier           | Substance                   | Batch             | Spectra |
|--------------------|-----------------------------|-------------------|---------|
| Fagron             | Triglycerides, medium-chain | 19I30-F03-365618  | 1       |
| Fagron             | Triglycerides, medium-chain | 19I30F03365619    | 1       |
| Fagron             | Triglycerides, medium-chain | 19I30-F03-365619  | 4       |
| Fagron             | Triglycerides, medium-chain | 19I30-F03-526160  | 2       |
| Fagron             | Triglycerides, medium-chain | 19I30-F03-526161  | 2       |
| Fagron             | Triglycerides, medium-chain | 19I30F03526162    | 1       |
| Fagron             | Triglycerides, medium-chain | 19I30-F03-526162  | 4       |
| Fagron             | Triglycerides, medium-chain | 19I30F03526163    | 1       |
| Fagron             | Triglycerides, medium-chain | 19I30-F03-526163  | 2       |
| Fagron             | Triglycerides, medium-chain | 19i30-F03-526163  | 1       |
| Fagron             | Triglycerides, medium-chain | 19J10-F12         | 4       |
| Fagron             | Triglycerides, medium-chain | 19J10-F12-36618   | 1       |
| Fagron             | Triglycerides, medium-chain | 19j10-F12-366180  | 1       |
| Fagron             | Triglycerides, medium-chain | 19J10-F12-366180  | 11      |
| Fagron             | Triglycerides, medium-chain | 19J10-F12-526198  | 2       |
| Fagron             | Triglycerides, medium-chain | 19I30-F03-526160  | 1       |
| Fagron             | Triglycerides, medium-chain | 20003429004       | 1       |
| Fagron             | Triglycerides, medium-chain | 2002001-01        | 1       |
| Fagron             | Triglycerides, medium-chain | 20A29/F17-526272  | 1       |
| Fagron             | Triglycerides, medium-chain | 20a29-f16         | 1       |
| Fagron             | Triglycerides, medium-chain | 20A29-F16         | 6       |
| Fagron             | Triglycerides, medium-chain | 20A29-F16_375098  | 1       |
| Fagron             | Triglycerides, medium-chain | 20A29-F16-369728  | 1       |
| Fagron             | Triglycerides, medium-chain | 20A29-F16-375097  | 3       |
| Fagron             | Triglycerides, medium-chain | 20A29-F16-375098  | 3       |
| Fagron             | Triglycerides, medium-chain | 20A29-F16-526345  | 5       |
| Fagron             | Triglycerides, medium-chain | 20A29-F16-526370  | 2       |
| Fagron             | Triglycerides, medium-chain | 20A29-F17         | 12      |
| Fagron             | Triglycerides, medium-chain | 20A29F17368743    | 1       |
| Fagron             | Triglycerides, medium-chain | 20A29-F17-368743  | 6       |
| Fagron             | Triglycerides, medium-chain | 20A29-F17-369504  | 2       |
| Fagron             | Triglycerides, medium-chain | 20A29-F17-526272  | 17      |
| Fagron             | Triglycerides, medium-chain | 20J19-F04         | 1       |
| Fagron             | Triglycerides, medium-chain | 20J20-F01         | 3       |
| Fagron             | Triglycerides, medium-chain | 20J20-F01-526424  | 1       |
| Fagron             | Triglycerides, medium-chain | 20J20F01526491    | 1       |
| Fagron             | Triglycerides, medium-chain | 20J20-F01526491   | 1       |
| Fagron             | Triglycerides, medium-chain | 20J20-F01-526491  | 1       |
| Fagron             | Triglycerides, medium-chain | 21c08-F03-379291  | 1       |
| Fagron             | Triglycerides, medium-chain | 27101710          | 1       |
| Fagron             | Triglycerides, medium-chain | 525837            | 1       |
| Fagron             | Triglycerides, medium-chain | F12_3661800       | 1       |
| Fagron             | Triglycerides, medium-chain | IoI01eoGmbH160427 | 1       |
| Fargon /Phönix     | Triglycerides, medium-chain | 17F16-B02340113   | 1       |
| Fargon/Phönix      | Triglycerides, medium-chain | 150518            | 1       |
| Fargon/Sanacorp    | Triglycerides, medium-chain | 11L19-N20         | 1       |
| Fargon             | Triglycerides, medium-chain | 150518            | 1       |
| Fargon             | Triglycerides, medium-chain | 16H18-B01-525420  | 1       |
| Fargon             | Triglycerides, medium-chain | 18G13-B01-526004  | 1       |
| Fargon             | Triglycerides, medium-chain | 20A29-F16-375097  | 1       |
| Fargon             | Triglycerides, medium-chain | 20J20-F01-526492  | 1       |
| Fargon             | Triglycerides, medium-chain | 20J20-F01-526571  | 1       |
| Fiebig/ THC Pharma | Triglycerides, medium-chain | 105043            | 1       |
| Fiebig             | Triglycerides, medium-chain | 11207502          | 1       |
| Fiebig             | Triglycerides, medium-chain | 15272006          | 1       |
| Fiebig             | Triglycerides, medium-chain | 15379610          | 1       |
| Fiebig             | Triglycerides, medium-chain | 15H003-B03-525383 | 1       |
| Fiebig             | Triglycerides, medium-chain | 16124308          | 3       |
| Fiebig             | Triglycerides, medium-chain | 16124310          | 1       |
| Fiebig             | Triglycerides, medium-chain | 17016002          | 1       |

continued on the next page

continued from previous page

| Supplier              | Substance                   | Batch            | Spectra |
|-----------------------|-----------------------------|------------------|---------|
| Fiebig                | Triglycerides, medium-chain | 17016007         | 1       |
| Fiebig                | Triglycerides, medium-chain | 17016008         | 1       |
| Fiebig                | Triglycerides, medium-chain | 17236203         | 4       |
| Fiebig                | Triglycerides, medium-chain | 17361001         | 1       |
| Fiebig                | Triglycerides, medium-chain | 18118807         | 1       |
| Fiebig                | Triglycerides, medium-chain | 18118808         | 1       |
| Fiebig                | Triglycerides, medium-chain | 18238902         | 7       |
| Fiebig                | Triglycerides, medium-chain | 18239004         | 2       |
| Fiebig                | Triglycerides, medium-chain | 190923           | 1       |
| Fischar/Phoenix       | Triglycerides, medium-chain | 105044           | 1       |
| Fragon/Phönix         | Triglycerides, medium-chain | 18G13-B01-526063 | 1       |
| fragron               | Triglycerides, medium-chain | 17F16-B02-525622 | 1       |
| Gatt-Koller           | Triglycerides, medium-chain | 1802502          | 2       |
| Gatt-Koller           | Triglycerides, medium-chain | 1803423          | 1       |
| Gehe 07.12.18         | Triglycerides, medium-chain | 123015           | 1       |
| GEHE, 02.01.2019      | Triglycerides, medium-chain | 1805020-01       | 1       |
| Gehe/Bionorica Ethics | Triglycerides, medium-chain | 116641           | 1       |
| Gehe/Bionorica Ethics | Triglycerides, medium-chain | 125596           | 1       |
| Gehe/Bionorica        | Triglycerides, medium-chain | 116641           | 1       |
| Gehe/EuRo             | Triglycerides, medium-chain | 1603041-02       | 2       |
| Gehe/L10              | Triglycerides, medium-chain | 1801034-02       | 1       |
| Gehe/L10              | Triglycerides, medium-chain | 1812014-01       | 1       |
| GEHE                  | Triglycerides, medium-chain | 105039           | 1       |
| GEHE                  | Triglycerides, medium-chain | 107077           | 2       |
| GEHE                  | Triglycerides, medium-chain | 107078           | 1       |
| Gehe                  | Triglycerides, medium-chain | 109949           | 1       |
| GEHE                  | Triglycerides, medium-chain | 109949           | 1       |
| Gehe                  | Triglycerides, medium-chain | 109951           | 1       |
| Gehe                  | Triglycerides, medium-chain | 116644           | 1       |
| GEHE                  | Triglycerides, medium-chain | 116687           | 1       |
| Gehe                  | Triglycerides, medium-chain | 117111           | 1       |
| Gehe                  | Triglycerides, medium-chain | 117113           | 1       |
| Gehe                  | Triglycerides, medium-chain | 12078603         | 1       |
| Gehe                  | Triglycerides, medium-chain | 12356908         | 1       |
| Gehe                  | Triglycerides, medium-chain | 1302004-01       | 1       |
| Gehe                  | Triglycerides, medium-chain | 1309025-01       | 1       |
| Gehe                  | Triglycerides, medium-chain | 13177102         | 3       |
| Gehe                  | Triglycerides, medium-chain | 141602           | 1       |
| Gehe                  | Triglycerides, medium-chain | 145768           | 1       |
| Gehe                  | Triglycerides, medium-chain | 14D23-B02-293330 | 1       |
| Gehe                  | Triglycerides, medium-chain | 1504029-01       | 1       |
| Gehe                  | Triglycerides, medium-chain | 15139607         | 1       |
| Gehe                  | Triglycerides, medium-chain | 15272004         | 2       |
| Gehe                  | Triglycerides, medium-chain | 15272006         | 1       |
| Gehe                  | Triglycerides, medium-chain | 15379608         | 1       |
| Gehe                  | Triglycerides, medium-chain | 15379610         | 1       |
| Gehe                  | Triglycerides, medium-chain | 15379612         | 1       |
| Gehe                  | Triglycerides, medium-chain | 1539608          | 1       |
| Gehe                  | Triglycerides, medium-chain | 1572004          | 1       |
| Gehe                  | Triglycerides, medium-chain | 15H03-B03-312351 | 1       |
| Gehe                  | Triglycerides, medium-chain | 1601050-0        | 1       |
| Gehe                  | Triglycerides, medium-chain | 1601050-01       | 1       |
| GEHE                  | Triglycerides, medium-chain | 1603041-01       | 1       |
| Gehe                  | Triglycerides, medium-chain | 1603041-02       | 1       |
| GEHE                  | Triglycerides, medium-chain | 1603041-02       | 1       |
| Gehe                  | Triglycerides, medium-chain | 160427           | 2       |
| GEHE                  | Triglycerides, medium-chain | 1606035-03       | 1       |
| Gehe                  | Triglycerides, medium-chain | 16124307         | 3       |
| Gehe                  | Triglycerides, medium-chain | 16124310         | 1       |
| Gehe                  | Triglycerides, medium-chain | 16H18-B01-525477 | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance                   | Batch            | Spectra |
|----------------------------|-----------------------------|------------------|---------|
| Gehe                       | Triglycerides, medium-chain | 1701023-01       | 1       |
| Gehe                       | Triglycerides, medium-chain | 17016001         | 4       |
| GEHE                       | Triglycerides, medium-chain | 17016001         | 1       |
| Gehe                       | Triglycerides, medium-chain | 17016008         | 1       |
| Gehe                       | Triglycerides, medium-chain | 1709014-01       | 1       |
| Gehe                       | Triglycerides, medium-chain | 17361002         | 1       |
| Gehe                       | Triglycerides, medium-chain | 17F1-B02-340113  | 1       |
| Gehe                       | Triglycerides, medium-chain | 1801034-01       | 2       |
| GEHE                       | Triglycerides, medium-chain | 1801034-01       | 2       |
| Gehe                       | Triglycerides, medium-chain | 1801034-02       | 1       |
| Gehe                       | Triglycerides, medium-chain | 1805020-01       | 3       |
| GEHE                       | Triglycerides, medium-chain | 1805020-01       | 1       |
| Gehe                       | Triglycerides, medium-chain | 1812014-01       | 1       |
| GEHE                       | Triglycerides, medium-chain | 1812014-01       | 2       |
| Gehe                       | Triglycerides, medium-chain | 18238902         | 2       |
| Gehe                       | Triglycerides, medium-chain | 18A19-B04-345025 | 1       |
| Gehe                       | Triglycerides, medium-chain | 18A19-B04-348506 | 1       |
| Gehe                       | Triglycerides, medium-chain | 18A19-B04525705  | 1       |
| Gehe                       | Triglycerides, medium-chain | 18G13-B01-353059 | 1       |
| GEHE                       | Triglycerides, medium-chain | 1902005-001      | 1       |
| Gehe                       | Triglycerides, medium-chain | 1902005-01       | 2       |
| Gehe                       | Triglycerides, medium-chain | 19060005         | 1       |
| Gehe                       | Triglycerides, medium-chain | 19060011         | 1       |
| Gehe                       | Triglycerides, medium-chain | 192866001        | 1       |
| Gehe                       | Triglycerides, medium-chain | 192866003        | 1       |
| Gehe                       | Triglycerides, medium-chain | 192866009        | 1       |
| Gehe                       | Triglycerides, medium-chain | 2002001-01       | 1       |
| Gehe                       | Triglycerides, medium-chain | 2005031-01       | 1       |
| Gehe                       | Triglycerides, medium-chain | 21003817003      | 1       |
| Gehe                       | Triglycerides, medium-chain | 2201033-01       | 1       |
| GEHE                       | Triglycerides, medium-chain | 71161992         | 1       |
| GEHE                       | Triglycerides, medium-chain | 95080            | 1       |
| GEHE                       | Triglycerides, medium-chain | 98569            | 1       |
| gehe-06.11.18              | Triglycerides, medium-chain | 12016            | 1       |
| Gehe-Eurho 10.09.18        | Triglycerides, medium-chain | 71143373         | 1       |
| GUMO                       | Triglycerides, medium-chain | 20003429004      | 1       |
| Hansen & Rosenthal/Noweda  | Triglycerides, medium-chain | 1509022-01       | 1       |
| Hansen&Rosenthal/Phönix    | Triglycerides, medium-chain | 1406016-01       | 1       |
| HCT Pharma                 | Triglycerides, medium-chain | 2012100833       | 1       |
| Hedinger                   | Triglycerides, medium-chain | 1606035-02       | 2       |
| Hedinger                   | Triglycerides, medium-chain | 17361001         | 1       |
| Henry Lamotte GmbH/ San... | Triglycerides, medium-chain | 16124307         | 1       |
| Henry Lamotte Oils GmbH... | Triglycerides, medium-chain | 15379602         | 1       |
| Henry Lamotte              | Triglycerides, medium-chain | 1302004-01       | 1       |
| Henry lamotte              | Triglycerides, medium-chain | 18G13-B01-357639 | 2       |
| Hersteller                 | Triglycerides, medium-chain | 135058           | 1       |
| hochhaus-Apotheke          | Triglycerides, medium-chain | 1606035-01       | 1       |
| Hubertus Apotheke          | Triglycerides, medium-chain | 15379610         | 1       |
| Ichthyol/Phönix            | Triglycerides, medium-chain | 1603041-02       | 2       |
| IOI Oleo GmbH / Cannane... | Triglycerides, medium-chain | CKI90MGANG       | 1       |
| IOI Oleo GmbH              | Triglycerides, medium-chain | 181217           | 1       |
| IOI Oleo/AHD               | Triglycerides, medium-chain | 18G13-B01-355309 | 1       |
| Jenne / Bionorica          | Triglycerides, medium-chain | 139105           | 3       |
| Jenne                      | Triglycerides, medium-chain | 107081           | 1       |
| Jenne                      | Triglycerides, medium-chain | 116646           | 1       |
| Jenne                      | Triglycerides, medium-chain | 18A19-B04        | 4       |
| k.A.                       | Triglycerides, medium-chain | 120016           | 1       |
| Kehr/THC Pharma            | Triglycerides, medium-chain | 105040           | 2       |
| Kehr/THC Pharma            | Triglycerides, medium-chain | 105041           | 1       |
| Kehr/THC Pharma            | Triglycerides, medium-chain | 116644           | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                   | Batch            | Spectra |
|----------------------------|-----------------------------|------------------|---------|
| Kehr/THC Pharma            | Triglycerides, medium-chain | 116690           | 1       |
| Kehr/THC Pharma            | Triglycerides, medium-chain | 116691           | 1       |
| Kehr/THC Pharma            | Triglycerides, medium-chain | VT231118-1       | 1       |
| Kehr                       | Triglycerides, medium-chain | 109949           | 1       |
| Kehr                       | Triglycerides, medium-chain | 109953           | 1       |
| Kehr                       | Triglycerides, medium-chain | 116586           | 1       |
| Kehr                       | Triglycerides, medium-chain | 116639           | 1       |
| Kehr                       | Triglycerides, medium-chain | 11664            | 1       |
| Kehr                       | Triglycerides, medium-chain | 1801034-01       | 1       |
| Kehr                       | Triglycerides, medium-chain | 98570            | 1       |
| Kögl                       | Triglycerides, medium-chain | 1700780          | 4       |
| Kögl                       | Triglycerides, medium-chain | 188006163816     | 1       |
| Kögl                       | Triglycerides, medium-chain | 19102170817      | 1       |
| Kögl                       | Triglycerides, medium-chain | 19102171217      | 1       |
| Kögl                       | Triglycerides, medium-chain | 391711160417     | 1       |
| Krieger Bionorica ethics   | Triglycerides, medium-chain | 132615           | 1       |
| Krieger Bionorica ethics   | Triglycerides, medium-chain | 141604           | 1       |
| Krieger/Bionorica          | Triglycerides, medium-chain | 139107           | 1       |
| Krieger                    | Triglycerides, medium-chain | 142331           | 1       |
| Krieger                    | Triglycerides, medium-chain | 17361002         | 1       |
| Krieger                    | Triglycerides, medium-chain | 3081             | 1       |
| L12                        | Triglycerides, medium-chain | 18G13-B01-352212 | 2       |
| L30                        | Triglycerides, medium-chain | 15H03-b03-318530 | 1       |
| L31                        | Triglycerides, medium-chain | 18A19-B04-345026 | 1       |
| Laborchemie Apolda/ Now... | Triglycerides, medium-chain | 18118807         | 1       |
| Midas Phönix               | Triglycerides, medium-chain | 17016007         | 2       |
| Miglyol 812                | Triglycerides, medium-chain | 20003429004      | 1       |
| Miglyol                    | Triglycerides, medium-chain | 15139605         | 1       |
| nachtragen                 | Triglycerides, medium-chain | 125596           | 2       |
| nachtragen                 | Triglycerides, medium-chain | 127733           | 2       |
| Noveda                     | Triglycerides, medium-chain | 12256505         | 1       |
| Noveda                     | Triglycerides, medium-chain | 19060010         | 1       |
| noveda                     | Triglycerides, medium-chain | 269421           | 1       |
| Noweda / Euro              | Triglycerides, medium-chain | 1902005-02       | 1       |
| Noweda / Euro              | Triglycerides, medium-chain | 2007018-01       | 1       |
| Noweda /THC Pharma         | Triglycerides, medium-chain | 109709           | 1       |
| Noweda Bionorica           | Triglycerides, medium-chain | 145767           | 1       |
| Noweda/Bionorica ethics    | Triglycerides, medium-chain | 120015           | 1       |
| Noweda/Bionorica           | Triglycerides, medium-chain | 103901           | 1       |
| Noweda/Bionorica           | Triglycerides, medium-chain | 123013           | 1       |
| Noweda/THC Pharma          | Triglycerides, medium-chain | 105041           | 2       |
| Noweda/THC Pharma          | Triglycerides, medium-chain | 105044           | 1       |
| Noweda/THC Pharma          | Triglycerides, medium-chain | 109948           | 1       |
| Noweda/THC Pharma          | Triglycerides, medium-chain | 116690           | 2       |
| Noweda/THC Pharma          | Triglycerides, medium-chain | 129877           | 4       |
| Noweda                     | Triglycerides, medium-chain | 101001           | 1       |
| Noweda                     | Triglycerides, medium-chain | 11207501         | 1       |
| Noweda                     | Triglycerides, medium-chain | 11301109         | 2       |
| Noweda                     | Triglycerides, medium-chain | 1144252          | 1       |
| Noweda                     | Triglycerides, medium-chain | 116644           | 3       |
| Noweda                     | Triglycerides, medium-chain | 129877           | 1       |
| Noweda                     | Triglycerides, medium-chain | 14219007         | 1       |
| Noweda                     | Triglycerides, medium-chain | 14602            | 1       |
| Noweda                     | Triglycerides, medium-chain | 15139608         | 1       |
| Noweda                     | Triglycerides, medium-chain | 1701023-01       | 2       |
| Noweda                     | Triglycerides, medium-chain | 17016001         | 1       |
| Noweda                     | Triglycerides, medium-chain | 17236202         | 2       |
| Noweda                     | Triglycerides, medium-chain | 17361001         | 1       |
| Noweda                     | Triglycerides, medium-chain | 1801034-01       | 3       |
| Noweda                     | Triglycerides, medium-chain | 1805020-01       | 2       |

continued on the next page



continued from previous page

| Supplier                   | Substance                   | Batch            | Spectra |
|----------------------------|-----------------------------|------------------|---------|
| Noweda                     | Triglycerides, medium-chain | 18118801         | 1       |
| Noweda                     | Triglycerides, medium-chain | 1812014-01       | 4       |
| Noweda                     | Triglycerides, medium-chain | 181217           | 1       |
| Noweda                     | Triglycerides, medium-chain | 18238901         | 1       |
| Noweda                     | Triglycerides, medium-chain | 18239003         | 3       |
| Noweda                     | Triglycerides, medium-chain | 18239004         | 1       |
| Noweda                     | Triglycerides, medium-chain | 18A19-B04-525800 | 1       |
| Noweda                     | Triglycerides, medium-chain | 18G13-B01-525948 | 1       |
| Noweda                     | Triglycerides, medium-chain | 18G13-B01-525975 | 2       |
| Noweda                     | Triglycerides, medium-chain | 1902005-01       | 1       |
| Noweda                     | Triglycerides, medium-chain | 1902005-02       | 2       |
| Noweda                     | Triglycerides, medium-chain | 19060004         | 1       |
| Noweda                     | Triglycerides, medium-chain | 192866002        | 1       |
| Noweda                     | Triglycerides, medium-chain | 192866008        | 2       |
| Noweda                     | Triglycerides, medium-chain | 19I30-F03        | 1       |
| Noweda                     | Triglycerides, medium-chain | 20003585005002   | 1       |
| Noweda                     | Triglycerides, medium-chain | 2002001-01       | 1       |
| Noweda                     | Triglycerides, medium-chain | 2005031-01       | 1       |
| Noweda                     | Triglycerides, medium-chain | 2007018-01       | 2       |
| Noweda                     | Triglycerides, medium-chain | 4902005-02       | 1       |
| Noweda                     | Triglycerides, medium-chain | 81147353         | 1       |
| Noweda_18.01.2020          | Triglycerides, medium-chain | 18G13-B01-526039 | 1       |
| Oleo GmbH                  | Triglycerides, medium-chain | 20J20-F01-526445 | 2       |
| Phagron GmbH / Anzag       | Triglycerides, medium-chain | 12K07-N22        | 1       |
| Pharimex                   | Triglycerides, medium-chain | 75316            | 2       |
| Pharmachem GmbH            | Triglycerides, medium-chain | 105041           | 1       |
| Pharmachem/Phoenix         | Triglycerides, medium-chain | 18118801         | 3       |
| Pharmachem                 | Triglycerides, medium-chain | 109952           | 2       |
| Pharmachem                 | Triglycerides, medium-chain | 1606035-02       | 2       |
| Pharmapol/Pharmapol        | Triglycerides, medium-chain | 245118           | 1       |
| Pharmapol                  | Triglycerides, medium-chain | 256401           | 1       |
| Phoenix / Bionorica        | Triglycerides, medium-chain | 1457670          | 2       |
| Phoenix Leipzig 05.09.2... | Triglycerides, medium-chain | 105039           | 1       |
| Phoenix Pharma             | Triglycerides, medium-chain | 129880           | 1       |
| Phoenix/Bionorica ethics   | Triglycerides, medium-chain | 139105           | 1       |
| Phoenix/Bionorica ethics   | Triglycerides, medium-chain | 145767           | 1       |
| Phoenix                    | Triglycerides, medium-chain | 123998           | 1       |
| Phoenix                    | Triglycerides, medium-chain | 125596           | 1       |
| Phoenix                    | Triglycerides, medium-chain | 13098601         | 1       |
| Phoenix                    | Triglycerides, medium-chain | 145768           | 2       |
| Phoenix                    | Triglycerides, medium-chain | 15139605         | 1       |
| Phoenix                    | Triglycerides, medium-chain | 153219           | 2       |
| Phoenix                    | Triglycerides, medium-chain | 15H03-B03-525271 | 1       |
| Phoenix                    | Triglycerides, medium-chain | 1606035-03       | 1       |
| Phoenix                    | Triglycerides, medium-chain | 17016007         | 1       |
| Phoenix                    | Triglycerides, medium-chain | 1709014-02       | 1       |
| Phoenix                    | Triglycerides, medium-chain | 1812014-01       | 2       |
| Phoenix                    | Triglycerides, medium-chain | 18239003         | 1       |
| Phoenix                    | Triglycerides, medium-chain | 18A19-B04-525713 | 2       |
| phoenix                    | Triglycerides, medium-chain | 19060004         | 1       |
| Phoenix                    | Triglycerides, medium-chain | 19060004         | 1       |
| Phoenix                    | Triglycerides, medium-chain | 192866008        | 1       |
| Phoenix                    | Triglycerides, medium-chain | 20003429001      | 1       |
| Phoenix                    | Triglycerides, medium-chain | 20003585002      | 1       |
| Phoenix                    | Triglycerides, medium-chain | 200112001        | 1       |
| Phoenix                    | Triglycerides, medium-chain | 3052             | 1       |
| Phoenix                    | Triglycerides, medium-chain | 3390             | 1       |
| Phönix 29.10.12            | Triglycerides, medium-chain | 12078604         | 1       |
| Phönix Gotha               | Triglycerides, medium-chain | 1205015-01       | 2       |
| Phönix Gotha               | Triglycerides, medium-chain | 1210002-01       | 2       |

continued on the next page

continued from previous page

| Supplier              | Substance                   | Batch            | Spectra |
|-----------------------|-----------------------------|------------------|---------|
| Phönix Gotha          | Triglycerides, medium-chain | 1302004-01       | 3       |
| Phönix Gotha          | Triglycerides, medium-chain | 1302004-02       | 1       |
| Phönix Gotha          | Triglycerides, medium-chain | 1411009-01       | 2       |
| Phönix Gotha          | Triglycerides, medium-chain | 1411009-02       | 1       |
| Phönix Gotha          | Triglycerides, medium-chain | 1504029-01       | 2       |
| Phönix Gotha          | Triglycerides, medium-chain | 1709014-01       | 1       |
| Phönix Pharma Einkauf | Triglycerides, medium-chain | 128843           | 2       |
| Phönix Pharma Einkauf | Triglycerides, medium-chain | 141603           | 6       |
| Phönix Pharma Einkauf | Triglycerides, medium-chain | 141604           | 3       |
| Phönix Pharma Einkauf | Triglycerides, medium-chain | 283811           | 2       |
| Phönix/Bionorica      | Triglycerides, medium-chain | 105042           | 1       |
| Phönix/Bionorica      | Triglycerides, medium-chain | 109949           | 2       |
| Phönix/Bionorica      | Triglycerides, medium-chain | 109950           | 3       |
| Phönix/Bionorica      | Triglycerides, medium-chain | 116646           | 1       |
| Phönix                | Triglycerides, medium-chain | 11320508         | 1       |
| Phönix                | Triglycerides, medium-chain | 116640           | 1       |
| Phönix                | Triglycerides, medium-chain | 1210002-01       | 2       |
| Phönix                | Triglycerides, medium-chain | 123015           | 2       |
| Phönix                | Triglycerides, medium-chain | 12356901         | 1       |
| Phönix                | Triglycerides, medium-chain | 123997           | 1       |
| Phönix                | Triglycerides, medium-chain | 123999           | 2       |
| Phönix                | Triglycerides, medium-chain | 125596           | 1       |
| Phönix                | Triglycerides, medium-chain | 125597           | 1       |
| Phönix                | Triglycerides, medium-chain | 127732           | 2       |
| Phönix                | Triglycerides, medium-chain | 128841           | 2       |
| Phönix                | Triglycerides, medium-chain | 128842           | 3       |
| Phönix                | Triglycerides, medium-chain | 128843           | 4       |
| Phönix                | Triglycerides, medium-chain | 129876           | 6       |
| Phönix                | Triglycerides, medium-chain | 129880           | 1       |
| Phönix                | Triglycerides, medium-chain | 1300204-01       | 1       |
| Phönix                | Triglycerides, medium-chain | 13177102         | 1       |
| Phönix                | Triglycerides, medium-chain | 131905           | 1       |
| Phönix                | Triglycerides, medium-chain | 132615           | 1       |
| Phönix                | Triglycerides, medium-chain | 135058           | 4       |
| Phönix                | Triglycerides, medium-chain | 139107           | 2       |
| Phönix                | Triglycerides, medium-chain | 141602           | 4       |
| Phönix                | Triglycerides, medium-chain | 141604           | 6       |
| Phönix                | Triglycerides, medium-chain | 142331           | 1       |
| Phönix                | Triglycerides, medium-chain | 153752           | 1       |
| PHÖNIX                | Triglycerides, medium-chain | 160041           | 1       |
| phönix                | Triglycerides, medium-chain | 1606035          | 1       |
| Phönix                | Triglycerides, medium-chain | 1606035-03       | 1       |
| Phönix                | Triglycerides, medium-chain | 16124304         | 1       |
| Phönix                | Triglycerides, medium-chain | 16H18-B01-331028 | 1       |
| Phönix                | Triglycerides, medium-chain | 180103401        | 1       |
| Phönix                | Triglycerides, medium-chain | 1801034-02       | 1       |
| Phönix                | Triglycerides, medium-chain | 1805020-01       | 1       |
| Phönix                | Triglycerides, medium-chain | 18118807         | 1       |
| Phönix                | Triglycerides, medium-chain | 1812014-01       | 1       |
| Phönix                | Triglycerides, medium-chain | 18238901         | 1       |
| Phönix                | Triglycerides, medium-chain | 18G13-B01-355309 | 1       |
| Phönix                | Triglycerides, medium-chain | 1902005-02       | 1       |
| Phönix                | Triglycerides, medium-chain | 192866003        | 2       |
| Phönix                | Triglycerides, medium-chain | 20003429001      | 2       |
| Phönix                | Triglycerides, medium-chain | 20003429008      | 1       |
| Phönix                | Triglycerides, medium-chain | 20003429009      | 1       |
| PHÖNIX                | Triglycerides, medium-chain | 20003429066      | 1       |
| Phönix                | Triglycerides, medium-chain | 2002001-01       | 1       |
| Phönix                | Triglycerides, medium-chain | 2007018-01       | 1       |
| Phönix                | Triglycerides, medium-chain | 3158             | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                   | Batch            | Spectra |
|----------------------------|-----------------------------|------------------|---------|
| PhytoComm                  | Triglycerides, medium-chain | 18118807         | 1       |
| Röntgen                    | Triglycerides, medium-chain | 1801034-01       | 1       |
| Röntgen                    | Triglycerides, medium-chain | 1902005-01       | 1       |
| Röntgen                    | Triglycerides, medium-chain | 2005031-01       | 1       |
| Sanacorp /Bionorica        | Triglycerides, medium-chain | 116640           | 2       |
| Sanacorp WE:27.09.17 ...   | Triglycerides, medium-chain | 107077           | 1       |
| Sanacorp/Bionorica ethics  | Triglycerides, medium-chain | 109949           | 1       |
| Sanacorp/Bionorica ethics  | Triglycerides, medium-chain | 116640           | 1       |
| Sanacorp/Bionorica ethics  | Triglycerides, medium-chain | 120017           | 1       |
| Sanacorp/Bionorica ethics  | Triglycerides, medium-chain | 123013           | 2       |
| Sanacorp/Bionorica Ethics  | Triglycerides, medium-chain | 83204            | 1       |
| Sanacorp/Bionorica Ethics  | Triglycerides, medium-chain | 95079            | 1       |
| Sanacorp/Bionorica Ethics  | Triglycerides, medium-chain | 98573            | 3       |
| Sanacorp/Bionorica         | Triglycerides, medium-chain | 109952           | 2       |
| Sanacorp/Bionorica         | Triglycerides, medium-chain | 123999           | 1       |
| Sanacorp/Bionorica         | Triglycerides, medium-chain | 128841           | 2       |
| Sanacorp                   | Triglycerides, medium-chain |                  | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 109950           | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 12078604         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 12256505         | 2       |
| Sanacorp                   | Triglycerides, medium-chain | 12356903         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 12356908         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 128842           | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 130502           | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 13177102         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 13348502         | 2       |
| Sanacorp                   | Triglycerides, medium-chain | 14219003         | 3       |
| Sanacorp                   | Triglycerides, medium-chain | 145765           | 1       |
| sanacorp                   | Triglycerides, medium-chain | 148242           | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 1504029          | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 1504029-02       | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 15139608         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 15272003         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 15379608         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 17016007         | 2       |
| Sanacorp                   | Triglycerides, medium-chain | 171209           | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 17361001         | 5       |
| Sanacorp                   | Triglycerides, medium-chain | 17361002         | 2       |
| Sanacorp                   | Triglycerides, medium-chain | 18118801         | 3       |
| Sanacorp                   | Triglycerides, medium-chain | 18118807         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 18118808         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 18238901         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 18238902         | 4       |
| Sanacorp                   | Triglycerides, medium-chain | 18239003         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 18G13-B01        | 4       |
| Sanacorp                   | Triglycerides, medium-chain | 18G13-B01-357639 | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 19060001         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 19060002         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 19060011         | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 192866002        | 2       |
| Sanacorp                   | Triglycerides, medium-chain | 192866005        | 1       |
| sanacorp                   | Triglycerides, medium-chain | 2007018-01       | 2       |
| Sanacorp                   | Triglycerides, medium-chain | 56/AKD3          | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 58/AKD4          | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 6/AKD12          | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 93574            | 1       |
| Sanacorp                   | Triglycerides, medium-chain | 98570            | 2       |
| Spangro 23.2.19            | Triglycerides, medium-chain | 17F16-B02-525622 | 1       |
| Spectrum Therapeutics G... | Triglycerides, medium-chain | 145767           | 1       |
| Spectrum Therapeutics G... | Triglycerides, medium-chain | 145768           | 2       |

continued on the next page

continued from previous page

| Supplier                   | Substance                   | Batch      | Spectra |
|----------------------------|-----------------------------|------------|---------|
| Spectrum Therapeutics G... | Triglycerides, medium-chain | 150935     | 1       |
| Spectrum Therapeutics G... | Triglycerides, medium-chain | 158325     | 1       |
| Spectrum Therapeutics N... | Triglycerides, medium-chain | 145766     | 2       |
| Spectrum therapeutics/ ... | Triglycerides, medium-chain | 158740     | 1       |
| Spectrum Therapeutics/ ... | Triglycerides, medium-chain | 145766     | 3       |
| Spectrum Therapeutics/ ... | Triglycerides, medium-chain | 161427     | 1       |
| Spectrum Therapeutics/G... | Triglycerides, medium-chain | 145766     | 1       |
| Spectrum Therapeutics/G... | Triglycerides, medium-chain | 153218     | 4       |
| Spectrum Therapeutics/N... | Triglycerides, medium-chain | 156356     | 1       |
| Spectrum Therapeutics/N... | Triglycerides, medium-chain | 157871     | 3       |
| Spectrum Therapeutics/S... | Triglycerides, medium-chain | 153219     | 1       |
| Spectrum Therapeutics/S... | Triglycerides, medium-chain | 145766     | 1       |
| Spectrum Therapeutics/S... | Triglycerides, medium-chain | 153220     | 2       |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 145765     | 2       |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 145766     | 5       |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 145768     | 2       |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 153218     | 5       |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 153219     | 30      |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 157871     | 4       |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 159423     | 1       |
| Spectrum Therapeutics      | Triglycerides, medium-chain | 161427     | 1       |
| spectrum therapeutics      | Triglycerides, medium-chain | 162121     | 1       |
| Spectrum über Phönix       | Triglycerides, medium-chain | 145765     | 1       |
| Spectrum                   | Triglycerides, medium-chain | 153219     | 2       |
| Spectrum                   | Triglycerides, medium-chain | 153220     | 5       |
| SpectrumTherapeutics/Ph... | Triglycerides, medium-chain | 145765     | 1       |
| SpectrumTherapeutics/Ph... | Triglycerides, medium-chain | 145766     | 2       |
| spectrumtherapeutics/Ph... | Triglycerides, medium-chain | 145768     | 1       |
| SpectrumTherapeutics/Ph... | Triglycerides, medium-chain | 153218     | 1       |
| spectrumTherapeutics       | Triglycerides, medium-chain | 145765     | 1       |
| spectrumTherapeutics       | Triglycerides, medium-chain | 145766     | 4       |
| SpectrumTherapeutics       | Triglycerides, medium-chain | 153220     | 1       |
| SpectrumTherapeutics       | Triglycerides, medium-chain | 159423     | 2       |
| SpectrumTherapeutics       | Triglycerides, medium-chain | 159426     | 1       |
| SpectrumTherapeutics       | Triglycerides, medium-chain | 159860     | 1       |
| SpectrumTherapeutics       | Triglycerides, medium-chain | 288005     | 1       |
| THC Noweda                 | Triglycerides, medium-chain | 141602     | 3       |
| THC Noweda                 | Triglycerides, medium-chain | VT150221-0 | 1       |
| THC Pharm / Phönix         | Triglycerides, medium-chain | 95083      | 1       |
| THC Pharm GmbH             | Triglycerides, medium-chain | 105040     | 1       |
| THC Pharm GmbH             | Triglycerides, medium-chain | 105041     | 2       |
| THC Pharm GmbH             | Triglycerides, medium-chain | 105043     | 1       |
| THC Pharm GmbH             | Triglycerides, medium-chain | 116690     | 2       |
| THC Pharm GmbH             | Triglycerides, medium-chain | 127733     | 2       |
| THC Pharm/ Noweda          | Triglycerides, medium-chain | 116637     | 1       |
| THC Pharm/ Noweda          | Triglycerides, medium-chain | 116644     | 1       |
| THC Pharm/ Noweda          | Triglycerides, medium-chain | 123998     | 1       |
| THC Pharm/Alliance         | Triglycerides, medium-chain | 109948     | 3       |
| THC PHarm/Bionorica        | Triglycerides, medium-chain | 109949     | 1       |
| THC PHarm/Bionorica        | Triglycerides, medium-chain | 116691     | 3       |
| THC PHarm/Bionorica        | Triglycerides, medium-chain | 127733     | 2       |
| THC Pharm/Gehe             | Triglycerides, medium-chain | 128840     | 1       |
| THC Pharm/Gehe             | Triglycerides, medium-chain | 129877     | 1       |
| THC Pharm/Gehe             | Triglycerides, medium-chain | 135057     | 3       |
| THC Pharm/Phoenix          | Triglycerides, medium-chain | 116644     | 1       |
| THC Pharm/Phoenix          | Triglycerides, medium-chain | 116690     | 1       |
| THC Pharm/Phoenix          | Triglycerides, medium-chain | 123998     | 1       |
| THC pharm/Sanacorp         | Triglycerides, medium-chain | 141602     | 1       |
| THC pharm/Sanacorp         | Triglycerides, medium-chain | 141603     | 3       |
| THC Pharm/Sanacorp         | Triglycerides, medium-chain | 91714      | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                   | Batch       | Spectra |
|----------------------------|-----------------------------|-------------|---------|
| THC Pharm                  | Triglycerides, medium-chain |             | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 105044      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 116637      | 2       |
| THC Pharm                  | Triglycerides, medium-chain | 116644      | 1       |
| THC PHARM                  | Triglycerides, medium-chain | 116644      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 116691      | 3       |
| THC Pharm                  | Triglycerides, medium-chain | 11690       | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 123998      | 2       |
| THC Pharm                  | Triglycerides, medium-chain | 125595      | 2       |
| THC Pharm                  | Triglycerides, medium-chain | 127733      | 2       |
| THC Pharm                  | Triglycerides, medium-chain | 128840      | 3       |
| THC Pharm                  | Triglycerides, medium-chain | 129877      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 135057      | 3       |
| THC Pharm                  | Triglycerides, medium-chain | 139107      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 141602      | 3       |
| THC Pharm                  | Triglycerides, medium-chain | 141604      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 195057      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 250696      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 266724      | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 93571       | 1       |
| THC Pharm                  | Triglycerides, medium-chain | 93573       | 2       |
| THC Pharm                  | Triglycerides, medium-chain | F12-3661800 | 1       |
| THC Pharm                  | Triglycerides, medium-chain | VT091219-0  | 1       |
| THC Pharma / Alliance H... | Triglycerides, medium-chain | 93566       | 1       |
| THC Pharma / Alliance H... | Triglycerides, medium-chain | 109953      | 1       |
| THC Pharma / Phoenix       | Triglycerides, medium-chain | 127733      | 3       |
| THC Pharma / Phönix        | Triglycerides, medium-chain | 109948      | 1       |
| THC Pharma / Phönix        | Triglycerides, medium-chain | 116690      | 4       |
| THC Pharma CPM/Phönix      | Triglycerides, medium-chain | 105043      | 4       |
| THC Pharma/ AHD            | Triglycerides, medium-chain | 127733      | 1       |
| THC Pharma/ Alliance He... | Triglycerides, medium-chain | 116690      | 1       |
| THC Pharma/ Anzag          | Triglycerides, medium-chain | 116644      | 1       |
| THC Pharma/ Gehe           | Triglycerides, medium-chain | 116637      | 1       |
| THC Pharma/ Gehe           | Triglycerides, medium-chain | 116644      | 2       |
| THC Pharma/ gehe           | Triglycerides, medium-chain | 116690      | 1       |
| THC Pharma/ Phönix         | Triglycerides, medium-chain | 105041      | 3       |
| Thc Pharma/ Spangro        | Triglycerides, medium-chain | 125595      | 1       |
| Thc Pharma/ Spangro        | Triglycerides, medium-chain | 135057      | 1       |
| Thc Pharma/ Spangro        | Triglycerides, medium-chain | 266724      | 1       |
| THC Pharma/Gehe            | Triglycerides, medium-chain | 105041      | 1       |
| THC Pharma/Gehe            | Triglycerides, medium-chain | 105043      | 1       |
| THC Pharma/Gehe            | Triglycerides, medium-chain | 116644      | 1       |
| THC Pharma/Gehe            | Triglycerides, medium-chain | 11669105/20 | 1       |
| THC Pharma/Kehr            | Triglycerides, medium-chain | 129877      | 3       |
| THC Pharma/Kehr            | Triglycerides, medium-chain | 135057      | 1       |
| THC Pharma/Kehr            | Triglycerides, medium-chain | 139374      | 2       |
| THC Pharma/Kehr            | Triglycerides, medium-chain | VT050819-0  | 2       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | 105043      | 1       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | 125595      | 6       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | 2014030260  | 1       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | 2015070139  | 1       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | 266724      | 1       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | 93573       | 1       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | VT230419-0  | 1       |
| THC Pharma/Noweda          | Triglycerides, medium-chain | VT2304-19-0 | 1       |
| THC Pharma/Phoenix         | Triglycerides, medium-chain | VT200418    | 1       |
| THC Pharma/Phoenix         | Triglycerides, medium-chain | VT280918-1  | 1       |
| THC Pharma/Phönix          | Triglycerides, medium-chain |             | 1       |
| THC Pharma/Phönix          | Triglycerides, medium-chain | 128840      | 2       |
| THC Pharma/Phönix          | Triglycerides, medium-chain | 85533       | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance                   | Batch      | Spectra |
|----------------------------|-----------------------------|------------|---------|
| THC Pharma/Phönix          | Triglycerides, medium-chain | 90059      | 2       |
| THC Pharma/Phönix          | Triglycerides, medium-chain | 93571      | 1       |
| THC Pharma/Sanacorp        | Triglycerides, medium-chain | 93572      | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 105040     | 2       |
| THC Pharma                 | Triglycerides, medium-chain | 105041     | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 105042     | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 105043     | 8       |
| THC Pharma                 | Triglycerides, medium-chain | 105044     | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 109948     | 2       |
| THC Pharma                 | Triglycerides, medium-chain | 116637     | 2       |
| THC Pharma                 | Triglycerides, medium-chain | 116690     | 5       |
| THC Pharma                 | Triglycerides, medium-chain | 123998     | 5       |
| THC Pharma                 | Triglycerides, medium-chain | 127733     | 9       |
| THC Pharma                 | Triglycerides, medium-chain | 128840     | 2       |
| THC Pharma                 | Triglycerides, medium-chain | 139107     | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 141602     | 2       |
| THC Pharma                 | Triglycerides, medium-chain | 145766     | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 161123     | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 2012050379 | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 91714      | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 93573      | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 98570      | 1       |
| THC Pharma                 | Triglycerides, medium-chain | 98572      | 2       |
| THC Rezeptur-Set           | Triglycerides, medium-chain | 95084      | 2       |
| THC/ Anzag                 | Triglycerides, medium-chain | 123998     | 1       |
| THC/ Anzag                 | Triglycerides, medium-chain | 125595     | 5       |
| THC/ Anzag                 | Triglycerides, medium-chain | 127733     | 3       |
| THC/ Anzag                 | Triglycerides, medium-chain | 128840     | 1       |
| THC/ Anzag                 | Triglycerides, medium-chain | 135057     | 1       |
| THC/ Anzag                 | Triglycerides, medium-chain | 257537     | 1       |
| THC/ KEHR                  | Triglycerides, medium-chain | 116637     | 1       |
| THC/ Noweda                | Triglycerides, medium-chain | 116637     | 2       |
| THC/ Noweda                | Triglycerides, medium-chain | 127733     | 1       |
| THC/ Noweda                | Triglycerides, medium-chain | 141602     | 7       |
| THC/ Noweda                | Triglycerides, medium-chain | 283811     | 1       |
| THC/ Phönix Pharma Eink... | Triglycerides, medium-chain | 132615     | 6       |
| THC/AEP                    | Triglycerides, medium-chain | 116644     | 1       |
| THC/AEP                    | Triglycerides, medium-chain | 125595     | 1       |
| THC/AEP                    | Triglycerides, medium-chain | 12595      | 1       |
| THC/AHD                    | Triglycerides, medium-chain | 125595     | 1       |
| THC/Gehe                   | Triglycerides, medium-chain | 105041     | 2       |
| THC/Gehe                   | Triglycerides, medium-chain | 105042     | 13      |
| THC/Gehe                   | Triglycerides, medium-chain | 105043     | 11      |
| THC/Gehe                   | Triglycerides, medium-chain | 105044     | 1       |
| THC/Gehe                   | Triglycerides, medium-chain | 109948     | 2       |
| THC/Gehe                   | Triglycerides, medium-chain | 116690     | 1       |
| THC/Gehe                   | Triglycerides, medium-chain | 15057      | 1       |
| THC/Gehe                   | Triglycerides, medium-chain | 250696     | 1       |
| THC/Gehe                   | Triglycerides, medium-chain | 98572      | 1       |
| THC/Gehe                   | Triglycerides, medium-chain | VT131217-1 | 1       |
| THC/Gehe                   | Triglycerides, medium-chain | VT281117-2 | 1       |
| THC/Noweda                 | Triglycerides, medium-chain | 105040     | 8       |
| THC/Noweda                 | Triglycerides, medium-chain | 105042     | 1       |
| THC/Noweda                 | Triglycerides, medium-chain | 116644     | 2       |
| THC/Noweda                 | Triglycerides, medium-chain | 116691     | 2       |
| THC/Noweda                 | Triglycerides, medium-chain | 123998     | 3       |
| THC/Noweda                 | Triglycerides, medium-chain | 125595     | 2       |
| THC/Noweda                 | Triglycerides, medium-chain | 127733     | 5       |
| THC/Noweda                 | Triglycerides, medium-chain | 128840     | 1       |
| THC/Noweda                 | Triglycerides, medium-chain | 135057     | 3       |

continued on the next page

continued from previous page

| Supplier            | Substance                   | Batch                | Spectra |
|---------------------|-----------------------------|----------------------|---------|
| THC/Noweda          | Triglycerides, medium-chain | 139107               | 2       |
| THC/Noweda          | Triglycerides, medium-chain | 251649               | 2       |
| THC/Noweda          | Triglycerides, medium-chain | 275765/0000288005    | 1       |
| THC/Noweda          | Triglycerides, medium-chain | 93570                | 1       |
| THC/Noweda          | Triglycerides, medium-chain | VT050819-0           | 2       |
| THC/Noweda          | Triglycerides, medium-chain | VT070920-0           | 1       |
| THC/Noweda          | Triglycerides, medium-chain | VT091219-0           | 1       |
| THC/Noweda          | Triglycerides, medium-chain | VT140219-1           | 1       |
| THC/Noweda          | Triglycerides, medium-chain | VT200520-00000141602 | 1       |
| THC/Phoenix         | Triglycerides, medium-chain | 123998               | 1       |
| THC/phönix          | Triglycerides, medium-chain | 116644               | 3       |
| THC/Phönix          | Triglycerides, medium-chain | 116644               | 1       |
| THC/Phönix          | Triglycerides, medium-chain | 116690               | 1       |
| THC/Phönix          | Triglycerides, medium-chain | 135056               | 5       |
| THC/Phönix          | Triglycerides, medium-chain | 2014030260           | 2       |
| THC/Phönix          | Triglycerides, medium-chain | 95084                | 1       |
| THC/Sana            | Triglycerides, medium-chain | 2015070139           | 2       |
| THC                 | Triglycerides, medium-chain | 105040               | 1       |
| THC                 | Triglycerides, medium-chain | 105041               | 3       |
| THC                 | Triglycerides, medium-chain | 105043               | 3       |
| THc                 | Triglycerides, medium-chain | 109948               | 2       |
| THC                 | Triglycerides, medium-chain | 116690               | 1       |
| THC                 | Triglycerides, medium-chain | 123998               | 2       |
| THC                 | Triglycerides, medium-chain | 125595               | 4       |
| THC                 | Triglycerides, medium-chain | 128840               | 2       |
| THC                 | Triglycerides, medium-chain | 135057               | 2       |
| THC                 | Triglycerides, medium-chain | 139107               | 1       |
| THC                 | Triglycerides, medium-chain | 141602               | 2       |
| THC                 | Triglycerides, medium-chain | 141603               | 1       |
| THC                 | Triglycerides, medium-chain | 180522PMT0000105043  | 1       |
| THC                 | Triglycerides, medium-chain | 95083                | 1       |
| THC                 | Triglycerides, medium-chain | VT050819-0           | 1       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 125595               | 2       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 129877               | 2       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 135057               | 5       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 139107               | 3       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 141602               | 5       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 141603               | 10      |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 145765               | 1       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 257537               | 1       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | 283811               | 4       |
| THC_PHARM/Noweda    | Triglycerides, medium-chain | VW100920-1           | 1       |
| THC_PHARMA/Noweda   | Triglycerides, medium-chain | 116637               | 1       |
| THC-Ph -Noweda      | Triglycerides, medium-chain | 123998               | 1       |
| THCPH/ Gehe         | Triglycerides, medium-chain | 129877               | 3       |
| THCPH/ Noweda       | Triglycerides, medium-chain | 127799               | 1       |
| THCPH/ Noweda       | Triglycerides, medium-chain | 135057               | 7       |
| THCPH/ Noweda       | Triglycerides, medium-chain | 139107               | 2       |
| THCPH/ Noweda       | Triglycerides, medium-chain | VT200520-0           | 1       |
| THCPH/ Phoenix      | Triglycerides, medium-chain | 123998               | 1       |
| THCPH/ Phoenix      | Triglycerides, medium-chain | 125595               | 3       |
| THCPH/ Phoenix      | Triglycerides, medium-chain | 127733               | 2       |
| THCPH/ Phoenix      | Triglycerides, medium-chain | 128840               | 1       |
| THC-Pharm GmbH      | Triglycerides, medium-chain | 105042               | 1       |
| THC-Pharm GmbH      | Triglycerides, medium-chain | 105043               | 2       |
| THCPharm/Gehe       | Triglycerides, medium-chain | 125595               | 3       |
| THCPharm/Noweda     | Triglycerides, medium-chain | 250696               | 3       |
| THC-Pharma/Sanacorp | Triglycerides, medium-chain | 105040               | 1       |
| THC-Pharma          | Triglycerides, medium-chain | 105040               | 1       |
| THC-Pharma          | Triglycerides, medium-chain | 105042               | 1       |

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| Supplier                | Substance                   | Batch       | Spectra |
|-------------------------|-----------------------------|-------------|---------|
| THC-Pharma              | Triglycerides, medium-chain | 107077      | 1       |
| THC-Pharma              | Triglycerides, medium-chain | 109948      | 3       |
| THC-Pharma              | Triglycerides, medium-chain | 116644      | 2       |
| THC-Pharma              | Triglycerides, medium-chain | 116690      | 3       |
| THC-Pharma              | Triglycerides, medium-chain | 123998      | 6       |
| THC-Pharma              | Triglycerides, medium-chain | 125595      | 4       |
| THC-Pharma              | Triglycerides, medium-chain | 127733      | 1       |
| THC-Pharma              | Triglycerides, medium-chain | 129877      | 2       |
| THC-Pharma              | Triglycerides, medium-chain | 135057      | 2       |
| THC-Pharma              | Triglycerides, medium-chain | 141603      | 2       |
| THC-Pharma              | Triglycerides, medium-chain | 14602       | 1       |
| THC-Pharma              | Triglycerides, medium-chain | 16690       | 1       |
| THC-Pharma              | Triglycerides, medium-chain | 266724      | 1       |
| THC-Pharma              | Triglycerides, medium-chain | 93570       | 1       |
| THC-Pharma              | Triglycerides, medium-chain | 93572       | 1       |
| THC-Pharma              | Triglycerides, medium-chain | 95084       | 1       |
| THC-Pharma              | Triglycerides, medium-chain | VT021018-3  | 1       |
| THC-Pharma              | Triglycerides, medium-chain | VT150518-1  | 1       |
| Tilray Deutschland GmbH | Triglycerides, medium-chain | N0000009663 | 4       |
| Tilray Deutschland GmbH | Triglycerides, medium-chain | N0000009664 | 2       |
| Vertical/ noweda        | Triglycerides, medium-chain | 1500        | 1       |
| WE:05.04.2016 Sanacorp  | Triglycerides, medium-chain | 15272006    | 1       |
| Wepa/DHL                | Triglycerides, medium-chain | 128361      | 1       |

- 281 166 spectra from 1294 *Apo-Ident* customers from a total of 50 985 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Triglycerides, medium-chain* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Triglycerides, medium-chain* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 400           | 0              | 66 759        |
| <b>Type B</b> | 0              | 970           | 0              | 106 343       |
| <b>Type C</b> | 0              | 7514          | 29             | 281 166       |

The substance/substance group *Triglycerides, medium-chain* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.5000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.3814 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 99.6155 % (> 99.5758 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Triglycerides, medium-chain* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                             | Distance in<br>main model | Distance in<br>second-stage model |
|---------------------------------------|---------------------------|-----------------------------------|
| 2-ethylhexyl laurate                  | 20.15                     | —                                 |
| Squalane                              | 20.54                     | —                                 |
| Laurel oil                            | 31.26                     | —                                 |
| Wool fat                              | 32.77                     | —                                 |
| Soy lecithin, liquid                  | 34.16                     | —                                 |
| Guaiaculene 25%, water-soluble        | 36.74                     | —                                 |
| Wheatgerm oil, refined                | 38.33                     | —                                 |
| Shea butter, refined                  | 40.07                     | —                                 |
| Pasta Cordes®                         | 40.91                     | —                                 |
| Peanut oil, refined                   | 40.98                     | —                                 |
| Isopropyl myristate                   | 41.67                     | —                                 |
| Sunflower oil, refined                | 42.60                     | —                                 |
| Apricot kernel oil, refined           | 43.08                     | —                                 |
| Sorbitan trioleate                    | 43.91                     | —                                 |
| Camphor ointment                      | 44.56                     | —                                 |
| Petroleum oil, not for internal use   | 44.86                     | —                                 |
| Rapeseed oil, refined                 | 44.90                     | —                                 |
| Grape seed oil, refined               | 45.56                     | —                                 |
| Sesame oil, refined                   | 45.61                     | —                                 |
| Corn oil, refined                     | 47.05                     | —                                 |
| Soy oil, refined                      | 48.58                     | —                                 |
| Metronidazole 25% in white petrolatum | 49.50                     | —                                 |
| Isopropyl palmitate                   | 50.18                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Triglycerides, medium-chain* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 31483     | 31483                  | 0.00                            | 20.38                              |
| 31484     | 31804                  | 1.94                            | 17.75                              |
| 31485     | 31804                  | 2.12                            | 17.48                              |
| 31771     | 31771                  | 0.00                            | 18.96                              |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31804            | 31804                      | 0.00                                | 16.89                                  |
| 31955            | 31955                      | 0.00                                | 17.68                                  |
| 34674            | 31804                      | 1.99                                | 15.73                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Triglycerol diisostearate**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30756-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Triglycerol diisostearate; Triglyceroli diisostearas

### Special notes

When selecting the *Triglycerol diisostearate* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Triglycerol diisostearate | 4      | 4      | 65     |

## Second-stage model

For differentiation of the substance/substance group *Triglycerol diisostearate* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Triglycerol diisostearate*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Triglycerol diis... | 12018503 | 30756     | 40      | 20120201    |
| Caelo    | Triglycerol diis... | 13081002 | 31219     | 40      | 1403749     |
| Caelo    | Triglycerol diis... | 14118801 | 31338     | 40      | 20140425    |
| Caelo    | Triglycerol diis... | 20001275 | 35014     | 40      | 20200513*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 160 spectra of 4 reference samples from the substance/substance group *Triglycerol diisostearate*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 999 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 160 spectra of 4 reference samples from the substance/substance group *Triglycerol diisostearate*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance                 | Batch       | Sample ID | Spectra |
|----------|---------------------------|-------------|-----------|---------|
| Caelo    | Triglycerol diisostearate | 163311      | 33094     | 40      |
| Caelo    | Triglycerol diisostearate | 180592      | 34073     | 40      |
| Caelo    | Triglycerol diisostearate | 20001286    | 34999     | 40      |
| Caelo    | Triglycerol diisostearate | 21001126010 | 36052     | 40      |

- 107 203 spectra from a total of 2497 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 495 spectra from 258 *Apo-Ident* customers from 68 batches from the substance/substance group *Triglycerol diisostearate*.
- Among them are spectra of independent samples from 65 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier            | Substance                 | Batch      | Spectra |
|---------------------|---------------------------|------------|---------|
| Alliance Healthcare | Triglycerol diisostearate | 18059207   | 1       |
| Audor Pharma        | Triglycerol diisostearate | 14118801   | 1       |
| Audor Pharma        | Triglycerol diisostearate | 916I-03496 | 1       |
| Bombastus           | Triglycerol diisostearate | 15283405   | 1       |
| Bombastus           | Triglycerol diisostearate | 18059201   | 1       |
| Caelo               | Triglycerol diisostearate | 11074801   | 1       |
| Caelo               | Triglycerol diisostearate | 11162902   | 1       |
| Caelo               | Triglycerol diisostearate | 12018501   | 2       |
| Caelo               | Triglycerol diisostearate | 12018503   | 3       |
| Caelo               | Triglycerol diisostearate | 12133303   | 5       |
| Caelo               | Triglycerol diisostearate | 12359401   | 3       |
| Caelo               | Triglycerol diisostearate | 12359405   | 7       |
| Caelo               | Triglycerol diisostearate | 13081002   | 4       |
| Caelo               | Triglycerol diisostearate | 13236704   | 8       |
| Caelo               | Triglycerol diisostearate | 13399003   | 7       |
| Caelo               | Triglycerol diisostearate | 14054802   | 2       |
| Caelo               | Triglycerol diisostearate | 14118801   | 10      |
| Caelo               | Triglycerol diisostearate | 14118804   | 2       |
| Caelo               | Triglycerol diisostearate | 14193003   | 5       |
| Caelo               | Triglycerol diisostearate | 14193008   | 7       |
| Caelo               | Triglycerol diisostearate | 14380504   | 11      |
| Caelo               | Triglycerol diisostearate | 151375     | 1       |
| Caelo               | Triglycerol diisostearate | 15137505   | 15      |
| Caelo               | Triglycerol diisostearate | 15283401   | 1       |
| Caelo               | Triglycerol diisostearate | 15283402   | 9       |
| Caelo               | Triglycerol diisostearate | 15283403   | 1       |
| Caelo               | Triglycerol diisostearate | 15283404   | 12      |
| Caelo               | Triglycerol diisostearate | 15283405   | 5       |
| Caelo               | Triglycerol diisostearate | 15283406   | 2       |
| Caelo               | Triglycerol diisostearate | 152835405  | 1       |
| Caelo               | Triglycerol diisostearate | 16062502   | 29      |
| Caelo               | Triglycerol diisostearate | 16179202   | 1       |
| Caelo               | Triglycerol diisostearate | 16179205   | 3       |
| Caelo               | Triglycerol diisostearate | 16179207   | 1       |

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| Supplier                   | Substance                 | Batch               | Spectra |
|----------------------------|---------------------------|---------------------|---------|
| Caelo                      | Triglycerol diisostearate | 163311001           | 1       |
| Caelo                      | Triglycerol diisostearate | 16331101            | 30      |
| Caelo                      | Triglycerol diisostearate | 16331102            | 1       |
| Caelo                      | Triglycerol diisostearate | 16331103            | 21      |
| Caelo                      | Triglycerol diisostearate | 16331107            | 7       |
| Caelo                      | Triglycerol diisostearate | 18059201            | 42      |
| Caelo                      | Triglycerol diisostearate | 18059202            | 1       |
| Caelo                      | Triglycerol diisostearate | 18059207            | 24      |
| Caelo                      | Triglycerol diisostearate | 18059208            | 1       |
| Caelo                      | Triglycerol diisostearate | 18183802            | 15      |
| Caelo                      | Triglycerol diisostearate | 18183806            | 5       |
| Caelo                      | Triglycerol diisostearate | 18183807            | 2       |
| Caelo                      | Triglycerol diisostearate | 1859201             | 1       |
| Caelo                      | Triglycerol diisostearate | 1883802             | 1       |
| Caelo                      | Triglycerol diisostearate | 19138901            | 18      |
| Caelo                      | Triglycerol diisostearate | 19138902            | 7       |
| Caelo                      | Triglycerol diisostearate | 19138909            | 1       |
| Caelo                      | Triglycerol diisostearate | 1913891             | 1       |
| Caelo                      | Triglycerol diisostearate | 19244203            | 1       |
| Caelo                      | Triglycerol diisostearate | 192744002           | 2       |
| Caelo                      | Triglycerol diisostearate | 192744003           | 24      |
| Caelo                      | Triglycerol diisostearate | 192744003P200319-14 | 1       |
| Caelo                      | Triglycerol diisostearate | 19274403            | 1       |
| Caelo                      | Triglycerol diisostearate | 2(18059201)         | 1       |
| Caelo                      | Triglycerol diisostearate | 20001275003         | 19      |
| Caelo                      | Triglycerol diisostearate | 20001275007         | 7       |
| Caelo                      | Triglycerol diisostearate | 20001275010         | 7       |
| Caelo                      | Triglycerol diisostearate | 20003894004         | 4       |
| Caelo                      | Triglycerol diisostearate | 21001126003         | 2       |
| Caelo                      | Triglycerol diisostearate | 21001126008         | 1       |
| Caelo                      | Triglycerol diisostearate | 21001126010         | 3       |
| Caelo                      | Triglycerol diisostearate | 27101713            | 1       |
| Caelo                      | Triglycerol diisostearate | 3296                | 1       |
| Caelo                      | Triglycerol diisostearate | 9082013A            | 1       |
| Caelo                      | Triglycerol diisostearate | 92744003            | 1       |
| Caesar & Lorenz GmbH       | Triglycerol diisostearate | 192744003           | 1       |
| Caesar & Loretz GmbH / ... | Triglycerol diisostearate | 16062502            | 1       |
| Caesar & Loretz GmbH / ... | Triglycerol diisostearate | 18183802            | 3       |
| Caesar & Loretz GmbH / ... | Triglycerol diisostearate | 19138901            | 1       |
| Caesar & Loretz GmbH/ P... | Triglycerol diisostearate | 19138901            | 1       |
| Caesar & Loretz GmbH/AHD   | Triglycerol diisostearate | 21001126010         | 1       |
| Caesar & Loretz GmbH/Ge... | Triglycerol diisostearate | 2000127510          | 1       |
| Caesar & Loretz GmbH/Kr... | Triglycerol diisostearate | 19138901            | 2       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 14054802            | 4       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 18183802            | 3       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 18183806            | 4       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 19138901            | 8       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 192744003           | 5       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 20001275003         | 2       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 20001275010         | 1       |
| Caesar & Loretz GmbH       | Triglycerol diisostearate | 21001126003         | 5       |
| Caesar & Loretz/Noweda     | Triglycerol diisostearate | 20001275007         | 1       |
| Caesar & Loretz            | Triglycerol diisostearate | 16331101            | 1       |
| Caesar & Loretz            | Triglycerol diisostearate | 18059201            | 1       |
| Caesar&Loretz GmbH         | Triglycerol diisostearate | 16331101            | 1       |
| Caesar/Noweda              | Triglycerol diisostearate | 15283404            | 1       |
| Cordes/Anzag               | Triglycerol diisostearate | 16331101            | 1       |
| Fagron                     | Triglycerol diisostearate | 14193003            | 1       |
| Gehe                       | Triglycerol diisostearate | 12359401            | 1       |
| Gehe                       | Triglycerol diisostearate | 14118801            | 2       |

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| Supplier    | Substance                 | Batch       | Spectra |
|-------------|---------------------------|-------------|---------|
| Gehe        | Triglycerol diisostearate | 16062502    | 1       |
| Gehe        | Triglycerol diisostearate | 16331101    | 1       |
| GEHE        | Triglycerol diisostearate | 18059201    | 1       |
| GUMO        | Triglycerol diisostearate | 192744003   | 1       |
| Nachprüfung | Triglycerol diisostearate | 3082019-5   | 1       |
| Noweda      | Triglycerol diisostearate | 14193008    | 1       |
| Noweda      | Triglycerol diisostearate | 14380504    | 1       |
| Noweda      | Triglycerol diisostearate | 20001275003 | 1       |
| Pala        | Triglycerol diisostearate | 1616E-03496 | 1       |
| Pala        | Triglycerol diisostearate | 192744003   | 1       |
| Phoenix     | Triglycerol diisostearate | 14054802    | 1       |
| Phoenix     | Triglycerol diisostearate | 15283405    | 1       |
| Phoenix     | Triglycerol diisostearate | 16331101    | 1       |
| Phoenix     | Triglycerol diisostearate | 18183806    | 1       |
| Phönix      | Triglycerol diisostearate | 16331103    | 1       |
| PHÖNIX      | Triglycerol diisostearate | 16331103    | 1       |
| Phonix      | Triglycerol diisostearate | 18059201    | 1       |
| Phönix      | Triglycerol diisostearate | 18059201    | 4       |
| Sanacorp    | Triglycerol diisostearate | 15137505    | 1       |

- 288 214 spectra from 1294 *Apo-Ident* customers from a total of 51 822 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Triglycerol diisostearate* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Triglycerol diisostearate* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 160           | 0              | 66 999        |
| <b>Type B</b> | 0              | 160           | 0              | 107 203       |
| <b>Type C</b> | 0              | 495           | 0              | 288 214       |

The substance/substance group *Triglycerol diisostearate* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 96.2500 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 96.2500 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 100.0000 % (> 98.7879 %) |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Triglycerol diisostearate* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                         | Distance in<br>main model | Distance in<br>second-stage model |
|-----------------------------------|---------------------------|-----------------------------------|
| Sorbitan- and glycerol monooleate | 24.18                     | —                                 |
| Castor oil, refined               | 33.54                     | —                                 |
| Softisan <sup>®</sup> 649         | 34.84                     | —                                 |
| Castor oil, virgin                | 34.95                     | —                                 |
| Cetiol <sup>®</sup> HE            | 40.38                     | —                                 |
| Macroglycerol ricinoleate         | 42.25                     | —                                 |
| Macrogol 4 lauryl ether           | 43.94                     | —                                 |
| Macrogol 8 stearate type I        | 44.04                     | —                                 |
| Hydrophilic ointment DAB          | 46.39                     | —                                 |
| Pasta Cordes <sup>®</sup>         | 50.91                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Triglycerol diisostearate* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30756     | 31219                  | 5.83                            | 33.02                              |
| 31219     | 31219                  | 0.00                            | 37.80                              |
| 31338     | 35014                  | 6.10                            | 37.19                              |
| 35014     | 35014                  | 0.00                            | 37.65                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Verbena oil, nature-identical**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30666-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Verbena oil, nature-identical

### Special notes

When selecting the *Verbena oil, nature-identical* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group     | Type A | Type B | Type C |
|-------------------------------|--------|--------|--------|
| Verbena oil, nature-identical | 5      | 2      | 4      |

## Second-stage model

For differentiation of the substance/substance group *Verbena oil, nature-identical* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Verbena oil, nature-identical*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate |
|----------|---------------------|----------|-----------|---------|-------------|
| Caelo    | Verbena oil, nat... | 10368808 | 30666     | 40      | 20101229    |
| Caelo    | Verbena oil, nat... | 13141710 | 31194     | 40      | 1412074     |
| Caelo    | Verbena oil, nat... | 14026003 | 31399     | 40      | 20140128    |
| Caelo    | Verbena oil, nat... | 15229809 | 32071     | 60      | 20150714    |
| Caelo    | Verbena oil, nat... | 192731   | 34720     | 40      | 20191004*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 220 spectra of 5 reference samples from the substance/substance group *Verbena oil, nature-identical*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 5 different batches.
- 66 939 spectra from a total of 1374 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Verbena oil, nature-identical*.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                     | Batch    | Sample ID | Spectra |
|----------|-------------------------------|----------|-----------|---------|
| Caelo    | Verbena oil, nature-identical | 16290903 | 33604     | 40      |
| Caelo    | Verbena oil, nature-identical | 172589   | 33906     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 5 spectra from 4 *Apo-Ident* customers from 4 batches from the substance/substance group *Verbena oil, nature-identical*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance                     | Batch    | Spectra |
|----------|-------------------------------|----------|---------|
| Caelo    | Verbena oil, nature-identical | 13141704 | 1       |
| Caelo    | Verbena oil, nature-identical | 15229812 | 1       |
| Caelo    | Verbena oil, nature-identical | 16290910 | 1       |
| Caelo    | Verbena oil, nature-identical | 17258901 | 2       |

- 288 704 spectra from 1294 *Apo-Ident* customers from a total of 51 884 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Verbena oil, nature-identical* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Verbena oil, nature-identical* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 220           | 0              | 66 939        |
| <b>Type B</b> | 0              | 80            | 0              | 107 283       |
| <b>Type C</b> | 0              | 5             | 0              | 288 704       |

The substance/substance group *Verbena oil, nature-identical* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.2727 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6888 %) | n/a (n/a)                |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Verbena oil, nature-identical* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Acorus oil                                | 31.39                     | —                                 |
| Geranium oil, genuine                     | 40.01                     | —                                 |
| Myrtle oil                                | 46.40                     | —                                 |
| Cedar wood oil                            | 46.87                     | —                                 |
| Dwarf pine oil                            | 49.54                     | —                                 |
| Matricaria oil, rich in (-)-alpha-bisa... | 50.21                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Verbena oil, nature-identical* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30666     | 31194                  | 2.38                            | 53.66                              |
| 31194     | 31194                  | 0.00                            | 57.05                              |
| 31399     | 31194                  | 3.36                            | 55.54                              |
| 32071     | 31194                  | 4.65                            | 54.18                              |
| 34720     | 34720                  | 0.00                            | 56.70                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Viscous base solution (NRF p. 20)</b>                         |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30659-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Viscous base solution (NRF p. 20)

### Special notes

When selecting the *Viscous base solution (NRF p. 20)* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group         | Type A | Type B | Type C |
|-----------------------------------|--------|--------|--------|
| Viscous base solution (NRF p. 20) | 14     | 79     | 565    |

## Second-stage model

For differentiation of the substance/substance group *Viscous base solution (NRF p. 20)* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Viscous base solution (NRF p. 20)*:

| Supplier | Substance           | Batch    | Sample ID | Spectra | Certificate        |
|----------|---------------------|----------|-----------|---------|--------------------|
| Caelo    | Viscous base sol... | 12127301 | 30659     | 40      | 1403145            |
| Caelo    | Viscous base sol... | 14020401 | 31354     | 60      | 20140124           |
| Caelo    | Viscous base sol... | 14109401 | 31658     | 60      | AR-15-FG-007904-01 |
| Caelo    | Viscous base sol... | 15265401 | 31790     | 60      | 20150825           |
| Caelo    | Viscous base sol... | 153888   | 31882     | 60      | 20151124*          |
| Caelo    | Viscous base sol... | 153888   | 31883     | 60      | 20151124*          |
| Caelo    | Viscous base sol... | 153888   | 31884     | 60      | 20151124*          |
| Caelo    | Viscous base sol... | 153889   | 31885     | 60      | 20151124*          |
| Caelo    | Viscous base sol... | 153889   | 31886     | 60      | 20151124*          |
| Caelo    | Viscous base sol... | 154121   | 31887     | 60      | 20151130*          |
| Caelo    | Viscous base sol... | 154121   | 31888     | 60      | 20151130*          |
| Caelo    | Viscous base sol... | 153890   | 31889     | 60      | 20151124*          |
| Caelo    | Viscous base sol... | 153890   | 31890     | 60      | 20151124*          |
| Caelo    | Viscous base sol... | 153894   | 31893     | 60      | 20151130*          |
| Caelo    | Viscous base sol... | 153894   | 31894     | 60      | 20151130*          |
| Caelo    | Viscous base sol... | 153895   | 31895     | 60      | 20151130*          |
| Caelo    | Viscous base sol... | 153895   | 31896     | 60      | 20151130*          |
| Caelo    | Viscous base sol... | 191924   | 34775     | 40      | 20190809*          |
| Caelo    | Viscous base sol... | 21000457 | 35483     | 40      | 20210305*          |
| Caelo    | Viscous base sol... | 21000461 | 35484     | 40      | 20210305*          |
| Caelo    | Viscous base sol... | 21004133 | 35975     | 40      | 20220120*          |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 1160 spectra of 21 reference samples from the substance/substance group *Viscous base solution (NRF p. 20)*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 14 different batches.
- 65 999 spectra from a total of 1365 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 3140 spectra of 81 reference samples from the substance/substance group *Viscous base solution (NRF p. 20)*.
- Among them are spectra of independent samples from 79 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch  | Sample ID | Spectra |
|----------|---------------------------------|--------|-----------|---------|
| Caelo    | Viscous base solution (NRF p... | 153892 | 31891     | 60      |
| Caelo    | Viscous base solution (NRF p... | 153893 | 31892     | 60      |
| Caelo    | Viscous base solution (NRF p... | 153896 | 31897     | 60      |
| Caelo    | Viscous base solution (NRF p... | 153897 | 31899     | 60      |
| Caelo    | Viscous base solution (NRF p... | 161076 | 32287     | 40      |
| Caelo    | Viscous base solution (NRF p... | 161089 | 32288     | 40      |
| Caelo    | Viscous base solution (NRF p... | 161090 | 32289     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162172 | 32356     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162173 | 32357     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162174 | 32358     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162175 | 32359     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162176 | 32360     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162297 | 32554     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162298 | 32555     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162299 | 32556     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162300 | 32557     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162301 | 32558     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162650 | 32559     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162651 | 32572     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162652 | 32573     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162653 | 32574     | 40      |
| Caelo    | Viscous base solution (NRF p... | 162655 | 32575     | 40      |
| Caelo    | Viscous base solution (NRF p... | 163153 | 32897     | 40      |
| Caelo    | Viscous base solution (NRF p... | 163152 | 32898     | 40      |
| Caelo    | Viscous base solution (NRF p... | 170176 | 33146     | 40      |
| Caelo    | Viscous base solution (NRF p... | 170177 | 33147     | 40      |
| Caelo    | Viscous base solution (NRF p... | 170178 | 33148     | 40      |
| Caelo    | Viscous base solution (NRF p... | 170179 | 33149     | 40      |
| Caelo    | Viscous base solution (NRF p... | 170180 | 33150     | 40      |
| Caelo    | Viscous base solution (NRF p... | 170239 | 33151     | 40      |
| Caelo    | Viscous base solution (NRF p... | 170240 | 33152     | 40      |
| Caelo    | Viscous base solution (NRF p... | 172319 | 33730     | 40      |
| Caelo    | Viscous base solution (NRF p... | 171940 | 33731     | 40      |
| Caelo    | Viscous base solution (NRF p... | 171941 | 33732     | 40      |
| Caelo    | Viscous base solution (NRF p... | 171942 | 33733     | 40      |
| Caelo    | Viscous base solution (NRF p... | 171943 | 33734     | 40      |
| Caelo    | Viscous base solution (NRF p... | 171944 | 33735     | 40      |
| Caelo    | Viscous base solution (NRF p... | 172892 | 33972     | 40      |
| Caelo    | Viscous base solution (NRF p... | 172895 | 33973     | 40      |
| Caelo    | Viscous base solution (NRF p... | 180306 | 34131     | 40      |
| Caelo    | Viscous base solution (NRF p... | 181240 | 34132     | 40      |
| Caelo    | Viscous base solution (NRF p... | 181242 | 34249     | 40      |
| Caelo    | Viscous base solution (NRF p... | 181244 | 34250     | 40      |

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| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Viscous base solution (NRF p... | 182684   | 34311     | 40      |
| Caelo    | Viscous base solution (NRF p... | 192231   | 34776     | 40      |
| Caelo    | Viscous base solution (NRF p... | 20000004 | 34986     | 40      |
| Caelo    | Viscous base solution (NRF p... | 20001919 | 35116     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000463 | 35307     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000462 | 35308     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000680 | 35309     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000458 | 35310     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000460 | 35311     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000466 | 35312     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000456 | 35482     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000464 | 35485     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21000465 | 35486     | 40      |
| Caelo    | Viscous base solution (NRF p... | 21001316 | 35542     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21001317 | 35543     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002611 | 35797     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002612 | 35798     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002613 | 35799     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002614 | 35800     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002616 | 35801     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002617 | 35802     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002618 | 35803     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002619 | 35804     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21002883 | 35805     | 50      |
| Caelo    | Viscous base solution (NRF p... | 21004134 | 35976     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004135 | 35977     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004136 | 35978     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004137 | 35979     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004138 | 35980     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004139 | 35981     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004140 | 35982     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004141 | 35983     | 10      |
| Caelo    | Viscous base solution (NRF p... | 21004142 | 35984     | 10      |
| Caelo    | Viscous base solution (NRF p... | 22000614 | 36145     | 40      |
| Caelo    | Viscous base solution (NRF p... | 22000615 | 36146     | 10      |
| Caelo    | Viscous base solution (NRF p... | 22000616 | 36147     | 10      |
| Caelo    | Viscous base solution (NRF p... | 153896   | 31898     | 60      |
| Caelo    | Viscous base solution (NRF p... | 153897   | 31900     | 60      |

- 104 223 spectra from a total of 2422 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 2002 spectra from 217 *Apo-Ident* customers from 570 batches from the substance/substance group *Viscous base solution (NRF p. 20)*.
- Among them are spectra of independent samples from 565 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Aliance am 08.04.2014      | Viscous base solution (NRF p... | 1306F002    | 1       |
| Alliance Health 21.02.2... | Viscous base solution (NRF p... | 13229502    | 2       |
| Alliance Health.18.09.2... | Viscous base solution (NRF p... | 14109901    | 1       |
| Alliance Healthcare        | Viscous base solution (NRF p... | 20000004002 | 1       |
| Anzag                      | Viscous base solution (NRF p... | 13158201    | 2       |
| Anzag                      | Viscous base solution (NRF p... | 17098401    | 2       |
| apomix                     | Viscous base solution (NRF p... | 12309201    | 1       |
| apomix                     | Viscous base solution (NRF p... | 13229501    | 1       |
| apomix                     | Viscous base solution (NRF p... | 16217601    | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 160818001   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 160818002   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190409002   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190409003   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190430001   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190507001   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190507002   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190520001   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190520002   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190625001   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190625004   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190709001   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190709002   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190903003   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190903005   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190924001   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 190924002   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 191121003   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 191219003   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 191219004   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 200123004   | 1       |
| Bahnhof Apotheke           | Viscous base solution (NRF p... | 200123005   | 1       |
| Bahnhof-Apotheke           | Viscous base solution (NRF p... | 160823001   | 1       |
| Bahnhof-Apotheke           | Viscous base solution (NRF p... | 160825001   | 1       |
| Bahnhof-Apotheke           | Viscous base solution (NRF p... | 160825002   | 1       |
| Bahnhof-Apotheke           | Viscous base solution (NRF p... | 190314003   | 1       |
| Bahnhof-Apotheke           | Viscous base solution (NRF p... | 190314004   | 1       |
| Bahnhof-Apotheke           | Viscous base solution (NRF p... | 190806001   | 1       |
| Bahnhof-Apotheke           | Viscous base solution (NRF p... | 190806002   | 1       |
| Bombastus                  | Viscous base solution (NRF p... | 15265501    | 1       |
| Caelo                      | Viscous base solution (NRF p... |             | 2       |
| Caelo                      | Viscous base solution (NRF p... | 10000008001 | 1       |
| Caelo                      | Viscous base solution (NRF p... | 10006800022 | 1       |
| Caelo                      | Viscous base solution (NRF p... | 1071501     | 1       |
| Caelo                      | Viscous base solution (NRF p... | 11031709    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 11140501    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 11176401    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12019001    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12019002    | 2       |
| Caelo                      | Viscous base solution (NRF p... | 12093701    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12093801    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12093901    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12094101    | 2       |
| Caelo                      | Viscous base solution (NRF p... | 12127301    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12127501    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12127601    | 2       |
| Caelo                      | Viscous base solution (NRF p... | 12231002    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12231101    | 5       |
| Caelo                      | Viscous base solution (NRF p... | 12231201    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12249801    | 1       |
| Caelo                      | Viscous base solution (NRF p... | 12249901    | 3       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Caelo           | Viscous base solution (NRF p... | 1224991      | 1              |
| Caelo           | Viscous base solution (NRF p... | 12309101     | 11             |
| Caelo           | Viscous base solution (NRF p... | 12309201     | 6              |
| Caelo           | Viscous base solution (NRF p... | 12309202     | 3              |
| Caelo           | Viscous base solution (NRF p... | 13006001     | 3              |
| Caelo           | Viscous base solution (NRF p... | 13006201     | 3              |
| Caelo           | Viscous base solution (NRF p... | 13006401     | 6              |
| Caelo           | Viscous base solution (NRF p... | 13006501     | 1              |
| Caelo           | Viscous base solution (NRF p... | 13011807     | 1              |
| Caelo           | Viscous base solution (NRF p... | 13071302     | 1              |
| Caelo           | Viscous base solution (NRF p... | 13096001     | 2              |
| Caelo           | Viscous base solution (NRF p... | 13096101     | 6              |
| Caelo           | Viscous base solution (NRF p... | 13150801     | 3              |
| Caelo           | Viscous base solution (NRF p... | 13150802     | 2              |
| Caelo           | Viscous base solution (NRF p... | 13151101     | 5              |
| Caelo           | Viscous base solution (NRF p... | 13151201     | 4              |
| Caelo           | Viscous base solution (NRF p... | 13158001     | 9              |
| Caelo           | Viscous base solution (NRF p... | 13158002     | 2              |
| Caelo           | Viscous base solution (NRF p... | 13158101     | 2              |
| Caelo           | Viscous base solution (NRF p... | 13158201     | 2              |
| Caelo           | Viscous base solution (NRF p... | 13220101     | 1              |
| Caelo           | Viscous base solution (NRF p... | 13228901     | 8              |
| Caelo           | Viscous base solution (NRF p... | 13229001     | 4              |
| Caelo           | Viscous base solution (NRF p... | 13229101     | 1              |
| Caelo           | Viscous base solution (NRF p... | 13229201     | 2              |
| Caelo           | Viscous base solution (NRF p... | 13229501     | 4              |
| Caelo           | Viscous base solution (NRF p... | 13229502     | 3              |
| Caelo           | Viscous base solution (NRF p... | 13246101     | 1              |
| Caelo           | Viscous base solution (NRF p... | 13246401     | 5              |
| Caelo           | Viscous base solution (NRF p... | 13246501     | 6              |
| Caelo           | Viscous base solution (NRF p... | 13246701     | 4              |
| Caelo           | Viscous base solution (NRF p... | 13246901     | 1              |
| Caelo           | Viscous base solution (NRF p... | 14000801     | 8              |
| Caelo           | Viscous base solution (NRF p... | 14000901     | 1              |
| Caelo           | Viscous base solution (NRF p... | 14020301     | 5              |
| Caelo           | Viscous base solution (NRF p... | 14020401     | 10             |
| Caelo           | Viscous base solution (NRF p... | 14020402     | 5              |
| Caelo           | Viscous base solution (NRF p... | 14020502     | 5              |
| Caelo           | Viscous base solution (NRF p... | 14020601     | 3              |
| Caelo           | Viscous base solution (NRF p... | 14058901     | 3              |
| Caelo           | Viscous base solution (NRF p... | 14059001     | 2              |
| Caelo           | Viscous base solution (NRF p... | 14059101     | 5              |
| Caelo           | Viscous base solution (NRF p... | 14059301     | 1              |
| Caelo           | Viscous base solution (NRF p... | 14109401     | 7              |
| Caelo           | Viscous base solution (NRF p... | 14109402     | 4              |
| Caelo           | Viscous base solution (NRF p... | 14109501     | 5              |
| Caelo           | Viscous base solution (NRF p... | 14109701     | 1              |
| Caelo           | Viscous base solution (NRF p... | 14109901     | 11             |
| Caelo           | Viscous base solution (NRF p... | 14110001     | 2              |
| Caelo           | Viscous base solution (NRF p... | 14187201     | 9              |
| Caelo           | Viscous base solution (NRF p... | 1418730      | 2              |
| Caelo           | Viscous base solution (NRF p... | 14187301     | 8              |
| Caelo           | Viscous base solution (NRF p... | 14187501     | 1              |
| Caelo           | Viscous base solution (NRF p... | 14187601     | 5              |
| Caelo           | Viscous base solution (NRF p... | 14187701     | 2              |
| Caelo           | Viscous base solution (NRF p... | 14187801     | 13             |
| Caelo           | Viscous base solution (NRF p... | 14187901     | 4              |
| Caelo           | Viscous base solution (NRF p... | 14188001     | 6              |
| Caelo           | Viscous base solution (NRF p... | 14266101     | 1              |
| Caelo           | Viscous base solution (NRF p... | 14266501     | 7              |

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| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Viscous base solution (NRF p... | 14266601      | 2       |
| Caelo    | Viscous base solution (NRF p... | 14354304      | 3       |
| Caelo    | Viscous base solution (NRF p... | 14354401      | 5       |
| Caelo    | Viscous base solution (NRF p... | 14354501      | 1       |
| Caelo    | Viscous base solution (NRF p... | 14368401      | 6       |
| Caelo    | Viscous base solution (NRF p... | 14368601      | 8       |
| Caelo    | Viscous base solution (NRF p... | 14368701      | 3       |
| Caelo    | Viscous base solution (NRF p... | 14368801      | 2       |
| Caelo    | Viscous base solution (NRF p... | 1478319041301 | 1       |
| Caelo    | Viscous base solution (NRF p... | 15031804      | 1       |
| Caelo    | Viscous base solution (NRF p... | 15093301      | 10      |
| Caelo    | Viscous base solution (NRF p... | 15093401      | 4       |
| Caelo    | Viscous base solution (NRF p... | 15093501      | 2       |
| Caelo    | Viscous base solution (NRF p... | 15093601      | 4       |
| Caelo    | Viscous base solution (NRF p... | 15093602      | 4       |
| Caelo    | Viscous base solution (NRF p... | 15093701      | 5       |
| Caelo    | Viscous base solution (NRF p... | 15093801      | 2       |
| Caelo    | Viscous base solution (NRF p... | 15105701      | 4       |
| Caelo    | Viscous base solution (NRF p... | 15141601      | 2       |
| Caelo    | Viscous base solution (NRF p... | 15141901      | 2       |
| Caelo    | Viscous base solution (NRF p... | 15142001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 15179401      | 1       |
| Caelo    | Viscous base solution (NRF p... | 15180101      | 4       |
| Caelo    | Viscous base solution (NRF p... | 15196601      | 1       |
| Caelo    | Viscous base solution (NRF p... | 15196701      | 2       |
| Caelo    | Viscous base solution (NRF p... | 152364901     | 1       |
| Caelo    | Viscous base solution (NRF p... | 15264801      | 7       |
| Caelo    | Viscous base solution (NRF p... | 15264901      | 1       |
| Caelo    | Viscous base solution (NRF p... | 15265001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 15265101      | 2       |
| Caelo    | Viscous base solution (NRF p... | 15265201      | 4       |
| Caelo    | Viscous base solution (NRF p... | 15265301      | 9       |
| Caelo    | Viscous base solution (NRF p... | 15265401      | 11      |
| Caelo    | Viscous base solution (NRF p... | 15265402      | 2       |
| Caelo    | Viscous base solution (NRF p... | 15265501      | 7       |
| Caelo    | Viscous base solution (NRF p... | 15265601      | 3       |
| Caelo    | Viscous base solution (NRF p... | 15265701      | 10      |
| Caelo    | Viscous base solution (NRF p... | 15265801      | 3       |
| Caelo    | Viscous base solution (NRF p... | 15265901      | 8       |
| Caelo    | Viscous base solution (NRF p... | 15389401      | 4       |
| Caelo    | Viscous base solution (NRF p... | 15389501      | 2       |
| Caelo    | Viscous base solution (NRF p... | 15389701      | 8       |
| Caelo    | Viscous base solution (NRF p... | 15412101      | 2       |
| Caelo    | Viscous base solution (NRF p... | 16081804      | 1       |
| Caelo    | Viscous base solution (NRF p... | 16091702      | 1       |
| Caelo    | Viscous base solution (NRF p... | 16107601      | 6       |
| Caelo    | Viscous base solution (NRF p... | 16107901      | 2       |
| Caelo    | Viscous base solution (NRF p... | 16108001      | 4       |
| Caelo    | Viscous base solution (NRF p... | 16108101      | 1       |
| Caelo    | Viscous base solution (NRF p... | 16108201      | 3       |
| Caelo    | Viscous base solution (NRF p... | 16108301      | 3       |
| Caelo    | Viscous base solution (NRF p... | 16108401      | 3       |
| Caelo    | Viscous base solution (NRF p... | 16108501      | 3       |
| Caelo    | Viscous base solution (NRF p... | 16108601      | 4       |
| Caelo    | Viscous base solution (NRF p... | 16108701      | 1       |
| Caelo    | Viscous base solution (NRF p... | 16108901      | 11      |
| Caelo    | Viscous base solution (NRF p... | 16109001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 16159101      | 1       |
| Caelo    | Viscous base solution (NRF p... | 16159401      | 1       |
| Caelo    | Viscous base solution (NRF p... | 16217201      | 1       |

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| <b>Supplier</b> | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|-----------------|---------------------------------|--------------|----------------|
| Caelo           | Viscous base solution (NRF p... | 16217301     | 9              |
| Caelo           | Viscous base solution (NRF p... | 16217401     | 1              |
| Caelo           | Viscous base solution (NRF p... | 16217501     | 3              |
| Caelo           | Viscous base solution (NRF p... | 16217601     | 5              |
| Caelo           | Viscous base solution (NRF p... | 16217602     | 12             |
| Caelo           | Viscous base solution (NRF p... | 16229801     | 2              |
| Caelo           | Viscous base solution (NRF p... | 16229901     | 12             |
| Caelo           | Viscous base solution (NRF p... | 16230001     | 5              |
| Caelo           | Viscous base solution (NRF p... | 16230101     | 1              |
| Caelo           | Viscous base solution (NRF p... | 16265001     | 11             |
| Caelo           | Viscous base solution (NRF p... | 16265101     | 4              |
| Caelo           | Viscous base solution (NRF p... | 16265201     | 2              |
| Caelo           | Viscous base solution (NRF p... | 16265301     | 2              |
| Caelo           | Viscous base solution (NRF p... | 16265501     | 1              |
| Caelo           | Viscous base solution (NRF p... | 16315201     | 5              |
| Caelo           | Viscous base solution (NRF p... | 16315202     | 1              |
| Caelo           | Viscous base solution (NRF p... | 16315301     | 13             |
| Caelo           | Viscous base solution (NRF p... | 17017701     | 5              |
| Caelo           | Viscous base solution (NRF p... | 17017801     | 7              |
| Caelo           | Viscous base solution (NRF p... | 17017901     | 4              |
| Caelo           | Viscous base solution (NRF p... | 17018001     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17023901     | 20             |
| Caelo           | Viscous base solution (NRF p... | 17024001     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17041703     | 1              |
| Caelo           | Viscous base solution (NRF p... | 17097801     | 4              |
| Caelo           | Viscous base solution (NRF p... | 17097901     | 1              |
| Caelo           | Viscous base solution (NRF p... | 17098101     | 16             |
| Caelo           | Viscous base solution (NRF p... | 17098102     | 8              |
| Caelo           | Viscous base solution (NRF p... | 17098302     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17098401     | 4              |
| Caelo           | Viscous base solution (NRF p... | 17098501     | 1              |
| Caelo           | Viscous base solution (NRF p... | 17138401     | 10             |
| Caelo           | Viscous base solution (NRF p... | 17138501     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17138601     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17138701     | 6              |
| Caelo           | Viscous base solution (NRF p... | 17138801     | 3              |
| Caelo           | Viscous base solution (NRF p... | 17193501     | 7              |
| Caelo           | Viscous base solution (NRF p... | 17193502     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17193505     | 1              |
| Caelo           | Viscous base solution (NRF p... | 17193801     | 3              |
| Caelo           | Viscous base solution (NRF p... | 17193901     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17194001     | 3              |
| Caelo           | Viscous base solution (NRF p... | 17194101     | 3              |
| Caelo           | Viscous base solution (NRF p... | 17194201     | 2              |
| Caelo           | Viscous base solution (NRF p... | 17194301     | 1              |
| Caelo           | Viscous base solution (NRF p... | 17194401     | 5              |
| Caelo           | Viscous base solution (NRF p... | 17194501     | 1              |
| Caelo           | Viscous base solution (NRF p... | 17194502     | 1              |
| Caelo           | Viscous base solution (NRF p... | 1723001      | 1              |
| Caelo           | Viscous base solution (NRF p... | 1723101      | 1              |
| Caelo           | Viscous base solution (NRF p... | 17231201     | 11             |
| Caelo           | Viscous base solution (NRF p... | 17231301     | 4              |
| Caelo           | Viscous base solution (NRF p... | 17231401     | 5              |
| Caelo           | Viscous base solution (NRF p... | 17231501     | 11             |
| Caelo           | Viscous base solution (NRF p... | 17231510     | 1              |
| Caelo           | Viscous base solution (NRF p... | 17231601     | 13             |
| Caelo           | Viscous base solution (NRF p... | 17231701     | 6              |
| Caelo           | Viscous base solution (NRF p... | 17231901     | 14             |
| Caelo           | Viscous base solution (NRF p... | 17232001     | 16             |
| Caelo           | Viscous base solution (NRF p... | 17232010     | 1              |

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| Supplier | Substance                       | Batch         | Spectra |
|----------|---------------------------------|---------------|---------|
| Caelo    | Viscous base solution (NRF p... | 17232101      | 23      |
| Caelo    | Viscous base solution (NRF p... | 17289201      | 10      |
| Caelo    | Viscous base solution (NRF p... | 17289301      | 3       |
| Caelo    | Viscous base solution (NRF p... | 17289401      | 3       |
| Caelo    | Viscous base solution (NRF p... | 17289501      | 1       |
| Caelo    | Viscous base solution (NRF p... | 17290101      | 7       |
| Caelo    | Viscous base solution (NRF p... | 177232001     | 1       |
| Caelo    | Viscous base solution (NRF p... | 1789201       | 1       |
| Caelo    | Viscous base solution (NRF p... | 18030601      | 21      |
| Caelo    | Viscous base solution (NRF p... | 1803060137/18 | 1       |
| Caelo    | Viscous base solution (NRF p... | 18030602      | 19      |
| Caelo    | Viscous base solution (NRF p... | 18030701      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18030801      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18031101      | 5       |
| Caelo    | Viscous base solution (NRF p... | 18031201      | 10      |
| Caelo    | Viscous base solution (NRF p... | 18031301      | 7       |
| Caelo    | Viscous base solution (NRF p... | 18031401      | 6       |
| Caelo    | Viscous base solution (NRF p... | 18031501      | 5       |
| Caelo    | Viscous base solution (NRF p... | 18071502      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18090601      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18124001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18124201      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18124202      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18124301      | 10      |
| Caelo    | Viscous base solution (NRF p... | 18124401      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18124402      | 6       |
| Caelo    | Viscous base solution (NRF p... | 18124403      | 11      |
| Caelo    | Viscous base solution (NRF p... | 18124501      | 25      |
| Caelo    | Viscous base solution (NRF p... | 1814403       | 1       |
| Caelo    | Viscous base solution (NRF p... | 18206101      | 4       |
| Caelo    | Viscous base solution (NRF p... | 18206102      | 16      |
| Caelo    | Viscous base solution (NRF p... | 18206201      | 28      |
| Caelo    | Viscous base solution (NRF p... | 18206301      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18206602      | 6       |
| Caelo    | Viscous base solution (NRF p... | 18206701      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18206801      | 4       |
| Caelo    | Viscous base solution (NRF p... | 18206901      | 7       |
| Caelo    | Viscous base solution (NRF p... | 18207001      | 5       |
| Caelo    | Viscous base solution (NRF p... | 18267901      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18268001      | 3       |
| Caelo    | Viscous base solution (NRF p... | 18268101      | 6       |
| Caelo    | Viscous base solution (NRF p... | 18268201      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18268301      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18268401      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18268502      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18268601      | 33      |
| Caelo    | Viscous base solution (NRF p... | 18268602      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18321001      | 8       |
| Caelo    | Viscous base solution (NRF p... | 18321002      | 25      |
| Caelo    | Viscous base solution (NRF p... | 18321101      | 3       |
| Caelo    | Viscous base solution (NRF p... | 183211601     | 1       |
| Caelo    | Viscous base solution (NRF p... | 18321201      | 3       |
| Caelo    | Viscous base solution (NRF p... | 18321301      | 2       |
| Caelo    | Viscous base solution (NRF p... | 18321401      | 1       |
| Caelo    | Viscous base solution (NRF p... | 18321501      | 3       |
| Caelo    | Viscous base solution (NRF p... | 18321601      | 1       |
| Caelo    | Viscous base solution (NRF p... | 19000855001   | 2       |
| Caelo    | Viscous base solution (NRF p... | 19000856001   | 2       |
| Caelo    | Viscous base solution (NRF p... | 19000857001   | 2       |
| Caelo    | Viscous base solution (NRF p... | 19011901      | 1       |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Viscous base solution (NRF p... | 19041201         | 22      |
| Caelo    | Viscous base solution (NRF p... | 19041203         | 5       |
| Caelo    | Viscous base solution (NRF p... | 19041301         | 20      |
| Caelo    | Viscous base solution (NRF p... | 19041501         | 5       |
| Caelo    | Viscous base solution (NRF p... | 19041601         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19041701         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19041709         | 1       |
| Caelo    | Viscous base solution (NRF p... | 19041801         | 1       |
| Caelo    | Viscous base solution (NRF p... | 19041901         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19042001         | 1       |
| Caelo    | Viscous base solution (NRF p... | 19042101         | 5       |
| Caelo    | Viscous base solution (NRF p... | 19192401         | 4       |
| Caelo    | Viscous base solution (NRF p... | 19192901         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19193001         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19193101         | 2       |
| Caelo    | Viscous base solution (NRF p... | 19193201         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19193301         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19193401         | 2       |
| Caelo    | Viscous base solution (NRF p... | 19223101         | 16      |
| Caelo    | Viscous base solution (NRF p... | 19258301         | 14      |
| Caelo    | Viscous base solution (NRF p... | 19258302         | 17      |
| Caelo    | Viscous base solution (NRF p... | 19258401         | 13      |
| Caelo    | Viscous base solution (NRF p... | 19258501         | 15      |
| Caelo    | Viscous base solution (NRF p... | 19258701         | 3       |
| Caelo    | Viscous base solution (NRF p... | 19258901         | 2       |
| Caelo    | Viscous base solution (NRF p... | 19259001         | 2       |
| Caelo    | Viscous base solution (NRF p... | 19528302         | 2       |
| Caelo    | Viscous base solution (NRF p... | 200000004001     | 1       |
| Caelo    | Viscous base solution (NRF p... | 200000004001     | 15      |
| Caelo    | Viscous base solution (NRF p... | 200000004001 (4) | 1       |
| Caelo    | Viscous base solution (NRF p... | 200000004002     | 15      |
| Caelo    | Viscous base solution (NRF p... | 200000005001     | 1       |
| Caelo    | Viscous base solution (NRF p... | 200000006001     | 1       |
| Caelo    | Viscous base solution (NRF p... | 200000008001     | 3       |
| Caelo    | Viscous base solution (NRF p... | 200000009001     | 2       |
| Caelo    | Viscous base solution (NRF p... | 20000010001      | 7       |
| Caelo    | Viscous base solution (NRF p... | 20000011001      | 2       |
| Caelo    | Viscous base solution (NRF p... | 20000011101      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20000012001      | 3       |
| Caelo    | Viscous base solution (NRF p... | 20000013001      | 4       |
| Caelo    | Viscous base solution (NRF p... | 200000182001     | 1       |
| Caelo    | Viscous base solution (NRF p... | 20000142001      | 12      |
| Caelo    | Viscous base solution (NRF p... | 20000143001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20000144001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20000183001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20000184001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20001916001      | 2       |
| Caelo    | Viscous base solution (NRF p... | 20001917001      | 2       |
| Caelo    | Viscous base solution (NRF p... | 20001918001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20001919001      | 2       |
| Caelo    | Viscous base solution (NRF p... | 20001920001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20001922001      | 17      |
| Caelo    | Viscous base solution (NRF p... | 20001923001      | 6       |
| Caelo    | Viscous base solution (NRF p... | 20001923001 (/1) | 1       |
| Caelo    | Viscous base solution (NRF p... | 20001923001 (3)  | 1       |
| Caelo    | Viscous base solution (NRF p... | 20001923002      | 8       |
| Caelo    | Viscous base solution (NRF p... | 20002922001      | 1       |
| Caelo    | Viscous base solution (NRF p... | 20003321001      | 2       |
| Caelo    | Viscous base solution (NRF p... | 20003322001      | 2       |
| Caelo    | Viscous base solution (NRF p... | 20003323001      | 1       |

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| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b>        | <b>Spectra</b> |
|----------------------------|---------------------------------|---------------------|----------------|
| Caelo                      | Viscous base solution (NRF p... | 200033234001        | 1              |
| Caelo                      | Viscous base solution (NRF p... | 20003325001         | 2              |
| Caelo                      | Viscous base solution (NRF p... | 20003325002         | 2              |
| Caelo                      | Viscous base solution (NRF p... | 2001923001          | 1              |
| Caelo                      | Viscous base solution (NRF p... | 20033252002         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 20081501            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 20101802            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 20180528-01P        | 1              |
| Caelo                      | Viscous base solution (NRF p... | 20250113-1          | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21000458001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21000460001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21000461001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21000466001         | 6              |
| Caelo                      | Viscous base solution (NRF p... | 21000680001         | 2              |
| Caelo                      | Viscous base solution (NRF p... | 21000680001 (5)     | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21000680002         | 8              |
| Caelo                      | Viscous base solution (NRF p... | 21000680003         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21001316001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21001318001         | 2              |
| Caelo                      | Viscous base solution (NRF p... | 21001319001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21001320001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21001806001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21002617001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21002619001         | 3              |
| Caelo                      | Viscous base solution (NRF p... | 21002883001         | 2              |
| Caelo                      | Viscous base solution (NRF p... | 21004136001         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 2100807001          | 1              |
| Caelo                      | Viscous base solution (NRF p... | 21081704            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 22121809            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 23061811            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 25041801            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 26051801            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 27121703            | 1              |
| Caelo                      | Viscous base solution (NRF p... | 3013A-03142         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 3x14058901          | 1              |
| Caelo                      | Viscous base solution (NRF p... | 4111704             | 1              |
| Caelo                      | Viscous base solution (NRF p... | 5(17138401)         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 5051502             | 1              |
| Caelo                      | Viscous base solution (NRF p... | 6(17193501)         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 6101705             | 1              |
| Caelo                      | Viscous base solution (NRF p... | 7(18124501)         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 7111803             | 1              |
| Caelo                      | Viscous base solution (NRF p... | 8(18268601)         | 1              |
| Caelo                      | Viscous base solution (NRF p... | 8091809             | 1              |
| Caelo                      | Viscous base solution (NRF p... | 9(19041301)         | 1              |
| Caelo                      | Viscous base solution (NRF p... | AP200721-02         | 1              |
| Caelo                      | Viscous base solution (NRF p... | P-09121923/19193201 | 1              |
| Caeolo/Gehe                | Viscous base solution (NRF p... | 17194101            | 1              |
| Caesar & Loretz GmbH / ... | Viscous base solution (NRF p... | 18321301            | 2              |
| Caesar & Loretz GmbH/GEHE  | Viscous base solution (NRF p... | 20001923002         | 1              |
| Caesar & Loretz GmbH/Ge... | Viscous base solution (NRF p... | 19258501            | 1              |
| Caesar & Loretz GmbH/Ge... | Viscous base solution (NRF p... | 20000142001         | 3              |
| Caesar & Loretz GmbH/He... | Viscous base solution (NRF p... | 19258302            | 1              |
| Caesar & Loretz GmbH/Je... | Viscous base solution (NRF p... | 20003321001         | 1              |
| Caesar & Loretz GmbH/No... | Viscous base solution (NRF p... | 20000004002         | 2              |
| Caesar & Loretz GmbH/Ph... | Viscous base solution (NRF p... | 20001922001         | 3              |
| Caesar & Loretz GmbH/Sana  | Viscous base solution (NRF p... | 18321501            | 2              |
| Caesar & Loretz GmbH/Sa... | Viscous base solution (NRF p... | 18268201            | 3              |
| Caesar & Loretz GmbH       | Viscous base solution (NRF p... | 13158201            | 1              |
| Caesar & Loretz GmbH       | Viscous base solution (NRF p... | 18206102            | 1              |

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| <b>Supplier</b>      | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|----------------------|---------------------------------|--------------|----------------|
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18206602     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18267901     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18268001     | 4              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18268201     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18268502     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18268601     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18321001     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18321002     | 5              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18321201     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18321301     | 5              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 18321501     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19000855001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19000856001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19041301     | 7              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19041701     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19041801     | 4              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19042001     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19192401     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19193001     | 4              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19193401     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19193901     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19223101     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19258301     | 5              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19258302     | 6              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 192584       | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19258401     | 10             |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19258501     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19258601     | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19258701     | 3              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 19259001     | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000004001  | 3              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000004002  | 4              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000008001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000009001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000011001  | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000012001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000013001  | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000142001  | 4              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000181001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20000184001  | 3              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20001916001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20001917001  | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20001920001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20001922001  | 5              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20001923001  | 6              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20001923002  | 3              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 20003324001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21000456001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21000458001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21000465001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21000680001  | 2              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21000680002  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21000680003  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21001316001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21001320001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21001801001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21001805001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21001806001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21001808001  | 1              |
| Caesar & Loretz GmbH | Viscous base solution (NRF p... | 21002616001  | 1              |

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| <b>Supplier</b>            | <b>Substance</b>                | <b>Batch</b>     | <b>Spectra</b> |
|----------------------------|---------------------------------|------------------|----------------|
| Caesar & Loretz GmbH       | Viscous base solution (NRF p... | 21002618001      | 1              |
| Caesar & Loretz GmbH       | Viscous base solution (NRF p... | 21002619001      | 1              |
| Caesar & Loretz GmbH       | Viscous base solution (NRF p... | 21002883001      | 2              |
| Caesar & Loretz GmbH       | Viscous base solution (NRF p... | 21004136001      | 2              |
| Caesar & Loretz GmbH       | Viscous base solution (NRF p... | 21004140001      | 1              |
| Caesar & Loretz            | Viscous base solution (NRF p... | 17098101         | 1              |
| Caesar u. Loretz / Gehe... | Viscous base solution (NRF p... | 19041301         | 1              |
| Caesar und Loretz          | Viscous base solution (NRF p... | 14109401         | 1              |
| Caesar&Loretz GmbH         | Viscous base solution (NRF p... | 15265701         | 1              |
| Caesar&Loretz GmbH         | Viscous base solution (NRF p... | 16107601         | 3              |
| Caesar&Loretz GmbH         | Viscous base solution (NRF p... | 16108901         | 1              |
| Caesar&Loretz GmbH         | Viscous base solution (NRF p... | 16217301         | 1              |
| Caesar&Loretz GmbH         | Viscous base solution (NRF p... | 16229701         | 1              |
| Caleo/Phönix               | Viscous base solution (NRF p... | 14368701         | 1              |
| Cealo/ Anzag               | Viscous base solution (NRF p... | 17098101         | 1              |
| Cealo/ Phoenix             | Viscous base solution (NRF p... | 18124501         | 1              |
| Cealo                      | Viscous base solution (NRF p... | 17098302         | 1              |
| Defektur Bahnhof Apotheke  | Viscous base solution (NRF p... | 160630007        | 1              |
| Defektur Bahnhof Apotheke  | Viscous base solution (NRF p... | 160630008        | 1              |
| Defektur Bahnhof Apotheke  | Viscous base solution (NRF p... | 160718007        | 1              |
| Defektur Bahnhof Apotheke  | Viscous base solution (NRF p... | 160719002        | 1              |
| Defektur Bahnhof Apotheke  | Viscous base solution (NRF p... | 160805001        | 1              |
| Defektur Bahnhof Apotheke  | Viscous base solution (NRF p... | 160805002        | 1              |
| Ebert & Jacobi             | Viscous base solution (NRF p... | 18124501         | 1              |
| Eigenherstellung           | Viscous base solution (NRF p... | 421A-03142       | 1              |
| Eigenherstellung           | Viscous base solution (NRF p... | 5320A-03142      | 1              |
| Euro OTC                   | Viscous base solution (NRF p... | 15141601         | 1              |
| Euro OTC                   | Viscous base solution (NRF p... | 17231801         | 1              |
| Euro OTC                   | Viscous base solution (NRF p... | 17232001         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 10031502         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1111F001         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1111F003         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1203C004         | 2              |
| Fagron                     | Viscous base solution (NRF p... | 1206F003         | 3              |
| Fagron                     | Viscous base solution (NRF p... | 1214509          | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1301F001         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1301F002         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1301F003         | 3              |
| Fagron                     | Viscous base solution (NRF p... | 1302F002         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1310F006         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 13J22-T05-007720 | 1              |
| Fagron                     | Viscous base solution (NRF p... | 13J22-T05-007729 | 2              |
| Fagron                     | Viscous base solution (NRF p... | 14059001         | 2              |
| Fagron                     | Viscous base solution (NRF p... | 1409164          | 2              |
| Fagron                     | Viscous base solution (NRF p... | 14K24-021166     | 1              |
| Fagron                     | Viscous base solution (NRF p... | 14K24-T03-021166 | 1              |
| Fagron                     | Viscous base solution (NRF p... | 14K24-T03-031283 | 9              |
| Fagron                     | Viscous base solution (NRF p... | 1509255          | 2              |
| Fagron                     | Viscous base solution (NRF p... | 15093701         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1604682          | 4              |
| Fagron                     | Viscous base solution (NRF p... | 16159501         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1705701          | 2              |
| Fagron                     | Viscous base solution (NRF p... | 1705702          | 2              |
| Fagron                     | Viscous base solution (NRF p... | 17098302         | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1802062          | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1802063          | 1              |
| Fagron                     | Viscous base solution (NRF p... | 18030601         | 7              |
| Fagron                     | Viscous base solution (NRF p... | 1813226/1        | 1              |
| Fagron                     | Viscous base solution (NRF p... | 1813226/2        | 2              |
| Fagron                     | Viscous base solution (NRF p... | 1813227          | 1              |

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| Supplier           | Substance                       | Batch      | Spectra |
|--------------------|---------------------------------|------------|---------|
| Fagron             | Viscous base solution (NRF p... | 1820601    | 1       |
| Fagron             | Viscous base solution (NRF p... | 18268601   | 1       |
| Fagron             | Viscous base solution (NRF p... | 1906667    | 2       |
| Fagron             | Viscous base solution (NRF p... | 20004752   | 3       |
| Fagron             | Viscous base solution (NRF p... | 20011969   | 2       |
| Fagron             | Viscous base solution (NRF p... | 22041304   | 1       |
| Fagron             | Viscous base solution (NRF p... | 28111402   | 1       |
| Fagron             | Viscous base solution (NRF p... | 31101205   | 1       |
| Fishar             | Viscous base solution (NRF p... | 15265401   | 1       |
| Gehe 19.12.14      | Viscous base solution (NRF p... | 14187601   | 1       |
| GEHE am 27.05.2014 | Viscous base solution (NRF p... | 14020502   | 1       |
| Gehe               | Viscous base solution (NRF p... | 12019201   | 1       |
| gehe               | Viscous base solution (NRF p... | 17097801   | 1       |
| Gehe               | Viscous base solution (NRF p... | 17098101   | 1       |
| gehe               | Viscous base solution (NRF p... | 17194101   | 1       |
| gehe               | Viscous base solution (NRF p... | 17194401   | 2       |
| Gehe               | Viscous base solution (NRF p... | 18030601   | 1       |
| Gutenberg-Apotheke | Viscous base solution (NRF p... | 14020502   | 1       |
| Gutenberg-Apotheke | Viscous base solution (NRF p... | 14059101   | 2       |
| Herstellung        | Viscous base solution (NRF p... | 131018001  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131018004  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131025001  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131030004  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131030005  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131115001  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131126002  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131203012  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131206001  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131211001  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131211002  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131218006  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 131220001  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 140108002  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 140108003  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 140117001  | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20010213-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20030513-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20040113-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20040113-2 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20041013-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20050613-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20050713-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20050713-2 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20060913-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20060913-2 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20080213-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20080313-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20090113-1 | 2       |
| Herstellung        | Viscous base solution (NRF p... | 20100513-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20100613-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20120713-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20130313-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20130613-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20140613-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20150213-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20150813-3 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20150813-4 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20160513-2 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20190413-1 | 1       |
| Herstellung        | Viscous base solution (NRF p... | 20190413-2 | 1       |

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| <b>Supplier</b>              | <b>Substance</b>                | <b>Batch</b> | <b>Spectra</b> |
|------------------------------|---------------------------------|--------------|----------------|
| Herstellung                  | Viscous base solution (NRF p... | 20200913-1   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20210313-1   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20210313-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20220213-1   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20220213-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20220513-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20260313-1   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20260313-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20260713-1   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20260713-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20270913-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20280513-1   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20280613-1   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20280613-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 20300713-2   | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 2030913-1    | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 2150313-1    | 1              |
| Herstellung                  | Viscous base solution (NRF p... | 240114       | 1              |
| Jenne                        | Viscous base solution (NRF p... | 16108901     | 1              |
| Klosterring                  | Viscous base solution (NRF p... | 17098102     | 1              |
| Klosterring                  | Viscous base solution (NRF p... | 17138401     | 2              |
| Klosterring                  | Viscous base solution (NRF p... | 19098302     | 1              |
| Klosterring                  | Viscous base solution (NRF p... | 19223101     | 6              |
| Nachprüfung                  | Viscous base solution (NRF p... | 13158001     | 1              |
| Noweda                       | Viscous base solution (NRF p... | 11176201     | 1              |
| Noweda                       | Viscous base solution (NRF p... | 12019401     | 1              |
| Noweda                       | Viscous base solution (NRF p... | 17098101     | 4              |
| Noweda                       | Viscous base solution (NRF p... | 18206102     | 1              |
| Noweda                       | Viscous base solution (NRF p... | 18321002     | 1              |
| Noweda                       | Viscous base solution (NRF p... | 19223101     | 1              |
| Phoenix 08.07.2014           | Viscous base solution (NRF p... | 14110001     | 1              |
| Phoenix                      | Viscous base solution (NRF p... | 17098101     | 2              |
| Phoenix                      | Viscous base solution (NRF p... | 18030601     | 2              |
| Phoenix                      | Viscous base solution (NRF p... | 20001922001  | 1              |
| Phoenix                      | Viscous base solution (NRF p... | 20003325002  | 1              |
| PHÖNIX                       | Viscous base solution (NRF p... | 17232001     | 2              |
| Phönix                       | Viscous base solution (NRF p... | 18030601     | 1              |
| Post Apotheke                | Viscous base solution (NRF p... | 219I-03142   | 1              |
| Post Apotheke                | Viscous base solution (NRF p... | 2220I-03142  | 1              |
| Post Apotheke                | Viscous base solution (NRF p... | 4720-03142   | 1              |
| Post Aptotheke               | Viscous base solution (NRF p... | 1306F002     | 2              |
| Sanacorp, 22.02.17, 32,...   | Viscous base solution (NRF p... | 16265101     | 1              |
| sanacorp, 32,14EUR, 15.09... | Viscous base solution (NRF p... | 16108601     | 1              |
| Sanacorp                     | Viscous base solution (NRF p... | 12093601     | 2              |
| Sanacorp                     | Viscous base solution (NRF p... | 12127401     | 2              |
| Sanacorp                     | Viscous base solution (NRF p... | 12231301     | 4              |
| Sanacorp                     | Viscous base solution (NRF p... | 14109402     | 1              |
| Sanacorp                     | Viscous base solution (NRF p... | 15265201     | 1              |
| Sanacorp                     | Viscous base solution (NRF p... | 15265401     | 1              |
| Sanacorp                     | Viscous base solution (NRF p... | 15265601     | 1              |
| Sanacorp                     | Viscous base solution (NRF p... | 18268601     | 1              |
| Sanacorp                     | Viscous base solution (NRF p... | 19041203     | 1              |
| Sonnenberg Apotheke          | Viscous base solution (NRF p... | 150616       | 1              |
| Sonnenberg Apotheke          | Viscous base solution (NRF p... | 220616       | 1              |
| Sonnenberg Apotheke          | Viscous base solution (NRF p... | 270515       | 1              |
| Sonnenberg Apotheke          | Viscous base solution (NRF p... | 300615       | 1              |
| Sonnenberg Apotheke          | Viscous base solution (NRF p... | 30216        | 1              |
| Sonnenberg Apotheke          | Viscous base solution (NRF p... | 71015        | 1              |
| Sonnenberg Apotheke          | Viscous base solution (NRF p... | 90915        | 1              |
| Sonnenberg-Apotheke          | Viscous base solution (NRF p... | 100214       | 1              |

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| Supplier            | Substance                       | Batch    | Spectra |
|---------------------|---------------------------------|----------|---------|
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 100314   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 100715   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 100914   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 10814    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 110116   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 110516   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 110614   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 111114   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 111115   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 11214    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 121016   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 130416   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 131014   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 160316   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 160415   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 161215   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 2012015  | 2       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 20516    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 211216   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 220216   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 230315   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 231116   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 250215   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 250716   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 260115   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 261016   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 280916   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 290716   | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 290716-2 | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 40117    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 60114    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 70514    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 70916    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 71216    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 90414    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 90714    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 91116    | 1       |
| Sonnenberg-Apotheke | Viscous base solution (NRF p... | 91213    | 1       |
| VDL 17.10.14        | Viscous base solution (NRF p... | 14109401 | 1       |
| VDL 24.05.14        | Viscous base solution (NRF p... | 14020401 | 2       |

- 286 707 spectra from 1294 *Apo-Ident* customers from a total of 51 328 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Viscous base solution (NRF p. 20)* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Viscous base solution (NRF p. 20)* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 1160          | 0              | 65 999        |
| Type B | 0              | 3140          | 0              | 104 223       |
| Type C | 0              | 1992          | 10             | 286 707       |

The substance/substance group *Viscous base solution (NRF p. 20)* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.4828 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.8089 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.5005 % (> 99.3506 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Viscous base solution (NRF p. 20)* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                            | Distance in main model | Distance in second-stage model |
|--------------------------------------|------------------------|--------------------------------|
| Liquorice juice purified, diluted    | 15.74                  | —                              |
| Lotio Cordes <sup>®</sup>            | 16.43                  | —                              |
| Raspberry syrup (conserved)          | 20.69                  | —                              |
| Chest elixir                         | 22.23                  | —                              |
| Condurango wine                      | 24.49                  | —                              |
| Fortified wine                       | 24.84                  | —                              |
| Gel basis Audor <sup>®</sup>         | 26.67                  | —                              |
| Ribwort plantain syrup (conserved)   | 27.51                  | —                              |
| Marshmallow syrup (conserved)        | 27.90                  | —                              |
| Hydrophilic base emulsion (NRF p.25) | 33.78                  | —                              |
| Sugar syrup DAB                      | 36.32                  | —                              |
| Sodium-(s)-lactate solution 50%      | 41.08                  | —                              |
| Cherry syrup (conserved)             | 41.88                  | —                              |
| Polyhexanide solution 20%            | 43.23                  | —                              |
| Ipecacuanha syrup (NRF 19.1)         | 46.16                  | —                              |
| Chlorhexidine digluconate solution   | 48.40                  | —                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Viscous base solution (NRF p. 20)* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested

reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 30659     | 30659               | 0.00                         | 20.75                           |
| 31354     | 31888               | 2.03                         | 16.64                           |
| 31658     | 31658               | 0.00                         | 18.74                           |
| 31790     | 31888               | 3.01                         | 21.01                           |
| 31882     | 31882               | 0.00                         | 19.34                           |
| 31883     | 31883               | 0.00                         | 20.54                           |
| 31884     | 31884               | 0.00                         | 19.03                           |
| 31885     | 31885               | 0.00                         | 19.38                           |
| 31886     | 31886               | 0.00                         | 18.82                           |
| 31887     | 31887               | 0.00                         | 20.53                           |
| 31888     | 31888               | 0.00                         | 20.59                           |
| 31889     | 31889               | 0.00                         | 19.16                           |
| 31890     | 31890               | 0.00                         | 21.73                           |
| 31893     | 31893               | 0.00                         | 21.24                           |
| 31894     | 31894               | 0.00                         | 19.19                           |
| 31895     | 31895               | 0.00                         | 20.92                           |
| 31896     | 31896               | 0.00                         | 19.91                           |
| 34775     | 34775               | 0.00                         | 20.56                           |
| 35483     | 35483               | 0.00                         | 15.49                           |
| 35484     | 35484               | 0.00                         | 16.25                           |
| 35975     | 35975               | 0.00                         | 19.42                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | <b>Water and aqueous solutions</b>                               |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 30869-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Water and aqueous solutions; Aluminii acetatis tartratis solutio; Aluminium acetotartrate solution; Aqua; Chlorhexidine digluconate solution; Chlorhexidini digluconatis solutio; Oral suspension base; Water

### Special notes

When selecting the *Water and aqueous solutions* substance/substance group, the following information is displayed to the user:

- Advice for the identification of water: Preserved, purified and distilled water can not be conclusively distinguished by spectral analysis. An additional analysis of identity may be required.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]

Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]

AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group   | Type A | Type B | Type C |
|-----------------------------|--------|--------|--------|
| Water and aqueous solutions | 30     | 59     | 2249   |

## Second-stage model

For differentiation of the substance/substance group *Water and aqueous solutions* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Water and aqueous solutions*:

| Supplier | Substance           | Batch            | Sample ID | Spectra | Certificate        |
|----------|---------------------|------------------|-----------|---------|--------------------|
| Caelo    | Aluminium acetot... | 12233502         | 30869     | 40      | 20120810           |
| Caelo    | Aluminium acetot... | 13378704         | 31342     | 40      | AR-14-FG-012698-01 |
| Caelo    | Aluminium acetot... | 15299901         | 31959     | 60      | 20151001           |
| Caelo    | Aluminium acetot... | 21002881005      | 35822     | 50      | 20210921           |
| Hedinger | Aluminium acetot... | 020160B          | 32921     | 40      | 20150818           |
| Hedinger | Aluminium acetot... | 020165B          | 34690     | 40      | 20180903           |
| Caelo    | Chlorhexidine di... | 14011009         | 31463     | 60      | AR-15-FG-010164-03 |
| Caelo    | Chlorhexidine di... | 15131504         | 31705     | 60      | 20150424           |
| Caelo    | Chlorhexidine di... | 15292508         | 32308     | 40      | 20151109           |
| Euro OTC | Chlorhexidine di... | 1508022          | 31735     | 60      | 20150916*          |
| Euro OTC | Chlorhexidine di... | 1511039          | 31846     | 60      | 20160114*          |
| Euro OTC | Chlorhexidine di... | 1511033-01       | 32732     | 40      | 20160114           |
| Euro OTC | Chlorhexidine di... | 1610021          | 32831     | 40      | 20161121*          |
| Euro OTC | Chlorhexidine di... | 1610022          | 32832     | 40      | 20161121*          |
| Fagron   | Chlorhexidine di... | 13H19-B01        | 31240     | 30      | 20130906           |
| Fagron   | Chlorhexidine di... | 15I03-B02-315213 | 31829     | 45      | 20151027           |
| Caelo    | Oral suspension ... | 20001875         | 35112     | 40      | 20200805*          |
| Caelo    | Oral suspension ... | 20003180         | 35163     | 40      | 20201116*          |
| Caelo    | Oral suspension ... | 21000759         | 35315     | 40      | 20210308*          |
| Caelo    | Oral suspension ... | 21001227         | 35555     | 50      | 20210518*          |
| Caelo    | Oral suspension ... | 21001228         | 35556     | 50      | 20210518*          |
| Caelo    | Oral suspension ... | 21002023         | 35599     | 50      | 20210629*          |
| Caelo    | Water               | 13176101         | 31057     | 40      | 20130627           |
| Caelo    | Water               | 14253301         | 31624     | 60      | 20140923           |
| Caelo    | Water               | 15142501         | 31718     | 60      | 1510212            |
| Caelo    | Water               | 161975           | 32354     | 30      | 20160725*          |
| Caelo    | Water               | 20002379         | 35113     | 40      | 20200814*          |
| Caelo    | Water               | 21001791         | 35539     | 50      | 20210607*          |
| Fagron   | Water               | 14K05-T02-016775 | 31676     | 60      | 20150225           |
| Fagron   | Water               | 15D01-C20-16500  | 31809     | 60      | 20151105           |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 1415 spectra of 30 reference samples from the substance/substance group *Water and aqueous solutions*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 30 different batches.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



- 65 744 spectra from a total of 1349 batches from further 225 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 2370 spectra of 59 reference samples from the substance/substance group *Water and aqueous solutions*.
- Among them are spectra of independent samples from 59 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                       | Batch    | Sample ID | Spectra |
|----------|---------------------------------|----------|-----------|---------|
| Caelo    | Aluminium acetotartrate solu... | 16004505 | 33490     | 40      |
| Caelo    | Aluminium acetotartrate solu... | 21002880 | 35821     | 50      |
| Hedinger | Aluminium acetotartrate solu... | 020166B  | 35262     | 40      |
| Caelo    | Chlorhexidine digluconate so... | 163088   | 33089     | 40      |
| Caelo    | Chlorhexidine digluconate so... | 172101   | 33693     | 40      |
| Caelo    | Chlorhexidine digluconate so... | 190808   | 34470     | 40      |
| Caelo    | Chlorhexidine digluconate so... | 192972   | 34762     | 40      |
| Caelo    | Chlorhexidine digluconate so... | 20003241 | 35252     | 40      |
| Caelo    | Chlorhexidine digluconate so... | 21000177 | 35302     | 40      |
| Caelo    | Chlorhexidine digluconate so... | 21001487 | 35550     | 60      |
| Euro OTC | Chlorhexidine digluconate so... | 1701037  | 33230     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 1708006  | 33843     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 1712002  | 33927     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 1807014  | 34191     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 1811026  | 34351     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 1902010  | 34425     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 1908014  | 34695     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 1912015  | 34811     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 2007044  | 35085     | 40      |
| Euro OTC | Chlorhexidine digluconate so... | 2108001  | 35763     | 50      |
| Euro OTC | Chlorhexidine digluconate so... | 2202002  | 36225     | 40      |
| Caelo    | Oral suspension base            | 20003178 | 35162     | 40      |
| Caelo    | Oral suspension base            | 21000757 | 35313     | 40      |
| Caelo    | Oral suspension base            | 21000758 | 35314     | 40      |
| Caelo    | Oral suspension base            | 21002200 | 35600     | 50      |
| Caelo    | Oral suspension base            | 21003881 | 35952     | 40      |
| Caelo    | Water                           | 153714   | 32080     | 40      |
| Caelo    | Water                           | 153945   | 32082     | 40      |
| Caelo    | Water                           | 162119   | 32353     | 40      |
| Caelo    | Water                           | 162230   | 32355     | 40      |
| Caelo    | Water                           | 163133   | 32893     | 40      |
| Caelo    | Water                           | 162554   | 32894     | 40      |
| Caelo    | Water                           | 170020   | 33178     | 40      |
| Caelo    | Water                           | 170324   | 33179     | 40      |

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| Supplier | Substance | Batch           | Sample ID | Spectra |
|----------|-----------|-----------------|-----------|---------|
| Caelo    | Water     | 171731          | 33575     | 40      |
| Caelo    | Water     | 171451          | 33576     | 40      |
| Caelo    | Water     | 171773          | 33577     | 40      |
| Caelo    | Water     | 172534          | 33738     | 40      |
| Caelo    | Water     | 172535          | 33739     | 40      |
| Caelo    | Water     | 172532          | 33740     | 40      |
| Caelo    | Water     | 170988          | 33976     | 40      |
| Caelo    | Water     | 172958          | 33979     | 40      |
| Caelo    | Water     | 180004          | 34135     | 40      |
| Caelo    | Water     | 181355          | 34138     | 40      |
| Caelo    | Water     | 181951          | 34240     | 40      |
| Caelo    | Water     | 181352          | 34241     | 40      |
| Caelo    | Water     | 182287          | 34242     | 40      |
| Caelo    | Water     | 182399          | 34245     | 40      |
| Caelo    | Water     | 182288          | 34315     | 40      |
| Caelo    | Water     | 191967          | 34766     | 40      |
| Caelo    | Water     | 192270          | 34768     | 40      |
| Caelo    | Water     | 21001790        | 35540     | 50      |
| Caelo    | Water     | 21001792        | 35541     | 50      |
| Caelo    | Water     | 21003471        | 35987     | 40      |
| Caelo    | Water     | 21003474        | 35990     | 10      |
| Caelo    | Water     | 21004055        | 35991     | 40      |
| Caelo    | Water     | 22000148        | 36151     | 40      |
| Caelo    | Water     | 22000149        | 36152     | 10      |
| Fagron   | Water     | 16K25-C20-17409 | 32963     | 40      |

- 104993 spectra from a total of 2442 batches from further 347 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 12613 spectra from 1139 *Apo-Ident* customers from 2358 batches from the substance/substance group *Water and aqueous solutions*.
- Among them are spectra of independent samples from 2236 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier                  | Substance                       | Batch            | Spectra |
|---------------------------|---------------------------------|------------------|---------|
| 18c05-b04-352123          | Chlorhexidine digluconate so... | 1308002-02       | 1       |
|                           | Chlorhexidine digluconate so... | 13K26B06289365   | 1       |
| A. Hedinger/Noweda        | Chlorhexidine digluconate so... | 17210105         | 1       |
| AEP/Krieger               | Aluminium acetotartrate solu... | 201628           | 1       |
| aetenstaedt GmbH-AHD      | Water                           | 20001119001      | 1       |
| AHD 08.04.20              | Aluminium acetotartrate solu... | 190036           | 1       |
| AHD 10.07.2020            | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| AHD/28.09.20 EK: 11,93EUR | Water                           | 20001293001      | 1       |
| AHD/Hedinger              | Water                           | 20C17-T19-077613 | 2       |
| AHD                       | Aluminium acetotartrate solu... | 20159B           | 1       |
| AHD                       | Chlorhexidine digluconate so... | 1206023-02       | 3       |
| AHD                       | Chlorhexidine digluconate so... | 12114012         | 1       |
| AHD                       | Chlorhexidine digluconate so... | 13136115         | 1       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| AHD                        | Chlorhexidine digluconate so... | 17210112         | 1       |
| AHD                        | Chlorhexidine digluconate so... | 1811026-01       | 1       |
| AHD                        | Water                           | 18156201         | 1       |
| AHD                        | Chlorhexidine digluconate so... | 18215601         | 1       |
| AHD                        | Chlorhexidine digluconate so... | 18215610         | 1       |
| AHD                        | Aluminium acetotartrate solu... | 201628           | 1       |
| AHD                        | Aluminium acetotartrate solu... | 20162B           | 1       |
| AHD                        | Aluminium acetotartrate solu... | 20164B           | 1       |
| AHD                        | Water                           | 20C17-T19-077613 | 1       |
| AHD                        | Water                           | 20C19-T13-077809 | 1       |
| AHL                        | Water                           | 17291301         | 2       |
| ALH                        | Chlorhexidine digluconate so... | 1610021-01       | 1       |
| Alliance Healthcare        | Water                           | 191119           | 1       |
| Alliance Healthcare        | Chlorhexidine digluconate so... | 1206023          | 1       |
| Alliance Healthcare        | Aluminium acetotartrate solu... | 12318705         | 2       |
| Alliance Healthcare        | Water                           | 19D01-T11-065565 | 1       |
| Alliance Healthcare        | Water                           | 19F27-T12-068906 | 2       |
| Alliance Healthcare        | Water                           | 19J14-T06-072685 | 1       |
| Alliance Healthcare        | Water                           | 20C31-T19-078892 | 1       |
| Alliance Healthcare        | Water                           | 20F16-T06-081160 | 2       |
| Alliance                   | Chlorhexidine digluconate so... | 11811026         | 1       |
| Allianz Healthcare         | Chlorhexidine digluconate so... | 1721110          | 1       |
| Allianz Healthcare         | Water                           | LOTAPsp0004      | 1       |
| Allianz Healthcare         | Water                           | LOTAPSP0005      | 1       |
| Alte Apotheke              | Water                           | 16022202         | 1       |
| Alte Apotheke              | Water                           | 16223601         | 1       |
| Anzag 17.04.13 ek: 5,43EUR | Aluminium acetotartrate solu... | 20152B           | 1       |
| Anzag/ Hedinger            | Aluminium acetotartrate solu... | 20153B           | 1       |
| Anzag/                     | Aluminium acetotartrate solu... | 20151B           | 1       |
| Anzag/23.12.19             | Water                           | LOTAP-SP0006     | 1       |
| Anzag/Anzag 31.08.18       | Water                           | LOTAP0083        | 1       |
| Anzag/fargon               | Water                           | 19C29T02065500   | 1       |
| ANZAG                      | Chlorhexidine digluconate so... | 11353012         | 1       |
| Anzag                      | Chlorhexidine digluconate so... | 1206023-01       | 2       |
| anzag                      | Chlorhexidine digluconate so... | 15131504         | 1       |
| Anzag                      | Chlorhexidine digluconate so... | 1708006-02       | 1       |
| Anzag                      | Chlorhexidine digluconate so... | 1811026-01       | 1       |
| Anzag                      | Chlorhexidine digluconate so... | 18215610         | 1       |
| Anzag                      | Chlorhexidine digluconate so... | 19080808         | 2       |
| Anzag                      | Water                           | 20003268001      | 1       |
| Anzag                      | Aluminium acetotartrate solu... | 20152B           | 2       |
| Anzag                      | Water                           | LOTAP0103        | 1       |
| Anzag; 3.80EUR; 7.10.2015  | Chlorhexidine digluconate so... | 1412018-02       | 1       |
| Apoident /Sanacorp         | Chlorhexidine digluconate so... | 1811026-01       | 1       |
| apo-ident.                 | Chlorhexidine digluconate so... | 1511033-01       | 6       |
| apo-ident.                 | Chlorhexidine digluconate so... | 1610021-01       | 1       |
| Apoident/ Phoenix          | Chlorhexidine digluconate so... | 2007044-01       | 1       |
| Apo-ident                  | Chlorhexidine digluconate so... | 1508022-01       | 1       |
| Apo-ident                  | Chlorhexidine digluconate so... | 1701037-02       | 1       |
| apo-ident                  | Chlorhexidine digluconate so... | 17E09-B01-335136 | 1       |
| apomix                     | Water                           | 17114501         | 1       |
| apomix                     | Chlorhexidine digluconate so... | 17210105         | 1       |
| apomix                     | Water                           | 17E05-T03-044051 | 1       |
| apomix                     | Chlorhexidine digluconate so... | 18215601         | 1       |
| apomix                     | Chlorhexidine digluconate so... | 18C05-B04-352123 | 1       |
| apomix                     | Chlorhexidine digluconate so... | 2007044-02       | 1       |
| aponorm (WEPA)             | Water                           | L0T-SP0022       | 1       |
| Apoth. E. Bartel           | Aluminium acetotartrate solu... | 20164B           | 1       |
| Apoth. E. bertel/sanacorp  | Aluminium acetotartrate solu... | 20161B           | 1       |
| Apoth. Elisabeth Bartel    | Aluminium acetotartrate solu... | 20165B           | 1       |

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| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| athenstaed                 | Aluminium acetotartrate solu... | 180041           | 1       |
| athenstaed                 | Aluminium acetotartrate solu... | 180043           | 2       |
| athenstaedt / Gehe         | Aluminium acetotartrate solu... | 160036           | 1       |
| athenstaedt GmbH & Co K... | Aluminium acetotartrate solu... | 180043           | 1       |
| athenstaedt GmbH / Noweda  | Aluminium acetotartrate solu... | 110024           | 1       |
| athenstaedt GmbH CoKG      | Aluminium acetotartrate solu... | 180043           | 1       |
| Athenstaedt GmbH über J... | Aluminium acetotartrate solu... | 190062           | 1       |
| Athenstaedt GmbH/ AHD      | Aluminium acetotartrate solu... | 190036           | 1       |
| athenstaedt GmbH/Allaen... | Aluminium acetotartrate solu... | 180043           | 1       |
| athenstaedt GmbH/Phönix    | Aluminium acetotartrate solu... | 160030           | 1       |
| athenstaedt GmbH           | Aluminium acetotartrate solu... | 160030           | 2       |
| athenstaedt GmbH           | Aluminium acetotartrate solu... | 190062           | 1       |
| athenstaedt GmbH           | Aluminium acetotartrate solu... | 900107           | 2       |
| Athenstaedt Noweda         | Aluminium acetotartrate solu... | 190036           | 1       |
| Athenstaedt/ Gehe          | Aluminium acetotartrate solu... | 180041           | 1       |
| athenstaedt/AllianceHC     | Aluminium acetotartrate solu... | 160029           | 1       |
| athenstaedt/GEHE           | Aluminium acetotartrate solu... | 160030           | 1       |
| athenstaedt/Noweda         | Aluminium acetotartrate solu... | 160030           | 1       |
| Athenstaedt/P              | Aluminium acetotartrate solu... | 180041           | 1       |
| athenstaedt/Phoenix        | Aluminium acetotartrate solu... | 190036           | 1       |
| athenstaedt/Phönix         | Aluminium acetotartrate solu... | 180041           | 1       |
| athenstaedt/Phönix         | Aluminium acetotartrate solu... | 190036           | 1       |
| Athenstaedt/Phönix         | Aluminium acetotartrate solu... | 190063           | 1       |
| athenstaedt                | Aluminium acetotartrate solu... | 110024           | 1       |
| Athenstaedt                | Aluminium acetotartrate solu... | 160029           | 1       |
| athenstaedt                | Aluminium acetotartrate solu... | 160030           | 1       |
| athenstaedt                | Aluminium acetotartrate solu... | 160036           | 1       |
| Athenstaedt                | Aluminium acetotartrate solu... | 160036           | 2       |
| athenstaedt                | Aluminium acetotartrate solu... | 180041           | 1       |
| Athenstaedt                | Aluminium acetotartrate solu... | 180041           | 1       |
| Athenstaedt                | Aluminium acetotartrate solu... | 180043           | 2       |
| Athenstaedt                | Aluminium acetotartrate solu... | 180044           | 1       |
| athenstaedt                | Aluminium acetotartrate solu... | 190036           | 1       |
| Athenstaedt                | Aluminium acetotartrate solu... | 190037           | 1       |
| Athenstaedt                | Aluminium acetotartrate solu... | 900108           | 3       |
| athenstaedtFiebig          | Aluminium acetotartrate solu... | 180044           | 1       |
| athenstaedtGmbH            | Aluminium acetotartrate solu... | 180044           | 1       |
| Athensteadt                | Aluminium acetotartrate solu... | 180041           | 1       |
| athenstedt                 | Aluminium acetotartrate solu... | 110029           | 1       |
| Audor Pharma               | Chlorhexidine digluconate so... | 13K26-B06-289365 | 2       |
| Audor Pharma               | Chlorhexidine digluconate so... | 2007044-02       | 1       |
| Aug. Hedinger GmbH & Co... | Aluminium acetotartrate solu... | 20161B           | 1       |
| Aug. Hedinger GmbH&Co. ... | Aluminium acetotartrate solu... |                  | 1       |
| Aug. Hedinger GmbH&Co. ... | Aluminium acetotartrate solu... | 20165B           | 1       |
| AUG.HEDINGER GMBH          | Water                           | 219151           | 1       |
| Aug.Hedinger/Phoenix       | Aluminium acetotartrate solu... | 20158B           | 1       |
| Aug.Hedinger               | Aluminium acetotartrate solu... | 20164B           | 2       |
| B. Braun Melsungen AG      | Water                           | 202028002        | 1       |
| B. Braun Melsungen AG      | Water                           | 203378001        | 1       |
| B. Braun Melsungen AG      | Water                           | 204238002        | 1       |
| B. Braun Melsungen AG      | Water                           | 204938001        | 1       |
| B. Braun Melsungen AG      | Water                           | 211328001        | 1       |
| B. Braun Melsungen AG      | Water                           | 211868001        | 1       |
| B. Braun Melsungen AG      | Water                           | 212738001        | 1       |
| B. Braun Melsungen/Jenne   | Water                           | 20073296         | 1       |
| B.Braun Melsungen AG / ... | Water                           | 17081017         | 1       |
| B.Braun Melsungen AG / ... | Water                           | 17436012         | 1       |
| B.Braun Melsungen AG / ... | Water                           | 18074014         | 1       |
| Bajaj Healthcare Ltd.      | Chlorhexidine digluconate so... | 1811026-01       | 1       |
| Bajaj Healthcare Ltd.      | Chlorhexidine digluconate so... | 200704402        | 1       |

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| Supplier                | Substance                       | Batch                | Spectra |
|-------------------------|---------------------------------|----------------------|---------|
| Bajaj Healthcare/Phönix | Chlorhexidine digluconate so... | 1908014-01           | 2       |
| Beiersdorf/Gehe         | Water                           | 17K27-T15-050585     | 1       |
| Berkel AHK              | Chlorhexidine digluconate so... | 13136115             | 1       |
| Bionorica ethics        | Water                           | 18G16-T03-058126     | 1       |
| Bombastus               | Chlorhexidine digluconate so... | 12H14-N06            | 1       |
| Bombastus               | Chlorhexidine digluconate so... | 1412018-02           | 1       |
| Bombastus               | Chlorhexidine digluconate so... | 1508022-02           | 1       |
| Bombastus               | Chlorhexidine digluconate so... | 16002505             | 1       |
| Bombastus               | Aluminium acetotartrate solu... | 160029               | 1       |
| Bombastus               | Water                           | 17295701             | 1       |
| Bombastus               | Chlorhexidine digluconate so... | 18045911             | 1       |
| Bombastus               | Aluminium acetotartrate solu... | 18078602             | 1       |
| Bombastus               | Aluminium acetotartrate solu... | 18078606             | 1       |
| Bombastus               | Water                           | 18178302             | 1       |
| Bombastus               | Chlorhexidine digluconate so... | 18C05-B04-352124     | 1       |
| Bombastus               | Water                           | AP0093               | 1       |
| Bombastus               | Water                           | AP-SP0012            | 1       |
| Braun/Noweda            | Water                           | 19403013             | 1       |
| Braun/Phoenix           | Water                           | 18074014             | 1       |
| Braun/Phoenix           | Water                           | 18272011             | 1       |
| Cael/Nowda              | Chlorhexidine digluconate so... | 13136115             | 1       |
| Cael0/ Fiebig           | Chlorhexidine digluconate so... | 17210106             | 1       |
| Caeleo/ Krieger         | Chlorhexidine digluconate so... | 17230801             | 2       |
| Caeli/Fiebig            | Chlorhexidine digluconate so... | 17210112             | 1       |
| Caelo                   | Chlorhexidine digluconate so... |                      | 10      |
| Caelo                   | Aluminium acetotartrate solu... | (020)020             | 1       |
| Caelo                   | Aluminium acetotartrate solu... | 10114803             | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 10200303             | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 10200308             | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 10213441             | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 10213458             | 2       |
| Caelo                   | Aluminium acetotartrate solu... | 1031706              | 1       |
| Caelo                   | Water                           | 10893501             | 1       |
| Caelo                   | Aluminium acetotartrate solu... | 110024               | 1       |
| Caelo                   | Aluminium acetotartrate solu... | 110029               | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 11135107             | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 11135114             | 1       |
| Caelo                   | Aluminium acetotartrate solu... | 11315004             | 1       |
| Caelo                   | Aluminium acetotartrate solu... | 11315007             | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 11353001             | 3       |
| Caelo                   | Chlorhexidine digluconate so... | 11353004             | 2       |
| Caelo                   | Chlorhexidine digluconate so... | 11353009             | 2       |
| Caelo                   | Chlorhexidine digluconate so... | 11353012             | 3       |
| Caelo                   | Chlorhexidine digluconate so... | 11353013             | 2       |
| Caelo                   | Aluminium acetotartrate solu... | 117(18078602)        | 1       |
| Caelo                   | Aluminium acetotartrate solu... | 118(18288401)        | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 11L05-N080040        | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 1202010-01           | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 12055                | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 1206023-01           | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 1206023-02           | 3       |
| Caelo                   | Chlorhexidine digluconate so... | 1206023-02-335731907 | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 12114001             | 4       |
| Caelo                   | Chlorhexidine digluconate so... | 12114007             | 1       |
| Caelo                   | Chlorhexidine digluconate so... | 12114008             | 4       |
| Caelo                   | Chlorhexidine digluconate so... | 12114012             | 10      |
| Caelo                   | Chlorhexidine digluconate so... | 12114013             | 3       |
| Caelo                   | Chlorhexidine digluconate so... | 12114014             | 3       |
| Caelo                   | Chlorhexidine digluconate so... | 12114015             | 2       |
| Caelo                   | Chlorhexidine digluconate so... | 12114019             | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Aluminium acetotartrate solu... | 12116803         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 12116804         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 12122222         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 12233501         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 12233502         | 4       |
| Caelo    | Aluminium acetotartrate solu... | 12233503         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 12318701         | 5       |
| Caelo    | Aluminium acetotartrate solu... | 12318702         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 12318703         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 12318704         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 12318705         | 2       |
| Caelo    | Chlorhexidine digluconate so... | 12H14-N016       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 12H14-N06        | 2       |
| Caelo    | Chlorhexidine digluconate so... | 12k22-n09        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1308002          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1308002-01       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1308002-02       | 7       |
| Caelo    | Chlorhexidine digluconate so... | 13081502         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 13101101         | 2       |
| Caelo    | Aluminium acetotartrate solu... | 13101102         | 5       |
| Caelo    | Aluminium acetotartrate solu... | 13101104         | 5       |
| Caelo    | Aluminium acetotartrate solu... | 13101105         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 13136015         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 13136101         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 13136103         | 12      |
| Caelo    | Chlorhexidine digluconate so... | 13136105         | 5       |
| Caelo    | Chlorhexidine digluconate so... | 13136112         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 13136114         | 7       |
| Caelo    | Chlorhexidine digluconate so... | 13136115         | 3       |
| Caelo    | Chlorhexidine digluconate so... | 1316103          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 13261301         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 13261302         | 2       |
| Caelo    | Aluminium acetotartrate solu... | 13261303         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 13261304         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 13261306         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 13378701         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 13378702         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 13378703         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 13378704         | 2       |
| Caelo    | Aluminium acetotartrate solu... | 13378706         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 13378708         | 2       |
| Caelo    | Aluminium acetotartrate solu... | 13378709         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 13A29-N06        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 13H19-B01-285451 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 13K26-B06        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 13K26-B06-288849 | 2       |
| Caelo    | Chlorhexidine digluconate so... | 14011004         | 2       |
| Caelo    | Chlorhexidine digluconate so... | 14011009         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 14011011         | 3       |
| Caelo    | Chlorhexidine digluconate so... | 14011013         | 6       |
| Caelo    | Chlorhexidine digluconate so... | 14011015         | 5       |
| Caelo    | Chlorhexidine digluconate so... | 14011017         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 14011018         | 3       |
| Caelo    | Chlorhexidine digluconate so... | 14011020         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1401105          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 140111009        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 140111011        | 1       |
| Caelo    | Aluminium acetotartrate solu... | 14071503         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 141201801        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1412018-01       | 3       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Chlorhexidine digluconate so... | 141201802        | 2       |
| Caelo    | Chlorhexidine digluconate so... | 1412018-02       | 2       |
| Caelo    | Water                           | 14170717         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 1425006          | 2       |
| Caelo    | Aluminium acetotartrate solu... | 1425010          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 14252004         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 14252005         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 14252006         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 14252007         | 2       |
| Caelo    | Aluminium acetotartrate solu... | 14252008         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 14252009         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 14252010         | 10      |
| Caelo    | Aluminium acetotartrate solu... | 14252011         | 1       |
| Caelo    | Water                           | 14321201         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 14331301         | 7       |
| Caelo    | Chlorhexidine digluconate so... | 14331303         | 2       |
| Caelo    | Chlorhexidine digluconate so... | 14331306         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 14331307         | 10      |
| Caelo    | Chlorhexidine digluconate so... | 14331308         | 2       |
| Caelo    | Chlorhexidine digluconate so... | 14331309         | 3       |
| Caelo    | Chlorhexidine digluconate so... | 14331310         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 14331312         | 9       |
| Caelo    | Chlorhexidine digluconate so... | 14331313         | 9       |
| Caelo    | Water                           | 14364201         | 1       |
| Caelo    | Water                           | 14LL26           | 3       |
| Caelo    | Chlorhexidine digluconate so... | 15/03-B02-315213 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 15/03-B02-315552 | 1       |
| Caelo    | Water                           | 15013001         | 1       |
| Caelo    | Water                           | 15025501         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 1504506          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 15045403         | 10      |
| Caelo    | Aluminium acetotartrate solu... | 15045404         | 2       |
| Caelo    | Aluminium acetotartrate solu... | 15045405         | 5       |
| Caelo    | Aluminium acetotartrate solu... | 15045406         | 19      |
| Caelo    | Aluminium acetotartrate solu... | 15054405         | 1       |
| Caelo    | Water                           | 15068701         | 2       |
| Caelo    | Water                           | 15068702         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 1508022-01       | 3       |
| Caelo    | Chlorhexidine digluconate so... | 1508022-02       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1508022-22       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 15109201         | 13      |
| Caelo    | Chlorhexidine digluconate so... | 15109202         | 5       |
| Caelo    | Chlorhexidine digluconate so... | 15110033-01      | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1511033/02       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 151103301        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1511033-01       | 4       |
| Caelo    | Chlorhexidine digluconate so... | 1511033-02       | 4       |
| Caelo    | Chlorhexidine digluconate so... | 15131502         | 10      |
| Caelo    | Chlorhexidine digluconate so... | 15131503         | 16      |
| Caelo    | Chlorhexidine digluconate so... | 15131504         | 13      |
| Caelo    | Chlorhexidine digluconate so... | 15131505         | 20      |
| Caelo    | Chlorhexidine digluconate so... | 15131508         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 15131509         | 26      |
| Caelo    | Chlorhexidine digluconate so... | 15131510         | 17      |
| Caelo    | Chlorhexidine digluconate so... | 15131512         | 7       |
| Caelo    | Chlorhexidine digluconate so... | 15131565         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 151361503        | 1       |
| Caelo    | Water                           | 15154901         | 1       |
| Caelo    | Water                           | 15220601         | 3       |
| Caelo    | Water                           | 15220602         | 7       |

continued on the next page



*continued from previous page*

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Water                           | 15235201         | 1       |
| Caelo    | Water                           | 15235301         | 2       |
| Caelo    | Water                           | 1524101          | 1       |
| Caelo    | Water                           | 15253901         | 5       |
| Caelo    | Water                           | 15254101         | 3       |
| Caelo    | Water                           | 15287302         | 3       |
| Caelo    | Water                           | 15287401         | 2       |
| Caelo    | Water                           | 15287501         | 2       |
| Caelo    | Chlorhexidine digluconate so... | 15292504         | 22      |
| Caelo    | Chlorhexidine digluconate so... | 15292507         | 6       |
| Caelo    | Chlorhexidine digluconate so... | 15292508         | 22      |
| Caelo    | Chlorhexidine digluconate so... | 15292509         | 6       |
| Caelo    | Chlorhexidine digluconate so... | 15292511         | 2       |
| Caelo    | Chlorhexidine digluconate so... | 15292512         | 6       |
| Caelo    | Chlorhexidine digluconate so... | 1529504          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1529509          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1529511          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 1529901          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 15299601         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 15299901         | 23      |
| Caelo    | Aluminium acetotartrate solu... | 15299902         | 5       |
| Caelo    | Aluminium acetotartrate solu... | 15299904         | 4       |
| Caelo    | Aluminium acetotartrate solu... | 15299909         | 12      |
| Caelo    | Water                           | 15317101         | 1       |
| Caelo    | Water                           | 15317401         | 1       |
| Caelo    | Water                           | 15336501         | 5       |
| Caelo    | Water                           | 15336502         | 1       |
| Caelo    | Water                           | 15355201         | 1       |
| Caelo    | Water                           | 15355301         | 2       |
| Caelo    | Water                           | 15355401         | 1       |
| Caelo    | Water                           | 15371202         | 4       |
| Caelo    | Water                           | 15394201         | 4       |
| Caelo    | Water                           | 15394202         | 12      |
| Caelo    | Water                           | 15394501         | 2       |
| Caelo    | Water                           | 15406801         | 2       |
| Caelo    | Water                           | 1542701          | 1       |
| Caelo    | Water                           | 15427201         | 5       |
| Caelo    | Chlorhexidine digluconate so... | 1592509          | 1       |
| Caelo    | Water                           | 15D13-T09-021469 | 1       |
| Caelo    | Water                           | 15D14-T06-021484 | 1       |
| Caelo    | Water                           | 15D14-T14-021502 | 1       |
| Caelo    | Water                           | 15F04-T05-023263 | 1       |
| Caelo    | Water                           | 15F24-T03-023883 | 2       |
| Caelo    | Chlorhexidine digluconate so... | 15f30-b05-309829 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 15F30-B05-309829 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 15F30-B05-311700 | 1       |
| Caelo    | Water                           | 15G09-T04-024368 | 2       |
| Caelo    | Water                           | 15H25T18025678   | 1       |
| Caelo    | Water                           | 15H25-T18-025678 | 1       |
| Caelo    | Water                           | 15H25-T21-025683 | 2       |
| Caelo    | Chlorhexidine digluconate so... | 15i03-b02        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 15I03-B02-313663 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 15I03-B02-315213 | 4       |
| Caelo    | Water                           | 15I10-T08-025964 | 1       |
| Caelo    | Water                           | 15K10-T06-027620 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 15l03-b02-317319 | 1       |
| Caelo    | Water                           | 15L15-T05-028681 | 1       |
| Caelo    | Water                           | 15L15T07028685   | 1       |
| Caelo    | Chlorhexidine digluconate so... | 16002501         | 18      |
| Caelo    | Chlorhexidine digluconate so... | 16002502         | 6       |

*continued on the next page*

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Caelo    | Chlorhexidine digluconate so... | 16002505             | 27      |
| Caelo    | Chlorhexidine digluconate so... | 16002506             | 10      |
| Caelo    | Chlorhexidine digluconate so... | 16002510             | 6       |
| Caelo    | Water                           | 16002601             | 1       |
| Caelo    | Water                           | 16002901             | 1       |
| Caelo    | Aluminium acetotartrate solu... | 160030               | 1       |
| Caelo    | Aluminium acetotartrate solu... | 16004501             | 4       |
| Caelo    | Aluminium acetotartrate solu... | 16004504             | 3       |
| Caelo    | Aluminium acetotartrate solu... | 16004505             | 23      |
| Caelo    | Aluminium acetotartrate solu... | 16004512             | 12      |
| Caelo    | Aluminium acetotartrate solu... | 16004525             | 1       |
| Caelo    | Water                           | 16006001             | 3       |
| Caelo    | Chlorhexidine digluconate so... | 160308811            | 1       |
| Caelo    | Water                           | 16041701             | 1       |
| Caelo    | Water                           | 16065001             | 1       |
| Caelo    | Water                           | 16065101             | 2       |
| Caelo    | Water                           | 16065201             | 2       |
| Caelo    | Water                           | 16065601             | 1       |
| Caelo    | Water                           | 16065701             | 1       |
| Caelo    | Aluminium acetotartrate solu... | 16091704             | 1       |
| Caelo    | Water                           | 16093301             | 3       |
| Caelo    | Chlorhexidine digluconate so... | 161002101            | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1610022-01           | 1       |
| Caelo    | Water                           | 16127901             | 4       |
| Caelo    | Water                           | 16127902             | 7       |
| Caelo    | Water                           | 16151201             | 2       |
| Caelo    | Water                           | 1615201              | 1       |
| Caelo    | Water                           | 16171301             | 1       |
| Caelo    | Water                           | 16178101             | 1       |
| Caelo    | Water                           | 16211901             | 3       |
| Caelo    | Water                           | 16215202             | 1       |
| Caelo    | Water                           | 16218601             | 1       |
| Caelo    | Water                           | 16223501             | 1       |
| Caelo    | Water                           | 16223601             | 3       |
| Caelo    | Water                           | 16223801             | 21      |
| Caelo    | Water                           | 16223901             | 2       |
| Caelo    | Water                           | 16255101             | 2       |
| Caelo    | Water                           | 16255201             | 4       |
| Caelo    | Aluminium acetotartrate solu... | 16260201             | 1       |
| Caelo    | Water                           | 16286801             | 7       |
| Caelo    | Water                           | 16291601             | 2       |
| Caelo    | Water                           | 16307501             | 3       |
| Caelo    | Chlorhexidine digluconate so... | 16308801             | 69      |
| Caelo    | Chlorhexidine digluconate so... | 16308802             | 25      |
| Caelo    | Chlorhexidine digluconate so... | 1630881              | 3       |
| Caelo    | Chlorhexidine digluconate so... | 16308811             | 71      |
| Caelo    | Chlorhexidine digluconate so... | 16308812             | 26      |
| Caelo    | Chlorhexidine digluconate so... | 1630881218c05b043521 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 16309902             | 1       |
| Caelo    | Water                           | 16313201             | 5       |
| Caelo    | Water                           | 16313202             | 2       |
| Caelo    | Water                           | 16334201             | 1       |
| Caelo    | Water                           | 16334301             | 1       |
| Caelo    | Water                           | 16340201             | 2       |
| Caelo    | Aluminium acetotartrate solu... | 163420001            | 1       |
| Caelo    | Aluminium acetotartrate solu... | 163420006            | 1       |
| Caelo    | Aluminium acetotartrate solu... | 16342001             | 30      |
| Caelo    | Aluminium acetotartrate solu... | 16342003             | 1       |
| Caelo    | Aluminium acetotartrate solu... | 16342005             | 18      |
| Caelo    | Aluminium acetotartrate solu... | 16342006             | 21      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Aluminium acetotartrate solu... | 16342007           | 4       |
| Caelo    | Water                           | 16353303           | 9       |
| Caelo    | Water                           | 16B10T04030213     | 1       |
| Caelo    | Water                           | 16B10-T05-030216   | 2       |
| Caelo    | Water                           | 16C23-/08_031427   | 1       |
| Caelo    | Water                           | 16C23-T16-031436   | 3       |
| Caelo    | Chlorhexidine digluconate so... | 16E09-B03          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 16E09-B03-320995   | 1       |
| Caelo    | Chlorhexidine digluconate so... | 16E09-B03-322465   | 1       |
| Caelo    | Chlorhexidine digluconate so... | 16E09-B03-324024   | 1       |
| Caelo    | Water                           | 16F13-T11-034264   | 1       |
| Caelo    | Water                           | 16F13-T11-34264    | 1       |
| Caelo    | Water                           | 16F13-T14-034274   | 1       |
| Caelo    | Water                           | 16F13-T16-034297   | 2       |
| Caelo    | Water                           | 16F13-T18-034301   | 1       |
| Caelo    | Water                           | 16F143-T09-034330  | 1       |
| Caelo    | Water                           | 16F14-T03-034317   | 1       |
| Caelo    | Water                           | 16F14-T05-03432    | 1       |
| Caelo    | Water                           | 16F14-T05-034321   | 2       |
| Caelo    | Water                           | 16F14-T05o34321    | 1       |
| Caelo    | Water                           | 16F14-T07-034326   | 1       |
| Caelo    | Water                           | 16F14-T09-034330   | 1       |
| Caelo    | Water                           | 16K25-C20-17409    | 1       |
| Caelo    | Water                           | 16L12-T11-039624   | 1       |
| Caelo    | Water                           | 16L12T16039628     | 1       |
| Caelo    | Water                           | 16L12T25039642     | 1       |
| Caelo    | Water                           | 16L12-T27-039646   | 2       |
| Caelo    | Water                           | 16L12-T31-039661   | 1       |
| Caelo    | Water                           | 17002001           | 12      |
| Caelo    | Water                           | 17002101           | 5       |
| Caelo    | Chlorhexidine digluconate so... | 1701037            | 2       |
| Caelo    | Chlorhexidine digluconate so... | 1701037-01         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 170103702          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1701037-02         | 8       |
| Caelo    | Water                           | 17011603           | 1       |
| Caelo    | Water                           | 17012002           | 1       |
| Caelo    | Water                           | 170320001          | 1       |
| Caelo    | Water                           | 17032401           | 4       |
| Caelo    | Water                           | 17034801           | 1       |
| Caelo    | Water                           | 17034901           | 1       |
| Caelo    | Water                           | 17035001           | 1       |
| Caelo    | Water                           | 17035101           | 3       |
| Caelo    | Water                           | 17035201           | 4       |
| Caelo    | Aluminium acetotartrate solu... | 17051804           | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1708006-01         | 2       |
| Caelo    | Chlorhexidine digluconate so... | 1708006-02         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 17081201           | 1       |
| Caelo    | Water                           | 17089101           | 3       |
| Caelo    | Water                           | 17089301           | 2       |
| Caelo    | Water                           | 17089401           | 3       |
| Caelo    | Water                           | 17092001           | 1       |
| Caelo    | Water                           | 17098701           | 7       |
| Caelo    | Water                           | 17098901           | 10      |
| Caelo    | Chlorhexidine digluconate so... | 171002-02          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 171027CDG/17210105 | 1       |
| Caelo    | Water                           | 17114501           | 5       |
| Caelo    | Water                           | 17114701           | 16      |
| Caelo    | Water                           | 17114801           | 6       |
| Caelo    | Chlorhexidine digluconate so... | 1712002-01         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 171200202          | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Chlorhexidine digluconate so... | 1712002-02       | 1       |
| Caelo    | Water                           | 17145001         | 15      |
| Caelo    | Water                           | 17145002         | 2       |
| Caelo    | Water                           | 17149601         | 3       |
| Caelo    | Water                           | 17173001         | 5       |
| Caelo    | Water                           | 17173101         | 5       |
| Caelo    | Water                           | 17177301         | 22      |
| Caelo    | Water                           | 17179001         | 8       |
| Caelo    | Water                           | 17179101         | 7       |
| Caelo    | Chlorhexidine digluconate so... | 172010105        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 17210101         | 7       |
| Caelo    | Chlorhexidine digluconate so... | 17210102         | 4       |
| Caelo    | Chlorhexidine digluconate so... | 17210105         | 39      |
| Caelo    | Chlorhexidine digluconate so... | 17210106         | 21      |
| Caelo    | Chlorhexidine digluconate so... | 17210110         | 33      |
| Caelo    | Chlorhexidine digluconate so... | 172101110        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 17210112         | 49      |
| Caelo    | Chlorhexidine digluconate so... | 1721105          | 1       |
| Caelo    | Water                           | 17211301         | 4       |
| Caelo    | Water                           | 17211401         | 1       |
| Caelo    | Water                           | 17219101         | 7       |
| Caelo    | Chlorhexidine digluconate so... | 172300801        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 17230801         | 117     |
| Caelo    | Chlorhexidine digluconate so... | 17230811         | 1       |
| Caelo    | Water                           | 17233001         | 4       |
| Caelo    | Water                           | 17233101         | 5       |
| Caelo    | Water                           | 1723311          | 1       |
| Caelo    | Water                           | 17249101         | 6       |
| Caelo    | Water                           | 17277102         | 8       |
| Caelo    | Water                           | 17282701         | 9       |
| Caelo    | Water                           | 1728270127/18    | 1       |
| Caelo    | Water                           | 17291301         | 2       |
| Caelo    | Water                           | 17295701         | 38      |
| Caelo    | Water                           | 17304001         | 1       |
| Caelo    | Water                           | 17304101         | 3       |
| Caelo    | Water                           | 17313801         | 2       |
| Caelo    | Water                           | 17317201         | 2       |
| Caelo    | Water                           | 17317301         | 5       |
| Caelo    | Water                           | 17319901         | 6       |
| Caelo    | Water                           | 17320001         | 11      |
| Caelo    | Water                           | 17339701         | 1       |
| Caelo    | Water                           | 17339801         | 4       |
| Caelo    | Water                           | 17810-T27-041575 | 1       |
| Caelo    | Water                           | 17B10-T18-041564 | 3       |
| Caelo    | Water                           | 17B10-T20-041571 | 1       |
| Caelo    | Water                           | 17B10-T27-041575 | 1       |
| Caelo    | Water                           | 17B13-T02-041604 | 1       |
| Caelo    | Water                           | 17C31-T05-043064 | 1       |
| Caelo    | Water                           | 17E05-T03-044051 | 3       |
| Caelo    | Water                           | 17E05-T07-044067 | 5       |
| Caelo    | Water                           | 17E05T11044076   | 1       |
| Caelo    | Water                           | 17E05-T11-044076 | 3       |
| Caelo    | Water                           | 17E05-T13-044080 | 7       |
| Caelo    | Chlorhexidine digluconate so... | 17E09-B01-335140 | 2       |
| Caelo    | Water                           | 17F23-T06-045760 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 17G04-B01-341691 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 17G04-B01-341693 | 3       |
| Caelo    | Water                           | 17H24-T09-047709 | 2       |
| Caelo    | Water                           | 17H24T11047713   | 1       |
| Caelo    | Water                           | 17H24-T11-047713 | 2       |

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continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Caelo    | Water                           | 17H24-T13-047717    | 1       |
| Caelo    | Water                           | 17H24-T15-047721    | 8       |
| Caelo    | Water                           | 17K01-T01-048440    | 1       |
| Caelo    | Water                           | 17K27-T09-050544    | 5       |
| Caelo    | Water                           | 17k27-t11-050552    | 1       |
| Caelo    | Water                           | 17K27T14050581      | 1       |
| Caelo    | Water                           | 17K27-T15-050585    | 3       |
| Caelo    | Water                           | 17L20-T02-051255    | 1       |
| Caelo    | Water                           | 18/24-T14-060238    | 1       |
| Caelo    | Water                           | 18000401            | 6       |
| Caelo    | Aluminium acetotartrate solu... | 180041              | 1       |
| Caelo    | Aluminium acetotartrate solu... | 180043              | 2       |
| Caelo    | Water                           | 18004701            | 1       |
| Caelo    | Water                           | 18019501            | 4       |
| Caelo    | Water                           | 18030402            | 11      |
| Caelo    | Water                           | 18035301            | 1       |
| Caelo    | Water                           | 18042901            | 33      |
| Caelo    | Chlorhexidine digluconate so... | 18045903            | 75      |
| Caelo    | Chlorhexidine digluconate so... | 180459035663        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18045906            | 53      |
| Caelo    | Chlorhexidine digluconate so... | 18045909            | 12      |
| Caelo    | Chlorhexidine digluconate so... | 18045911            | 8       |
| Caelo    | Chlorhexidine digluconate so... | 18055911            | 1       |
| Caelo    | Water                           | 18061901            | 10      |
| Caelo    | Water                           | 180619012x          | 1       |
| Caelo    | Water                           | 18062001            | 1       |
| Caelo    | Water                           | 180620012x          | 1       |
| Caelo    | Water                           | 18062101            | 10      |
| Caelo    | Water                           | 1806501             | 1       |
| Caelo    | Water                           | 18065601            | 9       |
| Caelo    | Aluminium acetotartrate solu... | 18078602            | 38      |
| Caelo    | Aluminium acetotartrate solu... | 18078602/P-23081822 | 1       |
| Caelo    | Aluminium acetotartrate solu... | 18078606            | 35      |
| Caelo    | Aluminium acetotartrate solu... | 18078607            | 7       |
| Caelo    | Aluminium acetotartrate solu... | 18078608            | 1       |
| Caelo    | Aluminium acetotartrate solu... | 18078611            | 6       |
| Caelo    | Water                           | 18093061            | 1       |
| Caelo    | Water                           | 18093501            | 14      |
| Caelo    | Water                           | 18093601            | 15      |
| Caelo    | Water                           | 180936061           | 1       |
| Caelo    | Water                           | 1810401             | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18107-B04           | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18107-B04-354794    | 1       |
| Caelo    | Water                           | 18109101            | 2       |
| Caelo    | Water                           | 18109201            | 2       |
| Caelo    | Water                           | 18109301            | 6       |
| Caelo    | Water                           | 18109501            | 4       |
| Caelo    | Chlorhexidine digluconate so... | 1811026/01          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 181102601           | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1811026-01          | 13      |
| Caelo    | Water                           | 18110401            | 18      |
| Caelo    | Water                           | 18138601            | 7       |
| Caelo    | Water                           | 18146801            | 3       |
| Caelo    | Water                           | 181468801           | 1       |
| Caelo    | Water                           | 1814801             | 1       |
| Caelo    | Water                           | 18148601            | 1       |
| Caelo    | Water                           | 18156201            | 18      |
| Caelo    | Water                           | 18156301            | 5       |
| Caelo    | Water                           | 18156401            | 8       |
| Caelo    | Water                           | 18156501            | 8       |

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continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Water                           | 18178302         | 45      |
| Caelo    | Water                           | 18178303         | 1       |
| Caelo    | Water                           | 18178401         | 1       |
| Caelo    | Water                           | 1818302          | 1       |
| Caelo    | Water                           | 1819201          | 1       |
| Caelo    | Water                           | 18195201         | 12      |
| Caelo    | Water                           | 1819-T29-054007  | 1       |
| Caelo    | Water                           | 18210601         | 5       |
| Caelo    | Chlorhexidine digluconate so... | 18215601         | 108     |
| Caelo    | Chlorhexidine digluconate so... | 18215602         | 34      |
| Caelo    | Chlorhexidine digluconate so... | 18215603         | 3       |
| Caelo    | Chlorhexidine digluconate so... | 18215604         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18215607         | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18215610         | 53      |
| Caelo    | Chlorhexidine digluconate so... | 18215612         | 19      |
| Caelo    | Chlorhexidine digluconate so... | 182156212        | 1       |
| Caelo    | Water                           | 182263401        | 1       |
| Caelo    | Water                           | 18226601         | 4       |
| Caelo    | Water                           | 18226701         | 6       |
| Caelo    | Water                           | 18226801         | 1       |
| Caelo    | Water                           | 18226901         | 4       |
| Caelo    | Water                           | 18227001         | 10      |
| Caelo    | Water                           | 18228701         | 10      |
| Caelo    | Water                           | 18228801         | 10      |
| Caelo    | Water                           | 18228901         | 9       |
| Caelo    | Water                           | 18238601         | 11      |
| Caelo    | Water                           | 18239901         | 2       |
| Caelo    | Water                           | 18240101         | 5       |
| Caelo    | Water                           | 18253301         | 1       |
| Caelo    | Water                           | 18254801         | 2       |
| Caelo    | Water                           | 18263401         | 5       |
| Caelo    | Water                           | 18265001         | 46      |
| Caelo    | Water                           | 18265601         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 1828402          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 18288401         | 19      |
| Caelo    | Aluminium acetotartrate solu... | 18288402         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 18288404         | 10      |
| Caelo    | Aluminium acetotartrate solu... | 18288405         | 2       |
| Caelo    | Aluminium acetotartrate solu... | 18288408         | 13      |
| Caelo    | Aluminium acetotartrate solu... | 18288409         | 4       |
| Caelo    | Water                           | 1828901          | 1       |
| Caelo    | Water                           | 18299501         | 8       |
| Caelo    | Water                           | 18305101         | 10      |
| Caelo    | Water                           | 18305201         | 9       |
| Caelo    | Water                           | 18305301         | 7       |
| Caelo    | Water                           | 18305401         | 4       |
| Caelo    | Water                           | 18305501         | 5       |
| Caelo    | Water                           | 18325001         | 6       |
| Caelo    | Water                           | 18332901         | 3       |
| Caelo    | Aluminium acetotartrate solu... | 184288404        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18A09-B05-344603 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18A09-B05-344604 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18A09-B05-344605 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18C05-B04-349429 | 1       |
| Caelo    | Water                           | 18C13T14053736   | 1       |
| Caelo    | Water                           | 18C13-T15-053741 | 2       |
| Caelo    | Water                           | 18C19T053999     | 1       |
| Caelo    | Water                           | 18C19-T25-053991 | 1       |
| Caelo    | Water                           | 18c19-T26-053995 | 1       |
| Caelo    | Water                           | 18C19-T26-053995 | 3       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Caelo    | Water                           | 18C19-T28-054003  | 1       |
| Caelo    | Water                           | 18C19-T30-054012  | 4       |
| Caelo    | Water                           | 18C19-T31-054017  | 1       |
| Caelo    | Water                           | 18C-T15-053741    | 1       |
| Caelo    | Water                           | 18E07-T08-055699  | 3       |
| Caelo    | Water                           | 18E09-T01-055708  | 2       |
| Caelo    | Water                           | 18E09-T02-055711  | 4       |
| Caelo    | Water                           | 18E09-T02-0557711 | 1       |
| Caelo    | Water                           | 18E28-T02-056491  | 1       |
| Caelo    | Water                           | 18G16-T01-058118  | 1       |
| Caelo    | Water                           | 18G16-T02-058123  | 2       |
| Caelo    | Water                           | 18G16-T03-058126  | 2       |
| Caelo    | Water                           | 18G16-T04-058129  | 1       |
| Caelo    | Water                           | 18G16T05058132    | 1       |
| Caelo    | Water                           | 18G16-T05-058132  | 2       |
| Caelo    | Water                           | 18ho-T01-060845   | 1       |
| Caelo    | Chlorhexidine digluconate so... | 18I07-B04         | 1       |
| Caelo    | Water                           | 18I24-T14-060238  | 1       |
| Caelo    | Water                           | 18I24-T14-060239  | 2       |
| Caelo    | Water                           | 18I24-T14-060243  | 1       |
| Caelo    | Water                           | 18I24-T15-060243  | 2       |
| Caelo    | Water                           | 18J10-T01-060845  | 1       |
| Caelo    | Water                           | 18I19-T06-062854  | 1       |
| Caelo    | Aluminium acetotartrate solu... | 190007190003      | 1       |
| Caelo    | Aluminium acetotartrate solu... | 19000719003       | 22      |
| Caelo    | Aluminium acetotartrate solu... | 19000719007       | 12      |
| Caelo    | Aluminium acetotartrate solu... | 19002202          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 190037            | 1       |
| Caelo    | Water                           | 19005501          | 11      |
| Caelo    | Water                           | 19005601          | 29      |
| Caelo    | Water                           | 19005602          | 4       |
| Caelo    | Aluminium acetotartrate solu... | 19010901          | 1       |
| Caelo    | Water                           | 19012801          | 4       |
| Caelo    | Water                           | 19019701          | 1       |
| Caelo    | Water                           | 19019801          | 6       |
| Caelo    | Chlorhexidine digluconate so... | 1902010-01        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1902010-02        | 1       |
| Caelo    | Water                           | 19024301          | 7       |
| Caelo    | Water                           | 19029001          | 2       |
| Caelo    | Chlorhexidine digluconate so... | 190341303         | 1       |
| Caelo    | Water                           | 19037701          | 7       |
| Caelo    | Chlorhexidine digluconate so... | 19040001          | 1       |
| Caelo    | Aluminium acetotartrate solu... | 19052014A         | 1       |
| Caelo    | Water                           | 19065102          | 10      |
| Caelo    | Water                           | 19077501          | 5       |
| Caelo    | Water                           | 190775501         | 1       |
| Caelo    | Water                           | 19077601          | 16      |
| Caelo    | Water                           | 19077701          | 12      |
| Caelo    | Water                           | 19077801          | 19      |
| Caelo    | Chlorhexidine digluconate so... | 1908014-01        | 1       |
| Caelo    | Chlorhexidine digluconate so... | 19080807          | 15      |
| Caelo    | Chlorhexidine digluconate so... | 19080808          | 102     |
| Caelo    | Chlorhexidine digluconate so... | 19080809          | 2       |
| Caelo    | Chlorhexidine digluconate so... | 19080810          | 2       |
| Caelo    | Chlorhexidine digluconate so... | 19080812          | 21      |
| Caelo    | Chlorhexidine digluconate so... | 19080815          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 19080816          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 19080817          | 15      |
| Caelo    | Chlorhexidine digluconate so... | 19080818          | 25      |
| Caelo    | Water                           | 19097901          | 19      |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Caelo    | Water                           | 190993001          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1909-T07-071038    | 1       |
| Caelo    | Water                           | 19110901           | 2       |
| Caelo    | Water                           | 19111601           | 4       |
| Caelo    | Water                           | 19111701           | 5       |
| Caelo    | Water                           | 19112403           | 1       |
| Caelo    | Water                           | 1911601            | 1       |
| Caelo    | Chlorhexidine digluconate so... | 191172310          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 1912015-01         | 4       |
| Caelo    | Water                           | 19133401           | 9       |
| Caelo    | Water                           | 19149201           | 1       |
| Caelo    | Water                           | 191522801          | 1       |
| Caelo    | Water                           | 19152501           | 3       |
| Caelo    | Water                           | 19152701           | 8       |
| Caelo    | Water                           | 19152801           | 31      |
| Caelo    | Water                           | 19162701           | 7       |
| Caelo    | Water                           | 19184102           | 10      |
| Caelo    | Water                           | 19184201           | 4       |
| Caelo    | Water                           | 19198301           | 9       |
| Caelo    | Water                           | 19198401           | 12      |
| Caelo    | Water                           | 19198501           | 5       |
| Caelo    | Water                           | 19199101           | 8       |
| Caelo    | Water                           | 19207401           | 7       |
| Caelo    | Water                           | 19229401           | 6       |
| Caelo    | Water                           | 19246201           | 7       |
| Caelo    | Water                           | 19253301           | 4       |
| Caelo    | Water                           | 19253401           | 9       |
| Caelo    | Water                           | 19253501           | 1       |
| Caelo    | Water                           | 19253601           | 1       |
| Caelo    | Water                           | 19263601           | 6       |
| Caelo    | Water                           | 19274201           | 5       |
| Caelo    | Water                           | 192874001          | 2       |
| Caelo    | Chlorhexidine digluconate so... | 192927008          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 19297002           | 1       |
| Caelo    | Chlorhexidine digluconate so... | 19297006           | 1       |
| Caelo    | Chlorhexidine digluconate so... | 192972001          | 2       |
| Caelo    | Chlorhexidine digluconate so... | 192972002          | 65      |
| Caelo    | Chlorhexidine digluconate so... | 192972003          | 10      |
| Caelo    | Chlorhexidine digluconate so... | 192972006          | 36      |
| Caelo    | Chlorhexidine digluconate so... | 192972007          | 9       |
| Caelo    | Chlorhexidine digluconate so... | 192972008          | 44      |
| Caelo    | Chlorhexidine digluconate so... | 1929972008         | 1       |
| Caelo    | Water                           | 19A18-T06-063528   | 1       |
| Caelo    | Water                           | 19A18-T07-063531   | 1       |
| Caelo    | Water                           | 19C29-T05-065509   | 2       |
| Caelo    | Water                           | 19C29-T06-065512   | 1       |
| Caelo    | Water                           | 19E20-T09-067576   | 1       |
| Caelo    | Water                           | 19F27-T14-068914   | 2       |
| Caelo    | Chlorhexidine digluconate so... | 19J09-T07-071043   | 1       |
| Caelo    | Water                           | 19J14-T12-072715x5 | 1       |
| Caelo    | Water                           | 20000072001        | 4       |
| Caelo    | Water                           | 200000806001       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 2000009600004      | 1       |
| Caelo    | Chlorhexidine digluconate so... | 200000960009       | 1       |
| Caelo    | Water                           | 200001039001       | 1       |
| Caelo    | Water                           | 200001770001       | 1       |
| Caelo    | Water                           | 20000279001        | 2       |
| Caelo    | Water                           | 20000409001        | 4       |
| Caelo    | Water                           | 20000410001        | 3       |
| Caelo    | Water                           | 20000412001        | 3       |

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| Supplier | Substance                       | Batch        | Spectra |
|----------|---------------------------------|--------------|---------|
| Caelo    | Water                           | 20000418001  | 4       |
| Caelo    | Water                           | 20000526001  | 2       |
| Caelo    | Water                           | 20000526002  | 19      |
| Caelo    | Chlorhexidine digluconate so... | 20000779002  | 1       |
| Caelo    | Water                           | 20000806001  | 6       |
| Caelo    | Water                           | 20000853001  | 7       |
| Caelo    | Water                           | 20000934001  | 3       |
| Caelo    | Chlorhexidine digluconate so... | 20000960002  | 1       |
| Caelo    | Chlorhexidine digluconate so... | 20000960004  | 26      |
| Caelo    | Chlorhexidine digluconate so... | 20000960005  | 10      |
| Caelo    | Chlorhexidine digluconate so... | 20000960009  | 45      |
| Caelo    | Chlorhexidine digluconate so... | 2000096004   | 1       |
| Caelo    | Chlorhexidine digluconate so... | 2000096005   | 1       |
| Caelo    | Chlorhexidine digluconate so... | 2000096009   | 3       |
| Caelo    | Water                           | 20001036001  | 10      |
| Caelo    | Water                           | 20001037001  | 7       |
| Caelo    | Water                           | 20001039001  | 11      |
| Caelo    | Water                           | 20001117001  | 2       |
| Caelo    | Water                           | 20001119001  | 22      |
| Caelo    | Water                           | 20001293001  | 8       |
| Caelo    | Water                           | 20001377001  | 9       |
| Caelo    | Water                           | 20001416001  | 5       |
| Caelo    | Water                           | 20001518001  | 8       |
| Caelo    | Water                           | 20001628001  | 6       |
| Caelo    | Water                           | 20001629001  | 9       |
| Caelo    | Water                           | 20001770001  | 2       |
| Caelo    | Water                           | 20002022001  | 4       |
| Caelo    | Water                           | 2000202201   | 1       |
| Caelo    | Water                           | 20002379002  | 9       |
| Caelo    | Water                           | 20002402001  | 5       |
| Caelo    | Water                           | 20002447001  | 9       |
| Caelo    | Water                           | 20002448001  | 7       |
| Caelo    | Water                           | 20002449001  | 1       |
| Caelo    | Water                           | 20002745001  | 4       |
| Caelo    | Water                           | 20002911001  | 20      |
| Caelo    | Water                           | 20002911101  | 1       |
| Caelo    | Water                           | 20002912001  | 4       |
| Caelo    | Chlorhexidine digluconate so... | 20003241003  | 14      |
| Caelo    | Water                           | 20003259001  | 6       |
| Caelo    | Water                           | 20003260001  | 10      |
| Caelo    | Water                           | 20003266001  | 2       |
| Caelo    | Water                           | 20003268001  | 1       |
| Caelo    | Water                           | 20003298001  | 1       |
| Caelo    | Water                           | 20003299002  | 1       |
| Caelo    | Water                           | 20003300001  | 2       |
| Caelo    | Water                           | 20003301001  | 1       |
| Caelo    | Water                           | 20003301002  | 1       |
| Caelo    | Water                           | 200038/79001 | 1       |
| Caelo    | Water                           | 20003877001  | 12      |
| Caelo    | Water                           | 20003877003  | 1       |
| Caelo    | Water                           | 20003878001  | 2       |
| Caelo    | Water                           | 20003879001  | 3       |
| Caelo    | Water                           | 20004029001  | 3       |
| Caelo    | Water                           | 2000418001   | 1       |
| Caelo    | Water                           | 20004435001  | 9       |
| Caelo    | Water                           | 200044351001 | 1       |
| Caelo    | Water                           | 20004436001  | 2       |
| Caelo    | Chlorhexidine digluconate so... | 2000960004   | 1       |
| Caelo    | Chlorhexidine digluconate so... | 2000960009   | 3       |
| Caelo    | Chlorhexidine digluconate so... | 200096004    | 1       |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Water                           | 2001119001       | 1       |
| Caelo    | Water                           | 2001377001       | 1       |
| Caelo    | Water                           | 2001770001       | 2       |
| Caelo    | Water                           | 2002379002       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 20031301         | 1       |
| Caelo    | Water                           | 2003259001       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 2007044-01       | 4       |
| Caelo    | Aluminium acetotartrate solu... | 20151B           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20152b           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20152B           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 201538           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20153B           | 3       |
| Caelo    | Aluminium acetotartrate solu... | 20154B           | 4       |
| Caelo    | Aluminium acetotartrate solu... | 20155B           | 4       |
| Caelo    | Aluminium acetotartrate solu... | 201563           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20156B           | 4       |
| Caelo    | Aluminium acetotartrate solu... | 20157B           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20158B           | 3       |
| Caelo    | Aluminium acetotartrate solu... | 201598           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20159b           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20159B           | 2       |
| Caelo    | Aluminium acetotartrate solu... | 20160B           | 3       |
| Caelo    | Aluminium acetotartrate solu... | 201618           | 1       |
| Caelo    | Aluminium acetotartrate solu... | 20161B           | 11      |
| Caelo    | Aluminium acetotartrate solu... | 20162B           | 2       |
| Caelo    | Aluminium acetotartrate solu... | 20163B           | 5       |
| Caelo    | Aluminium acetotartrate solu... | 20164B           | 2       |
| Caelo    | Aluminium acetotartrate solu... | 2016B            | 1       |
| Caelo    | Aluminium acetotartrate solu... | 2058179          | 2       |
| Caelo    | Water                           | 2092001          | 1       |
| Caelo    | Water                           | 20E04-T05-079944 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 20K24-To4-076652 | 1       |
| Caelo    | Water                           | 20L22-T01-085061 | 1       |
| Caelo    | Chlorhexidine digluconate so... | 21000177002      | 2       |
| Caelo    | Chlorhexidine digluconate so... | 21000177003      | 5       |
| Caelo    | Chlorhexidine digluconate so... | 21000177005      | 30      |
| Caelo    | Chlorhexidine digluconate so... | 21000177008      | 9       |
| Caelo    | Water                           | 21000317001      | 3       |
| Caelo    | Water                           | 21000318001      | 3       |
| Caelo    | Water                           | 21000319001      | 1       |
| Caelo    | Water                           | 21000522001      | 3       |
| Caelo    | Water                           | 2100052201       | 1       |
| Caelo    | Oral suspension base            | 210007577001     | 1       |
| Caelo    | Water                           | 21001065001      | 3       |
| Caelo    | Water                           | 21001086001      | 1       |
| Caelo    | Water                           | 21001131002      | 8       |
| Caelo    | Oral suspension base            | 21001227001      | 2       |
| Caelo    | Water                           | 21001353001      | 5       |
| Caelo    | Water                           | 21001407001      | 2       |
| Caelo    | Water                           | 21001411001      | 4       |
| Caelo    | Chlorhexidine digluconate so... | 21001487001      | 3       |
| Caelo    | Chlorhexidine digluconate so... | 21001487002      | 25      |
| Caelo    | Water                           | 21001685001      | 4       |
| Caelo    | Chlorhexidine digluconate so... | 2100177005       | 1       |
| Caelo    | Water                           | 21001790001      | 7       |
| Caelo    | Water                           | 21001792001      | 3       |
| Caelo    | Water                           | 21001862001      | 8       |
| Caelo    | Chlorhexidine digluconate so... | 2100187002       | 1       |
| Caelo    | Oral suspension base            | 21002023001      | 1       |
| Caelo    | Oral suspension base            | 21002023002      | 4       |

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| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Caelo    | Water                           | 21002061001      | 1       |
| Caelo    | Oral suspension base            | 21002200002      | 2       |
| Caelo    | Water                           | 21002306001      | 1       |
| Caelo    | Water                           | 21002424002      | 9       |
| Caelo    | Water                           | 21002426001      | 1       |
| Caelo    | Water                           | 21002427001      | 1       |
| Caelo    | Oral suspension base            | 21002725001      | 2       |
| Caelo    | Water                           | 21002862001      | 1       |
| Caelo    | Aluminium acetotartrate solu... | 21002881004      | 2       |
| Caelo    | Aluminium acetotartrate solu... | 21002881005      | 3       |
| Caelo    | Aluminium acetotartrate solu... | 21002881006      | 2       |
| Caelo    | Water                           | 21003115001      | 1       |
| Caelo    | Water                           | 21003421001      | 6       |
| Caelo    | Water                           | 21003422001      | 1       |
| Caelo    | Water                           | 21003471001      | 1       |
| Caelo    | Water                           | 21003472002      | 1       |
| Caelo    | Water                           | 21003609001      | 1       |
| Caelo    | Chlorhexidine digluconate so... | 21003821002      | 1       |
| Caelo    | Chlorhexidine digluconate so... | 21003821003      | 3       |
| Caelo    | Oral suspension base            | 21003881001      | 1       |
| Caelo    | Water                           | 21003898001      | 1       |
| Caelo    | Chlorhexidine digluconate so... | 2100487004       | 1       |
| Caelo    | Oral suspension base            | 210302012002     | 1       |
| Caelo    | Chlorhexidine digluconate so... | 217U-01262       | 1       |
| Caelo    | Water                           | 219156           | 1       |
| Caelo    | Water                           | 219167           | 1       |
| Caelo    | Water                           | 219184           | 1       |
| Caelo    | Water                           | 2191953x1000ml   | 1       |
| Caelo    | Water                           | 219196           | 1       |
| Caelo    | Water                           | 2192222x         | 1       |
| Caelo    | Water                           | 21C23-T07-087188 | 1       |
| Caelo    | Water                           | 22000391001      | 2       |
| Caelo    | Water                           | 2200149001       | 1       |
| Caelo    | Water                           | 220324AC         | 1       |
| Caelo    | Water                           | 23081606         | 1       |
| Caelo    | Aluminium acetotartrate solu... | 2560335          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 26A080415        | 1       |
| Caelo    | Aluminium acetotartrate solu... | 2713M-01793      | 1       |
| Caelo    | Chlorhexidine digluconate so... | 2828             | 1       |
| Caelo    | Water                           | 2x17114701       | 1       |
| Caelo    | Water                           | 2x18030402       | 1       |
| Caelo    | Water                           | 3045919          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 32/AD1           | 1       |
| Caelo    | Chlorhexidine digluconate so... | 3276             | 1       |
| Caelo    | Chlorhexidine digluconate so... | 3307             | 1       |
| Caelo    | Chlorhexidine digluconate so... | 3353             | 1       |
| Caelo    | Chlorhexidine digluconate so... | 38962710218      | 1       |
| Caelo    | Water                           | 39628            | 1       |
| Caelo    | Water                           | 4(18265001)      | 1       |
| Caelo    | Aluminium acetotartrate solu... | 4071201          | 1       |
| Caelo    | Water                           | 4x192874001      | 1       |
| Caelo    | Water                           | 5(18265001)      | 1       |
| Caelo    | Chlorhexidine digluconate so... | 5017I-01262      | 1       |
| Caelo    | Aluminium acetotartrate solu... | 6031415          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 7230801          | 1       |
| Caelo    | Chlorhexidine digluconate so... | 815I-01262       | 1       |
| Caelo    | Chlorhexidine digluconate so... | 8215610          | 1       |
| Caelo    | Chlorhexidine digluconate so... | A-170472         | 1       |
| Caelo    | Water                           | AP0099           | 1       |
| Caelo    | Water                           | AP-SP0002        | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch         | Spectra |
|----------------------------|---------------------------------|---------------|---------|
| Caelo                      | Water                           | AP-SP0009     | 1       |
| Caelo                      | Water                           | AP-SP0019     | 1       |
| Caelo                      | Water                           | AP-SP0021     | 1       |
| Caelo                      | Chlorhexidine digluconate so... | BK13-CG-011   | 1       |
| Caelo                      | Chlorhexidine digluconate so... | BK17-CG-001   | 1       |
| Caelo                      | Chlorhexidine digluconate so... | CH-B18215601  | 1       |
| Caelo                      | Chlorhexidine digluconate so... | CHB192972008  | 1       |
| Caelo                      | Water                           | LOTAB0084     | 1       |
| Caelo                      | Water                           | LOTAP         | 1       |
| Caelo                      | Water                           | LOTAP0029     | 1       |
| Caelo                      | Water                           | LOTAP0039     | 1       |
| Caelo                      | Water                           | LOTAP0042     | 1       |
| Caelo                      | Water                           | LOTAP0044     | 2       |
| Caelo                      | Water                           | LOTAP0050     | 1       |
| Caelo                      | Water                           | LOTAP0052     | 1       |
| Caelo                      | Water                           | LOTAP0055     | 1       |
| Caelo                      | Water                           | LOTAP0075     | 1       |
| Caelo                      | Water                           | LotAP0083     | 1       |
| Caelo                      | Water                           | LOTAP0083     | 2       |
| Caelo                      | Water                           | LOTAP0086     | 4       |
| Caelo                      | Water                           | LOTAP0088     | 2       |
| Caelo                      | Water                           | LOTAP0089     | 1       |
| Caelo                      | Water                           | LOTAP0091     | 1       |
| Caelo                      | Water                           | LotAp0094     | 1       |
| Caelo                      | Water                           | LOTAP0094     | 2       |
| Caelo                      | Water                           | LOTAP0095     | 1       |
| Caelo                      | Water                           | LOTAP0098     | 1       |
| Caelo                      | Water                           | LOTAP0104     | 1       |
| Caelo                      | Water                           | LOTAP0123     | 1       |
| Caelo                      | Water                           | LOTAP0134     | 3       |
| Caelo                      | Water                           | LOTAP-SP0001  | 2       |
| Caelo                      | Water                           | LOT-AP-SP0001 | 1       |
| Caelo                      | Water                           | LOTAP-SP0002  | 1       |
| Caelo                      | Water                           | LOTAP-SP0015  | 1       |
| Caelo                      | Water                           | Nachreichen   | 1       |
| Caelo                      | Water                           | T14-0707709   | 1       |
| Caeol/Noweda               | Chlorhexidine digluconate so... | 16308801      | 1       |
| Caeol/Sanacorp             | Water                           | 20004435001   | 4       |
| Caeolo/Krieger             | Chlorhexidine digluconate so... | 17210101      | 1       |
| Caeolo/Krieger             | Chlorhexidine digluconate so... | 17210105      | 1       |
| Caeolo/Krieger             | Chlorhexidine digluconate so... | 17230801      | 1       |
| Caeolo/Krieger             | Chlorhexidine digluconate so... | 18045903      | 4       |
| Caeolo/Phoenix             | Aluminium acetotartrate solu... | 18078606      | 1       |
| Caesa / Alliance Health... | Aluminium acetotartrate solu... | 20164B        | 2       |
| Caesar & Lorenz GmbH       | Chlorhexidine digluconate so... | 17230801      | 2       |
| Caesar & Lorenz GmbH       | Chlorhexidine digluconate so... | 19080812      | 1       |
| Caesar & Lorenz GmbH       | Water                           | 19152501      | 1       |
| Caesar & Lorenz GmbH       | Chlorhexidine digluconate so... | 192972006     | 1       |
| Caesar & Lorenz            | Aluminium acetotartrate solu... | 12318703      | 1       |
| Caesar & Loretz /Gehe      | Chlorhexidine digluconate so... | 192972008     | 1       |
| Caesar & Loretz /Sanacorp  | Water                           | 20003268001   | 4       |
| Caesar & Loretz GmbH / ... | Chlorhexidine digluconate so... | 19080808      | 1       |
| Caesar & Loretz GmbH / ... | Chlorhexidine digluconate so... | 17230801      | 1       |
| Caesar & Loretz GmbH / ... | Water                           | 18019501      | 1       |
| Caesar & Loretz GmbH / ... | Chlorhexidine digluconate so... | 19080808      | 1       |
| Caesar & Loretz GmbH / ... | Water                           | 19152801      | 1       |
| Caesar & Loretz GmbH / ... | Chlorhexidine digluconate so... | 20000096009   | 1       |
| Caesar & Loretz GmbH / ... | Chlorhexidine digluconate so... | 18045903      | 1       |
| Caesar & Loretz GmbH / ... | Chlorhexidine digluconate so... | 18215601      | 1       |
| Caesar & Loretz GmbH / ... | Water                           | 20001119001   | 1       |

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| Supplier                    | Substance                       | Batch             | Spectra |
|-----------------------------|---------------------------------|-------------------|---------|
| Caesar & Loretz GmbH / ...  | Water                           | 20002402001       | 1       |
| Caesar & Loretz GmbH / ...  | Chlorhexidine digluconate so... | 18215610          | 1       |
| Caesar & Loretz GmbH / ...  | Water                           | 19152801          | 1       |
| Caesar & Loretz GmbH / ...  | Chlorhexidine digluconate so... | 192972002         | 1       |
| Caesar & Loretz GmbH Hi...  | Water                           | 15394202          | 1       |
| Caesar & Loretz GmbH Hi...  | Water                           | 16127902          | 1       |
| Caesar & Loretz GmbH Ph...  | Water                           | 21001131002       | 1       |
| Caesar & Loretz GmbH, G...  | Water                           | 21001407001       | 1       |
| Caesar & Loretz GmbH / ...  | Chlorhexidine digluconate so... | 20000960005       | 1       |
| Caesar & Loretz GmbH / A... | Chlorhexidine digluconate so... | 19080818          | 1       |
| Caesar & Loretz GmbH / A... | Chlorhexidine digluconate so... | 19080818          | 1       |
| Caesar & Loretz GmbH / A... | Chlorhexidine digluconate so... | 192972002         | 1       |
| Caesar & Loretz GmbH / A... | Water                           | 19F27-T13-0689009 | 1       |
| Caesar & Loretz GmbH / A... | Water                           | 19F27-T13-068909  | 1       |
| Caesar & Loretz GmbH / A... | Chlorhexidine digluconate so... | 21003821003       | 1       |
| Caesar & Loretz GmbH / A... | Water                           | T13-0689009       | 1       |
| Caesar & Loretz GmbH / A... | Chlorhexidine digluconate so... | 15292508          | 1       |
| Caesar & Loretz GmbH / G... | Chlorhexidine digluconate so... | 192972008         | 1       |
| Caesar & Loretz GmbH / G... | Water                           | 20C27-T03-078151  | 2       |
| Caesar & Loretz GmbH / G... | Chlorhexidine digluconate so... | 21000177008       | 1       |
| Caesar & Loretz GmbH / J... | Water                           | 21001086001       | 1       |
| Caesar & Loretz GmbH / K... | Chlorhexidine digluconate so... | 20000960004       | 1       |
| Caesar & Loretz GmbH / M... | Water                           | 19207401          | 2       |
| Caesar & Loretz GmbH / N... | Chlorhexidine digluconate so... | 19080808          | 1       |
| Caesar & Loretz GmbH / P... | Aluminium acetotartrate solu... | 18288401          | 1       |
| Caesar & Loretz GmbH / P... | Chlorhexidine digluconate so... | 20000960004       | 1       |
| Caesar & Loretz GmbH / S... | Chlorhexidine digluconate so... | 192972002         | 1       |
| Caesar & Loretz GmbH/AEP    | Aluminium acetotartrate solu... | 18288408          | 1       |
| Caesar & Loretz GmbH/AHD    | Chlorhexidine digluconate so... | 19080818          | 1       |
| Caesar & Loretz GmbH/AHD    | Water                           | 19152801          | 1       |
| Caesar & Loretz GmbH/AHD    | Water                           | 20003879001       | 2       |
| Caesar & Loretz GmbH/AHD    | Water                           | 20004435001       | 1       |
| Caesar & Loretz GmbH/AHD    | Water                           | 20004436001       | 2       |
| Caesar & Loretz GmbH/AHD    | Water                           | 21001065001       | 1       |
| Caesar & Loretz GmbH/AHD    | Water                           | 21001131002       | 1       |
| Caesar & Loretz GmbH/AHD    | Chlorhexidine digluconate so... | 21001487002       | 1       |
| Caesar & Loretz GmbH/Al...  | Water                           | 18265001          | 1       |
| Caesar & Loretz GmbH/An...  | Water                           | 19077601          | 2       |
| Caesar & Loretz GmbH/An...  | Chlorhexidine digluconate so... | 19080807          | 1       |
| Caesar & Loretz GmbH/Fi...  | Water                           | 19184201          | 1       |
| Caesar & Loretz GmbH/Fi...  | Water                           | 19229401          | 1       |
| Caesar & Loretz GmbH/Fi...  | Water                           | 19246201          | 1       |
| Caesar & Loretz GmbH/Fi...  | Water                           | 20000526002       | 1       |
| Caesar & Loretz GmbH/Fi...  | Water                           | 20003300001       | 1       |
| Caesar & Loretz GmbH/gehe   | Chlorhexidine digluconate so... | 18215610          | 1       |
| Caesar & Loretz GmbH/Gehe   | Water                           | 18228801          | 2       |
| Caesar & Loretz GmbH/Gehe   | Chlorhexidine digluconate so... | 19080812          | 2       |
| Caesar & Loretz GmbH/Gehe   | Water                           | 19152701          | 1       |
| Caesar & Loretz GmbH/Gehe   | Water                           | 19162701          | 1       |
| Caesar & Loretz GmbH/Gehe   | Water                           | 19184201          | 1       |
| Caesar & Loretz GmbH/Gehe   | Water                           | 19242101          | 2       |
| Caesar & Loretz GmbH/Gehe   | Water                           | 19253401          | 2       |
| Caesar & Loretz GmbH/Gehe   | Chlorhexidine digluconate so... | 192972008         | 1       |
| Caesar & Loretz GmbH/Gehe   | Chlorhexidine digluconate so... | 20003241003       | 1       |
| Caesar & Loretz GmbH/Ge...  | Chlorhexidine digluconate so... | 192972006         | 3       |
| Caesar & Loretz GmbH/Go...  | Aluminium acetotartrate solu... | 18288404          | 1       |
| Caesar & Loretz GmbH/Je...  | Aluminium acetotartrate solu... | 18288408          | 1       |
| Caesar & Loretz GmbH/Je...  | Water                           | 18299501          | 1       |
| Caesar & Loretz GmbH/Je...  | Water                           | 19005501          | 1       |
| Caesar & Loretz GmbH/Je...  | Water                           | 19077701          | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Caesar & Loretz GmbH/Je... | Chlorhexidine digluconate so... | 19080818    | 1       |
| Caesar & Loretz GmbH/Je... | Water                           | 19152501    | 1       |
| Caesar & Loretz GmbH/Je... | Water                           | 19152801    | 3       |
| Caesar & Loretz GmbH/Je... | Chlorhexidine digluconate so... | 192972002   | 1       |
| Caesar & Loretz GmbH/Je... | Chlorhexidine digluconate so... | 192972008   | 1       |
| Caesar & Loretz GmbH/Kehr  | Chlorhexidine digluconate so... | 192972003   | 1       |
| Caesar & Loretz GmbH/Mi... | Water                           | 18325001    | 3       |
| Caesar & Loretz GmbH/Mi... | Water                           | 19037701    | 2       |
| Caesar & Loretz GmbH/Mi... | Water                           | 19097801    | 1       |
| Caesar & Loretz GmbH/Mi... | Water                           | 19149201    | 6       |
| Caesar & Loretz GmbH/No... | Water                           | 18265001    | 1       |
| Caesar & Loretz GmbH/No... | Aluminium acetotartrate solu... | 18288408    | 2       |
| Caesar & Loretz GmbH/No... | Water                           | 19005601    | 1       |
| Caesar & Loretz GmbH/No... | Water                           | 19152801    | 2       |
| Caesar & Loretz GmbH/No... | Chlorhexidine digluconate so... | 192972002   | 1       |
| Caesar & Loretz GmbH/No... | Chlorhexidine digluconate so... | 192972003   | 1       |
| Caesar & Loretz GmbH/No... | Chlorhexidine digluconate so... | 192972008   | 1       |
| Caesar & Loretz GmbH/No... | Water                           | 20000526002 | 1       |
| Caesar & Loretz GmbH/No... | Chlorhexidine digluconate so... | 20000960009 | 3       |
| Caesar & Loretz GmbH/No... | Water                           | 20002402001 | 1       |
| Caesar & Loretz GmbH/No... | Water                           | 20002912001 | 1       |
| Caesar & Loretz GmbH/No... | Chlorhexidine digluconate so... | 21000177005 | 1       |
| Caesar & Loretz GmbH/No... | Water                           | 21000522001 | 2       |
| Caesar & Loretz GmbH/No... | Chlorhexidine digluconate so... | 21001487002 | 1       |
| Caesar & Loretz GmbH/P     | Chlorhexidine digluconate so... | 19080818    | 1       |
| Caesar & Loretz GmbH/P     | Chlorhexidine digluconate so... | 192972008   | 2       |
| Caesar & Loretz GmbH/Ph... | Chlorhexidine digluconate so... | 18215601    | 1       |
| Caesar & Loretz GmbH/Ph... | Water                           | 20002911001 | 1       |
| Caesar & Loretz GmbH/Ph... | Water                           | 20003878001 | 1       |
| Caesar & Loretz GmbH/Ph... | Aluminium acetotartrate solu... | 18078606    | 1       |
| Caesar & Loretz GmbH/Ph... | Aluminium acetotartrate solu... | 18078611    | 1       |
| Caesar & Loretz GmbH/Ph... | Water                           | 18265001    | 1       |
| Caesar & Loretz GmbH/Ph... | Aluminium acetotartrate solu... | 18288401    | 1       |
| Caesar & Loretz GmbH/Ph... | Water                           | 19077501    | 1       |
| Caesar & Loretz GmbH/Ph... | Chlorhexidine digluconate so... | 192972006   | 5       |
| Caesar & Loretz GmbH/Ph... | Chlorhexidine digluconate so... | 20000960009 | 2       |
| Caesar & Loretz GmbH/Ph... | Chlorhexidine digluconate so... | 21000177005 | 1       |
| Caesar & Loretz GmbH/Ph... | Water                           | 21002735001 | 1       |
| Caesar & Loretz GmbH/Sa... | Water                           | 18240101    | 1       |
| Caesar & Loretz GmbH/Sa... | Aluminium acetotartrate solu... | 19000719003 | 1       |
| Caesar & Loretz GmbH/Sa... | Chlorhexidine digluconate so... | 19080808    | 3       |
| Caesar & Loretz GmbH/Sa... | Water                           | 19274201    | 1       |
| Caesar & Loretz GmbH/Sa... | Chlorhexidine digluconate so... | 20000960009 | 1       |
| Caesar & Loretz GmbH/Sa... | Water                           | 20001039001 | 2       |
| Caesar & Loretz GmbH/Sa... | Water                           | 21000522001 | 1       |
| Caesar & Loretz GmbH/Sp... | Chlorhexidine digluconate so... | 19080808    | 1       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 16004504    | 1       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 16004505    | 1       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 16342006    | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 17210112    | 1       |
| Caesar & Loretz GmbH       | Water                           | 18042901    | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 18045903    | 2       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 18078602    | 2       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 18078606    | 5       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 18078611    | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 1811026-01  | 4       |
| Caesar & Loretz GmbH       | Water                           | 18178302    | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 18215601    | 7       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 18215602    | 5       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 18215610    | 11      |

continued on the next page



continued from previous page

| Supplier             | Substance                       | Batch            | Spectra |
|----------------------|---------------------------------|------------------|---------|
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 18215612         | 2       |
| Caesar & Loretz GmbH | Water                           | 18228801         | 1       |
| Caesar & Loretz GmbH | Water                           | 18228901         | 1       |
| Caesar & Loretz GmbH | Water                           | 18238601         | 1       |
| Caesar & Loretz GmbH | Water                           | 18240101         | 5       |
| Caesar & Loretz GmbH | Water                           | 18265001         | 8       |
| Caesar & Loretz GmbH | Aluminium acetotartrate solu... | 18288401         | 10      |
| Caesar & Loretz GmbH | Aluminium acetotartrate solu... | 18288404         | 1       |
| Caesar & Loretz GmbH | Aluminium acetotartrate solu... | 18288408         | 9       |
| Caesar & Loretz GmbH | Water                           | 18299501         | 4       |
| Caesar & Loretz GmbH | Water                           | 18305301         | 4       |
| Caesar & Loretz GmbH | Water                           | 18305401         | 1       |
| Caesar & Loretz GmbH | Water                           | 18305501         | 1       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 18107-B04-353642 | 1       |
| Caesar & Loretz GmbH | Water                           | 18L19-T06-062853 | 1       |
| Caesar & Loretz GmbH | Aluminium acetotartrate solu... | 19000719002      | 1       |
| Caesar & Loretz GmbH | Aluminium acetotartrate solu... | 19000719003      | 11      |
| Caesar & Loretz GmbH | Aluminium acetotartrate solu... | 19000719007      | 6       |
| Caesar & Loretz GmbH | Water                           | 19005601         | 3       |
| Caesar & Loretz GmbH | Water                           | 19005602         | 1       |
| Caesar & Loretz GmbH | Water                           | 19065102         | 3       |
| Caesar & Loretz GmbH | Water                           | 19077501         | 8       |
| Caesar & Loretz GmbH | Water                           | 19077601         | 9       |
| Caesar & Loretz GmbH | Water                           | 19077601x2       | 1       |
| Caesar & Loretz GmbH | Water                           | 19077701         | 3       |
| Caesar & Loretz GmbH | Water                           | 19077801         | 8       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 19080807         | 3       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 19080808         | 14      |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 19080812         | 1       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 19080817         | 1       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 19080818         | 4       |
| Caesar & Loretz GmbH | Water                           | 19097901         | 1       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 19109-T07-071036 | 1       |
| Caesar & Loretz GmbH | Water                           | 19111701         | 1       |
| Caesar & Loretz GmbH | Water                           | 19133401         | 1       |
| Caesar & Loretz GmbH | Water                           | 19152501         | 3       |
| Caesar & Loretz GmbH | Water                           | 19152701         | 7       |
| Caesar & Loretz GmbH | Water                           | 19152801         | 12      |
| Caesar & Loretz GmbH | Water                           | 19184102         | 7       |
| Caesar & Loretz GmbH | Water                           | 19184201         | 4       |
| Caesar & Loretz GmbH | Water                           | 19198501         | 1       |
| Caesar & Loretz GmbH | Water                           | 19199101         | 1       |
| Caesar & Loretz GmbH | Water                           | 19229401         | 4       |
| Caesar & Loretz GmbH | Water                           | 19253401         | 4       |
| Caesar & Loretz GmbH | Water                           | 19263601         | 5       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 192972002        | 6       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 192972006        | 4       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 192972008        | 14      |
| Caesar & Loretz GmbH | Water                           | 19E20-T09-067576 | 2       |
| Caesar & Loretz GmbH | Water                           | 19H12-T14-070779 | 1       |
| Caesar & Loretz GmbH | Water                           | 19J10-T09-072607 | 1       |
| Caesar & Loretz GmbH | Water                           | 200002379002     | 1       |
| Caesar & Loretz GmbH | Water                           | 20000412001      | 1       |
| Caesar & Loretz GmbH | Water                           | 20000526002      | 2       |
| Caesar & Loretz GmbH | Water                           | 20000853001      | 2       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 20000960004      | 8       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 20000960005      | 4       |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 20000960009      | 17      |
| Caesar & Loretz GmbH | Chlorhexidine digluconate so... | 2000096009       | 1       |
| Caesar & Loretz GmbH | Water                           | 20001036001      | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Caesar & Loretz GmbH       | Water                           | 20001039001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20001119001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20001293001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 200012930010     | 1       |
| Caesar & Loretz GmbH       | Water                           | 20001629001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20002402001      | 6       |
| Caesar & Loretz GmbH       | Water                           | 20002447001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20002745001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20002783001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20002910001      | 2       |
| Caesar & Loretz GmbH       | Water                           | 20002911001      | 4       |
| Caesar & Loretz GmbH       | Water                           | 20002912001      | 2       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 20003241003      | 3       |
| Caesar & Loretz GmbH       | Water                           | 20003259001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20003260001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20003268001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20003300001      | 2       |
| Caesar & Loretz GmbH       | Water                           | 20003301001      | 3       |
| Caesar & Loretz GmbH       | Water                           | 20003301002      | 2       |
| Caesar & Loretz GmbH       | Water                           | 20003876001      | 2       |
| Caesar & Loretz GmbH       | Water                           | 20003877001      | 3       |
| Caesar & Loretz GmbH       | Water                           | 20003878001      | 6       |
| Caesar & Loretz GmbH       | Water                           | 20003879001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 20004029001      | 2       |
| Caesar & Loretz GmbH       | Water                           | 20004435001      | 4       |
| Caesar & Loretz GmbH       | Water                           | 20004436001      | 2       |
| Caesar & Loretz GmbH       | Water                           | 2001293001       | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21000177002      | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21000177003      | 3       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21000177005      | 12      |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21000177008      | 3       |
| Caesar & Loretz GmbH       | Water                           | 21000317001      | 2       |
| Caesar & Loretz GmbH       | Water                           | 21000318001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21001086001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21001131002      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21001411001      | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21001487001      | 3       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21001487002      | 5       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21001487004      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21001790001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21001792001      | 2       |
| Caesar & Loretz GmbH       | Water                           | 21002061001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21002306001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21002424002      | 2       |
| Caesar & Loretz GmbH       | Water                           | 21002426001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 21002862001      | 1       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 21002881005      | 1       |
| Caesar & Loretz GmbH       | Aluminium acetotartrate solu... | 21002881006      | 3       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | 21003821003      | 2       |
| Caesar & Loretz GmbH       | Water                           | 21004114001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 22000149001      | 1       |
| Caesar & Loretz GmbH       | Water                           | 22000390001      | 1       |
| Caesar & Loretz GmbH       | Chlorhexidine digluconate so... | CS00201018       | 1       |
| Caesar & Loretz GmbH       | Water                           | LOTAP-SP0002     | 2       |
| Caesar & Loretz Hilden     | Water                           | 18G16-T03-058126 | 1       |
| Caesar & Loretz Hilden     | Chlorhexidine digluconate so... | 192972002        | 1       |
| Caesar & Loretz/Geibo      | Aluminium acetotartrate solu... | 19000719003      | 1       |
| Caesar & Loretz/Geilenk... | Chlorhexidine digluconate so... | 18215610         | 1       |
| Caesar & Loretz/Geilenk... | Chlorhexidine digluconate so... | 21000177005      | 1       |
| Caesar & Loretz/Geilenk... | Water                           | 19005602         | 1       |

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continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Caesar & Loretz/Geilenk... | Chlorhexidine digluconate so... | 19080808         | 3       |
| Caesar & Loretz/Geilenk... | Chlorhexidine digluconate so... | 20000960009      | 2       |
| Caesar & Loretz/Noweda     | Chlorhexidine digluconate so... | 192972002        | 2       |
| Caesar & Loretz/Noweda     | Chlorhexidine digluconate so... | 20000960009      | 1       |
| Caesar & Loretz            | Chlorhexidine digluconate so... | 16002510         | 1       |
| Caesar & Loretz            | Water                           | 17145001         | 3       |
| Caesar & Loretz            | Water                           | 17173001         | 1       |
| Caesar & Loretz            | Chlorhexidine digluconate so... | 18215601         | 1       |
| Caesar u Loretz            | Aluminium acetotartrate solu... | 14252005         | 1       |
| Caesar und Loretz /Gehe    | Chlorhexidine digluconate so... | 192972008        | 1       |
| Caesar&Loretz GmbH/Anzag   | Aluminium acetotartrate solu... | 13101105         | 1       |
| Caesar&Loretz GmbH/Anzag   | Aluminium acetotartrate solu... | 14252010         | 1       |
| Caesar&Loretz GmbH         | Aluminium acetotartrate solu... | 18288408         | 1       |
| Caesar&Loretz GmbH         | Chlorhexidine digluconate so... | 21000177005      | 1       |
| Caesar&loretz,Phoenix      | Aluminium acetotartrate solu... | 12116804         | 1       |
| Caesar&Loretz/Geilenkic... | Water                           | 19077501         | 1       |
| Caesar&Loretz              | Water                           | 19152801         | 1       |
| Caleo/ Noweda              | Water                           | 16F13-T18-034301 | 1       |
| Caleo/ Noweda              | Chlorhexidine digluconate so... | 19080808         | 1       |
| Caleo/Fiebig               | Aluminium acetotartrate solu... | 1634             | 1       |
| Caleo/Phönix               | Water                           | 19077501         | 1       |
| Caleo/Sanacorp             | Chlorhexidine digluconate so... | 15292507         | 1       |
| Calo/AHD                   | Aluminium acetotartrate solu... | 13101105         | 1       |
| Cealo/ Sanacorp            | Chlorhexidine digluconate so... | 16308801         | 1       |
| Cealo/AHD                  | Aluminium acetotartrate solu... | 15299909         | 1       |
| Cealo/Anzag                | Aluminium acetotartrate solu... | 15299901         | 1       |
| Cealo/Anzag                | Aluminium acetotartrate solu... | 18078606         | 1       |
| Cealo/Gehe                 | Aluminium acetotartrate solu... | 1800041          | 1       |
| Cealo/Gehe                 | Water                           | LOTAP0086        | 1       |
| Cealo/Noweda               | Chlorhexidine digluconate so... | 15292508         | 2       |
| Cealo/Noweda               | Water                           | 18210601         | 1       |
| Cealo/Noweda               | Water                           | LOTAP0096        | 1       |
| Cealo/Sanacorp             | Chlorhexidine digluconate so... | 17230801         | 1       |
| Cealo                      | Chlorhexidine digluconate so... | 14331307         | 1       |
| Cealo                      | Chlorhexidine digluconate so... | 16002505         | 1       |
| Cealo                      | Water                           | 20000412001      | 1       |
| Celo                       | Chlorhexidine digluconate so... | 110816-7         | 1       |
| Chemica                    | Water                           |                  | 1       |
| Chiesi GmbH                | Water                           | 16L12-T25-039642 | 1       |
| Cordes/Gehe                | Water                           | 19077801         | 1       |
| Delta                      | Water                           | 18C19-T25-053991 | 1       |
| Dr. Seeger GmbH/Noweda     | Aluminium acetotartrate solu... | 20146B           | 1       |
| Dr. Seeger                 | Aluminium acetotartrate solu... | 20153B           | 1       |
| Dr. Wolff/ Noweda          | Water                           | 14K05-T02-016775 | 1       |
| Dr.Seeger GmbH             | Aluminium acetotartrate solu... |                  | 1       |
| Dr.Seeger GmbH             | Aluminium acetotartrate solu... | 20153B           | 1       |
| E Plus                     | Aluminium acetotartrate solu... | 16342005         | 1       |
| E Plus                     | Water                           | 18109101         | 6       |
| E Plus                     | Water                           | 18156301         | 2       |
| Ebert & Jacobi             | Water                           | 18042901         | 4       |
| Ebert & Jacobi             | Chlorhexidine digluconate so... | 18215601         | 1       |
| Ebert 04.04.2014           | Water                           | 15K10-T04-027614 | 1       |
| Ebert/Fragron              | Water                           | T04-0781504      | 1       |
| Ebert/Hedinger             | Aluminium acetotartrate solu... | 20149B           | 1       |
| Engelhard                  | Chlorhexidine digluconate so... | 19L038A          | 1       |
| E-Plus                     | Aluminium acetotartrate solu... | 18078602         | 1       |
| Eu Rho/ Gehe               | Chlorhexidine digluconate so... | 1412018-02       | 1       |
| Eurho / Noweda             | Chlorhexidine digluconate so... | 1610022-01       | 2       |
| Eurho / Noweda             | Chlorhexidine digluconate so... | 1701037-01       | 2       |
| EuRho / Phoe               | Chlorhexidine digluconate so... | 1902010-01       | 1       |

continued on the next page

continued from previous page

| Supplier        | Substance                       | Batch            | Spectra |
|-----------------|---------------------------------|------------------|---------|
| EuRho / Phoe    | Chlorhexidine digluconate so... | 1902010-02       | 1       |
| EuRho / Phönix  | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| EuRho/ Noweda   | Chlorhexidine digluconate so... | CS00201018       | 1       |
| EuRho/AHD       | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| EuRho/Fiebig    | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| EuRho/Gehe      | Chlorhexidine digluconate so... | 1708006-01       | 1       |
| EuRho/Gehe      | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| EuRho/Gehe      | Chlorhexidine digluconate so... | 2108001-01       | 1       |
| EuRho/Noweda    | Chlorhexidine digluconate so... | 17230801         | 1       |
| EuRho/Noweda    | Chlorhexidine digluconate so... | 1908014-01       | 1       |
| EuRho/Noweda    | Aluminium acetotartrate solu... | 20163B           | 2       |
| eurho/Noweda    | Chlorhexidine digluconate so... | CS-00170420      | 1       |
| EuRho/Phoenix   | Chlorhexidine digluconate so... | 1811026-01       | 2       |
| EuRho/Phönix    | Chlorhexidine digluconate so... | 1708006-01       | 3       |
| EuRho/Phönix    | Chlorhexidine digluconate so... | 2007044-01       | 1       |
| EuRho/Sanacorp  | Chlorhexidine digluconate so... | 1811026-01       | 2       |
| EuRho/Sanacorp  | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1105012-01       | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1206023-02       | 2       |
| EuRho           | Chlorhexidine digluconate so... | 1308002-02       | 1       |
| EuRho           | Chlorhexidine digluconate so... | 141201801        | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1412018-02       | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1701037          | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1708006-01       | 5       |
| EuRho           | Chlorhexidine digluconate so... | 1708006-1        | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1712002-01       | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1712002-02       | 2       |
| EuRho           | Chlorhexidine digluconate so... | 1811026-01       | 3       |
| EuRho           | Chlorhexidine digluconate so... | 1902010-01       | 1       |
| Eurho           | Chlorhexidine digluconate so... | 190801401        | 1       |
| EuRho           | Chlorhexidine digluconate so... | 191201501        | 1       |
| EuRho           | Chlorhexidine digluconate so... | 1912015-01       | 3       |
| EuRho           | Chlorhexidine digluconate so... | 2007044-01       | 1       |
| EuRho           | Chlorhexidine digluconate so... | 2108001-01       | 1       |
| Euro OCT/Noweda | Water                           | 16L12-T31-039661 | 2       |
| Euro OCT        | Chlorhexidine digluconate so... | 3-8962-3-01-24   | 1       |
| Euro OTC        | Chlorhexidine digluconate so... |                  | 3       |
| Euro OTC        | Chlorhexidine digluconate so... | 1020110-01       | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 106023-02        | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 1105012-01       | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 1110012-01       | 1       |
| Euro OTC        | Aluminium acetotartrate solu... | 11172602         | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 120201001        | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 1202010-01       | 8       |
| Euro OTC        | Chlorhexidine digluconate so... | 120355           | 2       |
| Euro OTC        | Chlorhexidine digluconate so... | 120602301        | 3       |
| Euro OTC        | Chlorhexidine digluconate so... | 1206023-01       | 14      |
| Euro OTC        | Chlorhexidine digluconate so... | 1206023-02       | 26      |
| Euro OTC        | Chlorhexidine digluconate so... | 12K22-N09        | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 130002-01        | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 1308002          | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 130800201        | 4       |
| Euro OTC        | Chlorhexidine digluconate so... | 1308002-01       | 26      |
| Euro OTC        | Chlorhexidine digluconate so... | 130800202        | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 1308002-02       | 29      |
| Euro OTC        | Aluminium acetotartrate solu... | 13378701         | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 13D16-N04        | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 13KB062888448    | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 141201801        | 1       |
| Euro OTC        | Chlorhexidine digluconate so... | 1412018-01       | 26      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Euro OTC | Chlorhexidine digluconate so... | 1412018-02       | 39      |
| Euro OTC | Chlorhexidine digluconate so... | 1412018801       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 141218-01        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 15008022-01      | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1505022-01       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 150802-01        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1508022_02       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 150802201        | 3       |
| Euro OTC | Chlorhexidine digluconate so... | 1508022-01       | 35      |
| Euro OTC | Chlorhexidine digluconate so... | 150802202        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1508022-02       | 13      |
| Euro OTC | Chlorhexidine digluconate so... | 1508022-22       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1508072-02       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 150822-02        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 151103           | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 151103-01        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 151103301        | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 1511033-01       | 80      |
| Euro OTC | Chlorhexidine digluconate so... | 1511033-02       | 20      |
| Euro OTC | Chlorhexidine digluconate so... | 15110343-02      | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 15131505         | 1       |
| Euro OTC | Water                           | 15L15-T07-028685 | 1       |
| Euro OTC | Aluminium acetotartrate solu... | 16004512         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 16089222         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1610021          | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1610021_01       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 161002101        | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 1610021-01       | 33      |
| Euro OTC | Chlorhexidine digluconate so... | 161002201        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1610022-01       | 24      |
| Euro OTC | Water                           | 16307601         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 16E09-B03-320995 | 1       |
| Euro OTC | Water                           | 16F13-T18-034301 | 1       |
| Euro OTC | Water                           | 16L12-T11-039624 | 1       |
| Euro OTC | Water                           | 16L12-T16-39628  | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 170103-02        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1701037          | 4       |
| Euro OTC | Chlorhexidine digluconate so... | 1701037-01       | 13      |
| Euro OTC | Chlorhexidine digluconate so... | 170103702        | 3       |
| Euro OTC | Chlorhexidine digluconate so... | 1701037-02       | 53      |
| Euro OTC | Chlorhexidine digluconate so... | 1703006-01       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 17080006         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 17080006-01      | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 17080006-02      | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 1708006          | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1708006_02       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 170800601        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1708006-01       | 45      |
| Euro OTC | Chlorhexidine digluconate so... | 170800602        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1708006-02       | 41      |
| Euro OTC | Chlorhexidine digluconate so... | 171002-02        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1712002          | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 171200201        | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 1712002-01       | 51      |
| Euro OTC | Chlorhexidine digluconate so... | 171200202        | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 1712002-02       | 26      |
| Euro OTC | Water                           | 17295701         | 1       |
| Euro OTC | Water                           | 17E05-T13-044080 | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 17E09-B01-335137 | 1       |
| Euro OTC | Water                           | 18042901         | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch            | Spectra |
|----------|---------------------------------|------------------|---------|
| Euro OTC | Chlorhexidine digluconate so... | 18045906         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1808014-01       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 181028-01        | 1       |
| Euro OTC | Water                           | 18109201         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1811026          | 3       |
| Euro OTC | Chlorhexidine digluconate so... | 1811026_01       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 181102601        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1811026-01       | 95      |
| Euro OTC | Chlorhexidine digluconate so... | 1811028-01       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 18215601         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1825601          | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 18C05-B04-349427 | 1       |
| Euro OTC | Water                           | 18C19T29054007   | 1       |
| Euro OTC | Water                           | 18E09-T01-055708 | 1       |
| Euro OTC | Water                           | 18124-T14-060238 | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1900201001       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1902010          | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 190201001        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1902010-01       | 46      |
| Euro OTC | Chlorhexidine digluconate so... | 1902010-02       | 19      |
| Euro OTC | Chlorhexidine digluconate so... | 1902014-01       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 190210-01        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 19080114-01      | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 1908014-01       | 39      |
| Euro OTC | Chlorhexidine digluconate so... | 19080817         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 191201501        | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 1912015-01       | 66      |
| Euro OTC | Water                           | 20001119001      | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 200704401        | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 2007044-01       | 79      |
| Euro OTC | Chlorhexidine digluconate so... | 2007044-02       | 5       |
| Euro OTC | Chlorhexidine digluconate so... | 20070441-01      | 1       |
| Euro OTC | Aluminium acetotartrate solu... | 20154B           | 1       |
| Euro OTC | Aluminium acetotartrate solu... | 20157B           | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 210800101        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 2108001-01       | 16      |
| Euro OTC | Chlorhexidine digluconate so... | 2108001-02       | 2       |
| Euro OTC | Chlorhexidine digluconate so... | 2108001-021      | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 2802             | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 282215           | 1       |
| Euro OTC | Aluminium acetotartrate solu... | 291162B          | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 36(1701037-02)   | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 37(1708006-02)   | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 38(1811026-01)   | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 3-8962-03-21     | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 3896220404       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 3896250214       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 3896260321       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 3-8962-6-03-21   | 4       |
| Euro OTC | Chlorhexidine digluconate so... | 3896270218       | 4       |
| Euro OTC | Chlorhexidine digluconate so... | 3896270218-01    | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 3-8962-7-02-39   | 5       |
| Euro OTC | Chlorhexidine digluconate so... | 811026-01        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | 912015-01        | 1       |
| Euro OTC | Chlorhexidine digluconate so... | A-180063         | 1       |
| Euro OTC | Chlorhexidine digluconate so... | CS00170420       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | CS-00170420      | 1       |
| Euro OTC | Chlorhexidine digluconate so... | cs00201018       | 1       |
| Euro OTC | Chlorhexidine digluconate so... | CS00201018       | 2       |
| Euro OTC | Chlorhexidine digluconate so... | CS-00201018      | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch             | Spectra |
|----------------------------|---------------------------------|-------------------|---------|
| Euro OTC                   | Chlorhexidine digluconate so... | CS-00250919       | 1       |
| Euro OTC                   | Water                           | F180012           | 1       |
| Euro OTC                   | Chlorhexidine digluconate so... | s-8962-6-03-21    | 1       |
| Euro/ Phönix               | Chlorhexidine digluconate so... | 1610021-01        | 1       |
| euro//Noweda               | Chlorhexidine digluconate so... | 1708006-02        | 1       |
| Euro/Anzag                 | Chlorhexidine digluconate so... | 1701037-02        | 1       |
| Euro/Phönix                | Chlorhexidine digluconate so... | 161002101         | 2       |
| Euro/Phönix                | Chlorhexidine digluconate so... | 181102601         | 1       |
| Euro/Phönix                | Chlorhexidine digluconate so... | 18215610          | 1       |
| Euro/Phönix                | Chlorhexidine digluconate so... | 1908014           | 1       |
| Euro                       | Chlorhexidine digluconate so... | 1412018-0         | 1       |
| EuroPharm                  | Chlorhexidine digluconate so... | 2108001-01        | 1       |
| EuroPTC/Phönix             | Chlorhexidine digluconate so... | 1412018-01        | 1       |
| Evonic                     | Chlorhexidine digluconate so... | 1308002-02        | 2       |
| Evonik Technochem. GmbH    | Chlorhexidine digluconate so... | 1610021-01        | 1       |
| Evonik Technochem          | Chlorhexidine digluconate so... | 1412018-01        | 1       |
| Evonik/Technochem-Sanac... | Chlorhexidine digluconate so... | 1412018-02        | 1       |
| Evonik                     | Chlorhexidine digluconate so... | 1511033-01        | 1       |
| Evonik                     | Chlorhexidine digluconate so... | 3896220404        | 1       |
| FA.Hedinger                | Aluminium acetotartrate solu... | 20159B            | 1       |
| Fagon / AHD                | Chlorhexidine digluconate so... | 18C05-B04-349428  | 1       |
| Fagon / AHD                | Chlorhexidine digluconate so... | 18C05-B04-349541  | 1       |
| Fagon                      | Chlorhexidine digluconate so... | 15I03-B02-314177  | 1       |
| Fagreo / Sanacorp          | Water                           | 19J14T10072699    | 1       |
| Fagro/ Noweda              | Chlorhexidine digluconate so... | 13K26-B06-289365  | 1       |
| Fagro/AHD                  | Chlorhexidine digluconate so... | 1412018-02        | 1       |
| Fagro/Gehe Verbund         | Water                           | 19J14-T06-072685  | 1       |
| Fagro/Gehe                 | Water                           | 18C19-T29-054007  | 3       |
| Fagron                     | Water                           |                   | 6       |
| Fagron                     | Chlorhexidine digluconate so... | 10031503          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 100400008         | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 10071703          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 103311262         | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 1081403           | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 10J06-M04         | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 11081502          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 1112013D          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 11K09-N05         | 4       |
| Fagron                     | Chlorhexidine digluconate so... | 11L05-N08         | 5       |
| Fagron                     | Chlorhexidine digluconate so... | 11L05-N080069/262 | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 120201001         | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12021823          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 120355-ooo4       | 1       |
| Fagron                     | Water                           | 12-06556008       | 3       |
| Fagron                     | Chlorhexidine digluconate so... | 12114007          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 1213E-01262       | 1       |
| Fagron                     | Water                           | 12243501          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12A02-11          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12a02-n11         | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12A02-N11         | 7       |
| Fagron                     | Chlorhexidine digluconate so... | 12F01-N021        | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12f01-N21         | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12F01-N21         | 37      |
| Fagron                     | Chlorhexidine digluconate so... | 12H14N06          | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12H14-N06         | 19      |
| Fagron                     | Chlorhexidine digluconate so... | 12H-14-N06        | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12H14-No6         | 4       |
| Fagron                     | Chlorhexidine digluconate so... | 12H14-Noo6        | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12K0355           | 1       |
| Fagron                     | Chlorhexidine digluconate so... | 12K22-0005        | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Chlorhexidine digluconate so... | 12k22-n09         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 12K22-N09         | 20      |
| Fagron   | Chlorhexidine digluconate so... | 13081204          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13111704          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13A29-N06         | 14      |
| Fagron   | Chlorhexidine digluconate so... | 13A29-N060155/228 | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13d16-n04         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13d16-N04         | 2       |
| Fagron   | Chlorhexidine digluconate so... | 13D16-N04         | 9       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-801         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13H19B01          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01         | 5       |
| Fagron   | Chlorhexidine digluconate so... | 13h19b01285447    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01-285447  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01-285448  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01-285449  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13H19B01285451    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01-285451  | 6       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01-285452  | 4       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01-285453  | 9       |
| Fagron   | Chlorhexidine digluconate so... | 13H19-B01-CG-011  | 1       |
| Fagron   | Water                           | 13K13-T08-008092  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13K16B06288853    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13k26-b06         | 2       |
| Fagron   | Chlorhexidine digluconate so... | 13K26-B06         | 8       |
| Fagron   | Chlorhexidine digluconate so... | 13K26-B06_289365  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13K26-B06-288848  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 13K26-B06-288849  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13K26-B06-288853  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 13K-26-B06-288853 | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13K26-B06-289365  | 6       |
| Fagron   | Chlorhexidine digluconate so... | 13K26B06289366    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 13K26-B06-289366  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 14332309          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 14D25-B04         | 4       |
| Fagron   | Chlorhexidine digluconate so... | 14D25-B04-294673  | 5       |
| Fagron   | Chlorhexidine digluconate so... | 14D25-B04-294674  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 14D25-B04-294675  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 14D25-B04-299288  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 14D25-B04-299289  | 1       |
| Fagron   | Water                           | 14F02-T03-012891  | 1       |
| Fagron   | Water                           | 14J16-T24-016261  | 1       |
| Fagron   | Water                           | 14K05-T02-016775  | 3       |
| Fagron   | Water                           | 14K05-T03-016779  | 1       |
| Fagron   | Water                           | 14K06-C20-16125   | 2       |
| Fagron   | Water                           | 14L03-T03-017773  | 1       |
| Fagron   | Water                           | 14L03-T07-017788  | 4       |
| Fagron   | Water                           | 14L03T09017794    | 1       |
| Fagron   | Water                           | 14L03-T09-017794  | 3       |
| Fagron   | Water                           | 14L03-T11-017800  | 3       |
| Fagron   | Water                           | 14L03-T113-017804 | 1       |
| Fagron   | Water                           | 14L03T13017804    | 1       |
| Fagron   | Water                           | 14L03-T13-017804  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15/03-B02-313663  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15/03-B02-315211  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 15/03-B02-315212  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15/03-B02-315213  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 15/03-B02-316428  | 1       |
| Fagron   | Water                           | 15/10-T08-025964  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1503-802          | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Chlorhexidine digluconate so... | 1503B02314176     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1503-B02-315213   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1503B02316428     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1503-B02-316428   | 1       |
| Fagron   | Water                           | 15068702          | 1       |
| Fagron   | Water                           | 15070784          | 1       |
| Fagron   | Water                           | 1509-T02-024364   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15103-B02-315213  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1511033-01        | 2       |
| Fagron   | Chlorhexidine digluconate so... | 1511033-02        | 2       |
| Fagron   | Chlorhexidine digluconate so... | 15121406          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15131505          | 2       |
| Fagron   | Chlorhexidine digluconate so... | 15131509          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15C03B02          | 2       |
| Fagron   | Chlorhexidine digluconate so... | 15C03-B02-306308  | 2       |
| Fagron   | Water                           | 15D13T07021465    | 1       |
| Fagron   | Water                           | 15D13-T07-021465  | 2       |
| Fagron   | Water                           | 15D13-T09-021469  | 6       |
| Fagron   | Water                           | 15D14-T05         | 2       |
| Fagron   | Water                           | 15D14-T05-021481  | 3       |
| Fagron   | Water                           | 15D14-T06-021484  | 3       |
| Fagron   | Water                           | 15D14-T09-021490  | 4       |
| Fagron   | Water                           | 15D14-T10-021493  | 6       |
| Fagron   | Water                           | 15D14-T114-021502 | 1       |
| Fagron   | Water                           | 15D14-T13-021499  | 2       |
| Fagron   | Water                           | 15D14-T14-021502  | 6       |
| Fagron   | Water                           | 15D14-To5-021481  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15E13B07309826    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15E13-B07-309826  | 5       |
| Fagron   | Water                           | 15E18-C20-16520   | 3       |
| Fagron   | Water                           | 15F04-T03-023259  | 2       |
| Fagron   | Water                           | 15F04-T03-023529  | 1       |
| Fagron   | Water                           | 15F04-T05-023263  | 2       |
| Fagron   | Water                           | 15F-24-023883     | 1       |
| Fagron   | Water                           | 15F24-T01-023879  | 10      |
| Fagron   | Water                           | 15F24T03-023883   | 1       |
| Fagron   | Water                           | 15F24-T03-023883  | 4       |
| Fagron   | Chlorhexidine digluconate so... | 15F30B05          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15F30-B05         | 3       |
| Fagron   | Chlorhexidine digluconate so... | 15F30-B05-30929   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15F30-B05-309827  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15F30-B05-309829  | 4       |
| Fagron   | Chlorhexidine digluconate so... | 15F30-B05-311700  | 7       |
| Fagron   | Water                           | 15G09-T02-024364  | 6       |
| Fagron   | Water                           | 15G09-T04-024368  | 6       |
| Fagron   | Water                           | 15h0-T09-025968   | 1       |
| Fagron   | Water                           | 15H25-T14-025670  | 10      |
| Fagron   | Water                           | 15H25-T16-025674  | 4       |
| Fagron   | Water                           | 15H25-T18-025678  | 4       |
| Fagron   | Water                           | 15h25-t21-025683  | 1       |
| Fagron   | Water                           | 15H25-T21-025683  | 5       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-0006        | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B01-314176  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03B02          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-0006    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-313663  | 5       |
| Fagron   | Chlorhexidine digluconate so... | 15I03B02314176    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-314177  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-315212  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-315213     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02315552      | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-315552     | 8       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-316428     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03B02317319       | 2       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02317319      | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-317320     | 1       |
| Fagron   | Water                           | 15I10-T08-025964     | 2       |
| Fagron   | Chlorhexidine digluconate so... | 15I31-B02-313663     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15J03-B02            | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15J03-B02-313663     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15J03-B02-31555      | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15k03-B02-315552     | 1       |
| Fagron   | Water                           | 15k10-t04-027614     | 1       |
| Fagron   | Water                           | 15K10-T04-027614     | 10      |
| Fagron   | Water                           | 15K10-T05-027617     | 1       |
| Fagron   | Water                           | 15K10-T06-027620     | 3       |
| Fagron   | Water                           | 15K10-T07-027623     | 1       |
| Fagron   | Water                           | 15K10-T08-027626     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-313663     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03B02-315212      | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15I03-B02-315552     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 15L03-B02-315552     | 1       |
| Fagron   | Water                           | 15L14T12028660       | 1       |
| Fagron   | Water                           | 15L14-T12-028660     | 4       |
| Fagron   | Water                           | 15L14T14028664       | 2       |
| Fagron   | Water                           | 15L14-T14-028664     | 8       |
| Fagron   | Water                           | 15L15-T01-0208672    | 1       |
| Fagron   | Water                           | 15L15-T01-028672     | 7       |
| Fagron   | Water                           | 15L15-T03-028676     | 5       |
| Fagron   | Water                           | 15L15-T03-0286761042 | 1       |
| Fagron   | Water                           | 15L15-T05-028681     | 6       |
| Fagron   | Water                           | 15L15-T07            | 1       |
| Fagron   | Water                           | 15L15T07-028685      | 1       |
| Fagron   | Water                           | 15L15-T07-028685     | 8       |
| Fagron   | Water                           | 15L-15T07028685      | 1       |
| Fagron   | Water                           | 15L15-T07-028685     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16002501             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16002510             | 2       |
| Fagron   | Chlorhexidine digluconate so... | 1610022-01           | 1       |
| Fagron   | Water                           | 16313201             | 1       |
| Fagron   | Water                           | 16810-T02-030206     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16825-B98-318800     | 1       |
| Fagron   | Water                           | 16B10-T02-030206     | 5       |
| Fagron   | Water                           | 16B10T02030207       | 1       |
| Fagron   | Water                           | 16B10-T02-030207     | 1       |
| Fagron   | Water                           | 16B10-T03-030210     | 1       |
| Fagron   | Water                           | 16B10-T04-030213     | 1       |
| Fagron   | Water                           | 16B10-T05-030216     | 2       |
| Fagron   | Water                           | 16B10-T05-03026      | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16B25-B98            | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16B25-B98-318799     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16b25-b98-318800     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16B25-B98-318800     | 5       |
| Fagron   | Water                           | 16C22-T07-031410     | 2       |
| Fagron   | Water                           | 16C22-T09-031414     | 7       |
| Fagron   | Water                           | 16C23_t14-031432     | 1       |
| Fagron   | Water                           | 16C23-C20            | 1       |
| Fagron   | Water                           | 16C23-C20-17151      | 3       |
| Fagron   | Water                           | 16C23-T06-031423     | 9       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Water                           | 16C23-T06-31423   | 1       |
| Fagron   | Water                           | 16C23-T08-031427  | 5       |
| Fagron   | Water                           | 16C23-T08-31427   | 1       |
| Fagron   | Water                           | 16C23-T14-031432  | 10      |
| Fagron   | Water                           | 16C23-T16-031436  | 6       |
| Fagron   | Water                           | 16C23-T-16-031436 | 1       |
| Fagron   | Water                           | 16C23-T4-031432   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16e09-b03         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03         | 5       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03-320995  | 6       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03-320996  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03-322382  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03-322464  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03-322465  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03-323873  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16E09-B03-324024  | 3       |
| Fagron   | Water                           | 16F13-T11-0342564 | 1       |
| Fagron   | Water                           | 16F13T11034264    | 2       |
| Fagron   | Water                           | 16F13-T11-034264  | 11      |
| Fagron   | Water                           | 16F13T14034274    | 1       |
| Fagron   | Water                           | 16F13-T14034274   | 1       |
| Fagron   | Water                           | 16F13-T14-034274  | 6       |
| Fagron   | Water                           | 16F13-T16-034279  | 1       |
| Fagron   | Water                           | 16F13-T16-034297  | 5       |
| Fagron   | Water                           | 16F13T18034301    | 2       |
| Fagron   | Water                           | 16F13-T18-034301  | 15      |
| Fagron   | Water                           | 16F13-TN-034264   | 1       |
| Fagron   | Water                           | 16F14-t03-034317  | 1       |
| Fagron   | Water                           | 16F14-T03-034317  | 7       |
| Fagron   | Water                           | 16F14T05034321    | 1       |
| Fagron   | Water                           | 16F14T05-034321   | 1       |
| Fagron   | Water                           | 16F14-T05-034321  | 12      |
| Fagron   | Water                           | 16f14-t07-034326  | 2       |
| Fagron   | Water                           | 16F14-T07-034326  | 14      |
| Fagron   | Water                           | 16f14-t09-034330  | 1       |
| Fagron   | Water                           | 16F14-T09-034330  | 12      |
| Fagron   | Water                           | 16F23-T06-045760  | 1       |
| Fagron   | Water                           | 16G16-T01-058118  | 1       |
| Fagron   | Water                           | 16H02-T01         | 1       |
| Fagron   | Water                           | 16H02T01035743    | 1       |
| Fagron   | Water                           | 16H02-T01-035743  | 9       |
| Fagron   | Chlorhexidine digluconate so... | 16H23-B03         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 16H23-B03-329123  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 16H-23-B03-329123 | 1       |
| Fagron   | Water                           | 16K25-C20         | 1       |
| Fagron   | Water                           | 16K25C20-17409    | 1       |
| Fagron   | Water                           | 16K25-C20-17409   | 4       |
| Fagron   | Water                           | 16L12/T16/039628  | 1       |
| Fagron   | Water                           | 16L12-T11-039624  | 7       |
| Fagron   | Water                           | 16L12T16039628    | 1       |
| Fagron   | Water                           | 16L12-T16-039628  | 7       |
| Fagron   | Water                           | 16L12-T25-039642  | 12      |
| Fagron   | Water                           | 16L12-T27-039646  | 20      |
| Fagron   | Water                           | 16l12-t29-039657  | 1       |
| Fagron   | Water                           | 16L12T29039657    | 2       |
| Fagron   | Water                           | 16L12-T29-039657  | 5       |
| Fagron   | Water                           | 16L12-T31-039661  | 6       |
| Fagron   | Water                           | 16L12-T-31-039661 | 1       |
| Fagron   | Water                           | 16L15-T07-028685  | 1       |
| Fagron   | Water                           | 16L1-T27-039646   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Fagron   | Water                           | 16L-T11-039624     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1701037-01         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1701037-02         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17011310           | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1708006-01         | 2       |
| Fagron   | Chlorhexidine digluconate so... | 1708006-02         | 1       |
| Fagron   | Water                           | 17114801           | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17609-801-355140   | 1       |
| Fagron   | Water                           | 17804              | 1       |
| Fagron   | Water                           | 17810-T18-041564   | 2       |
| Fagron   | Water                           | 17B10-T18          | 1       |
| Fagron   | Water                           | 17B10-T18-041564   | 3       |
| Fagron   | Water                           | 17B10T20041571     | 1       |
| Fagron   | Water                           | 17B10-T20-041571   | 10      |
| Fagron   | Water                           | 17B10-T27-041575   | 2       |
| Fagron   | Water                           | 17B13-T02_041604   | 1       |
| Fagron   | Water                           | 17B13-T02-041604   | 17      |
| Fagron   | Water                           | 17B13-T02-04604    | 1       |
| Fagron   | Water                           | 17B13-T04-041608   | 10      |
| Fagron   | Water                           | 17C06-T09-042290   | 1       |
| Fagron   | Water                           | 17c31-t05          | 1       |
| Fagron   | Water                           | 17C31-T05          | 1       |
| Fagron   | Water                           | 17C31-T05-043064   | 10      |
| Fagron   | Water                           | 17e05_t05_044063   | 1       |
| Fagron   | Water                           | 17E05-T01-044045   | 11      |
| Fagron   | Water                           | 17E05-T03-044051   | 10      |
| Fagron   | Water                           | 17E05T05044063     | 2       |
| Fagron   | Water                           | 17E05-T05-044063   | 13      |
| Fagron   | Water                           | 17E05-T07-044067   | 11      |
| Fagron   | Water                           | 17E05-T11-044076   | 11      |
| Fagron   | Water                           | 17E05-T13          | 1       |
| Fagron   | Water                           | 17E05-T13-044080   | 12      |
| Fagron   | Chlorhexidine digluconate so... | 17E09-B01          | 6       |
| Fagron   | Chlorhexidine digluconate so... | 17E09-B01-335136   | 3       |
| Fagron   | Chlorhexidine digluconate so... | 17E09-B01-335137   | 3       |
| Fagron   | Chlorhexidine digluconate so... | 17E09-B01-335137/B | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17e09-b01-335140   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17E09B01335140     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17E09-B01335140    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17E09-B01-335140   | 13      |
| Fagron   | Water                           | 17E05-To1-o44o45   | 1       |
| Fagron   | Water                           | 17F23_T06_045760   | 1       |
| Fagron   | Water                           | 17F23-T06045760    | 1       |
| Fagron   | Water                           | 17F23-T06-045760   | 4       |
| Fagron   | Water                           | 17F23-T07-045766   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17G04-B01          | 3       |
| Fagron   | Chlorhexidine digluconate so... | 17G04-B01-341690   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 17G04-B01-341691   | 2       |
| Fagron   | Water                           | 17H14-T09-047709   | 1       |
| Fagron   | Water                           | 17H14T15047721     | 1       |
| Fagron   | Water                           | 17h24-709-047709   | 1       |
| Fagron   | Water                           | 17H24-T09-047709   | 8       |
| Fagron   | Water                           | 17H-24-T09-047709  | 1       |
| Fagron   | Water                           | 17H24-T09-04773    | 1       |
| Fagron   | Water                           | 17H24-T11-047713   | 12      |
| Fagron   | Water                           | 17H24T13047717     | 1       |
| Fagron   | Water                           | 17H24-T13-047717   | 19      |
| Fagron   | Water                           | 17H24-T15-047721   | 8       |
| Fagron   | Water                           | 17H24-Tn-047713    | 1       |
| Fagron   | Water                           | 17H4-T13-047717    | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Fagron   | Water                           | 17j20-T03-051260     | 1       |
| Fagron   | Water                           | 17K01-T01-048440     | 8       |
| Fagron   | Water                           | 17K01-T02-049669     | 1       |
| Fagron   | Water                           | 17K27-T09            | 1       |
| Fagron   | Water                           | 17k27-T09-050544     | 1       |
| Fagron   | Water                           | 17K27-T09-050544     | 19      |
| Fagron   | Water                           | 17K27-T09-050544/107 | 1       |
| Fagron   | Water                           | 17K27-T09-o5o44      | 1       |
| Fagron   | Water                           | 17K27-T10-050547     | 13      |
| Fagron   | Water                           | 17K27-T11-05052      | 1       |
| Fagron   | Water                           | 17K27-T11-050522     | 1       |
| Fagron   | Water                           | 17k27-t11-050552     | 1       |
| Fagron   | Water                           | 17K27-T11-050552     | 11      |
| Fagron   | Water                           | 17K27-T13-050552     | 1       |
| Fagron   | Water                           | 17K27-T13-050577     | 15      |
| Fagron   | Water                           | 17K27T14-050581      | 1       |
| Fagron   | Water                           | 17K27-T14-050581     | 17      |
| Fagron   | Water                           | 17K27-T14-05081      | 1       |
| Fagron   | Water                           | 17K27T15050585       | 4       |
| Fagron   | Water                           | 17K27-T15-050585     | 29      |
| Fagron   | Water                           | 17K27-T15050585      | 1       |
| Fagron   | Water                           | 17K27-T16_050588     | 1       |
| Fagron   | Water                           | 17k27-t16-050588     | 1       |
| Fagron   | Water                           | 17K27-T16-050588     | 14      |
| Fagron   | Water                           | 17K7-T15-050585      | 1       |
| Fagron   | Water                           | 17L20-T02-051254     | 3       |
| Fagron   | Water                           | 17L20-T02-051255     | 7       |
| Fagron   | Water                           | 17L20-T02-51254      | 1       |
| Fagron   | Water                           | 17L20-T03-051259     | 2       |
| Fagron   | Water                           | 17L20-T03-051260     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18/07-B04-353642     | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18/07-B04-356580     | 1       |
| Fagron   | Water                           | 18/24-T14-060238     | 2       |
| Fagron   | Water                           | 18042901             | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18045903             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18045906             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18045907             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1807B04355534        | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1807-B04-356582      | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1807-Berta04-356580  | 1       |
| Fagron   | Water                           | 181019-T31-054017    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18107-B04-353643     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18107-B04-356582     | 1       |
| Fagron   | Water                           | 18109201             | 2       |
| Fagron   | Water                           | 18109301             | 1       |
| Fagron   | Water                           | 18124-T14-060238     | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18A009-B05-344415    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18A09B05             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18A09-B05            | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18A09-b05-344414     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18A09-B05-344414     | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18A09-B05-344415     | 4       |
| Fagron   | Chlorhexidine digluconate so... | 18A09-B05-344604     | 10      |
| Fagron   | Chlorhexidine digluconate so... | 18A09-B05-344604     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18A09-B05-344605     | 1       |
| Fagron   | Water                           | 18A16-T18-063538     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18c05804             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-804            | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B004-351138    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05B04             | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04           | 5       |
| Fagron   | Chlorhexidine digluconate so... | 18C05B04346797      | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-346797    | 4       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-346798    | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-349427    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-349428    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-349429    | 3       |
| Fagron   | Chlorhexidine digluconate so... | 18c05-b04-349430    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04349430     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-349430    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-349541    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-351138    | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-351140    | 6       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-351141    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-352123    | 6       |
| Fagron   | Chlorhexidine digluconate so... | 18C05-B04-352124    | 2       |
| Fagron   | Water                           | 18C13-T14053736     | 1       |
| Fagron   | Water                           | 18C13-T14-053736    | 4       |
| Fagron   | Water                           | 18C13-T14-053737    | 7       |
| Fagron   | Water                           | 18C13-T14-053757    | 1       |
| Fagron   | Water                           | 18C13T15-053741     | 1       |
| Fagron   | Water                           | 18C13-T15-053741    | 1       |
| Fagron   | Water                           | 18c13T15053743      | 1       |
| Fagron   | Water                           | 18C13-T16-053745    | 1       |
| Fagron   | Water                           | 18C16-T04-058129    | 1       |
| Fagron   | Water                           | 18C18-T30-054012    | 1       |
| Fagron   | Water                           | 18C19_T26_053995    | 1       |
| Fagron   | Water                           | 18C19-T25-05399     | 3       |
| Fagron   | Water                           | 18C19-T25-053991    | 16      |
| Fagron   | Water                           | 18C19-T26-053995    | 29      |
| Fagron   | Water                           | 18C19-T27-053999    | 18      |
| Fagron   | Water                           | 18c19-T28-054003    | 1       |
| Fagron   | Water                           | 18C19-T28-054003    | 23      |
| Fagron   | Water                           | 18C19-T29           | 1       |
| Fagron   | Water                           | 18c19-T29-054007    | 1       |
| Fagron   | Water                           | 18C19T29054007      | 1       |
| Fagron   | Water                           | 18C19-T29-054007    | 14      |
| Fagron   | Water                           | 18C19-T30-054012    | 31      |
| Fagron   | Water                           | 18C19-T30-05401C    | 1       |
| Fagron   | Water                           | 18C19T31054017      | 2       |
| Fagron   | Water                           | 18C19-T31-054017    | 10      |
| Fagron   | Water                           | 18C19T31054017I     | 1       |
| Fagron   | Water                           | 18C19-T31-056017    | 1       |
| Fagron   | Water                           | 18C19-T6-053995     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18C5-B04-346799     | 1       |
| Fagron   | Water                           | 18E07T08055699      | 2       |
| Fagron   | Water                           | 18E07-T08-055699    | 32      |
| Fagron   | Water                           | 18E09-09-T01-055708 | 1       |
| Fagron   | Water                           | 18E09-T01_055708    | 1       |
| Fagron   | Water                           | 18E09-T01-055708    | 8       |
| Fagron   | Water                           | 18E09-T02-05511     | 1       |
| Fagron   | Water                           | 18E09-T02-055711    | 17      |
| Fagron   | Water                           | 18E-09-T02-055711   | 1       |
| Fagron   | Water                           | 18E09-T02-055771    | 1       |
| Fagron   | Water                           | 18E09-T02-05711     | 1       |
| Fagron   | Water                           | 18E25-T01-056423    | 12      |
| Fagron   | Water                           | 18E28-T01-056486    | 5       |
| Fagron   | Water                           | 18E28-T01-056487    | 6       |
| Fagron   | Water                           | 18E28-T02-056491    | 1       |
| Fagron   | Water                           | 18E28-T-02-056491   | 1       |

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continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Water                           | 18E679-0002       | 1       |
| Fagron   | Water                           | 18g16-t01-058118  | 1       |
| Fagron   | Water                           | 18G16-T01-058118  | 21      |
| Fagron   | Water                           | 18G16-T02-028123  | 1       |
| Fagron   | Water                           | 18G16T02058123    | 1       |
| Fagron   | Water                           | 18G16-T02-058123  | 15      |
| Fagron   | Water                           | 18G16-T02-058126  | 1       |
| Fagron   | Water                           | 18g16-t03-058126  | 2       |
| Fagron   | Water                           | 18G16-T03-058126  | 15      |
| Fagron   | Water                           | 18G16-T03-0588126 | 1       |
| Fagron   | Water                           | 18G16T04058129    | 1       |
| Fagron   | Water                           | 18G16-T04-058129  | 28      |
| Fagron   | Water                           | 18g16-t05-058126  | 1       |
| Fagron   | Water                           | 18G16T05058132    | 1       |
| Fagron   | Water                           | 18G16-T05-058132  | 21      |
| Fagron   | Water                           | 18G16-To1-058118  | 1       |
| Fagron   | Water                           | 18G16-To3-058126  | 1       |
| Fagron   | Water                           | 18G16-To4-058129  | 2       |
| Fagron   | Water                           | 18G6T05058132     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18I07_B04_3565825 | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B           | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04         | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18I07B04353642    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-353642  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-353643  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-354794  | 7       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-b04-356580  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-356580  | 4       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-356581  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04356582   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-356582  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-356583  | 6       |
| Fagron   | Water                           | 18I24-T14-060238  | 3       |
| Fagron   | Water                           | 18I24-T14-060239  | 5       |
| Fagron   | Water                           | 18I24-T15-060244  | 1       |
| Fagron   | Water                           | 18J10             | 1       |
| Fagron   | Water                           | 18J10-T01-0606845 | 1       |
| Fagron   | Water                           | 18J10-T01-060845  | 29      |
| Fagron   | Chlorhexidine digluconate so... | 18I07-B04-353643  | 1       |
| Fagron   | Water                           | 18L19-T0-062854   | 1       |
| Fagron   | Water                           | 18L19-T06-062853  | 9       |
| Fagron   | Water                           | 18L19T06062854    | 2       |
| Fagron   | Water                           | 18L19-T06-062854  | 3       |
| Fagron   | Water                           | 18L19-T062853     | 1       |
| Fagron   | Water                           | 18L19-T062854     | 1       |
| Fagron   | Water                           | 18L19-T07-062857  | 10      |
| Fagron   | Water                           | 18I24-T14-060239  | 1       |
| Fagron   | Water                           | 19/10-T0g-072607  | 1       |
| Fagron   | Water                           | 19/14-T07-072690  | 3       |
| Fagron   | Water                           | 19001-T01_065562  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1902010-01        | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1909-1007-071038  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1909-T07-071035   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1909T07-071036    | 1       |
| Fagron   | Water                           | 191029-T06-065512 | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19109-T07-071035  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19109-T07-071037  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19109-T07-071038  | 1       |
| Fagron   | Water                           | 1929-T01-065497   | 1       |
| Fagron   | Water                           | 19714-T03-072675  | 1       |

continued on the next page

continued from previous page

| Supplier | Substance | Batch             | Spectra |
|----------|-----------|-------------------|---------|
| Fagron   | Water     | 19A13-To8-063538  | 1       |
| Fagron   | Water     | 19A18             | 2       |
| Fagron   | Water     | 19a18-T01-063489  | 1       |
| Fagron   | Water     | 19A18-T01063489   | 1       |
| Fagron   | Water     | 19A18-T01-063489  | 22      |
| Fagron   | Water     | 19A18-T01-063531  | 1       |
| Fagron   | Water     | 19A18-T01-0693489 | 2       |
| Fagron   | Water     | 19A18-T02-063515  | 27      |
| Fagron   | Water     | 19A18-T06         | 1       |
| Fagron   | Water     | 19A18-T06-063528  | 35      |
| Fagron   | Water     | 19A18-T07         | 1       |
| Fagron   | Water     | 19A18-T07-06351   | 1       |
| Fagron   | Water     | 19A18-T07-063531  | 24      |
| Fagron   | Water     | 19a18-t08-063538  | 1       |
| Fagron   | Water     | 19A18T08063538    | 1       |
| Fagron   | Water     | 19A18T-08-063538  | 1       |
| Fagron   | Water     | 19A18-T08063538   | 1       |
| Fagron   | Water     | 19A18-T08-063538  | 22      |
| Fagron   | Water     | 19A-18-T08-063538 | 1       |
| Fagron   | Water     | 19A18-T11         | 2       |
| Fagron   | Water     | 19A18T11063541    | 2       |
| Fagron   | Water     | 19A18-T11-063541  | 20      |
| Fagron   | Water     | 19A18-T01-063489  | 1       |
| Fagron   | Water     | 19A18T02063518    | 1       |
| Fagron   | Water     | 19A18-To6-063528  | 2       |
| Fagron   | Water     | 19A18-T06-063528  | 1       |
| Fagron   | Water     | 19A19-T08-063538  | 1       |
| Fagron   | Water     | 19B06-T01-062865  | 1       |
| Fagron   | Water     | 19B06-T02-0621861 | 1       |
| Fagron   | Water     | 19B06-T02-062861  | 3       |
| Fagron   | Water     | 19C29-01-065497   | 1       |
| Fagron   | Water     | 19C29T01065497    | 1       |
| Fagron   | Water     | 19C29-T01-065497  | 29      |
| Fagron   | Water     | 19C29-T02         | 1       |
| Fagron   | Water     | 19C29-T02_065500  | 1       |
| Fagron   | Water     | 19c29-t02-065500  | 1       |
| Fagron   | Water     | 19C29-T02-065500  | 17      |
| Fagron   | Water     | 19C29-T05-065509  | 22      |
| Fagron   | Water     | 19C29T06065512    | 1       |
| Fagron   | Water     | 19C29-T06-065512  | 27      |
| Fagron   | Water     | 19C29-T07-065526  | 9       |
| Fagron   | Water     | 19C29T08065529    | 1       |
| Fagron   | Water     | 19C29-T08-065529  | 20      |
| Fagron   | Water     | 19C29-To7-065526  | 1       |
| Fagron   | Water     | 19c29to8o65529    | 1       |
| Fagron   | Water     | 19D01             | 1       |
| Fagron   | Water     | 19D01-AT09-065554 | 1       |
| Fagron   | Water     | 19D01-T08065551   | 1       |
| Fagron   | Water     | 19D01-T08-065551  | 27      |
| Fagron   | Water     | 19D01-T09-06554   | 1       |
| Fagron   | Water     | 19d01-T09-065554  | 1       |
| Fagron   | Water     | 19D01-T09-065554  | 19      |
| Fagron   | Water     | 19D01-T10-065562  | 25      |
| Fagron   | Water     | 19D01-T11-0655565 | 1       |
| Fagron   | Water     | 19D01T11065565    | 2       |
| Fagron   | Water     | 19D01-T11-065565  | 17      |
| Fagron   | Water     | 19D01-T12-065568  | 11      |
| Fagron   | Water     | 19D01T09065554    | 1       |
| Fagron   | Water     | 19D01-Tog-065554  | 3       |
| Fagron   | Water     | 19D08-T09-065554  | 1       |

continued on the next page

*continued from previous page*

| Supplier | Substance                       | Batch              | Spectra |
|----------|---------------------------------|--------------------|---------|
| Fagron   | Water                           | 19Do1-To9-o65554   | 1       |
| Fagron   | Water                           | 19E20-T09_067576   | 1       |
| Fagron   | Water                           | 19E20-T09-067576   | 3       |
| Fagron   | Water                           | 19E20-T09-067577   | 2       |
| Fagron   | Water                           | 19F27-T10-068900   | 15      |
| Fagron   | Water                           | 19F27-T11-0689003  | 1       |
| Fagron   | Water                           | 19f27-T11-068903   | 1       |
| Fagron   | Water                           | 19F27-T11-068903   | 18      |
| Fagron   | Water                           | 19F-27-T11-068903  | 1       |
| Fagron   | Water                           | 19F27-T12068906    | 1       |
| Fagron   | Water                           | 19F27-T12-068906   | 16      |
| Fagron   | Water                           | 19F27-T13-068909   | 19      |
| Fagron   | Water                           | 19F27-T-13-068909  | 1       |
| Fagron   | Water                           | 19F27-T14-068914   | 10      |
| Fagron   | Water                           | 19F-27-T14-068914  | 1       |
| Fagron   | Water                           | 19F29-T10-068900   | 1       |
| Fagron   | Water                           | 19G01-T02069130    | 1       |
| Fagron   | Water                           | 19G04-T02-069129   | 5       |
| Fagron   | Water                           | 19G04-T02-069130   | 3       |
| Fagron   | Water                           | 19g18-t11-063541   | 1       |
| Fagron   | Water                           | 19H12T14070779     | 1       |
| Fagron   | Water                           | 19H12-T14-070779   | 3       |
| Fagron   | Water                           | 19H-12-T14-070779  | 1       |
| Fagron   | Water                           | 19H12-T15          | 2       |
| Fagron   | Water                           | 19H12-T15-070784   | 7       |
| Fagron   | Water                           | 19H12-T16-070787   | 23      |
| Fagron   | Water                           | 19H14T07072690     | 1       |
| Fagron   | Water                           | 19H16-F15          | 1       |
| Fagron   | Water                           | 19H16-T-070943     | 1       |
| Fagron   | Water                           | 19H16-T14-0709304  | 1       |
| Fagron   | Water                           | 19H16T14070934     | 3       |
| Fagron   | Water                           | 19H16-T14-070934   | 12      |
| Fagron   | Water                           | 19H16T15070937     | 1       |
| Fagron   | Water                           | 19H16-T15-070937   | 25      |
| Fagron   | Water                           | 19H-16-T15-070937  | 5       |
| Fagron   | Water                           | 19H16-T15-0709372x | 1       |
| Fagron   | Water                           | 19H16-T15-o7o937   | 1       |
| Fagron   | Water                           | 19H16-T16_070940   | 1       |
| Fagron   | Water                           | 19H16-T16-070940   | 9       |
| Fagron   | Water                           | 19H-16-T16-070940  | 1       |
| Fagron   | Water                           | 19H16-T16-0709400  | 1       |
| Fagron   | Water                           | 19H16T17070943     | 2       |
| Fagron   | Water                           | 19H16-T17070943    | 1       |
| Fagron   | Water                           | 19H16-T17-070943   | 12      |
| Fagron   | Water                           | 19H20-B06-194493   | 1       |
| Fagron   | Water                           | 19h4-T06-072685    | 1       |
| Fagron   | Water                           | 19h4-T07-072690    | 2       |
| Fagron   | Water                           | 19h4-T10-072699    | 1       |
| Fagron   | Water                           | 19ho-T09-072607    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19I09-T07-071035   | 4       |
| Fagron   | Chlorhexidine digluconate so... | 19I09-T07-071036   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19I09-T07-071037   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19I09-T07-071038   | 15      |
| Fagron   | Chlorhexidine digluconate so... | 19I09-T07-071039   | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19I09-T07-071040   | 1       |
| Fagron   | Water                           | 19J10-T02-072607   | 1       |
| Fagron   | Water                           | 19J10-T07-072613   | 2       |
| Fagron   | Water                           | 19J10-T08-072616   | 2       |
| Fagron   | Water                           | 19J10-T09072607    | 1       |
| Fagron   | Water                           | 19J10-T09-072607   | 11      |

*continued on the next page*

continued from previous page

| Supplier | Substance                       | Batch                | Spectra |
|----------|---------------------------------|----------------------|---------|
| Fagron   | Water                           | 19j10-t09-072608     | 1       |
| Fagron   | Water                           | 19J10-T09-072608     | 7       |
| Fagron   | Water                           | 19J10-To9-072607     | 1       |
| Fagron   | Water                           | 19J14                | 2       |
| Fagron   | Water                           | 19J14-T03-0726705    | 1       |
| Fagron   | Water                           | 19J14-T03-072675     | 14      |
| Fagron   | Water                           | 19J14-T04-07267      | 1       |
| Fagron   | Water                           | 19J14-T04-072678     | 17      |
| Fagron   | Water                           | 19J14-T06            | 1       |
| Fagron   | Water                           | 19J14-T06-0726805    | 3       |
| Fagron   | Water                           | 19J14-T06-072685     | 22      |
| Fagron   | Water                           | 19J14-T07_072690     | 2       |
| Fagron   | Water                           | 19j14t07072690       | 1       |
| Fagron   | Water                           | 19J14-T07-072690     | 9       |
| Fagron   | Water                           | 19J14-T08-072639     | 1       |
| Fagron   | Water                           | 19J14-T08-0726903    | 2       |
| Fagron   | Water                           | 19J14T08072693       | 2       |
| Fagron   | Water                           | 19J14-T08-072693     | 27      |
| Fagron   | Water                           | 19J14-T09-072696     | 11      |
| Fagron   | Water                           | 19J14-T10-072699     | 28      |
| Fagron   | Water                           | 19J14-T12            | 1       |
| Fagron   | Water                           | 19-j14-T12-072715    | 1       |
| Fagron   | Water                           | 19J14-T12-072715     | 5       |
| Fagron   | Water                           | 19j14-To6-072685     | 1       |
| Fagron   | Water                           | 19J14-To6-072685     | 2       |
| Fagron   | Water                           | 19j14-to7-072690     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 19109-T07-071036     | 1       |
| Fagron   | Chlorhexidine digluconate so... | 1SF30-B05-311700     | 1       |
| Fagron   | Water                           | 20000418001          | 1       |
| Fagron   | Water                           | 20000853001          | 1       |
| Fagron   | Aluminium acetotartrate solu... | 20163B               | 1       |
| Fagron   | Aluminium acetotartrate solu... | 20164B               | 4       |
| Fagron   | Chlorhexidine digluconate so... | 20200112-1           | 1       |
| Fagron   | Chlorhexidine digluconate so... | 204211262            | 1       |
| Fagron   | Chlorhexidine digluconate so... | 204DB/1              | 1       |
| Fagron   | Water                           | 2050917/17B10-T18-04 | 1       |
| Fagron   | Water                           | 2080169              | 1       |
| Fagron   | Water                           | 20B28-T023-076719    | 2       |
| Fagron   | Water                           | 20B28-T03-076179     | 1       |
| Fagron   | Water                           | 20B28-T03-0767109    | 1       |
| Fagron   | Water                           | 20B28T03-076719      | 1       |
| Fagron   | Water                           | 20B28-T03076719      | 1       |
| Fagron   | Water                           | 20B28-T03-076719     | 28      |
| Fagron   | Water                           | 20B28-T-03-076719    | 3       |
| Fagron   | Water                           | 20B28-T03-76719      | 1       |
| Fagron   | Water                           | 20B28-To3-076716     | 1       |
| Fagron   | Water                           | 20B2B-T03-076719     | 1       |
| Fagron   | Water                           | 20C17-T03-0775201    | 2       |
| Fagron   | Water                           | 20C17T03077521       | 1       |
| Fagron   | Water                           | 20C17T03-077521      | 1       |
| Fagron   | Water                           | 20C17-T03-077521     | 14      |
| Fagron   | Water                           | 20C17-T16-0077604    | 1       |
| Fagron   | Water                           | 20C17-T16-0776004    | 1       |
| Fagron   | Water                           | 20c17t16077604       | 1       |
| Fagron   | Water                           | 20C17-T16-077604     | 13      |
| Fagron   | Water                           | 20C17-T17-0776007    | 1       |
| Fagron   | Water                           | 20c17-T17-077607     | 1       |
| Fagron   | Water                           | 20C17T17077607       | 1       |
| Fagron   | Water                           | 20C17-T17-077607     | 15      |
| Fagron   | Water                           | 20C17T18077610       | 2       |

continued on the next page

continued from previous page

| Supplier | Substance | Batch             | Spectra |
|----------|-----------|-------------------|---------|
| Fagron   | Water     | 20C17-T18-077610  | 7       |
| Fagron   | Water     | 20C17-T19-077613  | 13      |
| Fagron   | Water     | 20C17-To3-077521  | 2       |
| Fagron   | Water     | 20C19-T13-077809  | 8       |
| Fagron   | Water     | 20C19-T14-077813  | 3       |
| Fagron   | Water     | 20c19t15077819    | 1       |
| Fagron   | Water     | 20C19T15077819    | 1       |
| Fagron   | Water     | 20C19-T15077819   | 1       |
| Fagron   | Water     | 20C19-T15-077819  | 12      |
| Fagron   | Water     | 20C19-T-15-077819 | 1       |
| Fagron   | Water     | 20C27-T03-0078151 | 1       |
| Fagron   | Water     | 20C27-T03-078151  | 6       |
| Fagron   | Water     | 20C27T04078154    | 2       |
| Fagron   | Water     | 20C27-T04-078154  | 25      |
| Fagron   | Water     | 20C27-T04-08154   | 1       |
| Fagron   | Water     | 20C31-T19-078892  | 1       |
| Fagron   | Water     | 20C7-T03-078151   | 1       |
| Fagron   | Water     | 20D06_T14_078564  | 1       |
| Fagron   | Water     | 20D06T14078564    | 1       |
| Fagron   | Water     | 20D06-T14-078564  | 20      |
| Fagron   | Water     | 20d06-T15-078567  | 1       |
| Fagron   | Water     | 20D06T15078567    | 2       |
| Fagron   | Water     | 20D06-T15-078567  | 8       |
| Fagron   | Water     | 20D06-T17-078573  | 4       |
| Fagron   | Water     | 20d08-t06-078666  | 1       |
| Fagron   | Water     | 20D08T06078666    | 3       |
| Fagron   | Water     | 20D08-T06-078666  | 9       |
| Fagron   | Water     | 20D14-T25-078895  | 3       |
| Fagron   | Water     | 20do6-t15-078567  | 1       |
| Fagron   | Water     | 20Do6-T17-078573  | 2       |
| Fagron   | Water     | 20Do8-T06-078666  | 1       |
| Fagron   | Water     | 20Do8-To6-078666  | 1       |
| Fagron   | Water     | 20E01T07-079947   | 1       |
| Fagron   | Water     | 20E03T05079934    | 1       |
| Fagron   | Water     | 20E03-T05-079934  | 1       |
| Fagron   | Water     | 20E04T02-079938   | 1       |
| Fagron   | Water     | 20E04-T02-079938  | 19      |
| Fagron   | Water     | 20E04-T03-0799401 | 1       |
| Fagron   | Water     | 20E04T03079941    | 1       |
| Fagron   | Water     | 20E04-T03-079941  | 17      |
| Fagron   | Water     | 20E04-T03-79941   | 1       |
| Fagron   | Water     | 20E04-T05-079944  | 11      |
| Fagron   | Water     | 20E04T07079947    | 1       |
| Fagron   | Water     | 20E04-T07-079947  | 9       |
| Fagron   | Water     | 20E12-T02-0801700 | 1       |
| Fagron   | Water     | 20E13-T02-080169  | 8       |
| Fagron   | Water     | 20E13-T02-08016g  | 1       |
| Fagron   | Water     | 20E13-T02-080170  | 1       |
| Fagron   | Water     | 20E13-T03-080173  | 2       |
| Fagron   | Water     | 20E13-T04-080176  | 4       |
| Fagron   | Water     | 20E25T08080560    | 1       |
| Fagron   | Water     | 20E25-T08-080560  | 9       |
| Fagron   | Water     | 20E25T080B0560    | 1       |
| Fagron   | Water     | 20E25-to8-080560  | 1       |
| Fagron   | Water     | 20F16             | 1       |
| Fagron   | Water     | 20f16_t06_081160  | 1       |
| Fagron   | Water     | 20f16t05081157    | 1       |
| Fagron   | Water     | 20f16-t05-081157  | 1       |
| Fagron   | Water     | 20F16T05081157    | 1       |
| Fagron   | Water     | 20F16-T05-081157  | 12      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Water                           | 20F16T06081160    | 1       |
| Fagron   | Water                           | 20F16-T06-081160  | 18      |
| Fagron   | Water                           | 20F-16-T06-081160 | 1       |
| Fagron   | Water                           | 20g14-t02-081559  | 1       |
| Fagron   | Water                           | 20G14-T02-081559  | 5       |
| Fagron   | Water                           | 20G14-T03-081562  | 1       |
| Fagron   | Water                           | 20G14-T08-081578  | 2       |
| Fagron   | Water                           | 20h4-T03-083242   | 2       |
| Fagron   | Water                           | 20h4-T05-083248   | 2       |
| Fagron   | Water                           | 20I03-T04-082478  | 2       |
| Fagron   | Water                           | 20I03-T04-082479  | 1       |
| Fagron   | Water                           | 20I03-T05-082482  | 1       |
| Fagron   | Water                           | 20j14-T02-083239  | 1       |
| Fagron   | Water                           | 20J14-T02-083239  | 7       |
| Fagron   | Water                           | 20J14-T03         | 1       |
| Fagron   | Water                           | 20J14T03083242    | 1       |
| Fagron   | Water                           | 20J14-T03-083242  | 7       |
| Fagron   | Water                           | 20J14-T04-083245  | 4       |
| Fagron   | Water                           | 20J14-T05-083248  | 11      |
| Fagron   | Water                           | 20J14-T05-083248u | 1       |
| Fagron   | Water                           | 20J14-T14-083300  | 8       |
| Fagron   | Water                           | 20J14-To3-083242  | 1       |
| Fagron   | Water                           | 20J14-To4-o83245  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20K24-104-076652  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20K24-r04-077175  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20K24-T04-076652  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20K24-T04-077122  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20k24T04077175    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20K24T04077175    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20K24-T04-077175  | 8       |
| Fagron   | Chlorhexidine digluconate so... | 20L02-T01-077172  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20L02-T01-077176  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 20L02-T01-079643  | 2       |
| Fagron   | Chlorhexidine digluconate so... | 20L02-T01-087089  | 1       |
| Fagron   | Water                           | 20L22-T01         | 1       |
| Fagron   | Water                           | 20L22-T01-085061  | 18      |
| Fagron   | Water                           | 20L22-T02-085064  | 3       |
| Fagron   | Chlorhexidine digluconate so... | 20LQ2-T01         | 1       |
| Fagron   | Water                           | 219167            | 1       |
| Fagron   | Water                           | 21A06-T01-085199  | 2       |
| Fagron   | Water                           | 21A06-T03-085205  | 7       |
| Fagron   | Water                           | 21A06-T04-085208  | 5       |
| Fagron   | Water                           | 21A06-T05-085211  | 1       |
| Fagron   | Water                           | 21A06-T06-085214  | 4       |
| Fagron   | Water                           | 21A06-T085211     | 2       |
| Fagron   | Water                           | 21A06-To3-085205  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 21a27-t08-090064  | 1       |
| Fagron   | Water                           | 21B16-T07         | 1       |
| Fagron   | Water                           | 21B16-T07-086471  | 1       |
| Fagron   | Water                           | 21B16-T07-08671   | 1       |
| Fagron   | Water                           | 21C23-/06-087185  | 1       |
| Fagron   | Water                           | 21C23-T06-0871805 | 1       |
| Fagron   | Water                           | 21C23-T06-087185  | 13      |
| Fagron   | Water                           | 21C23-T07-087188  | 4       |
| Fagron   | Water                           | 21C23-T07-08788   | 1       |
| Fagron   | Water                           | 21C24-T04-087200  | 3       |
| Fagron   | Water                           | 21C24-T05-087203  | 2       |
| Fagron   | Water                           | 21C24-T09-087215  | 2       |
| Fagron   | Water                           | 21C24To3087197    | 1       |
| Fagron   | Water                           | 21D19T1008703     | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch               | Spectra |
|----------|---------------------------------|---------------------|---------|
| Fagron   | Water                           | 21D19-T10-087703    | 7       |
| Fagron   | Water                           | 21D19-T11-087706    | 4       |
| Fagron   | Water                           | 21G28-T24-090468    | 3       |
| Fagron   | Water                           | 21G28-T25-090471    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 23121307            | 1       |
| Fagron   | Water                           | 247025-0002         | 1       |
| Fagron   | Chlorhexidine digluconate so... | 25051304            | 1       |
| Fagron   | Chlorhexidine digluconate so... | 2512M01262          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 26091402            | 1       |
| Fagron   | Chlorhexidine digluconate so... | 2612M01262          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 2614Q-01262         | 1       |
| Fagron   | Water                           | 2918E-03019         | 1       |
| Fagron   | Water                           | 2oDo8-To6-078666    | 1       |
| Fagron   | Chlorhexidine digluconate so... | 20K24-T04-077175    | 1       |
| Fagron   | Water                           | 2x19H16-T15-070937  | 1       |
| Fagron   | Chlorhexidine digluconate so... | 4111303             | 1       |
| Fagron   | Water                           | 41608               | 1       |
| Fagron   | Water                           | 44080               | 1       |
| Fagron   | Chlorhexidine digluconate so... | 4513U1262           | 1       |
| Fagron   | Water                           | 5-08324008          | 2       |
| Fagron   | Water                           | 54007               | 1       |
| Fagron   | Water                           | 54012               | 1       |
| Fagron   | Chlorhexidine digluconate so... | 5x15I03-B02-3152120 | 1       |
| Fagron   | Water                           | 6081160             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 6101801             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 6111210             | 1       |
| Fagron   | Water                           | 65500               | 1       |
| Fagron   | Water                           | 701679-0001         | 2       |
| Fagron   | Water                           | 701679-0003         | 2       |
| Fagron   | Water                           | 701679-T07-072690   | 1       |
| Fagron   | Water                           | 70319-W             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 7051804             | 1       |
| Fagron   | Water                           | 7-0726900           | 1       |
| Fagron   | Water                           | 7-07269000          | 4       |
| Fagron   | Chlorhexidine digluconate so... | 8041712             | 1       |
| Fagron   | Chlorhexidine digluconate so... | 8051814             | 1       |
| Fagron   | Water                           | 9-07269006          | 1       |
| Fagron   | Chlorhexidine digluconate so... | 9081302             | 1       |
| Fagron   | Water                           | 9C29T010654971      | 1       |
| Fagron   | Chlorhexidine digluconate so... | A-180063            | 2       |
| Fagron   | Chlorhexidine digluconate so... | A-180378            | 1       |
| Fagron   | Chlorhexidine digluconate so... | A180630             | 1       |
| Fagron   | Chlorhexidine digluconate so... | A180-630            | 1       |
| Fagron   | Chlorhexidine digluconate so... | A200604             | 1       |
| Fagron   | Chlorhexidine digluconate so... | AC05-B04-346798     | 1       |
| Fagron   | Water                           | Ap0048              | 1       |
| Fagron   | Water                           | AP0093              | 1       |
| Fagron   | Water                           | AP210526-09         | 1       |
| Fagron   | Water                           | AP-SP0003           | 1       |
| Fagron   | Chlorhexidine digluconate so... | B/127/20            | 3       |
| Fagron   | Water                           | B17C31-T05-043064   | 1       |
| Fagron   | Water                           | B19G04              | 1       |
| Fagron   | Water                           | B19G04-T02-069129   | 2       |
| Fagron   | Chlorhexidine digluconate so... | BK13-CG-011         | 3       |
| Fagron   | Chlorhexidine digluconate so... | BK13-CG-018         | 2       |
| Fagron   | Chlorhexidine digluconate so... | BK13-CG-285447      | 1       |
| Fagron   | Chlorhexidine digluconate so... | BK14-CG-003         | 2       |
| Fagron   | Chlorhexidine digluconate so... | BK14-CG-023         | 2       |
| Fagron   | Chlorhexidine digluconate so... | BK15CG001           | 1       |
| Fagron   | Chlorhexidine digluconate so... | BK15-CG-001         | 3       |

continued on the next page



continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Fagron   | Chlorhexidine digluconate so... | BK16CG005         | 1       |
| Fagron   | Chlorhexidine digluconate so... | BK16-CG-005       | 1       |
| Fagron   | Chlorhexidine digluconate so... | BK16-CG-011       | 1       |
| Fagron   | Chlorhexidine digluconate so... | BK17-CG-001       | 1       |
| Fagron   | Water                           | Fragon-T10-065562 | 1       |
| Fagron   | Water                           | J14-T02-083239    | 1       |
| Fagron   | Water                           | L22-T01-085061    | 1       |
| Fagron   | Water                           | LOTAP0048         | 1       |
| Fagron   | Water                           | LOTAP0072         | 3       |
| Fagron   | Water                           | LOTAP0083         | 2       |
| Fagron   | Water                           | LOTAP0120         | 1       |
| Fagron   | Water                           | T01-0851909       | 1       |
| Fagron   | Water                           | T02-0628601       | 2       |
| Fagron   | Water                           | T02-0655000       | 2       |
| Fagron   | Water                           | T02-0799308       | 2       |
| Fagron   | Water                           | T02-0815509       | 2       |
| Fagron   | Water                           | T03-0726705       | 3       |
| Fagron   | Water                           | T03-0767109       | 1       |
| Fagron   | Water                           | T03-0775201       | 4       |
| Fagron   | Water                           | T03-0799401       | 3       |
| Fagron   | Water                           | T03-0801703       | 4       |
| Fagron   | Water                           | T03-0815602       | 1       |
| Fagron   | Water                           | T03-0832402       | 1       |
| Fagron   | Water                           | T03-0852005       | 2       |
| Fagron   | Chlorhexidine digluconate so... | T04-0771705       | 2       |
| Fagron   | Water                           | T04-0824709       | 1       |
| Fagron   | Water                           | T04-0872000       | 1       |
| Fagron   | Water                           | T05-0799404       | 1       |
| Fagron   | Water                           | T05-0811507       | 4       |
| Fagron   | Water                           | T05-0824802       | 1       |
| Fagron   | Water                           | T05-0832408       | 1       |
| Fagron   | Water                           | T05-0852101       | 1       |
| Fagron   | Water                           | T06-0655102       | 1       |
| Fagron   | Water                           | T06-0726805       | 4       |
| Fagron   | Water                           | T06-0786606       | 1       |
| Fagron   | Water                           | T06-0811600       | 2       |
| Fagron   | Water                           | T06-0852104       | 1       |
| Fagron   | Water                           | T06-0871805       | 3       |
| Fagron   | Chlorhexidine digluconate so... | T06-0884700       | 1       |
| Fagron   | Chlorhexidine digluconate so... | T07-0710403       | 1       |
| Fagron   | Water                           | T07-0799407       | 2       |
| Fagron   | Water                           | T08-0655209       | 1       |
| Fagron   | Water                           | T08-0726903       | 4       |
| Fagron   | Water                           | T08-072693        | 1       |
| Fagron   | Water                           | T08-0805600       | 3       |
| Fagron   | Water                           | T08-0864704       | 3       |
| Fagron   | Chlorhexidine digluconate so... | T08-0900604       | 1       |
| Fagron   | Water                           | T09-0675706       | 1       |
| Fagron   | Water                           | T09-0726007       | 1       |
| Fagron   | Water                           | T09-0726008       | 1       |
| Fagron   | Water                           | T09-072608        | 1       |
| Fagron   | Water                           | T09-0726906       | 1       |
| Fagron   | Water                           | T10-0726909       | 5       |
| Fagron   | Water                           | T10-0877003       | 3       |
| Fagron   | Water                           | T11-0689003       | 1       |
| Fagron   | Water                           | T11-0877006       | 2       |
| Fagron   | Water                           | T12-0689006       | 1       |
| Fagron   | Water                           | T13-0689009       | 1       |
| Fagron   | Water                           | T13-0778009       | 2       |
| Fagron   | Water                           | T14-031432        | 1       |

continued on the next page

continued from previous page

| Supplier            | Substance                       | Batch             | Spectra |
|---------------------|---------------------------------|-------------------|---------|
| Fagron              | Water                           | T14-0689104       | 1       |
| Fagron              | Water                           | T14-0707709       | 1       |
| Fagron              | Water                           | T14-0709304       | 2       |
| Fagron              | Water                           | T14-0778103       | 1       |
| Fagron              | Water                           | T15-0707804       | 2       |
| Fagron              | Water                           | T15-0778109       | 4       |
| Fagron              | Water                           | T15-0785607       | 1       |
| Fagron              | Water                           | T16-0707807       | 1       |
| Fagron              | Water                           | T16-0709400       | 6       |
| Fagron              | Water                           | T1607094000       | 1       |
| Fagron              | Water                           | T16-0776004       | 7       |
| Fagron              | Water                           | T17-0709403       | 1       |
| Fagron              | Water                           | T17-0776007       | 5       |
| Fagron              | Water                           | T17-0785703       | 2       |
| Fagron              | Water                           | T1707B57003       | 1       |
| Fagron              | Water                           | T17-o785703       | 1       |
| Fagron              | Water                           | T19-0776103       | 7       |
| Fagron              | Water                           | T19-077613        | 1       |
| Fagron              | Water                           | T19-0788902       | 2       |
| Fagron              | Water                           | T24-0904608       | 1       |
| Fargon / Gehe       | Water                           | 15D14-T13-021499  | 1       |
| Fargon / Gehe       | Water                           | 17B10-T27-041575  | 1       |
| Fargon GmbH & Co.KG | Water                           | 15K10-T07-027623  | 2       |
| Fargon GmbH & Co.KG | Water                           | 15K10-To4-027614  | 1       |
| Fargon GmbH & Co.KG | Water                           | 16B10-T04-030213  | 3       |
| Fargon GmbH & Co.KG | Water                           | 16F13-T16-034297  | 1       |
| Fargon GmbH & Co.KG | Water                           | 16F14-T07-034326  | 1       |
| Fargon GmbH & Co.KG | Water                           | 17B10-T20-041571  | 1       |
| Fargon GmbH & Co.KG | Water                           | 17E05-T03-044051  | 1       |
| Fargon/ Noweda      | Chlorhexidine digluconate so... | 12f01n21          | 1       |
| Fargon/AHD          | Chlorhexidine digluconate so... | 18C05-B04         | 1       |
| Fargon/Kehr         | Water                           | 15F04-T05-023263  | 1       |
| Fargon/Kehr         | Water                           | 17B10-T20-041571  | 1       |
| Fargon/Kehr         | Water                           | 17H24-T09-047709  | 1       |
| Fargon/Kehr         | Water                           | 17L20-T02-051255  | 4       |
| Fargon/Noweda       | Water                           | 15L15-T028676     | 1       |
| Fargon/Phoenix      | Water                           | 18/24-T14-060239  | 1       |
| Fargon/Phoenix      | Water                           | 18E28-T01-056486  | 1       |
| Fargon/Sanacorp     | Water                           | 17K27-T14-050581  | 1       |
| Fargon/Sanacorp     | Water                           | 18G16-T03-058126  | 2       |
| Fargon              | Chlorhexidine digluconate so... | 12F01-N21         | 1       |
| Fargon              | Water                           | 16L12T11039624    | 1       |
| Fargon              | Water                           | 16L12-t31-039661  | 1       |
| Fargon              | Water                           | 17e05-t07-044067  | 1       |
| Fargon              | Water                           | 17K27-T13-050577  | 1       |
| Fargon              | Chlorhexidine digluconate so... | 18A09-Bo5-344604  | 1       |
| fargon              | Water                           | 19c29t07065526    | 1       |
| Fargon              | Water                           | 303429            | 1       |
| Fargon / Phönix     | Water                           | 19H16-T15-070937  | 1       |
| Fargon/ Sanacorp    | Chlorhexidine digluconate so... | 17E09-B01335140   | 1       |
| Fargon/ Sanacorp    | Water                           | 19d01t10065562    | 1       |
| Faron/Phoenix       | Water                           | 20J14-T02-0832309 | 1       |
| Fiebig/Fagromn      | Water                           | 17H24-T09-047709  | 2       |
| Fiebig/Farago       | Water                           | 17B10-T27-041575  | 1       |
| Fiebig/Farago       | Water                           | 19A18-T08-063538  | 1       |
| Fiebig              | Chlorhexidine digluconate so... | 1110012-01        | 1       |
| Fiebig              | Chlorhexidine digluconate so... | 1511033-02        | 1       |
| Fiebig              | Chlorhexidine digluconate so... | 15I03-B02-313663  | 1       |
| Fiebig              | Chlorhexidine digluconate so... | 1610022-01        | 2       |
| Fiebig              | Water                           | 16C22-T09-031414  | 1       |

continued on the next page

continued from previous page

| Supplier               | Substance                       | Batch            | Spectra |
|------------------------|---------------------------------|------------------|---------|
| Fiebig                 | Chlorhexidine digluconate so... | 17230801         | 2       |
| Fiebig                 | Water                           | 17e05_t01_044045 | 1       |
| Fiebig                 | Chlorhexidine digluconate so... | 1811026-01       | 3       |
| Fiebig                 | Chlorhexidine digluconate so... | 18215610         | 1       |
| Fiebig                 | Water                           | 18228801         | 1       |
| Fiebig                 | Water                           | 18265001         | 1       |
| Fiebig                 | Water                           | 18G16-T03-058126 | 1       |
| Fiebig                 | Water                           | 19077501         | 1       |
| Fiebig                 | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| Fiebig                 | Aluminium acetotartrate solu... | 20163B           | 5       |
| Fiebig                 | Aluminium acetotartrate solu... | 20165B           | 1       |
| Finteler Apotheke      | Chlorhexidine digluconate so... | 1701037-01       | 1       |
| Fischar/Anzag          | Aluminium acetotartrate solu... | 20152B           | 1       |
| Fragon/ Gehe           | Water                           | 18G16-T04-058129 | 2       |
| Fragon/ Gehe           | Water                           | 18G16T05058132   | 1       |
| Fragon/ Phönix         | Chlorhexidine digluconate so... | 15C03-B02-306308 | 1       |
| Fragon/Gehe            | Water                           | 19A19-T06-063528 | 1       |
| Fragon/Phoenix         | Water                           | 15L14-T12-028660 | 1       |
| Fragon/Phoenix         | Water                           | 15L4-T14-028664  | 1       |
| Fragon/Phoenix         | Water                           | 17K27-T16-050588 | 1       |
| Fragon/Phoenix         | Chlorhexidine digluconate so... | 18C05-B04-349428 | 1       |
| Fragron /Gehe          | Chlorhexidine digluconate so... | 18B09-B05        | 1       |
| Fragron /Gehe          | Water                           | 18C19-T27-053999 | 1       |
| Fragron /Gehe          | Water                           | 18C19-T29-054007 | 1       |
| Fragron /Gehe          | Water                           | 19A18-T01-063489 | 1       |
| Fragron /Gehe          | Water                           | 19A18-T02-063515 | 1       |
| Fragron /Gehe          | Water                           | 19A18-T07-063531 | 1       |
| Fragron/Noweda         | Water                           | 17H24-T11-047713 | 1       |
| Fragron                | Water                           | 15L15-T01-028672 | 1       |
| Franz / Anzag          | Aluminium acetotartrate solu... | (020)020         | 1       |
| Franz GmbH / Phoenix   | Aluminium acetotartrate solu... | 201538           | 1       |
| Franz GmbH / Phoenix   | Aluminium acetotartrate solu... | 20161B           | 1       |
| Franz GmbH, Phoenix    | Aluminium acetotartrate solu... | 20162B           | 2       |
| Franz GmbH/Phönix      | Aluminium acetotartrate solu... | 20151B           | 1       |
| Franz GmbH             | Aluminium acetotartrate solu... | 20152B           | 2       |
| franz gmbh             | Aluminium acetotartrate solu... | 201538           | 1       |
| Franz GmbH             | Aluminium acetotartrate solu... | 20153B           | 2       |
| franz GmbH             | Aluminium acetotartrate solu... | 20155B           | 1       |
| Franz GmbH             | Aluminium acetotartrate solu... | 20155B           | 3       |
| Franz GmbH             | Aluminium acetotartrate solu... | 20161B           | 2       |
| Franz GmbH             | Aluminium acetotartrate solu... | 20163B           | 2       |
| Franz GmbH             | Aluminium acetotartrate solu... | 20166B           | 1       |
| Franz GmbH             | Aluminium acetotartrate solu... | 2163B            | 1       |
| Frau Brinn-Holtz       | Chlorhexidine digluconate so... | 15292507         | 1       |
| Fresenius Kabi AG      | Water                           | 14PD6053         | 1       |
| Fresenius Kabi AG      | Water                           | 14PM6014         | 1       |
| Fresenius Kabi AG      | Water                           | 14RD6009         | 1       |
| Fresenius Kabi/Phoenix | Water                           | 145I21           | 1       |
| Fresenius Kabi/Phoenix | Water                           | 14LE20           | 3       |
| Fresenius Kabi/Phönix  | Water                           | 14IL38           | 2       |
| Fresenius Kabi/Phönix  | Water                           | 14KI21           | 4       |
| Fresenius Kabi         | Water                           | 14PD6051         | 1       |
| Fresenius              | Water                           | 13NLP021         | 1       |
| Fresenius              | Water                           | 14KB1003         | 1       |
| Galderma               | Chlorhexidine digluconate so... | 1511033-02       | 1       |
| Gehe / Euroh           | Chlorhexidine digluconate so... | 2007044-01       | 1       |
| GEHE 08.05             | Aluminium acetotartrate solu... | 20157B           | 1       |
| GEHE 08.12.2014        | Chlorhexidine digluconate so... | BK14-CG-003      | 1       |
| Gehe 19.11.21 11,36EUR | Water                           | 220110AP         | 1       |
| Gehe 19.11.21 11,36EUR | Water                           | 220111AP         | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| GEHE 20.05.2014            | Chlorhexidine digluconate so... | 13136114         | 1       |
| Gehe amax                  | Chlorhexidine digluconate so... | 18I07-B04-356580 | 1       |
| Gehe amax                  | Aluminium acetotartrate solu... | 20160B           | 1       |
| Gehe Kassel                | Aluminium acetotartrate solu... | 201568B          | 1       |
| GEHE/ Braun                | Water                           | 8292Z96          | 1       |
| Gehe/10.09.19              | Water                           | 19629-T02-065500 | 1       |
| gehe/Apoident              | Chlorhexidine digluconate so... | 1508022-02       | 1       |
| Gehe/Athenstaedt GmbH&C... | Aluminium acetotartrate solu... | 180041           | 1       |
| Gehe/EuRo                  | Chlorhexidine digluconate so... | 1712002-01       | 1       |
| Gehe/Hed/08.06.19          | Aluminium acetotartrate solu... | 20164B           | 1       |
| Gehe/Hedinger              | Aluminium acetotartrate solu... | 20153B           | 1       |
| Gehe/Hedinger              | Aluminium acetotartrate solu... | 20156B           | 1       |
| Gehe/Hedinger              | Aluminium acetotartrate solu... | 201648           | 1       |
| Gehe/Hedinger              | Aluminium acetotartrate solu... | 20164B           | 1       |
| Gehe/Hedinger              | Aluminium acetotartrate solu... | 20165B           | 1       |
| Gehe/Hedinger              | Aluminium acetotartrate solu... | 20166B           | 1       |
| Gehe/Wepa                  | Water                           | LOTAP0076        | 1       |
| Gehe/Wepa                  | Water                           | LOTAP0093        | 1       |
| Gehe/Wepa                  | Water                           | LOTAP0100        | 1       |
| Gehe/Wepa                  | Water                           | LOTAP0102        | 1       |
| Gehe/Wepa                  | Water                           | LOTAP0111        | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 1206023-02       | 2       |
| Gehe                       | Chlorhexidine digluconate so... | 12h14-n06        | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 13136105         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 13136109         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 13136114         | 4       |
| Gehe                       | Aluminium acetotartrate solu... | 13378709         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 14331309         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 15/03-B02-313663 | 1       |
| Gehe                       | Aluminium acetotartrate solu... | 15045403         | 1       |
| Gehe                       | Aluminium acetotartrate solu... | 15045406         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 151103301        | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 15131505         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 15131512         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 15292502         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 15292509         | 1       |
| GEHE                       | Chlorhexidine digluconate so... | 1610022-01       | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 16308801         | 2       |
| Gehe                       | Chlorhexidine digluconate so... | 16308802         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 17210105         | 1       |
| GEHE                       | Chlorhexidine digluconate so... | 17210110         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 17210112         | 1       |
| Gehe                       | Water                           | 17319901         | 2       |
| GEHE                       | Water                           | 17B10-T27-041575 | 2       |
| Gehe                       | Water                           | 17H24-T11-047713 | 1       |
| Gehe                       | Water                           | 17H24-T13-047717 | 1       |
| GEHE                       | Water                           | 17H24-T13-047717 | 1       |
| Gehe                       | Water                           | 17H24-T15-047721 | 1       |
| GEHE                       | Water                           | 17H27-T10-050547 | 1       |
| GEHE                       | Water                           | 17K27-T15        | 1       |
| Gehe                       | Aluminium acetotartrate solu... | 180041           | 2       |
| Gehe                       | Chlorhexidine digluconate so... | 18045906         | 1       |
| Gehe                       | Aluminium acetotartrate solu... | 18078602         | 2       |
| GEHE                       | Chlorhexidine digluconate so... | 1811026-01       | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 18215610         | 1       |
| GEHE                       | Chlorhexidine digluconate so... | 18215612         | 2       |
| Gehe                       | Water                           | 18299501         | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 18C05-B04-349427 | 1       |
| Gehe                       | Chlorhexidine digluconate so... | 18C05-B04-351141 | 1       |
| GEHE                       | Water                           | 18E08-T01        | 1       |

continued on the next page

continued from previous page

| Supplier         | Substance                       | Batch             | Spectra |
|------------------|---------------------------------|-------------------|---------|
| GEHE             | Water                           | 18E09-T02-055711  | 1       |
| GEHE             | Water                           | 18G16-T02         | 2       |
| Gehe             | Chlorhexidine digluconate so... | 18107b04354794    | 1       |
| Gehe             | Chlorhexidine digluconate so... | 1902010-01        | 1       |
| GEHE             | Chlorhexidine digluconate so... | 1902010-02        | 1       |
| Gehe             | Chlorhexidine digluconate so... | 1908014-01        | 1       |
| Gehe             | Chlorhexidine digluconate so... | 19080807          | 1       |
| Gehe             | Chlorhexidine digluconate so... | 19080808          | 1       |
| Gehe             | Chlorhexidine digluconate so... | 19080812          | 1       |
| Gehe             | Chlorhexidine digluconate so... | 1912015-01        | 1       |
| GEHE             | Water                           | 19A18-T06         | 1       |
| Gehe             | Water                           | 19A18-T06-063528  | 1       |
| GEHE             | Water                           | 19A18-T07         | 1       |
| Gehe             | Water                           | 19A18-T07-063531  | 1       |
| GEHE             | Water                           | 19C29-T02-065500  | 2       |
| GEHE             | Water                           | 19C29-T08-065529  | 2       |
| GEHE             | Water                           | 19D01-T12-065568  | 1       |
| Gehe             | Water                           | 19G04-T02-069129  | 1       |
| Gehe             | Water                           | 19J14-T07-072690  | 2       |
| Gehe             | Water                           | 20001628001       | 6       |
| Gehe             | Aluminium acetotartrate solu... | 201528            | 1       |
| Gehe             | Aluminium acetotartrate solu... | 20153B            | 1       |
| Gehe             | Aluminium acetotartrate solu... | 20155B            | 1       |
| Gehe             | Aluminium acetotartrate solu... | 20160B            | 2       |
| GEHE             | Aluminium acetotartrate solu... | 20161B            | 1       |
| Gehe             | Aluminium acetotartrate solu... | 20163B            | 4       |
| GEHE             | Aluminium acetotartrate solu... | 20163B            | 1       |
| GEHE             | Aluminium acetotartrate solu... | 20164B            | 2       |
| GEHE             | Aluminium acetotartrate solu... | 20165B            | 3       |
| Gehe             | Aluminium acetotartrate solu... | 20166B            | 2       |
| Gehe             | Water                           | 20C17-T16-077604  | 1       |
| Gehe             | Water                           | 20E25-T08-0805600 | 1       |
| Gehe             | Water                           | 21002424002       | 1       |
| Gehe             | Aluminium acetotartrate solu... | 21002881005       | 1       |
| Gehe             | Water                           | 21A06-T01-085199  | 1       |
| Gehe             | Water                           | 21C24-T03-087197  | 2       |
| Gehe             | Water                           | 21C24-T04-087200  | 1       |
| Gehe             | Water                           | AP-SP0009         | 1       |
| GEHE             | Chlorhexidine digluconate so... | CS-00201018       | 1       |
| Gehe             | Water                           | LOTAP0098         | 1       |
| Gehe             | Water                           | LOTAP0107         | 1       |
| Gehe             | Water                           | LOTAp0139         | 1       |
| Gehe             | Water                           | T05-0872003       | 1       |
| Gehe             | Water                           | T06-0786606       | 2       |
| Gehe             | Water                           | T06-0852104       | 1       |
| Geibo/ Fargron   | Water                           | 19A18-T02-063515  | 1       |
| Geibo/ Fargron   | Water                           | 19d01-t11-065565  | 1       |
| Geibo/Euro 15.03 | Chlorhexidine digluconate so... | 2108001-01        | 1       |
| Geibo/Hedinger   | Aluminium acetotartrate solu... | 20160B            | 1       |
| geile            | Aluminium acetotartrate solu... | 20154B            | 1       |
| Geilenkirchen    | Chlorhexidine digluconate so... | 15131503          | 1       |
| Geilenkirchen    | Water                           | 17K27-T15-050851  | 1       |
| GUMO             | Chlorhexidine digluconate so... | 190801401         | 1       |
| GUMO             | Chlorhexidine digluconate so... | 1912015-01        | 1       |
| GUMO             | Water                           | 21C24-T03-087191  | 1       |
| GUMO             | Water                           | 21D19-T10-087703  | 1       |
| GUMO             | Chlorhexidine digluconate so... | CS-00201018       | 1       |
| Haedinger        | Aluminium acetotartrate solu... | 20160B            | 1       |
| Hageda           | Aluminium acetotartrate solu... | 20165B            | 2       |
| Hänseler         | Chlorhexidine digluconate so... |                   | 5       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Hediger/Phönix             | Aluminium acetotartrate solu... | 20156B      | 1       |
| hedingen                   | Aluminium acetotartrate solu... | 20162b      | 1       |
| Hedinger , Noweda          | Aluminium acetotartrate solu... | 20153B      | 1       |
| Hedinger , Stuttgart       | Aluminium acetotartrate solu... | 20154B      | 1       |
| Hedinger / 40              | Aluminium acetotartrate solu... | 20166B      | 1       |
| Hedinger / AHD             | Aluminium acetotartrate solu... | 20163B      | 2       |
| Hedinger / AHD             | Water                           | 219196      | 2       |
| Hedinger / Alliance Hea... | Aluminium acetotartrate solu... | 20165B      | 1       |
| Hedinger / Anzag           | Aluminium acetotartrate solu... | 20160B      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20152B      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20154B      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20155B      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20156B      | 4       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20157B      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20161B      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20163B      | 3       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20164B      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20165B      | 2       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 20166B      | 2       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 202165B     | 1       |
| Hedinger / GEHE            | Water                           | 219129      | 1       |
| Hedinger / Gehe            | Aluminium acetotartrate solu... | 3958/V09/15 | 1       |
| Hedinger / Noweda          | Aluminium acetotartrate solu... | 201598      | 1       |
| Hedinger / Noweda          | Aluminium acetotartrate solu... | 20160B      | 1       |
| Hedinger / Noweda          | Aluminium acetotartrate solu... | 20161B      | 1       |
| Hedinger / Noweda          | Aluminium acetotartrate solu... | 20166B      | 1       |
| Hedinger / Phoenix         | Aluminium acetotartrate solu... | 20163B      | 2       |
| Hedinger / Sanacorp        | Aluminium acetotartrate solu... | 20155B      | 1       |
| Hedinger / Sanacorp        | Aluminium acetotartrate solu... | 20156B      | 1       |
| Hedinger / sanacorp        | Aluminium acetotartrate solu... | 20166B      | 2       |
| Hedinger / Sanacorp        | Water                           | 219183      | 1       |
| Hedinger / Sanacorp        | Water                           | 219198      | 3       |
| Hedinger / Sanacorp        | Water                           | 219206      | 1       |
| Hedinger / Sanacorp        | Water                           | 219208      | 2       |
| Hedinger / Sanacorp        | Water                           | 219218      | 2       |
| Hedinger                   | Aluminium acetotartrate solu... | 20150B      | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 20151B      | 1       |
| Hedinger AHD 10.08.17 E... | Aluminium acetotartrate solu... | 20162B      | 1       |
| Hedinger Gehe              | Aluminium acetotartrate solu... | 20165B      | 1       |
| Hedinger GmbH & Co. KG     | Aluminium acetotartrate solu... | (020)020    | 1       |
| Hedinger GmbH & Co. KG     | Aluminium acetotartrate solu... | 20163B      | 2       |
| Hedinger GmbH & Co. KG     | Aluminium acetotartrate solu... | 20163B      | 1       |
| Hedinger GmbH/Noweda       | Aluminium acetotartrate solu... | 20166B      | 1       |
| Hedinger GmbH/Sanacorp     | Aluminium acetotartrate solu... |             | 1       |
| Hedinger GmbH/Sanacorp     | Aluminium acetotartrate solu... | 20165B      | 4       |
| Hedinger GmbH/Sanacorp     | Aluminium acetotartrate solu... | 20166B      | 4       |
| Hedinger GmbH              | Aluminium acetotartrate solu... | 20160B      | 1       |
| Hedinger GmbH              | Aluminium acetotartrate solu... | 20161B      | 1       |
| Hedinger Phoenix           | Water                           | 219212      | 1       |
| Hedinger Phönix            | Aluminium acetotartrate solu... | 201528      | 1       |
| Hedinger Phönix            | Aluminium acetotartrate solu... | 20153B      | 1       |
| Hedinger Phönix            | Aluminium acetotartrate solu... | 20162B      | 1       |
| Hedinger Phönix            | Aluminium acetotartrate solu... | 20163B      | 1       |
| Hedinger Phönix            | Aluminium acetotartrate solu... | 20164B      | 2       |
| Hedinger über Phoenix      | Aluminium acetotartrate solu... | 20155B      | 1       |
| Hedinger über Phoenix      | Aluminium acetotartrate solu... | 20157B      | 1       |
| Hedinger, Heiligebwiese... | Water                           |             | 2       |
| Hedinger, Heiligebwiese... | Water                           | 219219      | 1       |
| Hedinger, Heiligebwiese... | Water                           | 219271      | 1       |
| Hedinger, Heiligenwiese... | Aluminium acetotartrate solu... | 20150B      | 1       |

continued on the next page



continued from previous page

| Supplier                   | Substance                       | Batch      | Spectra |
|----------------------------|---------------------------------|------------|---------|
| Hedinger, Noweda           | Aluminium acetotartrate solu... | 20154B     | 1       |
| Hedinger, Stuttgart        | Aluminium acetotartrate solu... | 20166B     | 2       |
| Hedinger/ AHD              | Aluminium acetotartrate solu... | 20165B     | 1       |
| Hedinger/ Anzag            | Aluminium acetotartrate solu... | 20161B     | 1       |
| Hedinger/ G                | Aluminium acetotartrate solu... | 20164B     | 1       |
| Hedinger/ Gehe             | Aluminium acetotartrate solu... | 20162B     | 1       |
| Hedinger/ Gehe             | Aluminium acetotartrate solu... | 20163B     | 1       |
| Hedinger/ Gehe             | Aluminium acetotartrate solu... | 20164B     | 1       |
| Hedinger/ Gehe             | Aluminium acetotartrate solu... | 20165B     | 1       |
| Hedinger/ GEHE             | Aluminium acetotartrate solu... | 20166B     | 1       |
| Hedinger/ Jenne            | Aluminium acetotartrate solu... | 20165B     | 1       |
| Hedinger/ Noweda           | Aluminium acetotartrate solu... | 20149B     | 1       |
| Hedinger/ Noweda           | Aluminium acetotartrate solu... | 20156B     | 1       |
| Hedinger/ Noweda           | Aluminium acetotartrate solu... | 20157B     | 1       |
| Hedinger/ Noweda           | Aluminium acetotartrate solu... | 20159B     | 1       |
| Hedinger/ Noweda           | Water                           | 219218     | 1       |
| Hedinger/ Noweda           | Water                           | 219229     | 1       |
| Hedinger/ Noweda           | Water                           | 219231     | 2       |
| Hedinger/ Noweda           | Water                           | 219232     | 1       |
| Hedinger/ Phönix           | Aluminium acetotartrate solu... | 20150B     | 2       |
| Hedinger/ Phönix           | Aluminium acetotartrate solu... | 20159B     | 1       |
| Hedinger/ Sanacorp WE...   | Aluminium acetotartrate solu... | 20158B     | 1       |
| Hedinger/ Sanacorp         | Aluminium acetotartrate solu... | 20150B     | 1       |
| Hedinger/ Sanacorp         | Aluminium acetotartrate solu... | 20154B     | 1       |
| Hedinger/ Sanacorp         | Aluminium acetotartrate solu... | 20159B     | 1       |
| Hedinger/ Sanacorp         | Aluminium acetotartrate solu... | 20161B     | 2       |
| Hedinger/ Sanacorp         | Aluminium acetotartrate solu... | 201638     | 2       |
| Hedinger/ Sanacorp         | Aluminium acetotartrate solu... | 20163B     | 1       |
| hedinger/ Sanacorp         | Aluminium acetotartrate solu... | 20163B5693 | 1       |
| Hedinger/ Sanacorp         | Water                           | AP0022     | 1       |
| Hedinger/ VDL              | Aluminium acetotartrate solu... | 20163B     | 1       |
| Hedinger/2                 | Aluminium acetotartrate solu... | 201658     | 1       |
| Hedinger/2                 | Aluminium acetotartrate solu... | 20165B     | 1       |
| Hedinger/2                 | Aluminium acetotartrate solu... | 20166B     | 1       |
| Hedinger/AHCA              | Aluminium acetotartrate solu... | 20163B     | 2       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 201153B    | 1       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 20146B     | 1       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 20152B     | 2       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 20160B     | 1       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 201638     | 1       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 20163B     | 2       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 20165B     | 2       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 20166B     | 1       |
| Hedinger/AHD               | Aluminium acetotartrate solu... | 2164B      | 1       |
| Hedinger/Alliance Healt... | Aluminium acetotartrate solu... | 20159B     | 1       |
| Hedinger/Alliance Healt... | Water                           | 219231     | 1       |
| Hedinger/Alliance          | Aluminium acetotartrate solu... | 20161B     | 2       |
| Hedinger/Alliance          | Aluminium acetotartrate solu... | 20166B     | 1       |
| hedinger/anzag             | Aluminium acetotartrate solu... | 20152B     | 1       |
| hedinger/anzag             | Aluminium acetotartrate solu... | 20153b     | 1       |
| Hedinger/Anzag             | Aluminium acetotartrate solu... | 20157B     | 1       |
| Hedinger/Anzag             | Aluminium acetotartrate solu... | 20159B     | 1       |
| Hedinger/Anzag             | Aluminium acetotartrate solu... | 20160B     | 1       |
| Hedinger/Anzag             | Aluminium acetotartrate solu... | 20161B     | 2       |
| Hedinger/Ebert             | Aluminium acetotartrate solu... | 20157B     | 1       |
| Hedinger/Ebert             | Aluminium acetotartrate solu... | 20162B     | 1       |
| Hedinger/Ebert             | Aluminium acetotartrate solu... | 20163B     | 1       |
| Hedinger/EJ                | Aluminium acetotartrate solu... | 20163B     | 2       |
| Hedinger/Fiebig            | Aluminium acetotartrate solu... | 20161B     | 1       |
| Hedinger/Fiebig            | Aluminium acetotartrate solu... | 20162B     | 4       |

continued on the next page



*continued from previous page*

| Supplier                 | Substance                       | Batch   | Spectra |
|--------------------------|---------------------------------|---------|---------|
| Hedinger/Fiebig          | Water                           | 219140  | 1       |
| Hedinger/Fiebig          | Water                           | 219208  | 1       |
| Hedinger/Fiebig          | Water                           | 219229  | 1       |
| Hedinger/G               | Aluminium acetotartrate solu... | 20162B  | 1       |
| Hedinger/Gehe/19.09.2019 | Aluminium acetotartrate solu... | 20165B  | 2       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20152B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20153B  | 4       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 201548  | 1       |
| hedinger/gehe            | Aluminium acetotartrate solu... | 20154B  | 1       |
| hedinger/Gehe            | Aluminium acetotartrate solu... | 20155B  | 1       |
| Hedinger/GEHE            | Aluminium acetotartrate solu... | 20155B  | 1       |
| hedinger/Gehe            | Aluminium acetotartrate solu... | 20156B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20157B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20158B  | 3       |
| hedinger/gehe            | Aluminium acetotartrate solu... | 20159B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20159B  | 3       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20160B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20161B  | 7       |
| hedinger/gehe            | Aluminium acetotartrate solu... | 20162B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20162B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 201638  | 1       |
| hedinger/gehe            | Aluminium acetotartrate solu... | 20163B  | 1       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20163B  | 8       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20164B  | 3       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20165B  | 2       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 20166B  | 7       |
| Hedinger/Gehe            | Aluminium acetotartrate solu... | 202165B | 1       |
| Hedinger/Gehe            | Water                           | 219181  | 1       |
| Hedinger/Gehe            | Water                           | 219220  | 1       |
| Hedinger/Holdermann      | Aluminium acetotartrate solu... | 20150B  | 1       |
| Hedinger/Jenne 16.08.14  | Aluminium acetotartrate solu... | 20156B  | 1       |
| Hedinger/Kehr            | Water                           | 219226  | 1       |
| Hedinger/Krieger         | Aluminium acetotartrate solu... | 20161B  | 1       |
| Hedinger/Krieger         | Aluminium acetotartrate solu... | 20162B  | 1       |
| Hedinger/Krieger         | Aluminium acetotartrate solu... | 201658  | 1       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 200161B | 1       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20151B  | 2       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20156B  | 3       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20158B  | 2       |
| HEDINGER/NOWEDA          | Aluminium acetotartrate solu... | 20159B  | 1       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20160B  | 2       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20161B  | 3       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20162B  | 2       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20163B  | 4       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20165B  | 3       |
| Hedinger/Noweda          | Aluminium acetotartrate solu... | 20166B  | 6       |
| Hedinger/Noweda          | Water                           | 219177  | 1       |
| Hedinger/Noweda          | Water                           | 219218  | 3       |
| Hedinger/Otto            | Aluminium acetotartrate solu... | 201538  | 1       |
| Hedinger/Ph              | Aluminium acetotartrate solu... | 20162B  | 2       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20020   | 1       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20154B  | 1       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 201578  | 1       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20158B  | 2       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20159B  | 1       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20160B  | 3       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20162B  | 2       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20163B  | 4       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20164B  | 1       |
| Hedinger/Phoenix         | Aluminium acetotartrate solu... | 20165B  | 6       |

*continued on the next page*

continued from previous page

| Supplier                   | Substance                       | Batch       | Spectra |
|----------------------------|---------------------------------|-------------|---------|
| Hedinger/Phoenix           | Aluminium acetotartrate solu... | 20166B      | 5       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... |             | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | (020)020    | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20152B      | 2       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20153B      | 2       |
| hedinger/phönix            | Aluminium acetotartrate solu... | 20155B      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20155B      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20156B      | 1       |
| hedinger/phönix            | Aluminium acetotartrate solu... | 20157B      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20157B      | 4       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20158B      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20159B      | 4       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 2015B       | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20160B      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20161B      | 3       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 201638      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20163B      | 6       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20164B      | 6       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 201658      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20165B      | 5       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 201668      | 1       |
| Hedinger/Phönix            | Aluminium acetotartrate solu... | 20166B      | 4       |
| Hedinger/Px                | Aluminium acetotartrate solu... | 20159B      | 1       |
| Hedinger/Sana              | Aluminium acetotartrate solu... | 20159B      | 1       |
| Hedinger/Sana              | Aluminium acetotartrate solu... | 20164B      | 1       |
| Hedinger/Sanacorp EK: 8... | Aluminium acetotartrate solu... | 20166B      | 2       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20153B      | 2       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20154B      | 1       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20158B      | 3       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20159B      | 2       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20162B      | 1       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20163B      | 8       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20164B      | 3       |
| Hedinger/Sanacorp          | Aluminium acetotartrate solu... | 20165B      | 3       |
| Hedinger/Sanacorp6.5.2014  | Chlorhexidine digluconate so... | 1234        | 1       |
| Hedinger/Spangro 18.1.2... | Aluminium acetotartrate solu... | 20166B      | 1       |
| hedinger/Staren            | Aluminium acetotartrate solu... | 3518Q-01793 | 1       |
| Hedinger/V.d.L.            | Aluminium acetotartrate solu... | 20154B      | 1       |
| Hedinger/VDL               | Aluminium acetotartrate solu... | 20161B      | 1       |
| Hedinger/VDL               | Aluminium acetotartrate solu... | 20166B      | 1       |
| Hedinger                   | Aluminium acetotartrate solu... |             | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 1002211793  | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 1111        | 1       |
| Hedinger                   | Chlorhexidine digluconate so... | 18045906    | 1       |
| hedinger                   | Aluminium acetotartrate solu... | 201165B     | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 20149B      | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 20150B      | 4       |
| hedinger                   | Aluminium acetotartrate solu... | 20151B      | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 20151B      | 8       |
| HEDINGER                   | Aluminium acetotartrate solu... | 20151B      | 1       |
| hedinger                   | Aluminium acetotartrate solu... | 201528      | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 20152B      | 8       |
| Hedinger                   | Aluminium acetotartrate solu... | 201538      | 2       |
| Hedinger                   | Aluminium acetotartrate solu... | 20153B      | 9       |
| Hedinger                   | Aluminium acetotartrate solu... | 201548      | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 20154B      | 10      |
| Hedinger                   | Aluminium acetotartrate solu... | 20155B      | 9       |
| Hedinger                   | Aluminium acetotartrate solu... | 201568      | 1       |
| hedinger                   | Aluminium acetotartrate solu... | 20156B      | 4       |
| Hedinger                   | Aluminium acetotartrate solu... | 20156B      | 18      |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch       | Spectra |
|----------|---------------------------------|-------------|---------|
| hedinger | Aluminium acetotartrate solu... | 20157B      | 2       |
| Hedinger | Aluminium acetotartrate solu... | 20157B      | 9       |
| hedinger | Aluminium acetotartrate solu... | 20158B      | 3       |
| Hedinger | Aluminium acetotartrate solu... | 20158B      | 7       |
| hedinger | Aluminium acetotartrate solu... | 201598      | 1       |
| HEDINGER | Aluminium acetotartrate solu... | 201598      | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20159B      | 9       |
| Hedinger | Aluminium acetotartrate solu... | 2015B       | 1       |
| Hedinger | Aluminium acetotartrate solu... | 201608      | 1       |
| hedinger | Aluminium acetotartrate solu... | 20160B      | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20160B      | 15      |
| Hedinger | Aluminium acetotartrate solu... | 20161       | 1       |
| hedinger | Aluminium acetotartrate solu... | 20161B      | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20161B      | 28      |
| Hedinger | Aluminium acetotartrate solu... | 20162B      | 11      |
| Hedinger | Aluminium acetotartrate solu... | 201638      | 3       |
| hedinger | Aluminium acetotartrate solu... | 20163B      | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20163b      | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20163B      | 23      |
| HEDINGER | Aluminium acetotartrate solu... | 20163B      | 1       |
| hedinger | Aluminium acetotartrate solu... | 20164B      | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20164B      | 12      |
| Hedinger | Aluminium acetotartrate solu... | 20164B0     | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20165b      | 1       |
| Hedinger | Aluminium acetotartrate solu... | 20165B      | 26      |
| Hedinger | Aluminium acetotartrate solu... | 20166B      | 13      |
| Hedinger | Aluminium acetotartrate solu... | 2016b       | 1       |
| Hedinger | Aluminium acetotartrate solu... | 2016B       | 3       |
| Hedinger | Aluminium acetotartrate solu... | 2021302     | 1       |
| Hedinger | Aluminium acetotartrate solu... | 2153B       | 1       |
| Hedinger | Aluminium acetotartrate solu... | 2161B       | 1       |
| Hedinger | Water                           | 219116      | 1       |
| Hedinger | Water                           | 219132      | 1       |
| Hedinger | Water                           | 219133      | 1       |
| hedinger | Water                           | 219135      | 1       |
| Hedinger | Water                           | 219140      | 1       |
| Hedinger | Water                           | 219143      | 2       |
| Hedinger | Water                           | 219147      | 1       |
| Hedinger | Water                           | 219147 (2x) | 1       |
| Hedinger | Water                           | 219156      | 8       |
| Hedinger | Water                           | 219162      | 4       |
| Hedinger | Water                           | 219164      | 1       |
| Hedinger | Water                           | 219167      | 2       |
| Hedinger | Water                           | 219169      | 1       |
| HEDINGER | Water                           | 219172      | 4       |
| Hedinger | Water                           | 219173      | 1       |
| HEDINGER | Water                           | 219179      | 6       |
| Hedinger | Water                           | 219181      | 1       |
| HEDINGER | Water                           | 219183      | 2       |
| Hedinger | Water                           | 219184      | 1       |
| HEDINGER | Water                           | 219185      | 5       |
| HEDINGER | Water                           | 219192      | 3       |
| HEDINGER | Water                           | 219198      | 8       |
| HEDINGER | Water                           | 219201      | 2       |
| HEDINGER | Water                           | 219202      | 3       |
| HEDINGER | Water                           | 219206      | 4       |
| Hedinger | Water                           | 219208      | 7       |
| Hedinger | Water                           | 219209      | 1       |
| HEDINGER | Water                           | 219218      | 11      |
| Hedinger | Water                           | 219229      | 6       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch             | Spectra |
|----------------------------|---------------------------------|-------------------|---------|
| Hedinger                   | Water                           | 219231            | 2       |
| Hedinger                   | Aluminium acetotartrate solu... | 26041301          | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 402211793         | 1       |
| Hedinger                   | Aluminium acetotartrate solu... | 5081403           | 1       |
| Hedinger-Phoenix           | Aluminium acetotartrate solu... | 201608            | 1       |
| Hednger/Gehe               | Aluminium acetotartrate solu... | 20162B            | 1       |
| heidinger/gehe             | Aluminium acetotartrate solu... | 201618            | 1       |
| heidinger/noweda           | Aluminium acetotartrate solu... | 20156B            | 1       |
| heidinger/phönix           | Aluminium acetotartrate solu... | 20159B            | 2       |
| Heidinger/Phönix           | Aluminium acetotartrate solu... | 20163B            | 1       |
| Heidinger                  | Aluminium acetotartrate solu... | 20164B            | 1       |
| Hendinger/ Sanacorp        | Aluminium acetotartrate solu... | 20161B            | 2       |
| Henry Lamotte GmbH/ San... | Aluminium acetotartrate solu... | 16004505          | 1       |
| Henry Lamotte Oils GmbH... | Water                           | 17K27-T09-050544  | 1       |
| Henry Lamotte              | Water                           | 15L14-T12-028660  | 1       |
| HenryLamotte               | Aluminium acetotartrate solu... | 20163B            | 2       |
| hochhaus-Apotheke          | Chlorhexidine digluconate so... | 16002510          | 1       |
| Ichthyol/Phönix            | Chlorhexidine digluconate so... | 16002506          | 2       |
| Ichtyol-Gesellschaft       | Chlorhexidine digluconate so... | 181102601         | 2       |
| Industries AG / Phoenix    | Chlorhexidine digluconate so... | 1308002-02        | 1       |
| Infectopharm/No            | Chlorhexidine digluconate so... |                   | 1       |
| Jenne 05.11.21 EK:11,47EUR | Water                           | 211105AP          | 1       |
| Jenne                      | Water                           |                   | 1       |
| JENNE                      | Chlorhexidine digluconate so... | 1712002-01        | 1       |
| Jenne                      | Chlorhexidine digluconate so... | 17230801          | 1       |
| Jenne                      | Water                           | 17E05-T11-044076  | 1       |
| Jenne                      | Water                           | 17H24-T09-047709  | 2       |
| JENNE                      | Water                           | 17K27-T15-050585  | 1       |
| Jenne                      | Chlorhexidine digluconate so... | 18215610          | 1       |
| Jenne                      | Water                           | 18G16-T03-058126  | 1       |
| Jenne                      | Water                           | 19C29-T02-065500  | 2       |
| Jenne                      | Water                           | 19J14-T08-0726903 | 2       |
| Jenne                      | Water                           | 19J4-T08-0726903  | 1       |
| Jenne                      | Aluminium acetotartrate solu... | 20161B            | 1       |
| Jenne                      | Aluminium acetotartrate solu... | 20162B            | 1       |
| Jenne                      | Aluminium acetotartrate solu... | 20165B            | 2       |
| Jenne                      | Water                           | 20C17-T03-0775201 | 1       |
| Jenne                      | Water                           | 20C17-T17-0776007 | 1       |
| Jenne                      | Water                           | T03-0775201       | 1       |
| Jenne                      | Water                           | T08-0805600       | 1       |
| Jenne                      | Water                           | T15-0785607       | 1       |
| Jenne                      | Water                           | T17-0776007       | 2       |
| Jenne                      | Water                           | T17-0785703       | 1       |
| Kehr.10.02.2020            | Water                           | 19D01-T12-065568  | 2       |
| Kehr/gepepharm             | Aluminium acetotartrate solu... | 20160B            | 1       |
| Kehr                       | Chlorhexidine digluconate so... | 1610022-01        | 1       |
| Kehr                       | Water                           | 17114501          | 1       |
| Kehr                       | Water                           | 17114801          | 1       |
| Kehr                       | Water                           | 20000853001       | 1       |
| Kehr                       | Water                           | 20001293001       | 1       |
| Kerndl                     | Water                           | 32517             | 1       |
| Kerndl                     | Water                           | 8412              | 1       |
| Klenk                      | Chlorhexidine digluconate so... | 13D16-N04         | 1       |
| Klenk                      | Chlorhexidine digluconate so... | 1511033-01        | 1       |
| Klenk                      | Water                           | 15D14-T-021499    | 1       |
| Klenk                      | Water                           | 17173001          | 2       |
| Klenk                      | Water                           | 17F23-T06-045760  | 2       |
| Klenk                      | Chlorhexidine digluconate so... | 444A160817        | 1       |
| Klosterring                | Chlorhexidine digluconate so... | 17210110          | 1       |
| Klosterring                | Chlorhexidine digluconate so... | 18215601          | 1       |

continued on the next page

continued from previous page

| Supplier             | Substance                       | Batch            | Spectra |
|----------------------|---------------------------------|------------------|---------|
| Kögl                 | Chlorhexidine digluconate so... | 1802507          | 1       |
| Krieger              | Chlorhexidine digluconate so... | 17210105         | 1       |
| Krieger              | Chlorhexidine digluconate so... | 18045903         | 1       |
| Krieger              | Chlorhexidine digluconate so... | 21001487002      | 1       |
| L 20/Hedinger        | Aluminium acetotartrate solu... | 201618           | 1       |
| L10/Apoth.E.Bartel   | Aluminium acetotartrate solu... | 20161B           | 1       |
| L10                  | Chlorhexidine digluconate so... | 1511033-02       | 1       |
| L10                  | Chlorhexidine digluconate so... | 1708006-01       | 2       |
| L12                  | Water                           | 16L12-T16-039628 | 1       |
| L12                  | Chlorhexidine digluconate so... | 1712002-02       | 1       |
| L12                  | Water                           | 17E05-T11-044076 | 1       |
| L12                  | Water                           | 17K27-T13-050577 | 1       |
| L12                  | Chlorhexidine digluconate so... | 1811026-01       | 2       |
| L12                  | Water                           | 18C13-T14-053737 | 1       |
| L12                  | Aluminium acetotartrate solu... | 20163B           | 2       |
| L30                  | Chlorhexidine digluconate so... | 1511033-01       | 1       |
| Laborchemie Apolda   | Chlorhexidine digluconate so... | 1511033-01       | 2       |
| Lamotte / Gehe       | Chlorhexidine digluconate so... | 14011017         | 1       |
| Lamotte/Alliance     | Water                           | 17211201         | 1       |
| Lamotte              | Water                           | 219219           | 1       |
| Land PVT.LTD/AHD     | Chlorhexidine digluconate so... | 19080807         | 1       |
| Leyh Pharma          | Aluminium acetotartrate solu... | 18078606         | 1       |
| Marktapotheke        | Aluminium acetotartrate solu... | 20161B           | 2       |
| Max Jenne Hedinger   | Aluminium acetotartrate solu... | 20166B           | 3       |
| Midas                | Water                           | 16C22_T07-031410 | 1       |
| Midas                | Water                           | 17E05-T07-044067 | 1       |
| Midas                | Water                           | 17K01-T01-048440 | 1       |
| Midas                | Water                           | 17K27-T11-050552 | 2       |
| Midas                | Water                           | 17L20-T02-051255 | 1       |
| Midas                | Water                           | 18062101         | 2       |
| Midas                | Water                           | 18226801         | 1       |
| Midas                | Water                           | 18263401         | 2       |
| Midas                | Water                           | 18265001         | 2       |
| Midas                | Water                           | 18C19-T31-054017 | 2       |
| Midas                | Water                           | 18E09-T01-055708 | 1       |
| Midas                | Water                           | 18E28-T01-056487 | 1       |
| Midas                | Water                           | 18G16-T04-058129 | 1       |
| Nachprüfung 19.9.17. | Chlorhexidine digluconate so... | 1610022-01       | 2       |
| Nachprüfung          | Water                           | AP200710-10      | 1       |
| now                  | Chlorhexidine digluconate so... |                  | 1       |
| Noweda / Euro        | Chlorhexidine digluconate so... | 1908014-01       | 2       |
| Noweda / Hedinger    | Water                           | 219233           | 1       |
| Noweda 02.08.2019    | Water                           | 18228701         | 1       |
| Noweda 17.07.2019    | Water                           | 19A18-T07-063531 | 2       |
| Noweda/apoident      | Chlorhexidine digluconate so... | 1912015-01       | 1       |
| Noweda/Fragron       | Water                           | 19C29-T07-065526 | 1       |
| Noweda/Fragron       | Water                           | 19H16-T14-070934 | 1       |
| Noweda/Hedinger      | Aluminium acetotartrate solu... | 20153B           | 1       |
| Noweda/Hedinger      | Aluminium acetotartrate solu... | 20156B           | 1       |
| Noweda/hedinger      | Aluminium acetotartrate solu... | 20165B           | 1       |
| Noweda/HEDINGER      | Water                           | 219200           | 1       |
| Noweda/Hedinger      | Water                           | 219224           | 1       |
| Noweda/Hedinger      | Water                           | T06-0726805      | 1       |
| Noweda/Wepa          | Water                           | LOTAP0053        | 1       |
| Noweda/Wepa          | Water                           | LOTAP-SP0016     | 1       |
| Noweda               | Chlorhexidine digluconate so... | 11353004         | 1       |
| Noweda               | Chlorhexidine digluconate so... | 1202010-01       | 3       |
| Noweda               | Chlorhexidine digluconate so... | 12114012         | 1       |
| Noweda               | Chlorhexidine digluconate so... | 1308002-01       | 2       |
| Noweda               | Aluminium acetotartrate solu... | 13261304         | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                       | Batch             | Spectra |
|----------|---------------------------------|-------------------|---------|
| Noweda   | Chlorhexidine digluconate so... | 1508022-01        | 1       |
| Noweda   | Chlorhexidine digluconate so... | 15131510          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 15292508          | 1       |
| Noweda   | Water                           | 15F04-T03-023259  | 1       |
| Noweda   | Water                           | 15K10-T05-027617  | 1       |
| Noweda   | Chlorhexidine digluconate so... | 16308811          | 1       |
| Noweda   | Aluminium acetotartrate solu... | 16342005          | 1       |
| Noweda   | Aluminium acetotartrate solu... | 16342006          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 1708006-02        | 1       |
| Noweda   | Water                           | 17145001          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 17210105          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 17210112          | 3       |
| Noweda   | Water                           | 17K27-T15-050585  | 2       |
| Noweda   | Chlorhexidine digluconate so... | 18/07-B04-354794  | 1       |
| Noweda   | Chlorhexidine digluconate so... | 18045903          | 1       |
| Noweda   | Aluminium acetotartrate solu... | 18078602          | 2       |
| Noweda   | Aluminium acetotartrate solu... | 18078606          | 2       |
| Noweda   | Chlorhexidine digluconate so... | 1811026           | 1       |
| Noweda   | Chlorhexidine digluconate so... | 1811026-01        | 1       |
| Noweda   | Water                           | 18238601          | 1       |
| Noweda   | Water                           | 18265001          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 18A09-B05-344605  | 1       |
| Noweda   | Chlorhexidine digluconate so... | 18C05-B04-349430  | 1       |
| Noweda   | Chlorhexidine digluconate so... | 18C05-B04-351140  | 1       |
| Noweda   | Chlorhexidine digluconate so... | 18C05-B04-352123  | 1       |
| Noweda   | Water                           | 18C19-T27-053999  | 1       |
| Noweda   | Water                           | 18G16-T04-058129  | 2       |
| Noweda   | Chlorhexidine digluconate so... | 18I07-B04-354794  | 1       |
| Noweda   | Water                           | 19005501          | 2       |
| Noweda   | Water                           | 19077701          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 1908014-01        | 2       |
| Noweda   | Chlorhexidine digluconate so... | 19080808          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 1912015-01        | 1       |
| Noweda   | Water                           | 19162701          | 1       |
| Noweda   | Water                           | 19199101          | 2       |
| Noweda   | Water                           | 19263601          | 1       |
| Noweda   | Chlorhexidine digluconate so... | 192972008         | 1       |
| Noweda   | Water                           | 19A18-T07-063531  | 1       |
| Noweda   | Water                           | 19C29-T02-065500  | 1       |
| Noweda   | Water                           | 19C29-T05-065509  | 1       |
| Noweda   | Water                           | 19C29-T06-065512  | 1       |
| Noweda   | Water                           | 19C29-T08-065529  | 2       |
| Noweda   | Water                           | 19f27t12-068G06   | 1       |
| Noweda   | Water                           | 19H16-T17-070943  | 2       |
| Noweda   | Water                           | 19J10-T09-0726008 | 1       |
| Noweda   | Water                           | 19J14-T03-072675  | 1       |
| Noweda   | Water                           | 19J14-T07-072690  | 1       |
| Noweda   | Water                           | 20000526002       | 1       |
| Noweda   | Chlorhexidine digluconate so... | 20000960009       | 1       |
| Noweda   | Water                           | 20001119001       | 2       |
| Noweda   | Water                           | 20002910001       | 1       |
| Noweda   | Chlorhexidine digluconate so... | 2007044-01        | 1       |
| Noweda   | Aluminium acetotartrate solu... | 20150B            | 1       |
| Noweda   | Water                           | 20E03-T05-0799304 | 1       |
| Noweda   | Water                           | 20E13-T02-080170  | 1       |
| Noweda   | Water                           | 219222            | 5       |
| Noweda   | Water                           | LOTAP0126         | 1       |
| Noweda   | Water                           | LOTAP0131         | 1       |
| Noweda   | Water                           | LOTAP0136         | 1       |
| Noweda   | Water                           | T18-0776100       | 1       |

continued on the next page



*continued from previous page*

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Noweda18.12.2014           | Chlorhexidine digluconate so... | 14331303         | 1       |
| Otto Geilenkirchen         | Chlorhexidine digluconate so... | 21001487001      | 1       |
| P.W. Beyvers / Noweda      | Chlorhexidine digluconate so... | 17210106         | 1       |
| Pala                       | Chlorhexidine digluconate so... | 1511033-01       | 1       |
| Pala                       | Chlorhexidine digluconate so... | 18A09-B05-344604 | 1       |
| Pala                       | Water                           | 19005602         | 1       |
| Pala                       | Water                           | 19077501         | 1       |
| Ph/Hedinger                | Aluminium acetotartrate solu... | 201648           | 2       |
| Ph/Hedinger                | Aluminium acetotartrate solu... | 20165B           | 1       |
| PHOENIX 25.07.2014         | Chlorhexidine digluconate so... | 13k26-b06-288849 | 1       |
| Phoenix WE 11.03.17 EK...  | Aluminium acetotartrate solu... | 20161B           | 1       |
| Phoenix WE: 01.09.17 E...  | Chlorhexidine digluconate so... | 1701037-02       | 3       |
| Phoenix WE28.04.17 -7,9... | Water                           | 16H02-T01-035743 | 1       |
| Phoenix/Cealo              | Aluminium acetotartrate solu... | 20155B           | 1       |
| Phoenix/Euro25.06.19       | Chlorhexidine digluconate so... | 1811026-01       | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 13H19-B01-285452 | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 14331307         | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 1511033-01       | 1       |
| Phoenix                    | Water                           | 15L14-T14        | 1       |
| Phoenix                    | Water                           | 15L15-T07        | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 1712002-02       | 1       |
| Phoenix                    | Water                           | 18042901         | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 1811026-01       | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 18107-b04        | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 19109-t07-071037 | 1       |
| Phoenix                    | Water                           | 19G04-T02-069129 | 2       |
| Phoenix                    | Chlorhexidine digluconate so... | 20000960009      | 1       |
| Phoenix                    | Water                           | 20002911001      | 1       |
| Phoenix                    | Water                           | 2002570          | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 2007044-01       | 2       |
| Phoenix                    | Chlorhexidine digluconate so... | 201011210        | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 21001487002      | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 3053             | 1       |
| Phoenix                    | Chlorhexidine digluconate so... | 3091             | 1       |
| Phoenix                    | Water                           | AP-SP0007        | 1       |
| Phoenix                    | Water                           | AP-SP0009        | 1       |
| Phoenix                    | Water                           | AP-SP0010        | 1       |
| Phoenix                    | Water                           | AP-SP0012        | 1       |
| Phoenix                    | Water                           | AP-SP0018        | 1       |
| Phoenix                    | Water                           | LOTAP0095        | 1       |
| Phoenix                    | Water                           | LOTAP0125        | 1       |
| Phoenix                    | Water                           | LOTAP0132        | 1       |
| Phoenix                    | Water                           | LOTAP0139        | 1       |
| Phoenix                    | Water                           | LOTAP0156        | 1       |
| Phoenix                    | Water                           | LOTAPsp0005      | 1       |
| Phoenix                    | Water                           | LOTAPSP0006      | 1       |
| Phoenix                    | Water                           | LOTAPSP0007      | 2       |
| Phoenix                    | Water                           | LOTAP-SP0007     | 1       |
| Phoenix                    | Water                           | LOTAPSP0010      | 1       |
| Phoenix                    | Water                           | LOTAPsp0011      | 1       |
| Phoenix                    | Water                           | LOTAPsp0012      | 1       |
| Phoenix                    | Water                           | LOTAPSP0013      | 1       |
| Phoenix                    | Water                           | LOTAPsp0016      | 1       |
| Phoenix                    | Water                           | LOTAP-SP0018     | 1       |
| Phoenix                    | Water                           | LOTAPSP0019      | 1       |
| Phoenix                    | Water                           | -SP001008        | 2       |
| Phönix WE:08.12.17 E...    | Water                           | 17C31-T05-043064 | 2       |
| Phönix 28.01.2014          | Chlorhexidine digluconate so... | 1206023-02       | 1       |
| Phönix Gotha               | Chlorhexidine digluconate so... | 12A02-N11        | 1       |
| Phönix Gotha               | Chlorhexidine digluconate so... | 12H14-N06        | 1       |

*continued on the next page*



continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| Phönix Gotha               | Aluminium acetotartrate solu... | 13261304         | 1       |
| Phönix Gotha               | Chlorhexidine digluconate so... | 13A29-N06        | 1       |
| Phönix Gotha               | Chlorhexidine digluconate so... | 13K26-B06-288853 | 1       |
| Phönix Gotha               | Chlorhexidine digluconate so... | 1412018-01       | 1       |
| Phönix Gotha               | Chlorhexidine digluconate so... | 14120189-01      | 1       |
| Phönix Gotha               | Water                           | 14K05-T02-016775 | 2       |
| Phönix Gotha               | Water                           | 15019101         | 3       |
| Phönix Gotha               | Water                           | 15142501         | 1       |
| Phönix Gotha               | Water                           | 15235201         | 2       |
| Phönix Gotha               | Water                           | 15253901         | 1       |
| Phönix Gotha               | Water                           | 18L19-T06-062854 | 1       |
| Phönix Gotha               | Water                           | 19133401         | 2       |
| Phönix Gotha               | Water                           | 19198401         | 1       |
| Phönix Gotha               | Water                           | 19H16-T14-070934 | 3       |
| Phönix Gotha               | Aluminium acetotartrate solu... | 900108           | 2       |
| Phönix, Caesar&Loretz G... | Water                           | 19152701         | 1       |
| Phönix, Fagro, 04.04.20... | Water                           | 19H-12T15-070784 | 1       |
| phönix/ WEPA               | Water                           | LOTAP-SP0006     | 1       |
| Phönix/                    | Water                           | T04-0832405      | 1       |
| Phönix/EuRho               | Chlorhexidine digluconate so... | 1206023-01       | 2       |
| Phönix/Hedinger            | Aluminium acetotartrate solu... | 20155B           | 3       |
| Phönix/Hedinger            | Aluminium acetotartrate solu... | 201638           | 1       |
| Phönix/Hedinger            | Aluminium acetotartrate solu... | 20166B           | 1       |
| Phönix/Wepa 3.3.2020       | Water                           | LOTAP-SP0007     | 1       |
| Phönix/Wepa                | Water                           | LOTAP0073        | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 11353004         | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 1206023-01       | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 1206023-02       | 2       |
| Phönix                     | Aluminium acetotartrate solu... | 12116805         | 1       |
| Phönix                     | Aluminium acetotartrate solu... | 12318703         | 1       |
| Phönix                     | Aluminium acetotartrate solu... | 12318705         | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 12H14-N06        | 1       |
| Phönix                     | Aluminium acetotartrate solu... | 13101101         | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 13K26-B06-28965  | 1       |
| phönix                     | Chlorhexidine digluconate so... | 1511033-01       | 2       |
| Phönix                     | Aluminium acetotartrate solu... | 15299909         | 1       |
| Phönix                     | Aluminium acetotartrate solu... | 16004505         | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 1610021-01       | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 1610022-01       | 2       |
| Phönix                     | Water                           | 16127901         | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 16308812         | 1       |
| Phönix                     | Aluminium acetotartrate solu... | 16342001         | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 17001037-02      | 1       |
| PHÖNIX                     | Chlorhexidine digluconate so... | 1708006-01       | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 1708006-02       | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 1712002-01       | 2       |
| phönix                     | Chlorhexidine digluconate so... | 17230801         | 1       |
| Phönix                     | Water                           | 17233001         | 2       |
| PHÖNIX                     | Water                           | 17E05-T07        | 2       |
| PHÖNIX                     | Water                           | 17E05-T07-044067 | 2       |
| Phönix                     | Water                           | 17E05-T13-044080 | 2       |
| PHÖNIX                     | Water                           | 17H24-T13        | 1       |
| Phönix                     | Water                           | 17K27-T16-050588 | 1       |
| PHÖNIX                     | Aluminium acetotartrate solu... | 180043           | 1       |
| Phönix                     | Water                           | 18019501         | 4       |
| Phönix                     | Aluminium acetotartrate solu... | 18078602         | 2       |
| phönix                     | Aluminium acetotartrate solu... | 18078611         | 1       |
| Phönix                     | Water                           | 18109501         | 1       |
| Phönix                     | Chlorhexidine digluconate so... | 1811026-01       | 4       |

continued on the next page

continued from previous page

| Supplier                | Substance                       | Batch                | Spectra |
|-------------------------|---------------------------------|----------------------|---------|
| Phönix                  | Chlorhexidine digluconate so... | 18215601             | 1       |
| Phönix                  | Aluminium acetotartrate solu... | 18288401             | 1       |
| Phönix                  | Water                           | 18C19-T25-053991     | 1       |
| phönix                  | Water                           | 18E09T01055708       | 1       |
| Phönix                  | Water                           | 18E09-T01-055708     | 1       |
| phönix                  | Water                           | 18G16T03058126       | 1       |
| Phönix                  | Water                           | 18J10-T01-060845     | 2       |
| PHÖNIX                  | Aluminium acetotartrate solu... | 190037               | 1       |
| Phönix                  | Water                           | 19A18-T11-06354      | 1       |
| Phönix                  | Water                           | 19C29-T06-065512     | 1       |
| Phönix                  | Water                           | 19D01-T10-065562     | 1       |
| Phönix                  | Water                           | 19F27-T14-068914     | 1       |
| Phönix                  | Chlorhexidine digluconate so... | 20000960009          | 1       |
| Phönix                  | Chlorhexidine digluconate so... | 2007044-01           | 2       |
| Phönix                  | Aluminium acetotartrate solu... | 20153b               | 1       |
| Phönix                  | Water                           | 20B28-T03-076719     | 3       |
| Phönix                  | Water                           | 20C17-T17-077607     | 1       |
| Phönix                  | Water                           | 219222               | 3       |
| Phönix                  | Water                           | LOTAP-SP0005         | 1       |
| Phönix                  | Water                           | T03-0767109          | 1       |
| Phönix_13.12.2018       | Water                           | 18C19-T31-054017     | 1       |
| PX/Hedinger             | Aluminium acetotartrate solu... | 20158B               | 1       |
| R.N./Noweda             | Chlorhexidine digluconate so... | RN/CHGCOS/20/18/024  | 1       |
| R.N./Noweda             | Chlorhexidine digluconate so... | RN1/CHCCOS/20/18/024 | 1       |
| R.N./Noweda             | Chlorhexidine digluconate so... | RN1/CHGCOS/20/20/065 | 1       |
| R.N./Phoenix            | Chlorhexidine digluconate so... | RN1/CHGCOS/20/19/026 | 1       |
| R.N./Phoenix            | Chlorhexidine digluconate so... | RN1/CHGCEP/20/20/147 | 1       |
| Raben-Apotheke Mildenau | Aluminium acetotartrate solu... | 20156B               | 2       |
| Rabenapothke            | Water                           | 14L03-T11-017800     | 1       |
| RN Laboratories/Noweda  | Chlorhexidine digluconate so... | RN1/CHGCOS/20/19/061 | 1       |
| Rondell Apotheke        | Water                           | LOTAP0016            | 1       |
| Sanacorp/Pharma         | Water                           | 17B13T02041604       | 1       |
| Sanacorp EK:5,70 EUR... | Chlorhexidine digluconate so... | 1701037              | 1       |
| Sanacorp /Fargron       | Water                           | 17E05-T01-044045     | 1       |
| Sanacorp /Fargron       | Water                           | 19J14-T09-072696     | 1       |
| Sanacorp /Wepa          | Water                           | LOTAp0042            | 1       |
| Sanacorp 17.07.2015     | Chlorhexidine digluconate so... | 15131504             | 1       |
| Sanacorp/ Hedinger      | Aluminium acetotartrate solu... | 20162B               | 1       |
| Sanacorp/ Hedinger      | Aluminium acetotartrate solu... | 20163B               | 2       |
| sanacorp/Hedinger       | Aluminium acetotartrate solu... | 20157B               | 1       |
| Sanacorp/Hedinger       | Aluminium acetotartrate solu... | 20157B               | 2       |
| Sanacorp/HEDINGER       | Aluminium acetotartrate solu... | 20161B               | 1       |
| Sanacorp/Hedinger       | Aluminium acetotartrate solu... | 20166B               | 1       |
| Sanacorp/Wepa           | Water                           | LOTAP0083            | 1       |
| Sanacorp/WEPA           | Water                           | LOTAP-SP0005         | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 1206023-01           | 4       |
| Sanacorp                | Chlorhexidine digluconate so... | 12114001             | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 12K22-N09            | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 13136103             | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 13136115             | 2       |
| Sanacorp                | Chlorhexidine digluconate so... | 14011004             | 1       |
| sanacorp                | Chlorhexidine digluconate so... | 14011015             | 1       |
| sanacorp                | Chlorhexidine digluconate so... | 14331312             | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 14331312             | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 15109201             | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 15131509             | 1       |
| Sanacorp                | Chlorhexidine digluconate so... | 15292508             | 3       |
| Sanacorp                | Chlorhexidine digluconate so... | 16002501             | 2       |
| Sanacorp                | Chlorhexidine digluconate so... | 1701037-02           | 2       |
| Sanacorp                | Water                           | 17114701             | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch              | Spectra |
|----------------------------|---------------------------------|--------------------|---------|
| Sanacorp                   | Chlorhexidine digluconate so... | 17230801           | 2       |
| Sanacorp                   | Water                           | 17339801           | 1       |
| Sanacorp                   | Water                           | 17K27-T14-050581   | 2       |
| Sanacorp                   | Water                           | 17K27-T15-050585   | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 18045906           | 2       |
| Sanacorp                   | Water                           | 18062001           | 2       |
| Sanacorp                   | Water                           | 18109301           | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 1811026-01         | 1       |
| Sanacorp                   | Water                           | 18138601           | 1       |
| Sanacorp                   | Water                           | 18178302           | 3       |
| Sanacorp                   | Water                           | 18210601           | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 18215601           | 2       |
| Sanacorp                   | Chlorhexidine digluconate so... | 18215610           | 2       |
| Sanacorp                   | Water                           | 18227001           | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 18A09-B05-344605   | 1       |
| Sanacorp                   | Water                           | 18C19-T27-o53999   | 1       |
| Sanacorp                   | Water                           | 18C19-T28-054003   | 1       |
| Sanacorp                   | Water                           | 18C19-T30-054012   | 1       |
| Sanacorp                   | Water                           | 18E09-T02055711    | 1       |
| Sanacorp                   | Water                           | 18E09-T02-055711   | 1       |
| Sanacorp                   | Water                           | 19077801           | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 19080807           | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 19080808           | 5       |
| Sanacorp                   | Chlorhexidine digluconate so... | 192972002          | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 192972003          | 1       |
| Sanacorp                   | Chlorhexidine digluconate so... | 192972006          | 2       |
| Sanacorp                   | Water                           | 19A18-T11-063541   | 2       |
| Sanacorp                   | Water                           | 19C29-T01-065497   | 1       |
| Sanacorp                   | Water                           | 19F27-T11-068903   | 1       |
| Sanacorp                   | Water                           | 19J14-T06-07268005 | 1       |
| Sanacorp                   | Water                           | 19J14-T06-0726805  | 2       |
| Sanacorp                   | Water                           | 20002379002        | 2       |
| Sanacorp                   | Aluminium acetotartrate solu... | 20150B             | 2       |
| Sanacorp                   | Aluminium acetotartrate solu... | 20152B             | 1       |
| Sanacorp                   | Aluminium acetotartrate solu... | 20155B             | 1       |
| Sanacorp                   | Aluminium acetotartrate solu... | 21002881005        | 1       |
| Sanacorp                   | Water                           | AP-SP0014          | 1       |
| Sanacorp                   | Water                           | LOTAP0090          | 1       |
| Sanacorp                   | Water                           | LOTAP0153          | 1       |
| Sanacorp                   | Water                           | LOTAP0180          | 1       |
| Sanacorp                   | Water                           | LOTAP-SP0010       | 1       |
| Sanacorp                   | Water                           | LOTAPSP0017        | 1       |
| Sanacorp                   | Water                           | T06-0726805        | 3       |
| Sanacorp                   | Water                           | T17-0709403        | 2       |
| Schütz Dishman Biotech ... | Chlorhexidine digluconate so... | 15E13-B07          | 1       |
| Schütz Dishman Biotech ... | Chlorhexidine digluconate so... | 15I03-B02          | 1       |
| Serumwerk Bernburg AG      | Water                           |                    | 2       |
| Serumwerk Bernburg/Sana... | Water                           |                    | 1       |
| serumwerk bernburg         | Water                           |                    | 6       |
| Sonnen-Apotheke Wefensl... | Chlorhexidine digluconate so... | 16002501           | 1       |
| Sophien AM/Wepa            | Water                           | LOTAP0077          | 1       |
| Sophien AM/Wepa            | Water                           | LOTAP0082          | 1       |
| Sophien AM/Wepa            | Water                           | LOTAP0093          | 1       |
| Spangr/Hedinger            | Aluminium acetotartrate solu... | 201538             | 1       |
| Spangro/Hedinger           | Aluminium acetotartrate solu... | 20158B             | 1       |
| Spangropharm               | Aluminium acetotartrate solu... | 20156B             | 1       |
| Spangropharm               | Aluminium acetotartrate solu... | 20161B             | 1       |
| Stumpf                     | Aluminium acetotartrate solu... | 20151B             | 1       |
| Symbiotica                 | Chlorhexidine digluconate so... | 1412018-02         | 1       |
| Test                       | Water                           | Test               | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                       | Batch            | Spectra |
|----------------------------|---------------------------------|------------------|---------|
| TTP / Gehe                 | Water                           | 17332406         | 1       |
| VDL                        | Chlorhexidine digluconate so... | 130800201        | 1       |
| VDL; 13.7.15; 3,83EUR      | Chlorhexidine digluconate so... | 1412018-01       | 1       |
| VWR                        | Water                           | 19L124108        | 1       |
| VWR                        | Water                           | 19L24108         | 1       |
| Walter Schmidt Chemie G... | Water                           | 1338             | 1       |
| Wasser, gereinigt          | Water                           | 15D14T09021490   | 1       |
| WE:21.03.2016 Sanacor...   | Aluminium acetotartrate solu... | 20160B           | 1       |
| WE:Sanacorp 12.09.2016 ... | Water                           | 16C23-T08-031427 | 1       |
| WEPA / Alliance Healthc... | Water                           | LOTAP0092        | 1       |
| Wepa / Anzag               | Water                           | LOTAP_SP0022     | 1       |
| Wepa / Gehe                | Water                           | LOTAP0095        | 1       |
| Wepa / Gehe                | Water                           | LotAP0100        | 1       |
| Wepa / Gehe                | Water                           | LOTAP0113        | 1       |
| Wepa / Gehe                | Water                           | LOTAP0118        | 1       |
| Wepa / Gehe                | Water                           | LOTAP0142        | 1       |
| Wepa / Gehe                | Water                           | LOTAP0149        | 1       |
| Wepa / Gehe                | Water                           | LOTAP144         | 1       |
| Wepa / Gehe                | Water                           | LOTAP-SP0008     | 1       |
| WEPA / Gehe                | Water                           | LOTAP-SP0010     | 1       |
| WEPA / Gehe                | Water                           | LOTAP-SP001000   | 1       |
| WEPA / Gehe                | Water                           | LOTAP-SP0014     | 2       |
| WEPA / Gehe                | Water                           | LOTAP-SP0017     | 1       |
| Wepa / Gehe                | Water                           | LOTAP-Sp008      | 1       |
| WEPA / Gehe                | Water                           | -SP0012          | 1       |
| Wepa / Noweda              | Water                           | AP-SP0014        | 1       |
| Wepa / Phoenix             | Water                           | LOTAP0100        | 1       |
| Wepa / Phönix              | Water                           | AP0128           | 2       |
| Wepa / Phönix              | Water                           | AP-SP0015        | 1       |
| Wepa / Phönix              | Water                           | LOTAP0146        | 1       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0005     | 1       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0006     | 1       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0009     | 1       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0011     | 1       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0013     | 2       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0016     | 1       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0017     | 1       |
| Wepa / Sanacorp            | Water                           | LOTAP-SP0018     | 1       |
| Wepa / Wepa / 18.02.201... | Water                           | AP0097           | 1       |
| Wepa / Wepa                | Water                           |                  | 2       |
| Wepa / Wepa                | Water                           | AP0142           | 1       |
| Wepa / Wepa                | Water                           | LOTAP0045        | 1       |
| Wepa / Wepa                | Water                           | LOTAP0048        | 2       |
| Wepa / Wepa                | Water                           | LOTAP0065        | 2       |
| Wepa / Wepa                | Water                           | LOTAP0072        | 1       |
| Wepa / Wepa                | Water                           | LOTAP0075        | 3       |
| Wepa / Wepa                | Water                           | LOTAP0107        | 1       |
| Wepa / Wepa                | Water                           | LOTAP0142        | 4       |
| Wepa / Wepa                | Water                           | LOTAP0147        | 10      |
| Wepa / Wepa                | Water                           | LOTAP0155        | 3       |
| Wepa /AllianceH.           | Water                           |                  | 1       |
| wepa /gehe                 | Water                           | 12200            | 1       |
| wepa /gehe                 | Water                           | LOTAP0131        | 1       |
| wepa /gehe                 | Water                           | LOTAP0144        | 1       |
| Wepa /Phönix               | Water                           | LOTAP-SP0005     | 1       |
| Wepa /Phönix               | Water                           | LOTAP-SP0006     | 1       |
| wepa /phönix               | Water                           | LOTAP-SP0009     | 2       |
| WEPA Apothekenbedarf Gm... | Water                           | LOTAP0154        | 1       |
| WEPA Apothekenbedarf Gm... | Water                           | LOTAP0061        | 2       |
| WEPA Apothekenbedarf Gm... | Water                           | LOTAP0074        | 1       |

continued on the next page

*continued from previous page*

| <b>Supplier</b>            | <b>Substance</b> | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|------------------|--------------|----------------|
| WEPA Apothekenbedarf Gm... | Water            | LOTAP0082    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP0089    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP0095    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP0100    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP0087    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP0135    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP0090    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP-SP0003 | 2              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP-SP0005 | 2              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP-SP0020 | 1              |
| Wepa Apothekenbedarf Gm... | Water            | AP0100       | 1              |
| Wepa Apothekenbedarf Gm... | Water            | AP0127       | 1              |
| Wepa Apothekenbedarf Gm... | Water            | AP0131       | 1              |
| Wepa Apothekenbedarf Gm... | Water            | AP0133       | 1              |
| Wepa Apothekenbedarf Gm... | Water            | AP0137       | 1              |
| Wepa Apothekenbedarf Gm... | Water            | LotAP0094    | 1              |
| Wepa Apothekenbedarf Gm... | Water            | LOTAP0094    | 1              |
| Wepa Apothekenbedarf Gm... | Water            | LOTAP0106    | 2              |
| Wepa Apothekenbedarf Gm... | Water            | LOTAP0115    | 1              |
| Wepa Apothekenbedarf Gm... | Water            | LOTAP0117    | 1              |
| Wepa Apothekenbedarf Gm... | Water            | LOTAP0125    | 2              |
| Wepa Apothekenbedarf Gm... | Water            | LOTAP0138    | 1              |
| Wepa Apothekenbedarf Gm... | Water            | LOTAP0147    | 1              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP-SP0005 | 2              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP-SP0006 | 2              |
| WEPA Apothekenbedarf Gm... | Water            | LOTAP-SP0007 | 1              |
| WEPA Apothekenbedarf GmbH  | Water            | LOTAP0112    | 1              |
| WEPA Apothekenbedarf Hi... | Water            | LOTAP0128    | 1              |
| WEPA Apothekenbedarf Hi... | Water            | LOTAP0135    | 1              |
| WEPA Apothekenbedarf Hi... | Water            | LOTAP-SP0008 | 1              |
| WEPA Apothekenbedarf Hi... | Water            | LOTAP0118    | 1              |
| WEPA Apothekenbedarf/ G... | Water            | LOTAP0131    | 1              |
| WEPA Apothekenbedarf/ G... | Water            | LOTAP0140    | 1              |
| WEPA Apothekenbedarf/ G... | Water            | LOTAP-SP0012 | 1              |
| WEPA Apothekenbedarf/ G... | Water            | LOTAP-SP0013 | 1              |
| WEPA Apothekenbedarf/ G... | Water            | LOTAP-SP0017 | 1              |
| Wepa Apothekenbedarf/Gehe  | Water            | LOTAP-SP0017 | 1              |
| Wepa Apothekenbedarf       | Water            |              | 2              |
| Wepa Apothekenbedarf       | Water            | AP0064       | 1              |
| WEPA Apothekenbedarf       | Water            | AP0083       | 1              |
| Wepa Apothekenbedarf       | Water            | AP0126       | 1              |
| Wepa Apothekenbedarf       | Water            | AP0129       | 1              |
| Wepa Apothekenbedarf       | Water            | AP0148       | 1              |
| WEPA Apothekenbedarf       | Water            | LOTAP0031    | 1              |
| Wepa Apothekenbedarf       | Water            | LOTAP0037    | 3              |
| Wepa Apothekenbedarf       | Water            | LOTAP0042    | 2              |
| WEPA Apothekenbedarf       | Water            | LOTAP0042    | 2              |
| WEPA Apothekenbedarf       | Water            | LOTAP0053    | 1              |
| WEPA Apothekenbedarf       | Water            | LOTAP0065    | 1              |
| WEPA Apothekenbedarf       | Water            | LOTAP0074    | 1              |
| Wepa Apothekenbedarf       | Water            | LOTAP0078    | 1              |
| WEPA Apothekenbedarf       | Water            | LOTAP0083    | 2              |
| WEPA Apothekenbedarf       | Water            | LOTAP0086    | 1              |
| Wepa Apothekenbedarf       | Water            | LOTAP0092    | 1              |
| WEPA Apothekenbedarf       | Water            | LOTAP0100    | 3              |
| Wepa Apothekenbedarf       | Water            | LOTAP0103    | 1              |
| WEPA Apothekenbedarf       | Water            | LOTAP0109    | 2              |
| Wepa Apothekenbedarf       | Water            | lotap0132    | 1              |
| Wepa Apothekenbedarf       | Water            | LOTAP0139    | 1              |
| Wepa Apothekenbedarf       | Water            | LOTAP0143    | 2              |

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continued from previous page

| Supplier             | Substance | Batch          | Spectra |
|----------------------|-----------|----------------|---------|
| Wepa Apothekenbedarf | Water     | LOTAP0148      | 3       |
| WEPA Apothekenbedarf | Water     | LOTAP-SP0006   | 2       |
| Wepa Apothekenbedarf | Water     | LOTAP-SP0013   | 1       |
| Wepa Apothekenbedarf | Water     | LOTAP-SP0015   | 2       |
| Wepa Apothekenbedarf | Water     | LOTAP-SP0017   | 1       |
| WEPA Apothekenbedqrf | Water     | LOTAP0028      | 1       |
| Wepa direkt          | Water     | AP0086         | 1       |
| Wepa direkt          | Water     | AP0091         | 1       |
| Wepa direkt          | Water     | LOTAP0094      | 1       |
| Wepa direkt          | Water     | LOTAP0108      | 1       |
| Wepa direkt          | Water     | LOTAP0116      | 1       |
| Wepa direkt          | Water     | LOTAP0118      | 1       |
| Wepa direkt          | Water     | LOTAP0125      | 2       |
| WEPA GmbH & Co KG    | Water     | LOTAP-SP0014   | 2       |
| WEPA GmbH & Co KG    | Water     | LOTAP-SP0015   | 1       |
| WEPA GmbH & Co KG    | Water     | LOTAP-SP0017   | 1       |
| Wepa Noweda          | Water     | LOTAP-SP0008   | 1       |
| Wepa Noweda          | Water     | LOTAPSP0010    | 1       |
| Wepa über Sanacorp   | Water     | LOTAP0141      | 1       |
| Wepa,                | Water     | LOTAP0089      | 1       |
| Wepa,Phoenix         | Water     | AP-SP-0016     | 2       |
| Wepa,Phoenix         | Water     | LOT-SP0015     | 1       |
| Wepa/ Noweda         | Water     | LOTAP0115      | 1       |
| Wepa/ Noweda         | Water     | LOTAP0126      | 1       |
| Wepa/ Noweda         | Water     | LOTAP0129      | 1       |
| Wepa/ Noweda         | Water     | LOTAP0136      | 1       |
| Wepa/ AHD            | Water     | LOTAP0092      | 1       |
| Wepa/ AHD            | Water     | LOTAP0104      | 2       |
| Wepa/ Anzag          | Water     | 15 (AP0081)    | 1       |
| Wepa/ Anzag          | Water     | 16 (LOTAP0092) | 1       |
| Wepa/ Anzag          | Water     | 17 (LOTAP0095) | 1       |
| Wepa/ Anzag          | Water     | 18 (LOTAP0097) | 1       |
| Wepa/ Anzag          | Water     | 19 (LOTAP0102) | 1       |
| Wepa/ Anzag          | Water     | 20 (LOTAP0104) | 1       |
| Wepa/ Fiebig         | Water     | LOTAP0139      | 1       |
| WEPA/ Gehe           | Water     | LOTAP-SP0005   | 1       |
| WEPA/ Gehe           | Water     | LOTAP-SP0008   | 2       |
| Wepa/ Löwen          | Water     | LOTAP0073      | 1       |
| WEPA/ Phö            | Water     | AP0118         | 1       |
| Wepa/ Phoenix        | Water     | LOTAP0059      | 2       |
| Wepa/ Phoenix        | Water     | LOTAP-SP0010   | 1       |
| Wepa/ Phönix         | Water     | LOTAT0086      | 1       |
| Wepa/ Sanacorp       | Water     | AP-SP0009      | 1       |
| Wepa/ Sanacorp       | Water     | LOTAP-SP0003   | 1       |
| Wepa/ Sanacorp       | Water     | LOTAP-SP0006   | 1       |
| Wepa/ Sanacorp       | Water     | LOTAP-SP0016   | 1       |
| Wepa/ Sanacorp       | Water     | -SP001000      | 1       |
| Wepa/ wepa           | Water     |                | 6       |
| Wepa/ Wepa           | Water     | LOTAP0044      | 1       |
| Wepa/ wepa           | Water     | LOTAP0048      | 1       |
| Wepa/ Wepa           | Water     | LOTAP0051      | 1       |
| Wepa/ Wepa           | Water     | LOTAP0071      | 2       |
| Wepa/ Wepa           | Water     | LOTAP0094      | 1       |
| Wepa/ Wepa           | Water     | LOTAP-SP0016   | 2       |
| WEPA/ WEPA           | Water     | LOTAS-SP0005   | 1       |
| Wepa/AHCA            | Water     | LOTAP0077      | 1       |
| Wepa/AHCA            | Water     | LOTAP0082      | 1       |
| Wepa/AHCA            | Water     | LOTAP0087      | 1       |
| Wepa/AHCA            | Water     | LOTAP0091      | 2       |
| Wepa/AHCA            | Water     | LOTAP0102      | 1       |

continued on the next page



continued from previous page

| Supplier                 | Substance | Batch         | Spectra |
|--------------------------|-----------|---------------|---------|
| Wepa/AHCA                | Water     | LOTAP0107     | 1       |
| Wepa/AHCA                | Water     | LOTAP0111     | 1       |
| Wepa/AHD                 | Water     | 10(LOTAP0062) | 1       |
| Wepa/AHD                 | Water     | 11(LOTAP0062) | 1       |
| Wepa/AHD                 | Water     | 13(LOTAP0078) | 1       |
| Wepa/AHD                 | Water     | 14(AP0076)    | 1       |
| Wepa/AHD                 | Water     | LOTAP0069     | 2       |
| Wepa/AHD                 | Water     | LOTAP0074     | 1       |
| WEPA/AHD                 | Water     | LOTAP0126     | 3       |
| Wepa/Alliance 09.03.20   | Water     | LOTAP0117     | 1       |
| WEPA/Alliance Healthcare | Water     | LOTAP-SP0005  | 1       |
| WEPA/Alliance            | Water     | LOTAP0130     | 1       |
| Wepa/Alliance            | Water     | LOTAP0139     | 1       |
| WEPA/Allianz             | Water     | LOTAP0131     | 1       |
| Wepa/Anzag 11.07.2017    | Water     | LOTAP0055     | 3       |
| Wepa/Anzag               | Water     | LOTAP0121     | 1       |
| Wepa/Anzag               | Water     | LOTAP0128     | 1       |
| Wepa/Anzag               | Water     | LOTAP-SP0007  | 1       |
| Wepa/Anzag               | Water     | LOTAP-SP0010  | 2       |
| Wepa/Fiebig 02.06.2021   | Water     | LOTAP0143     | 1       |
| Wepa/Fiebig 04.11.2021   | Water     | LOTAP0147     | 1       |
| Wepa/Fiebig 23.11.20     | Water     | LOTAP0137     | 1       |
| Wepa/Fiebig 25.08.2020   | Water     | LOTAP0131     | 1       |
| WEPA/Fiebig              | Water     | AP0110        | 1       |
| WEPA/Fiebig              | Water     | AP0147        | 1       |
| Wepa/Fiebig              | Water     | LOTAP0100     | 1       |
| WEPA/Fiebig              | Water     | LOTAP0135     | 1       |
| wepa/gehe                | Water     | 12298         | 1       |
| WEPA/Gehe                | Water     | 20180515-03P  | 1       |
| Wepa/Gehe                | Water     | AP0135        | 2       |
| Wepa/Gehe                | Water     | AP-SP0022     | 1       |
| WEPA/Gehe                | Water     | AP-SP0022     | 1       |
| WEPA/Gehe                | Water     | LOTAP0082     | 1       |
| Wepa/Gehe                | Water     | LOTAP0101     | 1       |
| Wepa/Gehe                | Water     | LOTAP0110     | 1       |
| Wepa/Gehe                | Water     | LOTAP0118     | 1       |
| Wepa/Gehe                | Water     | LOTAP0141     | 2       |
| wepa/gehe                | Water     | LOTAP-SP0002  | 1       |
| wepa/gehe                | Water     | LOTAP-SP0003  | 1       |
| Wepa/Gehe                | Water     | LOTAP-SP0004  | 2       |
| Wepa/Gehe                | Water     | LOTAP-SP0005  | 1       |
| Wepa/Gehe                | Water     | LOTAP-SP0006  | 1       |
| Wepa/Gehe                | Water     | LOTAP-SP0010  | 1       |
| Wepa/Gehe                | Water     | LOTAP-SP0012  | 4       |
| Wepa/Gehe                | Water     | LOTAP-SP0013  | 5       |
| Wepa/Gehe                | Water     | LOTAP-SP0014  | 2       |
| Wepa/Gehe                | Water     | LOTAP-SP0016  | 1       |
| WEPA/Gehe                | Water     | LOT-AP-SP0017 | 1       |
| Wepa/Gehe                | Water     | LOTAP-SP004   | 1       |
| wepa/gehe                | Water     | -SP000008     | 1       |
| Wepa/Gehe                | Water     | -SP001001     | 1       |
| Wepa/Gehe                | Water     | -SP001002     | 1       |
| Wepa/Gehe                | Water     | -SP0013       | 1       |
| Wepa/Gehe                | Water     | -SP0016       | 1       |
| Wepa/Gehe                | Water     | -SP0017       | 1       |
| Wepa/Gehe                | Water     | -SP002000     | 1       |
| Wepa/Geilenkirchen       | Water     | LOTAP-SP0012  | 1       |
| Wepa/Geilenkirchen       | Water     | LOTAPSP0014   | 1       |
| Wepa/Geilenkirchen       | Water     | LOTAP-SP0015  | 1       |
| Wepa/Jenne               | Water     | LOTAP-SP0010  | 2       |

continued on the next page



*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|------------------|---------------|----------------|
| Wepa/Kehr       | Water            | AP-SP0005     | 2              |
| Wepa/Kehr       | Water            | AP-SP0011     | 1              |
| Wepa/Kehr       | Water            | LOTAP0138     | 1              |
| Wepa/Kehr       | Water            | LOTAPSP0013   | 1              |
| Wepa/Kehr       | Water            | LOTAP-SP0014  | 1              |
| WEPA/Krieger    | Water            | AP-SP0009     | 1              |
| WEPA/Krieger    | Water            | LOTAP-SP0009  | 1              |
| Wepa/Krieger    | Water            | LOTAP-SP0011  | 1              |
| Wepa/Noweda     | Water            | 20000418001   | 2              |
| Wepa/Noweda     | Water            | AP0079        | 1              |
| Wepa/Noweda     | Water            | AP-SP0015     | 1              |
| Wepa/Noweda     | Water            | LOTAP0101     | 1              |
| Wepa/Noweda     | Water            | LOTAP0103     | 1              |
| Wepa/Noweda     | Water            | LOTAP0107     | 1              |
| WEPA/Noweda     | Water            | lotap0117     | 1              |
| Wepa/Noweda     | Water            | LOTAP0118     | 1              |
| WEPA/Noweda     | Water            | LOTAP0127     | 1              |
| WEPA/Noweda     | Water            | LOTAP0131     | 1              |
| Wepa/Noweda     | Water            | LOTAP-SP0001  | 1              |
| Wepa/Noweda     | Water            | LOTAP-SP0002  | 1              |
| Wepa/Noweda     | Water            | LOT-AP-SP0017 | 1              |
| WEPA/Phoenix    | Water            | LOTAP0068     | 1              |
| WEPA/Phoenix    | Water            | LOTAP0114     | 1              |
| WEPA/Phoenix    | Water            | LOTAP-SP0007  | 1              |
| Wepa/Phönix     | Water            | AP-SP0008     | 1              |
| WEPA/Phönix     | Water            | LOTAP0093     | 2              |
| WEPA/Phönix     | Water            | LOTAP0097     | 1              |
| WEPA/Phönix     | Water            | LOTAP0098     | 2              |
| Wepa/Phönix     | Water            | LOTAP0120     | 1              |
| WEPA/Phönix     | Water            | LOTAP-SP0005  | 1              |
| Wepa/Phönix     | Water            | LOTAP-SP0007  | 1              |
| WEPA/Phönix     | Water            | LOTAP-SP0007  | 1              |
| Wepa/Phönix     | Water            | LOTAP-Sp0017  | 1              |
| wepa/Sanaco     | Water            | LOTAP0028     | 1              |
| wepa/Sanacorp   | Water            | AP0027        | 1              |
| Wepa/Sanacorp   | Water            | AP0110        | 1              |
| Wepa/Sanacorp   | Water            | AP0117        | 1              |
| Wepa/Sanacorp   | Water            | AP-SP0003     | 2              |
| Wepa/Sanacorp   | Water            | AP-SP0005     | 2              |
| Wepa/Sanacorp   | Water            | AP-SP0006     | 1              |
| Wepa/Sanacorp   | Water            | AP-SP0009     | 2              |
| Wepa/Sanacorp   | Water            | AP-SP0010     | 3              |
| Wepa/Sanacorp   | Water            | AP-SP0016     | 1              |
| Wepa/Sanacorp   | Water            | AP-SP0018     | 1              |
| Wepa/Sanacorp   | Water            | AP-SP0020     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0047     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0067     | 2              |
| Wepa/Sanacorp   | Water            | LOTAP0068     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0076     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0080     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0081     | 2              |
| Wepa/Sanacorp   | Water            | LOTAP0082     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0084     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0089     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0091     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0096     | 1              |
| Wepa/Sanacorp   | Water            | LOTAP0098     | 1              |
| WEPA/Sanacorp   | Water            | LOTAP0105     | 2              |
| Wepa/Sanacorp   | Water            | LOTAP0106     | 1              |
| WEPA/Sanacorp   | Water            | LOTAP0114     | 1              |

*continued on the next page*

continued from previous page

| Supplier                   | Substance | Batch            | Spectra |
|----------------------------|-----------|------------------|---------|
| Wepa/Sanacorp              | Water     | LOTAP0116        | 1       |
| WEPA/Sanacorp              | Water     | LOTAP0118        | 1       |
| Wepa/Sanacorp              | Water     | LOTAP0119        | 1       |
| WEPA/Sanacorp              | Water     | LOTAP0126        | 2       |
| WEPA/Sanacorp              | Water     | LOTAP0128        | 1       |
| WEPA/Sanacorp              | Water     | LOTAP0136        | 1       |
| WEPA/Sanacorp              | Water     | LOTAP0137        | 2       |
| Wepa/Sanacorp              | Water     | LOTAP0148        | 1       |
| WEPA/Sanacorp              | Water     | LOTAP0148        | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0002     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0003     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0004     | 3       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0005     | 4       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0006     | 5       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0007     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0010     | 1       |
| WEPA/Sanacorp              | Water     | LOTAP-SP0011     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0012     | 3       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0013     | 2       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0014     | 2       |
| wepa/sanacorp              | Water     | LOTAP-SP0015     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0015     | 1       |
| wepa/sanacorp              | Water     | LOTAP-SP0016     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0016     | 2       |
| Wepa/sanacorp              | Water     | LOTAP-SP0017     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0017     | 1       |
| Wepa/Sanacorp              | Water     | LOTAP-SP0019     | 1       |
| Wepa/Sanacorp              | Water     | LOTAQ-SP0003     | 1       |
| Wepa/Sanacorp              | Water     | LOTAS-SP0016     | 1       |
| Wepa/Sanacorp              | Water     | LOTAS-SP0017     | 1       |
| Wepa/Sanacorp              | Water     | LOTAT0092        | 1       |
| WEPA/Trans-o-flex          | Water     | LOTAP0089        | 2       |
| WEPA/Trans-o-flex          | Water     | LOTAP0103        | 1       |
| WEPA/Trans-o-flex          | Water     | LOTAP0112        | 2       |
| WEPA/Trans-o-flex          | Water     | LOTAP0118        | 1       |
| WEPA/Trans-o-flex          | Water     | LOTAP0124        | 1       |
| Wepa/Wepa Apothekenbeda... | Water     | AP0116           | 1       |
| Wepa/Wepa/ 13.05.2019/ ... | Water     | LOTAP0101        | 1       |
| WEPA/WEPA/ 21.01.2020/ ... | Water     | LOTAP0116        | 2       |
| Wepa/Wepa/ 28.10.2019/ ... | Water     | AP0113           | 1       |
| Wepa/Wepa/ 28.10.2019/ ... | Water     | AP00113          | 1       |
| Wepa/Wepa                  | Water     |                  | 2       |
| Wepa/Wepa                  | Water     | 12(AP0074)       | 1       |
| Wepa/Wepa                  | Water     | 18C19-T31-054017 | 4       |
| Wepa/Wepa                  | Water     | 2xLOTAP0081      | 1       |
| Wepa/Wepa                  | Water     | 9(LOTAP0061)     | 1       |
| WEPA/WEPA                  | Water     | AP0013           | 1       |
| WEPA/WEPA                  | Water     | AP0095           | 1       |
| WEPA/WEPA                  | Water     | AP0106           | 1       |
| Wepa/Wepa                  | Water     | AP0121           | 1       |
| Wepa/Wepa                  | Water     | AP0123           | 1       |
| WEPA/WEPA                  | Water     | AP0127           | 1       |
| WEPA/WEPA                  | Water     | AP0132           | 1       |
| Wepa/Wepa                  | Water     | AP0138           | 2       |
| WEPA/WEPA                  | Water     | AP0139           | 1       |
| Wepa/Wepa                  | Water     | AP0900           | 1       |
| Wepa/Wepa                  | Water     | AP-SP0001        | 1       |
| Wepa/Wepa                  | Water     | AP-SP0004        | 1       |
| Wepa/Wepa                  | Water     | AP-SP0008        | 2       |
| Wepa/Wepa                  | Water     | AP-SP0009        | 1       |

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*continued from previous page*

| <b>Supplier</b> | <b>Substance</b> | <b>Batch</b>  | <b>Spectra</b> |
|-----------------|------------------|---------------|----------------|
| Wepa/Wepa       | Water            | AP-SP0015     | 1              |
| Wepa/Wepa       | Water            | AP-SP002      | 1              |
| Wepa/Wepa       | Water            | LOTAP_SP0007  | 1              |
| Wepa/Wepa       | Water            | LOTAP0032     | 1              |
| Wepa/Wepa       | Water            | LOTAP0041     | 1              |
| Wepa/Wepa       | Water            | LOTAP0046     | 1              |
| Wepa/wepa       | Water            | LOTAP0054     | 1              |
| WEPA/WEPA       | Water            | LOTAP0056     | 1              |
| Wepa/Wepa       | Water            | LOTAP0058     | 1              |
| WEPA/WEPA       | Water            | LOTAP0061     | 1              |
| Wepa/Wepa       | Water            | LOTAP0068     | 1              |
| Wepa/Wepa       | Water            | LOTAP0072     | 1              |
| Wepa/Wepa       | Water            | LOTAP0077     | 1              |
| WEPA/WEPA       | Water            | LOTAP0077     | 1              |
| Wepa/Wepa       | Water            | LOTAP0078     | 1              |
| WEPA/WEPA       | Water            | LOTAP0078     | 1              |
| Wepa/Wepa       | Water            | LOTAP0082     | 1              |
| Wepa/Wepa       | Water            | LOTAP0083     | 2              |
| Wepa/Wepa       | Water            | LOTAP0086     | 2              |
| Wepa/Wepa       | Water            | LOTAP0088     | 2              |
| Wepa/Wepa       | Water            | LOTAP0089     | 1              |
| Wepa/Wepa       | Water            | LOTAP0090     | 2              |
| Wepa/Wepa       | Water            | LOTAP0091     | 1              |
| Wepa/Wepa       | Water            | LotAP0092     | 2              |
| Wepa/Wepa       | Water            | LOTAP0094     | 2              |
| Wepa/Wepa       | Water            | lotap0095     | 1              |
| Wepa/Wepa       | Water            | LOTAP0096     | 1              |
| WEPA/WEPA       | Water            | LOTAP0096     | 1              |
| Wepa/Wepa       | Water            | LOTAP0097     | 1              |
| Wepa/Wepa       | Water            | LOTAP0098     | 5              |
| Wepa/Wepa       | Water            | LOTAP0099     | 1              |
| Wepa/Wepa       | Water            | LOTAP0100     | 5              |
| WEPA/WEPA       | Water            | LOTAP0100     | 1              |
| Wepa/Wepa       | Water            | LOTAP0103     | 1              |
| Wepa/Wepa       | Water            | LOTAP0106     | 1              |
| Wepa/Wepa       | Water            | LOTAP0108     | 3              |
| WEPA/WEPA       | Water            | LOTAP0110     | 1              |
| Wepa/Wepa       | Water            | LOTAP0111     | 2              |
| Wepa/Wepa       | Water            | LOTAP0112     | 1              |
| WEPA/WEPA       | Water            | LOTAP0117     | 1              |
| Wepa/wepa       | Water            | LOTAP0119     | 1              |
| WEPA/Wepa       | Water            | LOTAP0121     | 1              |
| Wepa/wepa       | Water            | LOTAP0123     | 1              |
| Wepa/Wepa       | Water            | LOTAP0123     | 1              |
| WEPA/WEPA       | Water            | LOTAP0123     | 1              |
| WEPA/Wepa       | Water            | LOTAP0124     | 8              |
| Wepa/Wepa       | Water            | LOTAP0125     | 1              |
| WEPA/Wepa       | Water            | LOTAP0127     | 2              |
| Wepa/Wepa       | Water            | LOTAP0130     | 3              |
| Wepa/Wepa       | Water            | LOTAP0131     | 2              |
| WEPA/Wepa       | Water            | LOTAP0133     | 2              |
| Wepa/Wepa       | Water            | LOTAP014      | 1              |
| Wepa/Wepa       | Water            | LOTAP0140     | 1              |
| Wepa/Wepa       | Water            | LOTAP0143     | 2              |
| Wepa/Wepa       | Water            | LOTAP0145     | 2              |
| Wepa/Wepa       | Water            | LOTAP0157     | 1              |
| WEPA/WEPA       | Water            | LOTAP-SP0001  | 1              |
| Wepa/Wepa       | Water            | LOTAP-SP00010 | 1              |
| WEPA/WEPA       | Water            | LOTAP-SP0002  | 1              |
| Wepa/Wepa       | Water            | LOTAP-SP0003  | 1              |

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continued from previous page

| Supplier     | Substance                       | Batch            | Spectra |
|--------------|---------------------------------|------------------|---------|
| WEPA/WEPA    | Water                           | LOTAP-SP0003     | 1       |
| Wepa/Wepa    | Water                           | LOTAP-SP0004     | 3       |
| WEPA/WEPA    | Water                           | lotap-sp0004     | 1       |
| WEPA/WEPA    | Water                           | LOTAP-SP0004     | 3       |
| Wepa/Wepa    | Water                           | LOTAP-SP0005     | 4       |
| Wepa/wepa    | Water                           | Lot-AP-SP0006    | 1       |
| WEPA/WEPA    | Water                           | LOTAP-SP0006     | 1       |
| WEPA/WEPA    | Water                           | LOT-AP-SP0006    | 1       |
| Wepa/Wepa    | Water                           | LOTAP-SP0009     | 5       |
| Wepa/Wepa    | Water                           | LOTAP-SP0010     | 1       |
| Wepa/Wepa    | Water                           | LOTAP-SP0011     | 1       |
| Wepa/Wepa    | Water                           | LOTAP-SP0012     | 2       |
| Wepa/Wepa    | Water                           | LOTAP-SP0014     | 3       |
| Wepa/Wepa    | Water                           | LOTAP-SP0015     | 2       |
| Wepa/Wepa    | Water                           | LOTAP-SP0016     | 1       |
| Wepa/Wepa    | Water                           | LOTAP-SP0019     | 1       |
| Wepa/Wepa    | Water                           | LOTAP-SP0021     | 1       |
| Wepa/Wepa    | Water                           | LOTAP-SP008      | 1       |
| Wepa/Wepa    | Water                           | -SP001001        | 1       |
| WEPA/WEPA    | Water                           | -SP001002        | 1       |
| Wepa/Wepa    | Water                           | -SP001011        | 1       |
| Wepa/Wepa    | Water                           | SP0013           | 1       |
| Wepa/Wepa    | Water                           | -SP0013          | 1       |
| Wepa/Zentrum | Water                           | LOTAP0097        | 1       |
| Wepa/Zentrum | Water                           | LOTAP-SP0001     | 1       |
| Wepa         | Water                           |                  | 15      |
| WEPA         | Water                           |                  | 5       |
| Wepa         | Water                           | 12200            | 1       |
| WEPA         | Water                           | 12456898         | 1       |
| Wepa         | Chlorhexidine digluconate so... | 18215612         | 1       |
| WEPA         | Water                           | 18305501         | 1       |
| wepa         | Water                           | 18C19-T30-054012 | 1       |
| Wepa         | Water                           | 19F27-T11-068903 | 1       |
| Wepa         | Water                           | 219210           | 2       |
| wepa         | Water                           | 3245             | 1       |
| Wepa         | Water                           | AP0024           | 1       |
| Wepa         | Water                           | AP0029           | 1       |
| Wepa         | Water                           | AP0054           | 1       |
| Wepa         | Water                           | ap0069           | 1       |
| Wepa         | Water                           | AP0071           | 1       |
| Wepa         | Water                           | AP0074           | 1       |
| Wepa         | Water                           | AP0075           | 1       |
| WEPA         | Water                           | AP0076           | 1       |
| Wepa         | Water                           | AP008            | 1       |
| Wepa         | Water                           | AP0080           | 1       |
| wepa         | Water                           | ap0081           | 1       |
| Wepa         | Water                           | AP0082           | 1       |
| Wepa         | Water                           | AP0087           | 1       |
| wepa         | Water                           | AP0089           | 1       |
| Wepa         | Water                           | AP0089           | 2       |
| Wepa         | Water                           | AP0094           | 1       |
| Wepa         | Water                           | AP0095           | 1       |
| Wepa         | Water                           | AP0096           | 1       |
| Wepa         | Water                           | AP0098           | 1       |
| Wepa         | Water                           | AP0099           | 1       |
| Wepa         | Water                           | AP0100           | 1       |
| Wepa         | Water                           | AP0102           | 1       |
| Wepa         | Water                           | AP0104           | 1       |
| WEPA         | Water                           | AP0105           | 1       |
| WEPA         | Water                           | AP0108           | 1       |

continued on the next page

continued from previous page

| Supplier | Substance | Batch     | Spectra |
|----------|-----------|-----------|---------|
| Wepa     | Water     | AP0109    | 1       |
| Wepa     | Water     | AP0110    | 1       |
| Wepa     | Water     | AP0111    | 2       |
| Wepa     | Water     | AP0113    | 2       |
| Wepa     | Water     | Ap0115    | 1       |
| Wepa     | Water     | AP0118    | 4       |
| Wepa     | Water     | AP0122    | 3       |
| Wepa     | Water     | AP0123    | 3       |
| WEPA     | Water     | AP0124    | 1       |
| Wepa     | Water     | AP0124x4  | 1       |
| Wepa     | Water     | AP0127    | 1       |
| Wepa     | Water     | AP0135    | 1       |
| Wepa     | Water     | AP0140    | 1       |
| WEPA     | Water     | AP0140    | 1       |
| Wepa     | Water     | AP0141    | 1       |
| Wepa     | Water     | AP0144    | 1       |
| WEPA     | Water     | AP0146    | 1       |
| Wepa     | Water     | AP0147    | 1       |
| Wepa     | Water     | AP0148    | 1       |
| WEPA     | Water     | APLOT0120 | 1       |
| Wepa     | Water     | AP-SP0001 | 1       |
| Wepa     | Water     | AP-SP0002 | 1       |
| Wepa     | Water     | AP-SP0003 | 1       |
| WEPA     | Water     | AP-SP0003 | 1       |
| Wepa     | Water     | AP-SP0005 | 4       |
| Wepa     | Water     | apsp0006  | 1       |
| Wepa     | Water     | AP-SP0007 | 1       |
| Wepa     | Water     | AP-SP0011 | 1       |
| WEPA     | Water     | AP-SP0014 | 1       |
| Wepa     | Water     | AP-SP0015 | 1       |
| Wepa     | Water     | AP-SP0016 | 2       |
| WEPA     | Water     | AP-SP0017 | 1       |
| Wepa     | Water     | AP-SP0020 | 1       |
| WEPA     | Water     | AP-SP0021 | 1       |
| Wepa     | Water     | loap0107  | 1       |
| Wepa     | Water     | LOAP0144  | 1       |
| wepa     | Water     | LOT0094AP | 1       |
| Wepa     | Water     | LOTAP0003 | 1       |
| Wepa     | Water     | LOTAP0012 | 1       |
| WEPA     | Water     | LOTAP0012 | 2       |
| Wepa     | Water     | LOTAP0013 | 1       |
| Wepa     | Water     | LOTAP0015 | 1       |
| Wepa     | Water     | LOTAP0017 | 1       |
| Wepa     | Water     | LOTAP0020 | 1       |
| Wepa     | Water     | LOTAP0021 | 1       |
| Wepa     | Water     | LOTAP0023 | 1       |
| wepa     | Water     | LOTAP0024 | 1       |
| Wepa     | Water     | LOTAP0025 | 1       |
| WEPA     | Water     | LOTAP0025 | 2       |
| Wepa     | Water     | LOTAP0030 | 1       |
| wepa     | Water     | LOTAP0031 | 1       |
| wepa     | Water     | LOTAP0033 | 3       |
| Wepa     | Water     | LOTAP0035 | 1       |
| Wepa     | Water     | LOTAp0036 | 1       |
| WEPA     | Water     | LOTAP0036 | 1       |
| wepa     | Water     | LOTAP0038 | 1       |
| WEPA     | Water     | LOTAP0038 | 2       |
| WEPA     | Water     | LOTAP0039 | 1       |
| wepa     | Water     | LOTAP0040 | 1       |
| Wepa     | Water     | LOTAP0040 | 2       |

continued on the next page

continued from previous page

| Supplier | Substance | Batch           | Spectra |
|----------|-----------|-----------------|---------|
| wepa     | Water     | LOTAP0045       | 1       |
| Wepa     | Water     | LOTAP0046       | 2       |
| WEPA     | Water     | LOTAP0047       | 1       |
| wepa     | Water     | LOTAP0048       | 1       |
| Wepa     | Water     | LOTAP0048       | 1       |
| WEPA     | Water     | LOTAP00500      | 1       |
| WEPA     | Water     | LOTAP0051       | 1       |
| Wepa     | Water     | LOTAP0052       | 2       |
| Wepa     | Water     | LOTAP0053       | 1       |
| WEPA     | Water     | LOTAP0053       | 1       |
| Wepa     | Water     | LOTAP0054       | 2       |
| WEPA     | Water     | LOTAP0054       | 1       |
| wepa     | Water     | LOTAP0058       | 3       |
| Wepa     | Water     | LOTAP0059       | 1       |
| Wepa     | Water     | LOTAP0060       | 1       |
| Wepa     | Water     | LOTAP0061       | 1       |
| WEPA     | Water     | LOTAP0062       | 1       |
| Wepa     | Water     | LOTAP0064       | 2       |
| wepa     | Water     | LOTAP0065       | 1       |
| Wepa     | Water     | LOTAP0065       | 3       |
| Wepa     | Water     | LOTAP0066       | 2       |
| Wepa     | Water     | LOTAP0067       | 3       |
| Wepa     | Water     | LOTAP0068       | 1       |
| wepa     | Water     | LOTAP0069       | 1       |
| WEPA     | Water     | LOTAP0069       | 1       |
| Wepa     | Water     | LOTAP0070       | 1       |
| Wepa     | Water     | LOTAP0071       | 1       |
| WEPA     | Water     | LOTAP0071       | 3       |
| Wepa     | Water     | LOTAP0072       | 4       |
| WEPA     | Water     | LOTAP0072       | 1       |
| Wepa     | Water     | LOTAP0073       | 1       |
| Wepa     | Water     | LOTAP0074       | 4       |
| WEPA     | Water     | LOTAP0075       | 2       |
| Wepa     | Water     | LOTAP0076       | 2       |
| Wepa     | Water     | LOTAP0077       | 2       |
| Wepa     | Water     | LOTAP0078       | 6       |
| WEPA     | Water     | LOTAP0078       | 2       |
| Wepa     | Water     | LOTAP0079       | 3       |
| WEPA     | Water     | LOTAP0079       | 1       |
| wepa     | Water     | LOTAP0080       | 1       |
| Wepa     | Water     | LOTAP0080       | 2       |
| WEPA     | Water     | LOTAP0080       | 3       |
| wepa     | Water     | LOTAP0081       | 2       |
| Wepa     | Water     | LOTAP0081       | 1       |
| WEPA     | Water     | LOTAP0081       | 1       |
| WEPA     | Water     | LOTAP00812ma151 | 1       |
| Wepa     | Water     | LOTAP0082       | 5       |
| Wepa     | Water     | LOTAP0083       | 6       |
| Wepa     | Water     | LOTAP0084       | 2       |
| WEPA     | Water     | LOTAP0084       | 2       |
| Wepa     | Water     | LOTAP0085       | 2       |
| Wepa     | Water     | LOTAP0086       | 1       |
| Wepa     | Water     | LOTAP0087       | 3       |
| WEPA     | Water     | LOTAP0087       | 2       |
| Wepa     | Water     | LOTAP0088       | 2       |
| WEPA     | Water     | LOTAP0089       | 1       |
| Wepa     | Water     | LOTAP0090       | 1       |
| Wepa     | Water     | LOTAP0091       | 3       |
| Wepa     | Water     | LOTAP0092       | 1       |
| WEPA     | Water     | LOTAP0092       | 1       |

continued on the next page

continued from previous page

| Supplier | Substance | Batch         | Spectra |
|----------|-----------|---------------|---------|
| Wepa     | Water     | LOTAP0093     | 2       |
| wepa     | Water     | LOTAP0094     | 7       |
| Wepa     | Water     | LOTAP0094     | 4       |
| wepa     | Water     | LOTAP0095     | 1       |
| Wepa     | Water     | LOTAP0095     | 4       |
| WEPA     | Water     | LOTAP0095     | 2       |
| Wepa     | Water     | LOTAP0096     | 4       |
| Wepa     | Water     | LOTAP0097     | 1       |
| WEPA     | Water     | LOTAP0097     | 2       |
| Wepa     | Water     | LOTAP0098     | 2       |
| wepa     | Water     | LOTAP0099     | 1       |
| WEPA     | Water     | LOTAP0099     | 1       |
| wepa     | Water     | LOTAP0101     | 8       |
| Wepa     | Water     | LOTAP0101     | 4       |
| Wepa     | Water     | LotAP0102     | 3       |
| Wepa     | Water     | LOTAP0102     | 3       |
| WEPA     | Water     | LOTAP0102     | 2       |
| Wepa     | Water     | LOTAP0103     | 1       |
| WEPA     | Water     | LOTAP0103     | 1       |
| Wepa     | Water     | LOTAP0104     | 1       |
| WEPA     | Water     | LOTAP0104     | 1       |
| WEPA     | Water     | LOTAP0105     | 1       |
| Wepa     | Water     | LOTAP0106     | 4       |
| Wepa     | Water     | LOTAP0107     | 3       |
| WEPA     | Water     | LOTAP0107     | 2       |
| Wepa     | Water     | LOTAP0108     | 4       |
| WEPA     | Water     | LOTAP0108     | 1       |
| Wepa     | Water     | LOTAP0109     | 6       |
| Wepa     | Water     | LOTAP0110     | 1       |
| wepa     | Water     | LOTAP0111     | 1       |
| Wepa     | Water     | LOTAP0111     | 11      |
| Wepa     | Water     | LotAP0112     | 1       |
| Wepa     | Water     | LOTAP0112     | 3       |
| WEPA     | Water     | LOTAP0112     | 1       |
| Wepa     | Water     | LOTAP0113     | 3       |
| Wepa     | Water     | LOTAP0114     | 2       |
| Wepa     | Water     | LOTAP0115     | 6       |
| WEPA     | Water     | LOTAP0115     | 1       |
| Wepa     | Water     | LOTAP0115 (3) | 1       |
| wepa     | Water     | LOTAP0116     | 2       |
| Wepa     | Water     | LOTAP0116     | 5       |
| Wepa     | Water     | LOTAP0117     | 5       |
| WEPA     | Water     | LotAP0117     | 1       |
| wepa     | Water     | LOTAP0118     | 2       |
| Wepa     | Water     | LOTAP0118     | 6       |
| WEPA     | Water     | LOTAP0119     | 1       |
| Wepa     | Water     | LOTAP0120     | 2       |
| Wepa     | Water     | LOTAP0121 (3) | 1       |
| Wepa     | Water     | LOTAP0122     | 3       |
| Wepa     | Water     | LOTAP0123     | 14      |
| WEPA     | Water     | LOTAP0123     | 1       |
| Wepa     | Water     | LOTAP0124     | 7       |
| WEPA     | Water     | LotAP0124     | 1       |
| Wepa     | Water     | LOTAP0126     | 4       |
| WEPA     | Water     | LOTAP0126     | 3       |
| Wepa     | Water     | LOTAP0127     | 6       |
| WEPA     | Water     | LOTAP0127     | 1       |
| Wepa     | Water     | LOTAP0128     | 1       |
| Wepa     | Water     | LOTAP0129     | 2       |
| WEPA     | Water     | LOTAP0129     | 1       |

continued on the next page



continued from previous page

| Supplier | Substance | Batch          | Spectra |
|----------|-----------|----------------|---------|
| Wepa     | Water     | LOTAP0130      | 1       |
| Wepa     | Water     | LOTAP0131      | 3       |
| WEPA     | Water     | LOTAP0131      | 1       |
| Wepa     | Water     | LOTAP0132      | 4       |
| Wepa     | Water     | Lotap0134      | 1       |
| Wepa     | Water     | LOTAP0135      | 2       |
| WEPA     | Water     | LOTAP0135      | 1       |
| Wepa     | Water     | LOTAP0136      | 2       |
| Wepa     | Water     | LOTAP0137      | 4       |
| Wepa     | Water     | LOTAP0138      | 1       |
| WEPA     | Water     | LOTAP0138      | 1       |
| Wepa     | Water     | LOTAP0140      | 10      |
| WEPA     | Water     | LOTAP0140      | 2       |
| WEPA     | Water     | LOTAP0142      | 3       |
| Wepa     | Water     | LOTAP0143      | 1       |
| Wepa     | Water     | LOTAP0144      | 2       |
| WEPA     | Water     | LOTAP0144      | 1       |
| wepa     | Water     | LotAp0146      | 1       |
| Wepa     | Water     | Lotap0146      | 1       |
| Wepa     | Water     | LOTAP0148      | 1       |
| Wepa     | Water     | LOTAP0149      | 1       |
| Wepa     | Water     | LOTAP0150      | 1       |
| WEPA     | Water     | LOTAP0150      | 1       |
| Wepa     | Water     | LOTAP0151      | 1       |
| Wepa     | Water     | LOTAP0152      | 1       |
| Wepa     | Water     | LOTAP0153      | 1       |
| Wepa     | Water     | LOTAP0154      | 1       |
| Wepa     | Water     | LOTAP0156      | 2       |
| Wepa     | Water     | LOTAP0158      | 1       |
| Wepa     | Water     | LOTAP0159      | 1       |
| Wepa     | Water     | LOTAP129       | 1       |
| Wepa     | Water     | LOTAPSP0001    | 1       |
| Wepa     | Water     | LOTAP-SP0001   | 8       |
| WEPA     | Water     | LOT-AP-SP0001  | 1       |
| wepa     | Water     | LOTAP-SP0002   | 1       |
| Wepa     | Water     | LOTAP-SP0002   | 4       |
| WEPA     | Water     | LOTAP-sp0002   | 1       |
| WEPA     | Water     | LOTAP-SP0002   | 1       |
| Wepa     | Water     | LOT-AP-SP-0003 | 1       |
| Wepa     | Water     | LOTAPSP0003    | 2       |
| Wepa     | Water     | LOTAP-SP0003   | 9       |
| Wepa     | Water     | LOTAP-SP-0003  | 1       |
| Wepa     | Water     | LOT-AP-SP0003  | 1       |
| WEPA     | Water     | lotap-sp0003   | 1       |
| wepa     | Water     | LOTAP-SP0004   | 1       |
| Wepa     | Water     | LOTAP-SP0004   | 8       |
| Wepa     | Water     | LOTap-sp0005   | 2       |
| Wepa     | Water     | LOTAP-SP0005   | 11      |
| WEPA     | Water     | lotap-sp0005   | 1       |
| wepa     | Water     | LOTAP-SP0006   | 1       |
| Wepa     | Water     | LOTAP-SP0006   | 9       |
| WEPA     | Water     | LOTAP-SP0006   | 2       |
| Wepa     | Water     | LOTAP-SP0007   | 5       |
| WEPA     | Water     | LOTAP-SP0007   | 2       |
| Wepa     | Water     | LOTAP-SP0008   | 6       |
| WEPA     | Water     | LOTAP-SP0008   | 2       |
| Wepa     | Water     | LOTAP-SP0009   | 8       |
| Wepa     | Water     | LOTAP-SP0010   | 1       |
| WEPA     | Water     | LOTAP-SP0010   | 2       |
| Wepa     | Water     | LOTAP-SP0011   | 2       |

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| Supplier             | Substance | Batch         | Spectra |
|----------------------|-----------|---------------|---------|
| Wepa                 | Water     | LotAP-SP0012  | 1       |
| Wepa                 | Water     | LOTAP-SP0012  | 4       |
| Wepa                 | Water     | LOT-AP-SP0012 | 1       |
| WEPA                 | Water     | LOTAP-SP0012  | 2       |
| Wepa                 | Water     | LotAP-SP0014  | 1       |
| Wepa                 | Water     | LOTAP-SP0014  | 1       |
| WEPA                 | Water     | LOTAP-SP0014  | 1       |
| Wepa                 | Water     | LOTAP-SP0015  | 2       |
| WEPA                 | Water     | LOTAP-SP0015  | 2       |
| Wepa                 | Water     | LOTAP-SP0016  | 1       |
| WEPA                 | Water     | LOTAP-SP0016  | 1       |
| WEPA                 | Water     | LOTAP-SP0017  | 1       |
| Wepa                 | Water     | LOTAP-SP0018  | 1       |
| WEPA                 | Water     | LOTAP-SP0018  | 1       |
| Wepa                 | Water     | LOTAP-SP0019  | 1       |
| Wepa                 | Water     | LOTAP-SP0020  | 2       |
| Wepa                 | Water     | LOTAP-SP0021  | 1       |
| WEPA                 | Water     | LOTAP-SP00212 | 1       |
| Wepa                 | Water     | LOTAP-SP0022  | 2       |
| Wepa                 | Water     | LOT-AP-SP005  | 1       |
| Wepa                 | Water     | -SP0007       | 1       |
| WEPA                 | Water     | -SP001000     | 1       |
| WEPA                 | Water     | -SP0017       | 1       |
| WEPA                 | Water     | -SP002000     | 1       |
| Wepa-Apothekenbedarf | Water     | LOTAP0069     | 1       |
| WEPA-WEPA            | Water     | LOTAP0028     | 1       |

- 276 096 spectra from 1294 *Apo-Ident* customers from a total of 49 560 batches from a further 340 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Water and aqueous solutions* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Water and aqueous solutions* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 1415          | 0              | 65 744        |
| <b>Type B</b> | 0              | 2369          | 1              | 104 734       |
| <b>Type C</b> | 0              | 12 486        | 127            | 275 684       |

The substance/substance group *Water and aqueous solutions* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.5760 %) |
| <b>Type B</b> | 100.0000 % (> 99.9679 %) | 99.9578 % (> 99.8312 %)  |
| <b>Type C</b> | 100.0000 % (> 99.6969 %) | 98.9931 % (> 98.9693 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Water and aqueous solutions* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Dextrorotary lactic acid 20%              | 15.33                     | —                                 |
| Hydrophilic base emulsion (NRF p.25)      | 24.29                     | —                                 |
| Chest elixir                              | 29.17                     | —                                 |
| Gel basis Audor <sup>®</sup>              | 33.62                     | —                                 |
| Liquorice juice purified, diluted         | 35.01                     | —                                 |
| Fortified wine                            | 39.05                     | —                                 |
| Non-ionic hydrous liniment SR/DAC (NRF... | 39.94                     | —                                 |
| Polyhexanide solution 20%                 | 45.12                     | —                                 |
| Condurango wine                           | 46.72                     | —                                 |
| Lotio Cordes <sup>®</sup>                 | 47.22                     | —                                 |
| Hydrated liniment SR/DAC (NRF p.40)       | 48.63                     | —                                 |
| Sodium-(s)-lactate solution 50%           | 49.18                     | —                                 |
| Glycolic acid 70%                         | 49.24                     | —                                 |
| Hydrophilic cream, non-ionic SR (NRF p... | 50.14                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Water and aqueous solutions* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30869     | 31342                  | 5.89                            | 19.20                              |
| 31057     | 31718                  | 2.73                            | 32.69                              |
| 31240     | 31735                  | 2.47                            | 25.58                              |
| 31342     | 31342                  | 0.00                            | 16.72                              |
| 31463     | 31463                  | 0.00                            | 27.34                              |
| 31624     | 31718                  | 1.85                            | 31.33                              |
| 31676     | 32354                  | 4.53                            | 34.04                              |
| 31705     | 31735                  | 9.79                            | 24.67                              |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 31718            | 31718                      | 0.00                                | 32.09                                  |
| 31735            | 31735                      | 0.00                                | 25.47                                  |
| 31809            | 31718                      | 4.02                                | 29.43                                  |
| 31829            | 31463                      | 3.64                                | 25.17                                  |
| 31846            | 31846                      | 0.00                                | 26.25                                  |
| 31959            | 31342                      | 4.85                                | 16.94                                  |
| 32308            | 31846                      | 9.10                                | 24.13                                  |
| 32354            | 32354                      | 0.00                                | 31.87                                  |
| 32732            | 31846                      | 2.26                                | 24.78                                  |
| 32831            | 32831                      | 0.00                                | 34.08                                  |
| 32832            | 32832                      | 0.00                                | 33.64                                  |
| 32921            | 31342                      | 9.12                                | 19.02                                  |
| 34690            | 31342                      | 5.03                                | 18.98                                  |
| 35112            | 35112                      | 0.00                                | 29.40                                  |
| 35113            | 35113                      | 0.00                                | 27.79                                  |
| 35163            | 35163                      | 0.00                                | 28.23                                  |
| 35315            | 35315                      | 0.00                                | 28.53                                  |
| 35539            | 35539                      | 0.00                                | 33.64                                  |
| 35555            | 35555                      | 0.00                                | 28.73                                  |
| 35556            | 35556                      | 0.00                                | 28.90                                  |
| 35599            | 35599                      | 0.00                                | 28.90                                  |
| 35822            | 31342                      | 5.44                                | 13.39                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Wines**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30641-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Wines; Chest elixir; Condurango wine; Fortified wine; Gel basis Audor®; Liquiritiae succi elixir; Liquorice juice purified, diluted; Lotio Cordes®; Vinum condurangum; Vinum liquorosum

### Special notes

When selecting the *Wines* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Wines                     | 27     | 19     | 106    |

## Second-stage model

For differentiation of the substance/substance group *Wines* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Wines*:

| Supplier     | Substance           | Batch     | Sample ID | Spectra | Certificate |
|--------------|---------------------|-----------|-----------|---------|-------------|
| Caelo        | Chest elixir        | 13003109  | 31213     | 40      | 1405332     |
| Caelo        | Chest elixir        | 14182707  | 31615     | 60      | 20140709    |
| Caelo        | Chest elixir        | 17013603  | 33619     | 40      | 20170125    |
| Caelo        | Chest elixir        | 191235    | 34642     | 40      | 20190506*   |
| Caelo        | Condurango wine     | 11239009  | 30901     | 60      | 20110909    |
| Caelo        | Condurango wine     | 14345603  | 31581     | 60      | 1505325     |
| Caelo        | Condurango wine     | 192836    | 35725     | 50      | 20191113*   |
| Caelo        | Fortified wine      | 13208302  | 31127     | 40      | 1403400     |
| Caelo        | Fortified wine      | 13208306  | 31222     | 70      | 20130822    |
| Caelo        | Fortified wine      | 13397204  | 31466     | 60      | 20131216    |
| Caelo        | Fortified wine      | 192855    | 34803     | 40      | 20191128*   |
| Caelo        | Fortified wine      | 21002750  | 35723     | 50      | 20210820*   |
| Audor Pharma | Gel basis Audor®    | AP111500  | 30641     | 40      | 20101104    |
| Audor Pharma | Gel basis Audor®    | AP103113G | 31108     | 40      | 1404231     |
| Audor Pharma | Gel basis Audor®    | AP63101G  | 32751     | 40      | 20160906    |
| Audor Pharma | Gel basis Audor®    | AP63101G  | 32752     | 40      | 20160906    |
| Audor Pharma | Gel basis Audor®    | AP84001G  | 34599     | 40      | 20181019    |
| Euro OTC     | Gel basis Audor®    | 2012007   | 35249     | 40      | 20201223*   |
| Euro OTC     | Gel basis Audor®    | 2104016   | 35494     | 40      | 20210429*   |
| Caelo        | Liquorice juice ... | 14203111  | 31652     | 60      | 20140711    |
| Caelo        | Liquorice juice ... | 171695    | 33330     | 40      | 20170621*   |
| Caelo        | Liquorice juice ... | 192332    | 34710     | 40      | 20191016*   |
| Caelo        | Liquorice juice ... | 21000310  | 35280     | 40      | 20210202*   |
| Ichthyol     | Lotio Cordes®       | 12D014    | 31075     | 40      | 1403759     |
| Ichthyol     | Lotio Cordes®       | 14D010    | 31595     | 60      | 20140826    |
| Ichthyol     | Lotio Cordes®       | 15D002    | 32487     | 40      | 20150318    |
| Ichthyol     | Lotio Cordes®       | 19D002    | 34843     | 40      | 20190424    |
| Ichthyol     | Lotio Cordes®       | 20D0002   | 35758     | 50      | 20200909    |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 1300 spectra of 28 reference samples from the substance/substance group *Wines*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 27 different batches.
- 65 859 spectra from a total of 1352 batches from further 223 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 780 spectra of 19 reference samples from the substance/substance group *Wines*.
- Among them are spectra of independent samples from 19 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier     | Substance                       | Batch       | Sample ID | Spectra |
|--------------|---------------------------------|-------------|-----------|---------|
| Caelo        | Chest elixir                    | 15379113    | 32956     | 40      |
| Caelo        | Chest elixir                    | 181495      | 34228     | 40      |
| Caelo        | Chest elixir                    | 20003484001 | 35742     | 50      |
| Caelo        | Condurango wine                 | 15341903    | 32957     | 40      |
| Caelo        | Condurango wine                 | 15341901    | 33836     | 40      |
| Caelo        | Condurango wine                 | 180781      | 34074     | 40      |
| Caelo        | Fortified wine                  | 161795      | 32336     | 40      |
| Caelo        | Fortified wine                  | 171984      | 33712     | 40      |
| Audor Pharma | Gel basis Audor <sup>®</sup>    | AP53801G    | 32724     | 40      |
| Audor Pharma | Gel basis Audor <sup>®</sup>    | AP72301G    | 33626     | 40      |
| Euro OTC     | Gel basis Audor <sup>®</sup>    | 2008005     | 35078     | 40      |
| Euro OTC     | Gel basis Audor <sup>®</sup>    | 2110007     | 35774     | 50      |
| Euro OTC     | Gel basis Audor <sup>®</sup>    | 2203035     | 36224     | 40      |
| Caelo        | Liquorice juice purified, di... | 161241      | 32200     | 40      |
| Caelo        | Liquorice juice purified, di... | 16316201    | 33463     | 40      |
| Caelo        | Liquorice juice purified, di... | 182598      | 34336     | 40      |
| Ichthyol     | Lotio Cordes <sup>®</sup>       | 15D021      | 32965     | 40      |
| Ichthyol     | Lotio Cordes <sup>®</sup>       | 16D011      | 33839     | 40      |
| Ichthyol     | Lotio Cordes <sup>®</sup>       | 20D0001     | 35107     | 40      |

- 106 583 spectra from a total of 2482 batches from further 345 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 504 spectra from 141 *Apo-Ident* customers from 118 batches from the substance/substance group *Wines*.
- Among them are spectra of independent samples from 105 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.



| Supplier                   | Substance                       | Batch     | Spectra |
|----------------------------|---------------------------------|-----------|---------|
| Alliance Health 05.06.2... | Lotio Cordes <sup>®</sup>       | 11D029    | 1       |
| Anzag/Ichtyol-Gesellsch... | Lotio Cordes <sup>®</sup>       | 13D009    | 1       |
| Anzag                      | Gel basis Audor <sup>®</sup>    | 103081G   | 1       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    |           | 12      |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | 102464    | 3       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | 84001     | 3       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | 92701     | 19      |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP100852  | 1       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP100852G | 2       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP102464  | 1       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP102464G | 4       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | Ap103081G | 1       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP103081G | 2       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | ap103113g | 1       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP103113G | 1       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP103993G | 3       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP53801G  | 7       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP72301G  | 30      |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP80601G  | 28      |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | ap84001g  | 5       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP84001G  | 15      |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP90601   | 7       |
| Audor Pharma               | Gel basis Audor <sup>®</sup>    | AP90601G  | 11      |
| Breko                      | Fortified wine                  | 201701v12 | 1       |
| Breko                      | Fortified wine                  | 201701v13 | 1       |
| Caelo                      | Lotio Cordes <sup>®</sup>       | 10D011    | 20      |
| Caelo                      | Liquorice juice purified, di... | 11293208  | 1       |
| Caelo                      | Liquorice juice purified, di... | 117169505 | 1       |
| Caelo                      | Fortified wine                  | 12059809  | 2       |
| Caelo                      | Liquorice juice purified, di... | 12061203  | 1       |
| Caelo                      | Lotio Cordes <sup>®</sup>       | 12081403  | 1       |
| Caelo                      | Chest elixir                    | 12091406  | 1       |
| Caelo                      | Liquorice juice purified, di... | 12116703  | 2       |
| Caelo                      | Liquorice juice purified, di... | 12116704  | 3       |
| Caelo                      | Liquorice juice purified, di... | 12116709  | 1       |
| Caelo                      | Liquorice juice purified, di... | 13067602  | 2       |
| Caelo                      | Liquorice juice purified, di... | 13067604  | 1       |
| Caelo                      | Liquorice juice purified, di... | 13067606  | 3       |
| Caelo                      | Chest elixir                    | 13121719  | 1       |
| Caelo                      | Liquorice juice purified, di... | 13133801  | 5       |
| Caelo                      | Liquorice juice purified, di... | 14002602  | 4       |
| Caelo                      | Liquorice juice purified, di... | 14203104  | 2       |
| Caelo                      | Liquorice juice purified, di... | 14203105  | 3       |
| Caelo                      | Liquorice juice purified, di... | 14203107  | 1       |
| Caelo                      | Condurango wine                 | 14345604  | 1       |
| Caelo                      | Lotio Cordes <sup>®</sup>       | 14D010    | 1       |
| Caelo                      | Liquorice juice purified, di... | 15144203  | 1       |
| Caelo                      | Liquorice juice purified, di... | 15144207  | 2       |
| Caelo                      | Liquorice juice purified, di... | 15155302  | 1       |
| Caelo                      | Fortified wine                  | 15175501  | 2       |
| Caelo                      | Fortified wine                  | 15175508  | 1       |
| Caelo                      | Lotio Cordes <sup>®</sup>       | 15D002    | 1       |
| Caelo                      | Lotio Cordes <sup>®</sup>       | 15D022    | 1       |
| Caelo                      | Liquorice juice purified, di... | 16124103  | 6       |
| Caelo                      | Liquorice juice purified, di... | 16124108  | 4       |
| Caelo                      | Liquorice juice purified, di... | 16124109  | 1       |
| Caelo                      | Fortified wine                  | 16179505  | 1       |
| Caelo                      | Liquorice juice purified, di... | 16316201  | 5       |
| Caelo                      | Liquorice juice purified, di... | 16316202  | 1       |
| Caelo                      | Liquorice juice purified, di... | 16316208  | 4       |

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| Supplier                   | Substance                       | Batch        | Spectra |
|----------------------------|---------------------------------|--------------|---------|
| Caelo                      | Liquorice juice purified, di... | 17169504     | 1       |
| Caelo                      | Liquorice juice purified, di... | 17169505     | 2       |
| Caelo                      | Liquorice juice purified, di... | 17169508     | 3       |
| Caelo                      | Liquorice juice purified, di... | 1803401      | 1       |
| Caelo                      | Liquorice juice purified, di... | 18034101     | 2       |
| Caelo                      | Gel basis Audor®                | 18041301     | 1       |
| Caelo                      | Chest elixir                    | 18101306     | 1       |
| Caelo                      | Liquorice juice purified, di... | 18155006     | 2       |
| Caelo                      | Liquorice juice purified, di... | 18155009     | 1       |
| Caelo                      | Liquorice juice purified, di... | 18259805     | 1       |
| Caelo                      | Liquorice juice purified, di... | 18259806     | 1       |
| Caelo                      | Liquorice juice purified, di... | 18259808     | 1       |
| Caelo                      | Chest elixir                    | 19071402     | 1       |
| Caelo                      | Liquorice juice purified, di... | 19233204     | 1       |
| Caelo                      | Fortified wine                  | 192855003    | 1       |
| Caelo                      | Liquorice juice purified, di... | 20001779008  | 1       |
| Caelo                      | Chest elixir                    | 3031506      | 1       |
| Caelo                      | Liquorice juice purified, di... | 3321         | 1       |
| Caelo                      | Gel basis Audor®                | AP53801G     | 3       |
| Caelo                      | Gel basis Audor®                | AP80601G     | 3       |
| Caelo                      | Liquorice juice purified, di... | CH-B18259803 | 1       |
| Caesar & Loretz GmbH       | Liquorice juice purified, di... | 19233205     | 1       |
| CORDES/NOWEDA              | Lotio Cordes®                   | 20D0002      | 1       |
| Euro OTC                   | Gel basis Audor®                | 200500201    | 1       |
| Euro OTC                   | Gel basis Audor®                | 2005002-01   | 18      |
| Euro OTC                   | Gel basis Audor®                | 2005003-01   | 1       |
| Euro OTC                   | Gel basis Audor®                | 2008005-01   | 18      |
| Euro OTC                   | Gel basis Audor®                | 2008008-01   | 1       |
| Euro OTC                   | Gel basis Audor®                | 2012008-02   | 6       |
| Euro OTC                   | Gel basis Audor®                | 2104016-01   | 4       |
| Euro OTC                   | Gel basis Audor®                | 2110007-01   | 12      |
| Euro OTC                   | Gel basis Audor®                | 92701        | 1       |
| Fagron                     | Liquorice juice purified, di... | 15155302     | 2       |
| Fagron                     | Lotio Cordes®                   | 19D002       | 1       |
| Fagron                     | Gel basis Audor®                | AP103993G    | 1       |
| Fiebig                     | Chest elixir                    | 11019106     | 1       |
| Gehe/ Ichthyol Gesellsc... | Lotio Cordes®                   | 19D002       | 1       |
| Gehe                       | Gel basis Audor®                | AP84001G     | 1       |
| Geibo/Ichthyol             | Lotio Cordes®                   | 18D002       | 1       |
| Ichthiol/Sanacorp          | Lotio Cordes®                   | 18D002       | 1       |
| Ichthiol/ gehe 06.11.17    | Lotio Cordes®                   | 16d010       | 1       |
| Ichthyol / Gehe            | Lotio Cordes®                   | 15D022       | 1       |
| Ichthyol / Gehe            | Lotio Cordes®                   | 16D011       | 1       |
| Ichthyol / Geibo           | Lotio Cordes®                   | 14D011       | 1       |
| Ichthyol / Noweda          | Lotio Cordes®                   | 14D010       | 2       |
| Ichthyol / Noweda          | Lotio Cordes®                   | 19D002       | 1       |
| Ichthyol / Phönix          | Lotio Cordes®                   | 19D001       | 1       |
| ichthyol /107              | Lotio Cordes®                   | 19D001       | 1       |
| Ichthyol /Noweda           | Lotio Cordes®                   | 15D001       | 1       |
| Ichthyol Gesellschaft C... | Lotio Cordes®                   | 18D001       | 1       |
| Ichthyol Gesellschaft- ... | Lotio Cordes®                   | 13D010       | 1       |
| ICHTHYOL- Gesellschaft/... | Lotio Cordes®                   | 19D002       | 1       |
| Ichthyol Gesellschaft/C... | Lotio Cordes®                   | 190002       | 1       |
| Ichthyol Gesellschaft/G... | Lotio Cordes®                   | 19D002       | 1       |
| Ichthyol Gesellschaft/N... | Lotio Cordes®                   | 15d001       | 1       |
| Ichthyol Gesellschaft      | Lotio Cordes®                   | 15D021       | 1       |
| Ichthyol Gesellschaft      | Lotio Cordes®                   | 19D002       | 1       |
| Ichthyol/ Anzag            | Lotio Cordes®                   | 16D0100      | 1       |
| Ichthyol/Alliance          | Lotio Cordes®                   | 15D002       | 1       |
| Ichthyol/Anzag             | Lotio Cordes®                   | 15D002       | 1       |

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| Supplier                   | Substance                 | Batch    | Spectra |
|----------------------------|---------------------------|----------|---------|
| Ichthyol/Ebert             | Lotio Cordes <sup>®</sup> | 15D022   | 1       |
| Ichthyol/gehe              | Lotio Cordes <sup>®</sup> | 13D010   | 1       |
| Ichthyol/gehe              | Lotio Cordes <sup>®</sup> | 14D010   | 2       |
| Ichthyol/GEHE              | Lotio Cordes <sup>®</sup> | 14D011   | 1       |
| Ichthyol/gehe              | Lotio Cordes <sup>®</sup> | 18D001   | 1       |
| Ichthyol/Gehe              | Lotio Cordes <sup>®</sup> | 18D001   | 2       |
| Ichthyol/gehe              | Lotio Cordes <sup>®</sup> | 18D002   | 5       |
| Ichthyol/Gehe              | Lotio Cordes <sup>®</sup> | 18D002   | 1       |
| Ichthyol/gehe              | Lotio Cordes <sup>®</sup> | 19D002   | 1       |
| Ichthyol/Jenne             | Lotio Cordes <sup>®</sup> | 19D002   | 1       |
| Ichthyol/Noweda            | Lotio Cordes <sup>®</sup> | 18D002   | 1       |
| Ichthyol/Noweda            | Lotio Cordes <sup>®</sup> | 20D0001  | 2       |
| Ichthyol/Phoenix           | Lotio Cordes <sup>®</sup> | 15D001   | 1       |
| Ichthyol/Phoenix           | Lotio Cordes <sup>®</sup> | 15D002   | 1       |
| Ichthyol/Phoenix           | Lotio Cordes <sup>®</sup> | 18D001   | 1       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 13D009   | 1       |
| ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 14D010   | 2       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 14D011   | 3       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 15D001   | 2       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 15D002   | 4       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 15D022   | 2       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 16D011   | 2       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 18D001   | 1       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 18D002   | 1       |
| Ichthyol/Phönix            | Lotio Cordes <sup>®</sup> | 20D0001  | 1       |
| Ichthyol/Sanacorp          | Lotio Cordes <sup>®</sup> | 14D010   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 11D030   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 13D009   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 13D010   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 14041402 | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 14D010   | 3       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 14D011   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 15D001   | 2       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 15D002   | 2       |
| ICHTHYOL                   | Lotio Cordes <sup>®</sup> | 15D002   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 16021509 | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 16D010   | 2       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 16D011   | 2       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 18D001   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 18D002   | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 20D0001  | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 20D0002  | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 27041507 | 1       |
| Ichthyol                   | Lotio Cordes <sup>®</sup> | 27041508 | 1       |
| Ichthyol-G. / Sanacorp     | Lotio Cordes <sup>®</sup> | 15D001   | 1       |
| Ichthyol-Gesellschaft /... | Lotio Cordes <sup>®</sup> | 18D001   | 1       |
| Ichthyol-Gesellschaft C... | Lotio Cordes <sup>®</sup> | 19D001   | 1       |
| Ichthyol-Gesellschaft, ... | Lotio Cordes <sup>®</sup> | 13D010   | 1       |
| ICHTHYOL-GESELLSCHAFT/N... | Lotio Cordes <sup>®</sup> | 19D002   | 1       |
| ICHTHYOL-GESELLSCHAFT/P... | Lotio Cordes <sup>®</sup> | 19D002   | 1       |
| Ichthyol-Gesellschaft      | Lotio Cordes <sup>®</sup> | 15D001   | 2       |
| Ichthyol-Gesellschaft      | Lotio Cordes <sup>®</sup> | 15D002   | 1       |
| Ichthyol-Gesellschaft      | Lotio Cordes <sup>®</sup> | 15D021   | 2       |
| Ichthyol-Gesellschaft      | Lotio Cordes <sup>®</sup> | 15D022   | 3       |
| Ichthyol-Gesellschaft      | Lotio Cordes <sup>®</sup> | 16D010   | 1       |
| Ichthyol-Gesellschaft      | Lotio Cordes <sup>®</sup> | 18D001   | 1       |
| Ichthyol-Gesellschaft      | Lotio Cordes <sup>®</sup> | 18D002   | 1       |
| ICHTHYOL-GESELLSCHAFT      | Lotio Cordes <sup>®</sup> | 19D001   | 7       |
| ICHTHYOL-GESELLSCHAFT      | Lotio Cordes <sup>®</sup> | 20D0001  | 2       |
| ICHTHYOL-GESELLSCHAFT      | Lotio Cordes <sup>®</sup> | 20D0002  | 1       |

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| Supplier              | Substance                       | Batch     | Spectra |
|-----------------------|---------------------------------|-----------|---------|
| Ichthyol-Gesellschaft | Lotio Cordes <sup>®</sup>       | 30041806  | 1       |
| Ichthyol-Gesellschaft | Lotio Cordes <sup>®</sup>       | 4111709   | 1       |
| Ichthyol-Gesellschaft | Lotio Cordes <sup>®</sup>       | 19D002    | 1       |
| Ichthyol/Phoenix      | Lotio Cordes <sup>®</sup>       | 18D002    | 1       |
| ichtyol               | Lotio Cordes <sup>®</sup>       | 12D014    | 1       |
| Ichthyol              | Lotio Cordes <sup>®</sup>       | 16D010    | 20      |
| Ichthyol-Gesellschaft | Lotio Cordes <sup>®</sup>       | 15D002    | 1       |
| Ichthyol-Gesellschaft | Lotio Cordes <sup>®</sup>       | 18D002    | 1       |
| Jenne                 | Liquorice juice purified, di... | 16124103  | 1       |
| Kehr                  | Lotio Cordes <sup>®</sup>       | 16D011    | 1       |
| Noweda                | Fortified wine                  | 16179509  | 1       |
| Noweda                | Liquorice juice purified, di... | 181555009 | 1       |
| Phoenix/Stiefel       | Lotio Cordes <sup>®</sup>       | 12D014    | 1       |
| Phoenix               | Lotio Cordes <sup>®</sup>       | 20D0002   | 1       |
| phönix                | Fortified wine                  | 16179508  | 1       |
| Phönix                | Liquorice juice purified, di... | 18155009  | 1       |
| VDL                   | Liquorice juice purified, di... | 11293210  | 1       |
| VDL                   | Liquorice juice purified, di... | 12116703  | 2       |

- 288 205 spectra from 1294 *Apo-Ident* customers from a total of 51 771 batches from a further 338 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Wines* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Wines* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 1300          | 0              | 65 859        |
| <b>Type B</b> | 0              | 780           | 0              | 106 378       |
| <b>Type C</b> | 0              | 502           | 2              | 288 131       |

The substance/substance group *Wines* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.5385 %) |
| <b>Type B</b> | 100.0000 % (> 99.9674 %) | 100.0000 % (> 99.2308 %) |
| <b>Type C</b> | 100.0000 % (> 99.6848 %) | 99.6032 % (> 99.0079 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Wines* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                                 | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------------------|---------------------------|-----------------------------------|
| Hydrophilic base emulsion (NRF p.25)      | 13.33                     | —                                 |
| Viscous base solution (NRF p. 20)         | 20.60                     | —                                 |
| Sodium-(s)-lactate solution 50%           | 25.74                     | —                                 |
| Dextrorotary lactic acid 20%              | 29.68                     | —                                 |
| Polyhexanide solution 20%                 | 30.18                     | —                                 |
| Water                                     | 32.65                     | —                                 |
| Non-ionic hydrous liniment SR/DAC (NRF... | 32.90                     | —                                 |
| Hydrated liniment SR/DAC (NRF p.40)       | 33.34                     | —                                 |
| Chlorhexidine digluconate solution        | 34.34                     | —                                 |
| Aluminium acetotartrate solution          | 34.41                     | —                                 |
| Raspberry syrup (conserved)               | 35.09                     | —                                 |
| Base cream, diluted                       | 40.40                     | —                                 |
| Marshmallow syrup (conserved)             | 40.45                     | —                                 |
| Gel Cordes®                               | 45.39                     | —                                 |
| Glycolic acid 70%                         | 48.39                     | —                                 |
| Anionic hydrophilic cream with propyle... | 51.30                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Wines* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30641     | 31108                  | 6.55                            | 22.33                              |
| 30901     | 35725                  | 7.29                            | 33.72                              |
| 31075     | 31075                  | 0.00                            | 30.64                              |
| 31108     | 31108                  | 0.00                            | 20.25                              |
| 31127     | 31127                  | 0.00                            | 21.49                              |
| 31213     | 31213                  | 0.00                            | 35.59                              |
| 31222     | 31127                  | 2.18                            | 21.21                              |
| 31466     | 31127                  | 3.08                            | 21.13                              |
| 31581     | 31581                  | 0.00                            | 29.15                              |
| 31595     | 31075                  | 5.19                            | 21.83                              |
| 31615     | 34642                  | 4.82                            | 29.14                              |
| 31652     | 34710                  | 6.43                            | 34.08                              |
| 32487     | 31075                  | 6.97                            | 40.50                              |
| 32751     | 35249                  | 3.94                            | 22.06                              |
| 32752     | 35249                  | 6.34                            | 22.25                              |
| 33330     | 33330                  | 0.00                            | 35.97                              |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 33619            | 31213                      | 6.21                                | 30.72                                  |
| 34599            | 35494                      | 4.50                                | 21.24                                  |
| 34642            | 34642                      | 0.00                                | 27.49                                  |
| 34710            | 34710                      | 0.00                                | 30.89                                  |
| 34803            | 34803                      | 0.00                                | 19.64                                  |
| 34843            | 31075                      | 6.78                                | 21.93                                  |
| 35249            | 35249                      | 0.00                                | 22.98                                  |
| 35280            | 35280                      | 0.00                                | 27.39                                  |
| 35494            | 35494                      | 0.00                                | 23.26                                  |
| 35723            | 35723                      | 0.00                                | 18.99                                  |
| 35725            | 35725                      | 0.00                                | 30.80                                  |
| 35758            | 31075                      | 13.00                               | 36.46                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.





# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Wood oils**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30710-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Wood oils; Cypress oil; Juniper wood oil; Juniperi ligni etheroleum; Oleum cupressi; Terebinthinae aetheroleum; Turpentine oil

### Special notes

When selecting the *Wood oils* substance/substance group, the following information is displayed to the user:

- Advice: Currently no longer available from major pharmaceutical manufacturers. Therefore, batch maintenance is currently not possible.

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Wood oils                 | 12     | 8      | 65     |

## Second-stage model

For differentiation of the substance/substance group *Wood oils* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Wood oils*:

| Supplier | Substance        | Batch      | Sample ID | Spectra | Certificate |
|----------|------------------|------------|-----------|---------|-------------|
| Caelo    | Cypress oil      | 13349109   | 31837     | 60      | 1606484     |
| Caelo    | Cypress oil      | 16130501   | 32183     | 40      | 9464        |
| Caelo    | Juniper wood oil | 11363504   | 30710     | 40      | 20111221    |
| Caelo    | Juniper wood oil | 11363507   | 30860     | 40      | 20111221    |
| Caelo    | Juniper wood oil | 13196208   | 31201     | 40      | 1405102     |
| Caelo    | Juniper wood oil | 190399     | 34644     | 40      | 20190312*   |
| Caelo    | Turpentine oil   | 12383210   | 31214     | 40      | 1407275     |
| Caelo    | Turpentine oil   | 161997     | 32317     | 40      | 20160707*   |
| Caelo    | Turpentine oil   | 171509     | 33310     | 40      | 20170518*   |
| Euro OTC | Turpentine oil   | 1312026-01 | 31531     | 60      | 20140113    |
| Euro OTC | Turpentine oil   | 1511012    | 31815     | 60      | 20151214*   |
| Euro OTC | Turpentine oil   | 1703005    | 33232     | 40      | 20170327*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 540 spectra of 12 reference samples from the substance/substance group *Wood oils*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 12 different batches.
- 66 619 spectra from a total of 1367 batches from further 226 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples:

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 370 spectra of 9 reference samples from the substance/substance group *Wood oils*.
- Among them are spectra of independent samples from 8 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance        | Batch       | Sample ID | Spectra |
|----------|------------------|-------------|-----------|---------|
| Caelo    | Cypress oil      | 17017101    | 33602     | 40      |
| Caelo    | Cypress oil      | 173150      | 33905     | 40      |
| Caelo    | Juniper wood oil | 16055410    | 33506     | 40      |
| Caelo    | Juniper wood oil | 171964      | 33914     | 40      |
| Caelo    | Juniper wood oil | 21003138    | 35781     | 50      |
| Caelo    | Turpentine oil   | 181108      | 34060     | 40      |
| Caelo    | Turpentine oil   | 20004333002 | 35819     | 40      |
| Euro OTC | Turpentine oil   | 1806017     | 34188     | 40      |
| Caelo    | Cypress oil      | 17017101    | 33603     | 40      |

- 106 993 spectra from a total of 2493 batches from further 348 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 188 spectra from 112 *Apo-Ident* customers from 68 batches from the substance/substance group *Wood oils*.
- Among them are spectra of independent samples from 62 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier           | Substance        | Batch      | Spectra |
|--------------------|------------------|------------|---------|
| AHC 20.07 13 250ml | Turpentine oil   | 13106701   | 1       |
| AHD                | Turpentine oil   | 16199705   | 1       |
| apo Ident / Noweda | Turpentine oil   | 1511012-01 | 1       |
| Caelo              | Cypress oil      |            | 1       |
| Caelo              | Turpentine oil   | 10296303   | 1       |
| Caelo              | Turpentine oil   | 11127905   | 1       |
| Caelo              | Turpentine oil   | 11127908   | 2       |
| Caelo              | Turpentine oil   | 11358903   | 5       |
| Caelo              | Turpentine oil   | 11358910   | 7       |
| Caelo              | Juniper wood oil | 12342604   | 1       |
| Caelo              | Turpentine oil   | 12383201   | 1       |
| Caelo              | Turpentine oil   | 12383210   | 3       |
| Caelo              | Turpentine oil   | 13106701   | 9       |
| Caelo              | Turpentine oil   | 13378804   | 3       |
| Caelo              | Juniper wood oil | 14008301   | 1       |
| Caelo              | Juniper wood oil | 14008303   | 2       |
| Caelo              | Juniper wood oil | 14008306   | 1       |
| Caelo              | Juniper wood oil | 14008307   | 3       |
| Caelo              | Turpentine oil   | 14012601   | 2       |
| Caelo              | Turpentine oil   | 14071201   | 1       |

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| Supplier                   | Substance        | Batch        | Spectra |
|----------------------------|------------------|--------------|---------|
| Caelo                      | Turpentine oil   | 14242701     | 1       |
| Caelo                      | Turpentine oil   | 14242703     | 2       |
| Caelo                      | Turpentine oil   | 1424703      | 1       |
| Caelo                      | Turpentine oil   | 15084003     | 2       |
| Caelo                      | Juniper wood oil | 15149502     | 1       |
| Caelo                      | Juniper wood oil | 15149511     | 1       |
| Caelo                      | Turpentine oil   | 15185101     | 6       |
| Caelo                      | Turpentine oil   | 15185106     | 4       |
| Caelo                      | Turpentine oil   | 15185110     | 3       |
| Caelo                      | Juniper wood oil | 16055401     | 1       |
| Caelo                      | Juniper wood oil | 16055408     | 1       |
| Caelo                      | Cypress oil      | 16130501     | 1       |
| Caelo                      | Cypress oil      | 16130505     | 12      |
| Caelo                      | Turpentine oil   | 161990709    | 1       |
| Caelo                      | Turpentine oil   | 16199172     | 1       |
| Caelo                      | Turpentine oil   | 16199701     | 7       |
| Caelo                      | Turpentine oil   | 16199705     | 7       |
| Caelo                      | Turpentine oil   | 16199709     | 1       |
| Caelo                      | Turpentine oil   | 16199712     | 6       |
| Caelo                      | Cypress oil      | 17017101     | 1       |
| Caelo                      | Turpentine oil   | 17150902     | 3       |
| Caelo                      | Juniper wood oil | 17196401     | 1       |
| Caelo                      | Juniper wood oil | 17196402     | 1       |
| Caelo                      | Turpentine oil   | 18047301     | 3       |
| Caelo                      | Turpentine oil   | 18110801     | 10      |
| Caelo                      | Juniper wood oil | 19039902     | 1       |
| Caelo                      | Turpentine oil   | 19061310     | 1       |
| Caelo                      | Turpentine oil   | 19129905     | 4       |
| Caelo                      | Turpentine oil   | 192206007    | 3       |
| Caelo                      | Turpentine oil   | 192206011    | 6       |
| Caelo                      | Juniper wood oil | 20000565002  | 1       |
| Caelo                      | Turpentine oil   | 23(16199709) | 1       |
| Caelo                      | Turpentine oil   | 24(18110801) | 1       |
| Caelo                      | Turpentine oil   | 24544454     | 1       |
| Caelo                      | Turpentine oil   | 412M-02022   | 1       |
| Caesar & Loretz GmbH/No... | Turpentine oil   | 18110801     | 1       |
| Caesar & Loretz GmbH       | Turpentine oil   | 18110801     | 4       |
| Caesar & Loretz GmbH       | Turpentine oil   | 192206011    | 1       |
| Euro OTC                   | Turpentine oil   | 1210016-01   | 4       |
| Euro OTC                   | Turpentine oil   | 1407037-01   | 1       |
| Euro OTC                   | Turpentine oil   | 1503007-01   | 2       |
| Euro OTC                   | Turpentine oil   | 1511012-01   | 1       |
| Euro OTC                   | Turpentine oil   | 1703005-01   | 1       |
| Euro OTC                   | Turpentine oil   | 1806017-01   | 2       |
| Euro OTC                   | Turpentine oil   | 711Q-03557   | 2       |
| Euro OTC                   | Turpentine oil   | 981772       | 3       |
| Fiebig                     | Turpentine oil   | 15185101     | 1       |
| Fiebig                     | Turpentine oil   | 18110801     | 1       |
| Frtz Schiele Bäder-Fabr... | Turpentine oil   | 52350        | 1       |
| Gehe                       | Turpentine oil   | 14012601     | 1       |
| Gehe                       | Turpentine oil   | 15185101     | 1       |
| Gehe                       | Turpentine oil   | 16199705     | 1       |
| Hänseler                   | Turpentine oil   |              | 2       |
| JENNE                      | Cypress oil      | 17017101     | 1       |
| Kögl                       | Turpentine oil   | 1700151      | 1       |
| Phoenix Göttingen 07.01... | Turpentine oil   | 18047301     | 1       |
| Phönix                     | Turpentine oil   | 13378804     | 1       |
| Sanacorp WE:12.01.2017 ... | Turpentine oil   | 16199701     | 1       |
| Sanacorp                   | Turpentine oil   | 12383210     | 1       |
| Sanacorp                   | Turpentine oil   | 13106701     | 1       |

*continued on the next page*

continued from previous page

| Supplier       | Substance        | Batch         | Spectra |
|----------------|------------------|---------------|---------|
| Sanacorp       | Turpentine oil   | 16199712      | 2       |
| Schiele/Phönix | Turpentine oil   |               | 1       |
| Schiele        | Turpentine oil   | 55379         | 1       |
| Taoasis GmbH   | Juniper wood oil | 604898-109389 | 1       |
| Taoasis GmbH   | Juniper wood oil | 736525-110967 | 1       |

- 288 521 spectra from 1294 *Apo-Ident* customers from a total of 51 822 batches from a further 341 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Wood oils* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Wood oils* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 540           | 0              | 66 619        |
| <b>Type B</b> | 0              | 370           | 0              | 106 993       |
| <b>Type C</b> | 0              | 184           | 4              | 288 521       |

The substance/substance group *Wood oils* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.8889 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 98.3784 %) |
| <b>Type C</b> | 100.0000 % (> 99.6871 %) | 97.8723 % (> 96.2766 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra ([Rule of Three](#) [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

## Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Wood oils* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------|---------------------------|-----------------------------------|
| Myrtle oil                    | 19.57                     | —                                 |
| Pine silvestris oil           | 21.82                     | —                                 |
| Eucalyptus oil                | 22.15                     | —                                 |
| Cajeput (essentiel oil)       | 25.75                     | —                                 |
| Rosemary oil                  | 26.70                     | —                                 |
| Cineole                       | 32.85                     | —                                 |
| Dwarf pine oil                | 35.72                     | —                                 |
| Caraway oil                   | 40.61                     | —                                 |
| Spearmint oil                 | 41.83                     | —                                 |
| Spruce needle oil             | 43.86                     | —                                 |
| Citric oil                    | 46.80                     | —                                 |
| Petroleum ether DAB           | 47.30                     | —                                 |
| Verbena oil, nature-identical | 47.38                     | —                                 |
| Juniper oil                   | 47.44                     | —                                 |
| Sage oil                      | 47.71                     | —                                 |
| Peppermint oil                | 49.45                     | —                                 |
| Cedar wood oil                | 55.97                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Wood oils* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

#### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30710     | 31201                  | 3.40                            | 36.37                              |
| 30860     | 31201                  | 5.08                            | 36.69                              |
| 31201     | 31201                  | 0.00                            | 35.96                              |
| 31214     | 31214                  | 0.00                            | 32.26                              |
| 31531     | 31214                  | 2.64                            | 33.58                              |
| 31815     | 31815                  | 0.00                            | 29.28                              |
| 31837     | 31837                  | 0.00                            | 27.66                              |
| 32183     | 32183                  | 0.00                            | 27.53                              |
| 32317     | 32317                  | 0.00                            | 30.79                              |
| 33232     | 33232                  | 0.00                            | 33.24                              |
| 33310     | 33310                  | 0.00                            | 34.10                              |
| 34644     | 34644                  | 0.00                            | 34.30                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

|                                     |                                                                  |
|-------------------------------------|------------------------------------------------------------------|
| Validated substance/substance group | Wool alcohols creams                                             |
| Substance class                     | APIs & excipients, liquid/semi-solid (with analysis certificate) |
| Report date                         | 10/09/2022                                                       |
| Report number                       | 34567-2022-09-10                                                 |
| Executing company                   | HiperScan GmbH<br>Weißeritzstraße 3<br>01067 Dresden<br>Germany  |

### Relevant substance names

Wool alcohols creams; Eucerin® cum Aqua; Lanae alcoholum unguentum aquosum DAB; Unguentum Alcoholum Lanae aquosum SR; Wool alcohol cream DAB; Wool alcohol cream SR

### Special notes

When selecting the *Wool alcohols creams* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Wool alcohols creams      | 40     | 121    | 152    |



## Second-stage model

For differentiation of the substance/substance group *Wool alcohols creams* the following second-stage model is used:

- [Submodel 06](#)

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Wool alcohols creams*:

| Supplier  | Substance                     | Batch     | Sample ID | Spectra | Certificate |
|-----------|-------------------------------|-----------|-----------|---------|-------------|
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 191776    | 34778     | 40      | 20190711*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 13369401  | 34877     | 40      | 20131111    |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 13369401  | 34878     | 40      | 1406055     |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 14126801  | 34879     | 40      | 20140415    |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153608    | 34880     | 60      | 20151029*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153608    | 34881     | 60      | 20151029*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153608    | 34882     | 60      | 20151029*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153609    | 34883     | 60      | 20151103*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153611    | 34885     | 60      | 20151106*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153613    | 34887     | 60      | 20151106*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153615    | 34889     | 60      | 20151029*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153615    | 34890     | 60      | 20151029*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153616    | 34891     | 60      | 20151029*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153616    | 34892     | 60      | 20151029*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153617    | 34893     | 60      | 20151103*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 153617    | 34894     | 60      | 20151103*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 160901    | 34898     | 40      | 20160414*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161994    | 34922     | 40      | 20160928*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161994    | 34923     | 40      | 20160928*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161994    | 34924     | 40      | 20160928*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 163129    | 34926     | 40      | 20161111*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 170394    | 34935     | 40      | 20170214*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 170395    | 34936     | 40      | 20170209*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 170398    | 34937     | 40      | 20170221*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 170396    | 34940     | 40      | 20170214*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 170401    | 34947     | 40      | 20170217*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 170397    | 34948     | 40      | 20170214*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 172848    | 34961     | 40      | 20171023*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 20003755  | 35421     | 40      | 20210113*   |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 21002261  | 35632     | 50      | 20210802*   |
| Bombastus | Wool alcohol cre. ...         | 284945    | 34567     | 40      | 1406054     |
| Bombastus | Wool alcohol cre. ...         | 18006845  | 34578     | 40      | 130371      |
| Caelo     | Wool alcohol cre. ...         | 13394101  | 34568     | 30      | 1509376     |
| Caelo     | Wool alcohol cre. ...         | 161776    | 34569     | 40      | 20160615*   |
| Caelo     | Wool alcohol cre. ...         | 191472    | 34795     | 40      | 20190605*   |
| Caelo     | Wool alcohol cre. ...         | 192261    | 34796     | 40      | 20190905*   |
| Caelo     | Wool alcohol cre. ...         | 192673    | 34797     | 40      | 20191030*   |
| Caelo     | Wool alcohol cre. ...         | 21001567  | 35612     | 50      | 20210617*   |
| Caelo     | Wool alcohol cre. ...         | 21003700  | 35947     | 40      | 20211203*   |
| apomix    | Wool alcohol cre. ...         | 07A210519 | 34593     | 40      | 20190521    |
| Bombastus | Wool alcohol cre. ...         | 19000025  | 34591     | 40      | 130668      |
| Bombastus | Wool alcohol cre. ...         | 18004726  | 34592     | 40      | 127526      |
| Caelo     | Wool alcohol cre. ...         | 13272603  | 34585     | 70      | 20130829    |
| Caelo     | Wool alcohol cre. ...         | 14031601  | 34586     | 40      | 1512182     |
| Caelo     | Wool alcohol cre. ...         | 160143    | 34587     | 40      | 20160121*   |
| Caelo     | Wool alcohol cre. ...         | 161208    | 34588     | 40      | 20160503*   |
| Caelo     | Wool alcohol cre. ...         | 20002190  | 35094     | 40      | 20200728*   |
| Caelo     | Wool alcohol cre. ...         | 21001786  | 35611     | 50      | 20210617*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 2210 spectra of 48 reference samples from the substance/substance group *Wool alcohols creams*. These samples are listed above in the *calibration samples* section. The reference samples come from 40 different batches.
- 64 949 spectra from a total of 1339 batches from further 226 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this *chemometric model*, the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in *Appendix A*. The samples in *Appendix A* were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 5080 spectra of 130 reference samples from the substance/substance group *Wool alcohols creams*.
- Among them are spectra of independent samples from 121 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                     | Batch    | Sample ID | Spectra |
|----------|-------------------------------|----------|-----------|---------|
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 192122   | 34779     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 12205402 | 34876     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 153610   | 34884     | 60      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 153612   | 34886     | 60      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 153614   | 34888     | 60      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160078   | 34895     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160899   | 34896     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160900   | 34897     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160902   | 34899     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160903   | 34900     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160904   | 34901     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160905   | 34902     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160906   | 34903     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 160907   | 34904     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 161122   | 34905     | 40      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 161578   | 34906     | 40      |

*continued on the next page*

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

*continued from previous page*

| <b>Supplier</b> | <b>Substance</b>              | <b>Batch</b> | <b>Sample ID</b> | <b>Spectra</b> |
|-----------------|-------------------------------|--------------|------------------|----------------|
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 161577       | 34908            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 161579       | 34909            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 161580       | 34910            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 161581       | 34912            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 161992       | 34916            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 161993       | 34919            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 161989       | 34925            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 163131       | 34927            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 162779       | 34928            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 162782       | 34929            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 162783       | 34930            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 162781       | 34931            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 162823       | 34932            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 163130       | 34933            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 170392       | 34934            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 170399       | 34938            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 170400       | 34939            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 163407       | 34941            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 163409       | 34942            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 163410       | 34943            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171028       | 34944            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171027       | 34945            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171026       | 34946            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171487       | 34949            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171490       | 34950            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171492       | 34951            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171876       | 34952            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171877       | 34953            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171878       | 34954            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171879       | 34955            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 171880       | 34956            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 172844       | 34957            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 172845       | 34958            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 172846       | 34959            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 172847       | 34960            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 20001463     | 34968            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 20001065     | 34969            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 20003021     | 35166            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000611     | 35408            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000612     | 35409            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000613     | 35410            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000614     | 35411            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000615     | 35412            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000616     | 35413            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000617     | 35414            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000618     | 35415            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000619     | 35416            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21000620     | 35417            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 20003751     | 35418            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 20003752     | 35419            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 20003754     | 35420            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 20003756     | 35422            | 40             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21001566     | 35509            | 50             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21001565     | 35510            | 50             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21002262     | 35633            | 50             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21002263     | 35634            | 50             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21002264     | 35635            | 50             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21002265     | 35636            | 50             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21003009     | 35794            | 50             |
| Caelo           | Eucerin <sup>®</sup> cum Aqua | 21003010     | 35795            | 50             |

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| Supplier  | Substance                     | Batch     | Sample ID | Spectra |
|-----------|-------------------------------|-----------|-----------|---------|
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 21003011  | 35796     | 50      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000004  | 35938     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000133  | 35939     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000246  | 36088     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000250  | 36089     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000252  | 36090     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000255  | 36091     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000256  | 36092     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22000257  | 36093     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22001404  | 36317     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22001405  | 36318     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22001406  | 36319     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22001407  | 36320     | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 22001408  | 36321     | 10      |
| Bombastus | Wool alcohol cream DAB        | 22000273  | 36186     | 40      |
| Caelo     | Wool alcohol cream DAB        | 12036401  | 34566     | 40      |
| Caelo     | Wool alcohol cream DAB        | 161774    | 34570     | 40      |
| Caelo     | Wool alcohol cream DAB        | 161778    | 34571     | 40      |
| Caelo     | Wool alcohol cream DAB        | 163441    | 34572     | 40      |
| Caelo     | Wool alcohol cream DAB        | 170941    | 34573     | 40      |
| Caelo     | Wool alcohol cream DAB        | 171783    | 34574     | 40      |
| Caelo     | Wool alcohol cream DAB        | 171782    | 34575     | 40      |
| Caelo     | Wool alcohol cream DAB        | 180234    | 34576     | 40      |
| Caelo     | Wool alcohol cream DAB        | 180863    | 34577     | 40      |
| Caelo     | Wool alcohol cream DAB        | 190110    | 34579     | 40      |
| Caelo     | Wool alcohol cream DAB        | 20001083  | 34849     | 40      |
| Caelo     | Wool alcohol cream DAB        | 21000023  | 35325     | 40      |
| Caelo     | Wool alcohol cream DAB        | 21001024  | 35326     | 40      |
| Caelo     | Wool alcohol cream DAB        | 21002905  | 35860     | 50      |
| Caelo     | Wool alcohol cream DAB        | 21002510  | 35861     | 50      |
| Caelo     | Wool alcohol cream DAB        | 21002511  | 35862     | 50      |
| Caelo     | Wool alcohol cream DAB        | 21003699  | 35946     | 40      |
| Caelo     | Wool alcohol cream DAB        | 22000368  | 36250     | 40      |
| Caelo     | Wool alcohol cream DAB        | 22000369  | 36251     | 10      |
| apomix    | Wool alcohol cream SR         | 06A210519 | 34594     | 40      |
| apomix    | Wool alcohol cream SR         | 09A260422 | 36240     | 40      |
| Bombastus | Wool alcohol cream SR         | 22000997  | 36185     | 40      |
| Caelo     | Wool alcohol cream SR         | 162490    | 34589     | 40      |
| Caelo     | Wool alcohol cream SR         | 172287    | 34590     | 40      |
| Caelo     | Wool alcohol cream SR         | 191774    | 34794     | 40      |
| Caelo     | Wool alcohol cream SR         | 19000612  | 34983     | 40      |
| Caelo     | Wool alcohol cream SR         | 20003437  | 35156     | 40      |
| Caelo     | Wool alcohol cream SR         | 21000336  | 35327     | 40      |
| Caelo     | Wool alcohol cream SR         | 21001225  | 35328     | 40      |
| Caelo     | Wool alcohol cream SR         | 21002891  | 35933     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161578    | 34907     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161580    | 34911     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161577    | 34913     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161578    | 34914     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161579    | 34915     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161992    | 34917     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161992    | 34918     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161993    | 34920     | 40      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 161993    | 34921     | 40      |

- 102 283 spectra from a total of 2381 batches from further 348 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B*

section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 932 spectra from 254 *Apo-Ident* customers from 152 batches from the substance/substance group *Wool alcohols creams*.
- Among them are spectra of independent samples from 152 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier  | Substance                     | Batch        | Spectra |
|-----------|-------------------------------|--------------|---------|
| AEP       | Eucerin <sup>®</sup> cum Aqua | 20003752001  | 1       |
| Bombastus | Eucerin <sup>®</sup> cum Aqua | 19005760     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1000611001   | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1098277      | 2       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1177901      | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 18104101     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 18115401     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 18262403     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 18262501     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 18331901     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 190000767001 | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000401     | 3       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000677001  | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000767001  | 25      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000768001  | 15      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000768002  | 13      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000769001  | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 190007690012 | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000771001  | 8       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000772001  | 10      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19000773002  | 5       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1900768001   | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19040601     | 4       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19040602     | 5       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1904061      | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19040701     | 4       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19040801     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19057902     | 4       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19115201     | 2       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19115301     | 9       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19115401     | 19      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19115402     | 12      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19115501     | 4       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19115601     | 11      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19115701     | 5       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19118802     | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1915501      | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1917701      | 1       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19177601     | 19      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19177603     | 2       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19177604     | 2       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19177701     | 26      |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19177801     | 5       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19177802     | 3       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19177901     | 9       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 19178001     | 8       |
| Caelo     | Eucerin <sup>®</sup> cum Aqua | 1921101      | 1       |

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| Supplier | Substance                     | Batch         | Spectra |
|----------|-------------------------------|---------------|---------|
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19212101      | 23      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19212201      | 14      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19212301      | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19212302      | 6       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19226301      | 6       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19259502      | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19259503      | 23      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19259601      | 35      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19267303      | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19267401      | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19268601      | 15      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19279801      | 16      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 19279802      | 5       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 200001065001  | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 200001066001  | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 200001070003  | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 200001463001  | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 200002056002  | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 200003019001  | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 2000100003    | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001065001   | 18      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001065002   | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001066001   | 22      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001067001   | 23      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001068001   | 8       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001069001   | 12      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001070002   | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001070003   | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001098001   | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001460001   | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001460002   | 16      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 2000146001    | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001461001   | 8       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001462001   | 11      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001463001   | 6       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001464001   | 5       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 200014644001  | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001465001   | 7       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001466001   | 19      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20001467001   | 28      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 2000166001    | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20002056002   | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20002058001   | 4       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003019001   | 17      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003020003   | 5       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003021002   | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003021003   | 7       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003022001   | 2       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003022002   | 7       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003022003   | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003751002   | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003751003   | 7       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003752001   | 14      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003754001   | 6       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003755001   | 28      |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 2000375560001 | 1       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003756001   | 5       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003756002   | 9       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 20003756004   | 3       |
| Caelo    | Eucerin <sup>®</sup> cum Aqua | 2001070003    | 2       |

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| <b>Supplier</b>            | <b>Substance</b>              | <b>Batch</b> | <b>Spectra</b> |
|----------------------------|-------------------------------|--------------|----------------|
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 2001463001   | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 2003755001   | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000023003  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 210000611001 | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000311001  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 2100061001   | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000611001  | 18             |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000612001  | 11             |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000613002  | 4              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000614001  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000614002  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000615001  | 3              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000616001  | 12             |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000616002  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000617001  | 3              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000618001  | 5              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 2100061900   | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000619001  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21000620001  | 4              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21001565001  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21001565002  | 6              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21001566001  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21001566002  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21002261001  | 5              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21002262001  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21002263001  | 4              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21002265001  | 7              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21002265002  | 6              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21002265003  | 4              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21002511001  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21003009001  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21003010001  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21003010002  | 3              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 21003011001  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 2100611001   | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 2100612001   | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 22000246003  | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 22000250001  | 2              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 3426         | 1              |
| Caelo                      | Eucerin <sup>®</sup> cum Aqua | 3450         | 1              |
| Caesar & Loretz GmbH / ... | Eucerin <sup>®</sup> cum Aqua | 19177601     | 1              |
| Caesar & Loretz GmbH/AEP   | Eucerin <sup>®</sup> cum Aqua | 19000771001  | 1              |
| Caesar & Loretz GmbH/AEP   | Eucerin <sup>®</sup> cum Aqua | 19000772001  | 1              |
| Caesar & Loretz GmbH/AEP   | Eucerin <sup>®</sup> cum Aqua | 19115601     | 1              |
| Caesar & Loretz GmbH/AEP   | Eucerin <sup>®</sup> cum Aqua | 19178101     | 4              |
| Caesar & Loretz GmbH/All   | Eucerin <sup>®</sup> cum Aqua | 20001465001  | 1              |
| Caesar & Loretz GmbH/Al... | Eucerin <sup>®</sup> cum Aqua | 19212301     | 1              |
| Caesar & Loretz GmbH/Kr... | Eucerin <sup>®</sup> cum Aqua | 19177802     | 2              |
| Caesar & Loretz GmbH/No... | Eucerin <sup>®</sup> cum Aqua | 20001065002  | 1              |
| Caesar & Loretz GmbH/Ph... | Eucerin <sup>®</sup> cum Aqua | 20001460001  | 1              |
| Caesar & Loretz GmbH/Sa... | Eucerin <sup>®</sup> cum Aqua | 19259503     | 2              |
| Caesar & Loretz GmbH/Sa... | Eucerin <sup>®</sup> cum Aqua | 20001065001  | 1              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19000768001  | 1              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19000768002  | 2              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19057902     | 1              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19115301     | 1              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19115501     | 1              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19115601     | 2              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19177701     | 1              |
| Caesar & Loretz GmbH       | Eucerin <sup>®</sup> cum Aqua | 19212101     | 1              |

*continued on the next page*



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| Supplier                | Substance                     | Batch        | Spectra |
|-------------------------|-------------------------------|--------------|---------|
| Caesar & Loretz GmbH    | Eucerin <sup>®</sup> cum Aqua | 20001462001  | 1       |
| Caesar & Loretz GmbH    | Eucerin <sup>®</sup> cum Aqua | 20003752001  | 1       |
| Caesar & Loretz GmbH    | Eucerin <sup>®</sup> cum Aqua | 20003755001  | 2       |
| Caesar & Loretz GmbH    | Eucerin <sup>®</sup> cum Aqua | 21000616001  | 1       |
| Caesar&Lorenz           | Eucerin <sup>®</sup> cum Aqua | 21000613002  | 1       |
| Caleo                   | Eucerin <sup>®</sup> cum Aqua | 19478101     | 1       |
| Cealo/11                | Eucerin <sup>®</sup> cum Aqua | 19177802     | 1       |
| Cealo/Gehe              | Eucerin <sup>®</sup> cum Aqua | 200001067001 | 1       |
| Cealo                   | Eucerin <sup>®</sup> cum Aqua | 19115501     | 1       |
| Gehe 18.11.21, 17,51EUR | Eucerin <sup>®</sup> cum Aqua | 211125       | 1       |
| Gehe                    | Eucerin <sup>®</sup> cum Aqua | 19000767001  | 1       |
| Gehe                    | Eucerin <sup>®</sup> cum Aqua | 19040601     | 1       |
| Gehe                    | Eucerin <sup>®</sup> cum Aqua | 21000612001  | 2       |
| Gehe                    | Eucerin <sup>®</sup> cum Aqua | 21001565022  | 1       |
| Jenne                   | Eucerin <sup>®</sup> cum Aqua | 20001066001  | 1       |
| Noweda                  | Eucerin <sup>®</sup> cum Aqua | 19115301     | 1       |
| Noweda                  | Eucerin <sup>®</sup> cum Aqua | 19177701     | 1       |
| Noweda                  | Eucerin <sup>®</sup> cum Aqua | 19212101     | 2       |
| Noweda                  | Eucerin <sup>®</sup> cum Aqua | 19226301     | 1       |
| Noweda                  | Eucerin <sup>®</sup> cum Aqua | 19259601     | 2       |
| Noweda                  | Eucerin <sup>®</sup> cum Aqua | 20001067001  | 3       |
| Noweda                  | Eucerin <sup>®</sup> cum Aqua | 20001466001  | 5       |
| Phoenix                 | Eucerin <sup>®</sup> cum Aqua | 200061601    | 1       |
| Phönix Gotha            | Eucerin <sup>®</sup> cum Aqua | 19000771001  | 1       |
| Phönix Gotha            | Eucerin <sup>®</sup> cum Aqua | 19177901     | 1       |
| Phönix                  | Eucerin <sup>®</sup> cum Aqua | 19178001     | 1       |
| Phönix                  | Eucerin <sup>®</sup> cum Aqua | 20001467001  | 2       |
| Sanacorp                | Eucerin <sup>®</sup> cum Aqua | 19000401     | 1       |
| Sanacorp                | Eucerin <sup>®</sup> cum Aqua | 19115301     | 1       |

- 287 777 spectra from 1294 *Apo-Ident* customers from a total of 51 786 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Wool alcohols creams* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Wool alcohols creams* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 2210          | 0              | 64 949        |
| <b>Type B</b> | 0              | 5080          | 0              | 102 283       |
| <b>Type C</b> | 0              | 923           | 9              | 279 941       |

The substance/substance group *Wool alcohols creams* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9804 %) | 100.0000 % (> 99.7285 %) |
| <b>Type B</b> | 100.0000 % (> 99.9675 %) | 100.0000 % (> 99.8819 %) |
| <b>Type C</b> | 100.0000 % (> 99.6859 %) | 99.0343 % (> 98.7124 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Wool alcohols creams* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                     | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------------|---------------------------|-----------------------------------|
| Base cream DAC                | 17.49                     | 26.53                             |
| Psorisol base cream Audor®    | 33.57                     | —                                 |
| Lanette® ointment (conserved) | 34.59                     | 17.60                             |
| Non-ionic hydrophil ointment  | 37.16                     | 9.63                              |
| Lipo Lotio Cordes®            | 46.95                     | —                                 |
| ⋮                             | ⋮                         | ⋮                                 |
| 2-ethylhexyl laurate          | >50                       | 151.71                            |
| Squalane                      | >50                       | 191.56                            |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Wool alcohols creams* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 34567     | 34567                  | 0.00                            | 24.04                              |
| 34568     | 34568                  | 0.00                            | 33.55                              |
| 34569     | 34569                  | 0.00                            | 30.30                              |
| 34578     | 34883                  | 3.72                            | 29.76                              |
| 34585     | 34890                  | 5.92                            | 26.25                              |
| 34586     | 34586                  | 0.00                            | 29.01                              |
| 34587     | 34587                  | 0.00                            | 23.98                              |
| 34588     | 34588                  | 0.00                            | 22.86                              |
| 34591     | 34883                  | 5.86                            | 24.26                              |
| 34592     | 34883                  | 5.12                            | 28.03                              |
| 34593     | 34586                  | 8.02                            | 25.71                              |
| 34778     | 34778                  | 0.00                            | 21.50                              |
| 34795     | 34795                  | 0.00                            | 25.82                              |

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| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 34796     | 34796               | 0.00                         | 25.28                           |
| 34797     | 34797               | 0.00                         | 26.10                           |
| 34877     | 34878               | 1.70                         | 28.51                           |
| 34878     | 34878               | 0.00                         | 27.36                           |
| 34879     | 34883               | 2.11                         | 34.59                           |
| 34880     | 34880               | 0.00                         | 29.89                           |
| 34881     | 34881               | 0.00                         | 29.89                           |
| 34882     | 34882               | 0.00                         | 31.30                           |
| 34883     | 34883               | 0.00                         | 31.86                           |
| 34885     | 34885               | 0.00                         | 30.30                           |
| 34887     | 34887               | 0.00                         | 22.75                           |
| 34889     | 34889               | 0.00                         | 25.78                           |
| 34890     | 34890               | 0.00                         | 27.65                           |
| 34891     | 34891               | 0.00                         | 26.72                           |
| 34892     | 34892               | 0.00                         | 25.14                           |
| 34893     | 34893               | 0.00                         | 25.98                           |
| 34894     | 34894               | 0.00                         | 23.14                           |
| 34898     | 34898               | 0.00                         | 33.47                           |
| 34922     | 34922               | 0.00                         | 26.62                           |
| 34923     | 34923               | 0.00                         | 27.25                           |
| 34924     | 34924               | 0.00                         | 25.45                           |
| 34926     | 34926               | 0.00                         | 23.36                           |
| 34935     | 34935               | 0.00                         | 28.08                           |
| 34936     | 34936               | 0.00                         | 28.77                           |
| 34937     | 34937               | 0.00                         | 28.20                           |
| 34940     | 34940               | 0.00                         | 27.53                           |
| 34947     | 34947               | 0.00                         | 32.03                           |
| 34948     | 34948               | 0.00                         | 28.20                           |
| 34961     | 34961               | 0.00                         | 30.11                           |
| 35094     | 35094               | 0.00                         | 18.24                           |
| 35421     | 35421               | 0.00                         | 26.19                           |
| 35611     | 35611               | 0.00                         | 25.13                           |
| 35612     | 35612               | 0.00                         | 28.08                           |
| 35632     | 35632               | 0.00                         | 31.07                           |
| 35947     | 35947               | 0.00                         | 29.56                           |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group **Wormwood oil**  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30846-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

Wormwood oil

### Special notes

When selecting the *Wormwood oil* substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| Wormwood oil              | 4      | 2      | 4      |

## Second-stage model

For differentiation of the substance/substance group *Wormwood oil* the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group *Wormwood oil*:

| Supplier | Substance    | Batch    | Sample ID | Spectra | Certificate |
|----------|--------------|----------|-----------|---------|-------------|
| Caelo    | Wormwood oil | 11346603 | 30846     | 40      | 20111208    |
| Caelo    | Wormwood oil | 13347703 | 31198     | 40      | 1403146     |
| Caelo    | Wormwood oil | 13347704 | 31423     | 60      | 20131028    |
| Caelo    | Wormwood oil | 13347704 | 31424     | 60      | 20131028    |
| Caelo    | Wormwood oil | 182940   | 34451     | 40      | 20181108*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

### Type A All calibration spectra.

- 240 spectra of 5 reference samples from the substance/substance group *Wormwood oil*. These samples are listed above in the [calibration samples](#) section. The reference samples come from 4 different batches.
- 66 919 spectra from a total of 1375 batches from further 228 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

### Type B Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 80 spectra of 2 reference samples from the substance/substance group *Wormwood oil*.
- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

| Supplier | Substance    | Batch    | Sample ID | Spectra |
|----------|--------------|----------|-----------|---------|
| Caelo    | Wormwood oil | 15316909 | 33508     | 40      |
| Caelo    | Wormwood oil | 170389   | 33904     | 40      |

- 107 283 spectra from a total of 2499 batches from further 350 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 7 spectra from 4 *Apo-Ident* customers from 4 batches from the substance/substance group *Wormwood oil*.
- Among them are spectra of independent samples from 4 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier | Substance    | Batch      | Spectra |
|----------|--------------|------------|---------|
| Caelo    | Wormwood oil | 12197809   | 1       |
| Caelo    | Wormwood oil | 17038903   | 1       |
| Caelo    | Wormwood oil | 2017115182 | 2       |
| Voegelé  | Wormwood oil | 2013109402 | 3       |

- 288 702 spectra from 1294 *Apo-Ident* customers from a total of 51 884 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group *Wormwood oil* can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with *Wormwood oil* and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|               | False positive | True positive | False negative | True negative |
|---------------|----------------|---------------|----------------|---------------|
| <b>Type A</b> | 0              | 240           | 0              | 66 919        |
| <b>Type B</b> | 0              | 80            | 0              | 107 283       |
| <b>Type C</b> | 0              | 7             | 0              | 288 702       |

The substance/substance group *Wormwood oil* can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate (specificity)* and the weighted *true positive rate (recognition rate)* are determined:

|               | Specificity              | Recognition rate         |
|---------------|--------------------------|--------------------------|
| <b>Type A</b> | 100.0000 % (> 99.9805 %) | 100.0000 % (> 97.5000 %) |
| <b>Type B</b> | 100.0000 % (> 99.9676 %) | 100.0000 % (> 92.5000 %) |
| <b>Type C</b> | 100.0000 % (> 99.6883 %) | n/a (n/a)                |



In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group *Wormwood oil* in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance               | Distance in<br>main model | Distance in<br>second-stage model |
|-------------------------|---------------------------|-----------------------------------|
| Bitter-fennel fruit oil | 61.20                     | —                                 |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group *Wormwood oil* is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference<br>sample ID | Distance to<br>reference sample | Distance to<br>next foreign sample |
|-----------|------------------------|---------------------------------|------------------------------------|
| 30846     | 31198                  | 5.07                            | 77.61                              |
| 31198     | 31198                  | 0.00                            | 76.78                              |
| 31423     | 31198                  | 2.18                            | 76.04                              |
| 31424     | 31198                  | 1.76                            | 76.51                              |
| 34451     | 34451                  | 0.00                            | 67.98                              |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.

# VALIDATION REPORT

## IdentModule 2.4-2022-04

Validated substance/substance group  $\alpha$ -Tocopherol  
Substance class APIs & excipients, liquid/semi-solid (with analysis certificate)  
Report date 10/09/2022  
Report number 30485-2022-09-10  
Executing company HiperScan GmbH  
Weißeritzstraße 3  
01067 Dresden  
Germany

### Relevant substance names

$\alpha$ -Tocopherol; all-rac- $\alpha$ -Tocopherol; int-rac- $\alpha$ -Tocopherolum; RRR- $\alpha$ -Tocopherol; RRR- $\alpha$ -Tocopherolum

### Special notes

When selecting the  $\alpha$ -Tocopherol substance/substance group, the following information is displayed to the user:

*no information*

### Applicable documents

978-3-7692-7517-9 *European Pharmacopoeia 10th Edition, Basic Version 2020* [3]  
Komm2.2.40 *Erfüllung von Ph. Eur. 2.2.40 durch Apo-Ident* [4]  
AA004 *Erstellung und Validierung eines IdentModul-Updates*

### Validation method

Validation is performed after every change to the chemometric model (also “database”) in three steps:

1. The chemometric model is calculated from the calibration spectra using a *PCA algorithm*. The calibration spectra originate from the calibration samples of all substances in this class.
2. In the *chemometric model* generated, the distances between all separable substances are checked for compliance with the specified safety distances.
3. All spectra are presented to the generated chemometric model for evaluation. In three runs, the reference spectra (*Type A*), spectra from independent samples (*Type B*), and spectra from the field (*Type C*) are presented successively. Here, no single *false positive* result is permitted.

Finally, a report is generated from the validation run results and is archived together with the parameters of the model generation in audit-compliant manner.

### Number of independent samples (batches) in calibration and validation

A sample is considered independent if no sample from the same batch has been included in the calibration of the chemometric model.

| Substance/substance group | Type A | Type B | Type C |
|---------------------------|--------|--------|--------|
| $\alpha$ -Tocopherol      | 6      | 2      | 64     |

## Second-stage model

For differentiation of the substance/substance group  $\alpha$ -Tocopherol the following second-stage model is used:

*no second-stage model*

## Calibration samples

Only spectra which have been recorded by *HiperScan GmbH* from traceable samples are used for the generation of the [chemometric models](#). The following samples have been obtained from the substance/substance group  $\alpha$ -Tocopherol:

| Supplier | Substance                    | Batch            | Sample ID | Spectra | Certificate |
|----------|------------------------------|------------------|-----------|---------|-------------|
| Fagron   | all-rac- $\alpha$ -Tocoph... | 16D14-B05-324514 | 36332     | 40      | 20160422    |
| Fagron   | all-rac- $\alpha$ -Tocoph... | 16H29-B08-334064 | 36333     | 40      | 20161027    |
| Fagron   | all-rac- $\alpha$ -Tocoph... | 21D06-T06-088532 | 36336     | 50      | 2206223     |
| Caelo    | RRR- $\alpha$ -Tocopherol    | 13248808         | 31501     | 60      | 1507770     |
| Caelo    | RRR- $\alpha$ -Tocopherol    | 16005002         | 32072     | 60      | 20160203    |
| Caelo    | RRR- $\alpha$ -Tocopherol    | 21001944         | 35729     | 50      | 20210824*   |

## Validation samples

A total of 463 231 spectra were provided for validation. The results were evaluated separately according to the following sample categories:

**Type A** All calibration spectra.

- 300 spectra of 6 reference samples from the substance/substance group  $\alpha$ -Tocopherol. These samples are listed above in the [calibration samples](#) section. The reference samples come from 6 different batches.
- 66 859 spectra from a total of 1373 batches from further 227 substances. These spectra were recorded by *HiperScan GmbH*. *Type A* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type A* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix A](#). The samples in [Appendix A](#) were added for model generation not with the intention to have the model identify these substances, but with the intention to make the model reject them despite their similarity to substances identifiable.

**Type B** Spectra from independent samples not included in the database structure. Measurement is carried out by *HiperScan GmbH*.

Samples from batches of which no spectra have been included in the database structure are considered as independent samples. The number of batches from which independent samples supplied *Type B* spectra for validation is shown below, representing the number of independent *Type B* samples. Samples, of which some of the spectra have been included in the database structure and other spectra in the validation, are marked with a <sup>†</sup>. The following applies to the remaining unmarked samples: In the same batch, there was at least one additional sample (other sales container, other sample ID) from which reference spectra (*Type A*) were included in the database structure.

- 130 spectra of 3 reference samples from the substance/substance group  $\alpha$ -Tocopherol.

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.

- Among them are spectra of independent samples from 2 batches from which no spectra have been included in the database structure. They are sorted upwards in the following table and separated from the additional samples by a line.

| Supplier | Substance                     | Batch            | Sample ID | Spectra |
|----------|-------------------------------|------------------|-----------|---------|
| Fagron   | all-rac- $\alpha$ -Tocopherol | 17B14-B02-336290 | 36335     | 40      |
| Caelo    | RRR- $\alpha$ -Tocopherol     | 21001924         | 35728     | 50      |
| Fagron   | all-rac- $\alpha$ -Tocopherol | 16H29-B08-334064 | 36334     | 40      |

- 107 233 spectra from a total of 2498 batches from further 349 substances. These spectra were recorded by *HiperScan GmbH*. *Type B* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type B* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix B](#).

**Type C** Spectra of independent samples not included in the database structure. *Apo-Ident* customers carry out the measurements. *HiperScan GmbH* generally does not verify the information provided by the customer regarding manufacturer and batch number.

- 157 spectra from 95 *Apo-Ident* customers from 66 batches from the substance/substance group  *$\alpha$ -Tocopherol*.
- Among them are spectra of independent samples from 63 batches from which no spectra have been included in the database structure. These are sorted upwards in the following table.

| Supplier              | Substance                 | Batch            | Spectra |
|-----------------------|---------------------------|------------------|---------|
| Alte Apotheke         | RRR- $\alpha$ -Tocopherol | 16D14B05324514   | 1       |
| Audor Pharma          | RRR- $\alpha$ -Tocopherol | 16D14-B05-322951 | 1       |
| Caela/Phönix 05.07.18 | RRR- $\alpha$ -Tocopherol | 17057509         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol |                  | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 11313301         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 11313302         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 11313308         | 3       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 11313309         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 11313311         | 2       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 12106901         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 12106907         | 2       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 12106908         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 12106910         | 2       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 132488003        | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 13248801         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 13248802         | 2       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 13248803         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 13248804         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 14159302         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 14159303         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 14159305         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 14353802         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 14353806         | 3       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 15102606         | 2       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 15102611         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 16005002         | 12      |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 16187604         | 11      |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 16187606         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 16187608         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 16H29-B08-327045 | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 17057501         | 6       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 17057508         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 18068402         | 1       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 18068403         | 9       |
| Caelo                 | RRR- $\alpha$ -Tocopherol | 18220801         | 7       |

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| Supplier             | Substance                 | Batch            | Spectra |
|----------------------|---------------------------|------------------|---------|
| Caelo                | RRR- $\alpha$ -Tocopherol | 18220805         | 5       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 18220810         | 8       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 18220813         | 6       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 191384002        | 1       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 191384003        | 1       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 20000859002      | 1       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 20000859006      | 4       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 20000859008      | 1       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 5012I-03257      | 1       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 712015           | 1       |
| Caelo                | RRR- $\alpha$ -Tocopherol | 8705007          | 1       |
| Caesar & Loretz GmbH | RRR- $\alpha$ -Tocopherol | 18220813         | 2       |
| Caesar & Loretz GmbH | RRR- $\alpha$ -Tocopherol | 191384003        | 1       |
| Caleo                | RRR- $\alpha$ -Tocopherol | 15102606         | 1       |
| Euro/Phönix          | RRR- $\alpha$ -Tocopherol | 16187606         | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 16D14-B05-324514 | 2       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 17B14-B02        | 2       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 17B14-B02336290  | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 17J31-B01        | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 17J31-b01-342    | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 17J31-B01-342312 | 2       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 19E20-B07-193116 | 2       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 20170816-03257   | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 20A13-B09-200891 | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 20H04-B04-201937 | 4       |
| Fagron               | RRR- $\alpha$ -Tocopherol | 818A-02500       | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | UT107060047      | 1       |
| Fagron               | RRR- $\alpha$ -Tocopherol | UT19040020       | 1       |
| Frago/Gehe           | RRR- $\alpha$ -Tocopherol | 17J31-B01        | 1       |
| Frago/Noweda         | RRR- $\alpha$ -Tocopherol | 17B14-B02        | 1       |
| Gehe                 | RRR- $\alpha$ -Tocopherol | 16187606         | 1       |
| Gehe                 | RRR- $\alpha$ -Tocopherol | 18220810         | 1       |
| Gehe                 | RRR- $\alpha$ -Tocopherol | 18220813         | 1       |
| Klosterring          | RRR- $\alpha$ -Tocopherol | 18220813         | 1       |
| Kögl                 | RRR- $\alpha$ -Tocopherol | 16005006         | 1       |
| Kögl                 | RRR- $\alpha$ -Tocopherol | 17B14B02         | 1       |
| Kögl                 | RRR- $\alpha$ -Tocopherol | 17B14B02334704   | 2       |
| Kögl                 | RRR- $\alpha$ -Tocopherol | 18220801         | 1       |
| Midas                | RRR- $\alpha$ -Tocopherol | 17057509         | 1       |
| Noweda/Spinnrad      | RRR- $\alpha$ -Tocopherol | 619303132        | 1       |
| Sanacorp             | RRR- $\alpha$ -Tocopherol | 13248801         | 1       |
| Sanacorp             | RRR- $\alpha$ -Tocopherol | 17J31-B01-347339 | 1       |
| Sigma-Aldrich        | RRR- $\alpha$ -Tocopherol | 19E20-B07        | 2       |
| Sigma-Aldrich        | RRR- $\alpha$ -Tocopherol | BCCB3893         | 1       |

- 288 552 spectra from 1294 *Apo-Ident* customers from a total of 51 823 batches from a further 343 substances. These spectra were recorded by *Apo-Ident* customers. *Type C* samples are documented within this entire report. If the substance can be identified with this [chemometric model](#), the samples are listed in the *Type C* section of each substance page. If the substance cannot be identified by this model, the samples are listed in [Appendix C](#).

## Validation results

The validation runs checked whether the substance/substance group  $\alpha$ -Tocopherol can clearly be distinguished from all other substances using NIR spectroscopy with *Apo-Ident*. For this purpose, all relevant spectra of the various substances were compared with  $\alpha$ -Tocopherol and it was evaluated how many matches (positive) and rejections (negative) were correct or incorrect. The following

table breaks down the numbers of correct and incorrect results according to the expected result (*positive/negative*) and the validation spectrum type (*A/B/C*).

|        | False positive | True positive | False negative | True negative |
|--------|----------------|---------------|----------------|---------------|
| Type A | 0              | 300           | 0              | 66 859        |
| Type B | 0              | 130           | 0              | 107 233       |
| Type C | 0              | 156           | 1              | 288 552       |

The substance/substance group  $\alpha$ -Tocopherol can be clearly distinguished from all other substances. In order to make these figures comparable, the weighted *true negative rate* (*specificity*) and the weighted *true positive rate* (*recognition rate*) are determined:

|        | Specificity              | Recognition rate         |
|--------|--------------------------|--------------------------|
| Type A | 100.0000 % (> 99.9804 %) | 100.0000 % (> 98.0000 %) |
| Type B | 100.0000 % (> 99.9675 %) | 100.0000 % (> 95.3846 %) |
| Type C | 100.0000 % (> 99.6871 %) | 99.3631 % (> 97.4522 %)  |

In order to ensure that each substance is entered with the same weight irrespective of the number of spectra available, each spectrum is weighted with the reciprocal value of its number. (If several new spectra of a substance with a very distinctive spectrum are added, the values for *specificity* and *recognition rate* are safer, but are by no means idealised.)

In order to illustrate the impact of the number of spectra, a comparison is made in parentheses as to how the *specificity* or *recognition rate* would worsen if three additional incorrect results were to exist amongst the spectra (*Rule of Three* [10, 11]). The larger the number of spectra, the lower the deterioration if the three hypothetical *incorrect results* were added.

Where the number of spectra does not exceed 20, no *recognition rate* is provided.

### Nearest chemometric neighbours

The following table lists the closest chemometric neighbours of the substance/substance group  $\alpha$ -Tocopherol in the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*. Furthermore, their *Mahalanobis distance* is specified within the main model and, where appropriate, within the second-stage model.

| Substance                      | Distance in main model | Distance in second-stage model |
|--------------------------------|------------------------|--------------------------------|
| Guaiazulene 25%, water-soluble | 45.80                  | –                              |
| Citronella oil                 | 58.47                  | –                              |

The list stops after the first substance with a *Mahalanobis distance* greater than 50. If the substance/substance group  $\alpha$ -Tocopherol is separated from critical neighbours in a second-stage model, all the remaining substances in the second-stage model follow.

### Identity according to identity test using NIR spectroscopy

For each substance, a certificate of the correct identity is obtained from an independent GMP-certified test laboratory. If the identity of the sample can be provided using NIR on an independently tested reference sample, in the following table the *Mahalanobis distance* to the reference sample is specified as well as the *Mahalanobis distance* to the next non-identical substance:

| Sample ID | Reference sample ID | Distance to reference sample | Distance to next foreign sample |
|-----------|---------------------|------------------------------|---------------------------------|
| 31501     | 31501               | 0.00                         | 53.22                           |
| 32072     | 31501               | 6.15                         | 54.15                           |
| 35729     | 35729               | 0.00                         | 53.37                           |
| 36332     | 36336               | 9.57                         | 66.88                           |

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| <b>Sample ID</b> | <b>Reference sample ID</b> | <b>Distance to reference sample</b> | <b>Distance to next foreign sample</b> |
|------------------|----------------------------|-------------------------------------|----------------------------------------|
| 36333            | 36336                      | 12.30                               | 73.27                                  |
| 36336            | 36336                      | 0.00                                | 70.44                                  |

The identity of a sample will be confirmed by NIR if the distance to the next foreign sample is at least 50 % greater than the distance to a reference sample whose identity has been established by laboratory testing. This criterion is always considered in the chemometric model, which contains all substances of the substance class, even if a second-stage dissolves a subgroup of similar substances, thereby increasing the distances between them. The samples confirmed by NIR support the statistical variance of the original reference substance, but cannot add new aspects or forms of the substance.



## ***Appendix A: Additional calibration samples (Type A)***

Substance spectra also enter the generation of the [chemometric model](#) which cannot be identified with this model. This serves the purpose that substances which the model is not supposed to recognise are safely rejected. The spectra of these samples are entered into the validation as *Type A*. They were recorded by *HiperScan GmbH*.

The samples originate from 3 batches. From these, 120 spectra were recorded. The calibration spectra of substances which can be identified with the model are listed respectively in the section *calibration samples* for the individual substances and do not appear again elsewhere in this list.

| Supplier    | Substance                 | Batch        | Spectra | Certificate |
|-------------|---------------------------|--------------|---------|-------------|
| Hänseler AG | Camphor ointment Ph.Helv. | 2020.09.0628 | 40      | 20201014    |
| Caelo       | Coal tar solution         | 182919       | 40      | 20190226*   |
| Hänseler AG | Cooling cream Ph.Helv.    | 2019.02.0611 | 40      | 20190320    |

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



## Appendix B: Additional validation samples (*Type B*)

It is necessary that spectra also enter the validation which cannot be identified with this model. In this manner, it is verified that the model also rejects unknown substances. The spectra for these samples were recorded by *HiperScan GmbH*. They are allocated to the *Type B*. They also include the calibration spectra for other models.

The samples originate from 176 batches. From these 7715 spectra were recorded. The spectra recorded on independent samples of substances which can be identified with the model are listed respectively in the section *Type B* for the individual substances and do not appear again elsewhere in this list.

| Supplier    | Substance                                           | Batch        | Spectra | Certificate |
|-------------|-----------------------------------------------------|--------------|---------|-------------|
| Caelo       | Acorus tincture (70%) 1:5                           | 11355109     | 40      | 20111212    |
| Caelo       | Aloe vera oil                                       | 190953       | 40      | 20190412*   |
| Hedinger    | Ammonia solution 10%<br>DAB                         | 027138       | 40      | 20130423    |
| Hänseler AG | Anionic hydrophilic cream<br>Ph.Helv.               | 2018.09.0249 | 40      | 20181012    |
| Hänseler AG | Anionic hydrophilic cream<br>Ph.Helv.               | 2021.01.0405 | 40      | 20210302    |
| Fagron      | Apricot aroma                                       | 13D08-N08    | 30      | 1407103     |
| Caelo       | Arnica oil, fat                                     | 191060       | 40      | 20190718*   |
| Maros       | Arnica root mother tincture<br>D1                   | U3606        | 40      | 20120817    |
| Caelo       | Aromatic tincture (70%) 1:5                         | 11355009     | 40      | 20111212    |
| Maros       | Ash bark mother tincture                            | U3264        | 40      | 20111110    |
| Caelo       | Basil oil                                           | 11346902     | 40      | 20111208    |
| Caelo       | Basil oil                                           | 13153601     | 40      | 1404505     |
| Caelo       | Basil oil                                           | 13395803     | 40      | 20131211    |
| Caelo       | Belladonna tincture, stan-<br>dardised (70%) 1:10   | 190191       | 40      | 20190205*   |
| apomix      | Betamethasone valerate 1%                           | 01B200912    | 40      | 20120925    |
| Maros       | Bilberry leaf mother tinc-<br>ture                  | U3749        | 40      | 20130228    |
| Caelo       | Bitter almond oil                                   | 19000707009  | 50      | 20191220    |
| Caelo       | Bitter almond oil                                   | 21000905     | 50      | 20210305*   |
| Caelo       | Bitter tincture (70%) 1:5                           | 11380108     | 60      | 20120105    |
| Maros       | Bittersweet stalks mother<br>tincture               | U3320        | 40      | 20120229    |
| Maros       | Black cohosh mother tinc-<br>ture                   | U3668        | 40      | 20121220    |
| Maros       | Boldo leaf mother tincture                          | U3502        | 30      | 20120402    |
| Maros       | Bryony root mother tincture                         | U3269        | 40      | 20111207    |
| Maros       | Burnet root mother tincture                         | U3600        | 30      | 20120821    |
| Caelo       | Calendula oil, fat                                  | 13287203     | 40      | 1403102     |
| Caelo       | Calendula oil, fat                                  | 14063403     | 40      | 20140307    |
| Caelo       | Camphor oil 10%                                     | 13317402     | 40      | 1509155     |
| Caelo       | Camphor oil 10%                                     | 13317402     | 60      | 20131022    |
| Gatt-Koller | Camphor spirit (ÖAB)                                | 18.00514     | 40      | 1809577     |
| Euro OTC    | Capsaicin liquid extract 3%                         | 1205038-02   | 40      | 1406349     |
| Euro OTC    | Capsaicin liquid extract 3%                         | 1205038-01   | 40      | 20120601    |
| Caelo       | Carmelite water                                     | 14001202     | 40      | 20140109    |
| Caelo       | Carotene (ca. 4m IU)                                | 12139305     | 40      | 1402564     |
| Caelo       | Cayenne pepper tincture,<br>standardised (85%) 1:10 | 11102412     | 40      | 20110407    |
| Hänseler AG | Cetylic ointment Ph.Helv.                           | 2018.09.0016 | 40      | 20180924    |
| Hänseler AG | Cetylic ointment Ph.Helv.                           | 2021.05.0479 | 40      | 20210624    |
| Caelo       | Chinchona bark tincture,<br>standardised (70%)      | 11275507     | 40      | 20110929    |

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| Supplier    | Substance                                           | Batch            | Spectra | Certificate   |
|-------------|-----------------------------------------------------|------------------|---------|---------------|
| Euro OTC    | Cholecalciferol concentrate (oily form)             | 2107025          | 50      | 20210820*     |
| apomix      | Clobatesol propionate 0,5%                          | 01B200912        | 40      | 20120924      |
| Ichthyol    | Clobetasol 0.5% Cordes <sup>®</sup> RK              | 11D034           | 40      | 20111205      |
| Maros       | Common broom mother tincture                        | R4688            | 40      | 20100806      |
| Maros       | Common wormwood mother tincture                     | U2448            | 40      | 20110329      |
| Maros       | Coneflower herb, purple mother tincture             | U3041            | 40      | 20111005      |
| Hänseler AG | Cooling cream Ph.Helv.                              | 2022.01.0539     | 40      | 20220217      |
| Ratiopharm  | Corticoid-ratiopharm 0.1% cream                     | L30263           | 40      | from supplier |
| apomix      | Dexamethasone 1% (non-ionic, hydrophilic cream SR)  | 04A270513        | 40      | 20130527      |
| Caelo       | Dimethyl isosorbide                                 | 15230402         | 60      | 1603485       |
| Caelo       | Dimethyl isosorbide                                 | 15427602         | 60      | 20160210      |
| Caelo       | Dimethyl isosorbide                                 | 16170904         | 40      | 20160714      |
| Caelo       | Dimethyl isosorbide                                 | 17169803         | 40      | 20170620      |
| apomix      | Epinephrine solution 0,1% SR                        | 04A160712        | 40      | 20120727      |
| Maros       | Fennel fruit tincture 1:5                           | 6996             | 40      | 20120614      |
| Maros       | Figwort mother tincture                             | U3623            | 40      | 20120917      |
| Caelo       | Food colorant yellow (E102; E124)                   | 12022212         | 40      | 20120127      |
| Caelo       | Formic acid 85%                                     | 13373301         | 60      | 20131118      |
| Caelo       | Ginger oil                                          | 163186           | 40      | 20161213*     |
| Caelo       | Ginger oil                                          | 15042113         | 40      | 20150217      |
| Maros       | Ginkgo leaf mother tincture                         | U2834            | 40      | 20100806      |
| Maros       | Golden rod herb tincture 1:5                        | 6737             | 30      | 20120227      |
| Maros       | Horehound herb mother tincture                      | U2929            | 40      | 20091215      |
| Caelo       | Hyoscyamus oil                                      | 162692           | 40      | 20160930*     |
| Fagron      | Iron (III) subsulfate solution                      | 17J23-B12-342837 | 40      | 20171221      |
| Caelo       | Larch terpentine                                    | 161264           | 60      | 20160428*     |
| Caelo       | Lavender spirit                                     | 13300803         | 50      | 1403101       |
| Caelo       | Lavender spirit                                     | 13300803         | 60      | 20130917      |
| Maros       | Lovage root mother tincture                         | U3389            | 40      | 20120417      |
| Caelo       | Macadamia oil, refined                              | 13012102         | 40      | 1407349       |
| Caelo       | Macadamia oil, refined                              | 14179304         | 60      | 20140611      |
| Caelo       | Macadamia oil, refined                              | 170556           | 40      | 20170302*     |
| BASF        | Macrogol 15 hydroxystearate                         | 58730647G0       | 40      | 20200831      |
| BASF        | Macrogol 15 hydroxystearate                         | 75389809T0       | 40      | 20201021      |
| BASF        | Macrogol 15 hydroxystearate                         | 01732356P0       | 40      | 20200617      |
| Hänseler AG | Macrogol ointment Ph.Helv.                          | 2018.11.0534     | 40      | 20181129      |
| Hänseler AG | Macrogol ointment Ph.Helv.                          | 2018.01.0313     | 40      | 20180116      |
| Maros       | Matricaria flower mother tincture                   | U3347            | 40      | 20121121      |
| Caelo       | Matricaria flower tincture (70%) 1:5                | 11269917         | 40      | 20110928      |
| Caelo       | Matricaria oil, fat                                 | 12189803         | 40      | 20120713      |
| Caelo       | Matricaria oil, fat                                 | 14001103         | 40      | 20120713      |
| apomix      | Metronidazole 10% (non-ionic, hydrophilic cream SR) | 07B110913        | 40      | 1403475       |
| Maros       | Mistletoe mother tincture                           | U2932            | 40      | 20100225      |

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| Supplier      | Substance                                                 | Batch            | Spectra | Certificate   |
|---------------|-----------------------------------------------------------|------------------|---------|---------------|
| Maros         | Monk's pepper fruit mother tincture D1                    | U3476            | 40      | 20120524      |
| Maros         | Motherwort herb mother tincture                           | U2785            | 40      | 20120125      |
| Maros         | Motherwort herb tincture 1:5                              | 6997             | 40      | 20120905      |
| Caelo         | Nettle herb liquid extract                                | 14176902         | 40      | 1501199       |
| Maros         | Nettle mother tincture                                    | U3633            | 40      | 20121219      |
| Caelo         | Nettle root tincture (70%) 1:5                            | 11187409         | 40      | 20110705      |
| Caelo         | Nettle tincture (70%) 1:5                                 | 11108801         | 40      | 20110412      |
| Hänseler AG   | Nonionic hydrophilic ointment Ph.Helv.                    | 2018.05.0237     | 40      | 20180615      |
| Hänseler AG   | Nonionic hydrophilic ointment Ph.Helv.                    | 2021.06.0486     | 40      | 20210819      |
| Caelo         | Orange flower oil, artificial                             | 13067705         | 40      | 20130304      |
| Caelo         | Orange flower oil, artificial                             | 13067707         | 40      | 1404598       |
| Caelo         | Orange flower water                                       | 12238104         | 40      | 20120816      |
| Staufen-Pharm | Oxalic acid D30 vial                                      | 09.05.12         | 80      | from supplier |
| Caelo         | Peanut oil, hydrated                                      | 13339803         | 40      | 20131105      |
| Maros         | Pelargonium root mother tincture                          | 01028113         | 40      | 20121030      |
| Caelo         | Pepsin wine                                               | 12277403         | 60      | 20120921      |
| Caelo         | Pepsin wine                                               | 14339802         | 45      | 1503624       |
| Caelo         | Pepsin wine                                               | 15449301         | 60      | 20160118      |
| Caelo         | Pepsin wine                                               | 15449303         | 40      | 20160118      |
| Caelo         | Peru balsam, original                                     | 12302401         | 40      | 20121017      |
| Caelo         | Peru balsam, original                                     | 14223909         | 60      | 1703349       |
| Fagron        | Peru balsam, original                                     | 13F13-N04        | 40      | 1502255       |
| Hänseler AG   | Petroleum ether Ph.Helv.                                  | 2021.10.0040     | 40      | 20211112      |
| Hänseler AG   | Petroleum ether Ph.Helv.                                  | 2021.12.0565     | 40      | 20220121      |
| Fagron        | Phytomenadione, racemic                                   | 20A17-F04-369209 | 40      | 20200401      |
| Caelo         | Plantain herb liquid extract (35%) 1:1                    | 11332613         | 40      | 20111129      |
| Caelo         | Polyacrylic acid gel pH 6,5 (NRF p. 43)                   | 173012           | 40      | 20171027*     |
| apomix        | Prednisolone 1% (non-ionic - hydrophilic cream SR)        | 07A031212        | 40      | 20121207      |
| apomix        | Prednisolone 1% (non-ionic - hydrophilic cream SR)        | 01A100113        | 40      | 20130110      |
| Caelo         | Prednisolone acetate concentrate 10% basis white paraffin | 13077701         | 100     | 20130313      |
| Caelo         | Primrose root liquid extract 1:1                          | 12175307         | 100     | 1404596       |
| Caelo         | Primrose root liquid extract 1:1                          | 13330110         | 60      | 20130930      |
| Caelo         | Propolis liquid extract 10% (in propylene glycol)         | 11220406         | 40      | 20110829      |
| Caelo         | Propolis liquid extract 10% (in propylene glycol)         | 13347602         | 40      | 1404589       |
| Caelo         | Propolis liquid extract 10% (in propylene glycol)         | 13347606         | 60      | 20131030      |
| Bombastus     | Propolis tincture 20%                                     | 273005           | 40      | 20120712      |
| Bombastus     | Propolis tincture 20%                                     | 273005           | 40      | 20120712      |
| Caelo         | Pyroligneous acid, purified                               | 12023203         | 40      | 20120130      |
| Maros         | Ribwort plantain tincture 1:5                             | 6736             | 40      | 20120227      |

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| Supplier    | Substance                                                   | Batch        | Spectra | Certificate        |
|-------------|-------------------------------------------------------------|--------------|---------|--------------------|
| Maros       | Robert herb mother tincture                                 | U3720        | 40      | 20111127           |
| Maros       | Rosemary leaf mother tincture D1                            | U3238        | 40      | 20110531           |
| Caelo       | Sage leaf liquid extract (55%) 1:1                          | 11372203     | 40      | 20120102           |
| apomix      | Searing paste SR                                            | 04B130418    | 40      | 20180416           |
| Caelo       | Siam benzoin tincture (90%) 1:5                             | 13169905     | 50      | 1405623            |
| Hedinger    | Sodium hypochlorite solution 1%                             | 045226       | 40      | 20170110           |
| Euro OTC    | Sodium lactate solution 60%                                 | 1201037-01   | 60      | 20120224           |
| Euro OTC    | Sodium lactate solution 60%                                 | 1310007-01   | 60      | 20140217           |
| Euro OTC    | Sodium lactate solution 60%                                 | 1310007-01   | 40      | AR-17-FG-012458-01 |
| Euro OTC    | Sodium lactate solution 60%                                 | 1310007-01   | 40      | 20140217           |
| EDQM        | Squalene                                                    | 1.0          | 40      | CRS                |
| Caelo       | St. John's wort oil                                         | 12076913     | 40      | 20120323           |
| Caelo       | St. John's wort oil                                         | 13389218     | 40      | 20131210           |
| Maros       | St. John's wort oil                                         | 9712         | 40      | 20121102           |
| Caelo       | Standardised cayenne pepper extract (80%) 4-7:1             | 13259103     | 20      | 20130926           |
| Maros       | Strophanthus seed mother tincture D1                        | 01028513     | 40      | 20121210           |
| Maros       | Sundew herb mother tincture                                 | U3354        | 40      | 20120917           |
| Bene        | Tacholiniquin® 1% solution                                  | 350K121      | 40      | from supplier      |
| Maros       | Teasel root mother tincture                                 | U3685        | 40      | 20121114           |
| Maros       | Tetterwort mother tincture                                  | U3063        | 40      | 20110905           |
| Caelo       | Texapon® CS paste                                           | 12292001     | 40      | 20121010           |
| Caelo       | Texapon® CS paste                                           | 12292006     | 40      | 20121010           |
| Caelo       | Texapon® CS paste                                           | 14087206     | 60      | 1501415            |
| Caelo       | Texapon® CS paste                                           | 16268901     | 40      | 20160915           |
| Caelo       | Texapon® CS paste                                           | 16268901     | 40      | 20160915           |
| Caelo       | Thyme liquid extract                                        | 13273613     | 60      | 20130819           |
| apomix      | Triamcinolone acetonide 1% (non-ionic, hydrophile cream SR) | 01A210513    | 40      | 20130521           |
| apomix      | Triamcinolone acetonide 1% (non-ionic, hydrophile cream SR) | 09C111212    | 40      | 20121212           |
| Caelo       | Triamcinolone acetonide concentrate 2% base white paraffin  | 12250701     | 70      | 20120830           |
| Caelo       | Valerian root liquid extract                                | 13343703     | 60      | 20131017           |
| Caelo       | Vitamin A-palmitate (ca. 1 m I.U./g)                        | 12132910     | 60      | 20120516           |
| Maros       | Waterhorehound herb mother tincture                         | U3388        | 40      | 20120203           |
| Maros       | Willow bark tincture 1:5                                    | 6865         | 40      | 20120604           |
| Caelo       | Witch hazel bark liquid extract (45%) 1:1                   | 13357902     | 40      | 1407627            |
| Caelo       | Witch hazel bark liquid extract (45%) 1:1                   | 13357902     | 40      | 20131107           |
| Caelo       | Witch hazel leaf liquid extract (45%) 1:1                   | 12165010     | 40      | 20120628           |
| Maros       | Wood violet mother tincture                                 | U2222        | 40      | 20120511           |
| Hänseler AG | Wool wax Ph.Helv.                                           | 2017.10.0158 | 40      | 20171114           |
| Hänseler AG | Wool wax Ph.Helv.                                           | 2021.06.0032 | 40      | 20210803           |
| Caelo       | Wormwood tincture (70%) 1:5                                 | 12237901     | 40      | 20120829           |

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| Supplier      | Substance                             | Batch       | Spectra | Certificate |
|---------------|---------------------------------------|-------------|---------|-------------|
| Maros         | Yam mother tincture                   | 32210       | 40      | 20111020    |
| Caelo         | Ylang-ylang oil                       | 12040606    | 40      | 20120301    |
| Caelo         | Ylang-ylang oil                       | 14192905    | 60      | 20140730    |
| Caelo         | Ylang-ylang oil                       | 15101104    | 60      | 9203        |
| Caelo         | Ylang-ylang oil                       | 15101104    | 60      | 20150330    |
| Caelo         | Ylang-ylang oil                       | 15101109    | 40      | 20150330    |
| Caelo         | Ylang-ylang oil                       | 15101109    | 40      | 20150330    |
| Caelo         | Ylang-ylang oil                       | 163148      | 40      | 20161213*   |
| Caelo         | Ylang-ylang oil                       | 16314804    | 40      | 20161213    |
| apomix        | Zinc oxide cream 25% SR (NRF 11.109)  | 02B220119   | 40      | 20190123    |
| Henry Lamotte | Zinc oxide lotion, aqueous DAC        | 5375600     | 40      | 20121026    |
| Caelo         | Zinc oxide oil DAC                    | 12289802    | 40      | 20121107    |
| apomix        | Zinc oxide paste SR90                 | 01A190218   | 40      | 20180220    |
| apomix        | Zinc oxide paste, soft SR90           | 31B141117   | 40      | 20171114    |
| Caelo         | Zinc oxide shaking mixture, ethanolic | 20001114002 | 50      | 20200504    |
| Henry Lamotte | Zinc paste, soft DAB                  | 5374900     | 40      | 20120918    |
| Caelo         | Zinc paste, soft DRF (stabilised)     | 12378402    | 80      | 20121220    |

\*The spectra were taken from a part of the same sample which the supplier used for its analysis (identity, purity, content). In this case the manufacturer certificates proof the identity and quality of the sample from those the spectra descend.



## Appendix C: Additional validation samples (*Type C*)

Spectra for substances from the field which cannot be identified with this model also enter the validation. In this manner, it is verified that the model also rejects unknown substances. The spectra for these samples were recorded by *Apo-Ident* customers. They belong to *Type C*. The information provided by the customer regarding the manufacturer and batch number is taken over by *HiperScan GmbH* to a large extent unchecked.

The samples originate from 4394 batches. From these, 16 520 spectra were recorded. The spectra recorded on independent samples of substances from the field which can be identified with the model are listed respectively in the section *Type C* for the individual substances and do not appear again elsewhere in this list.

| Supplier                         | Substance                  | Batch              | Spectra |
|----------------------------------|----------------------------|--------------------|---------|
| Caelo                            | Acorus tincture (70%) 1:5  | 11355115           | 1       |
| Caelo                            | Acorus tincture (70%) 1:5  | 11355110           | 2       |
| Caelo                            | Acorus tincture (70%) 1:5  | 13051001           | 2       |
| Caelo                            | Acorus tincture (70%) 1:5  | 19121322           | 1       |
| Anzag<br>ek:10.21EUR<br>27.08... | Alcoholic liniment         | 12103301           | 1       |
| Caelo                            | Alcoholic liniment         | 2507212316         | 1       |
| Caelo                            | Alcoholic liniment         | 204312316          | 1       |
| Caelo                            | Alcoholic liniment         | 34365645645        | 1       |
| Caelo                            | Alcoholic liniment         | 445255             | 1       |
| Caelo                            | Alcoholic liniment         | 2612M-02925        | 1       |
| Caelo                            | Alcoholic liniment         | 12103312           | 1       |
| Caelo                            | Alcoholic liniment         | 12103319           | 1       |
| Caelo                            | Alcoholic liniment         | 5213E2316          | 1       |
| Caelo                            | Aloe vera oil              | 11014807           | 2       |
| Caelo                            | Aloe vera oil              | 12033104           | 1       |
| Caelo                            | Aloe vera oil              | 11014806           | 1       |
| Caelo                            | Aloe vera oil              | 12033106           | 1       |
| Caelo                            | Aloe vera oil              | 12033108           | 1       |
| Caelo                            | Aloe vera oil              | 12033111           | 1       |
| Caelo                            | Aloe vera oil              | 123033108          | 1       |
| Caelo                            | Aloe vera oil              | 12033114           | 2       |
| Caelo                            | Aloe vera oil              | 12383702           | 3       |
| Caelo                            | Aloe vera oil              | 12383703           | 3       |
| Caelo                            | Aloe vera oil              | 12383706           | 5       |
| Caelo                            | Aloe vera oil              | 12033107           | 1       |
| Caelo                            | Aloe vera oil              | 12033113           | 4       |
| Caelo                            | Aloe vera oil              | 12033101           | 1       |
| Caelo                            | Aloe vera oil              | 11014804           | 1       |
| Caesar § Lorenz GmbH             | Aloe vera oil              | 12383707           | 1       |
| Primavera                        | Aloe vera oil              | 8601131            | 1       |
| Taoasis                          | Aloe vera oil              | 110137-96542       | 1       |
| Taoasis                          | Aloe vera oil              | 120247-107323      | 1       |
| Taoasis                          | Aloe vera oil              | 111208-105327      | 1       |
| Taoasis                          | Aloe vera oil              | 120247-106498      | 1       |
| Taoasis                          | Aloe vera oil              | 130237-111659      | 1       |
| Taoasis                          | Aloe vera oil              | 130501-112371      | 1       |
| Taoasis                          | Aloe vera oil              | 130237-112020BAG94 | 1       |
| Taoasis GmbH                     | Aloe vera oil              | 130237             | 1       |
| Maros                            | Angelica root tincture 1:5 | 1028713            | 2       |
| Maros                            | Angelica root tincture 1:5 | 8030113            | 1       |
| Caelo                            | Apricot aroma              | 14C19-B30-292291   | 1       |
| Caelo                            | Arnica oil, fat            | 11096702           | 1       |
| Caelo                            | Arnica oil, fat            | 12088504           | 3       |
| Caelo                            | Arnica oil, fat            | Sanacorb           | 1       |
| Caelo                            | Arnica oil, fat            | 12359703           | 1       |
| Caelo                            | Arnica oil, fat            | 13186604           | 1       |

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| Supplier | Substance                  | Batch       | Spectra |
|----------|----------------------------|-------------|---------|
| Caelo    | Arnica oil, fat            | 13186601    | 2       |
| Caelo    | Arnica oil, fat            | 13042503    | 3       |
| Caelo    | Arnica oil, fat            | 13186602    | 1       |
| Taoasis  | Arnica oil, fat            | 7360-111366 | 1       |
| Taoasis  | Arnica oil, fat            | 7360-112511 | 1       |
| Taoasis  | Arnica oil, fat            | 7525-113064 | 1       |
| Taoasis  | Arnica oil, fat            | 7360-111459 | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 10341801    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 10362814    | 3       |
| Caelo    | Arnica tincture (70%) 1:10 | 10362820    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 12031001    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 12031004    | 2       |
| Caelo    | Arnica tincture (70%) 1:10 | 12031008    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 12301009    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 20090312-4  | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 10362809    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 12031015    | 7       |
| Caelo    | Arnica tincture (70%) 1:10 | 26031301    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 10362805    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 13094609    | 5       |
| Caelo    | Arnica tincture (70%) 1:10 | 8111301     | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 13094607    | 3       |
| Caelo    | Arnica tincture (70%) 1:10 | 13094610    | 2       |
| Caelo    | Arnica tincture (70%) 1:10 | 10362815    | 2       |
| Caelo    | Arnica tincture (70%) 1:10 | 12031017    | 7       |
| Caelo    | Arnica tincture (70%) 1:10 | 13094613    | 1       |
| Caelo    | Arnica tincture (70%) 1:10 | 12031009    | 4       |
| Caelo    | Arnica tincture (70%) 1:10 | 13094612    | 2       |
| Caelo    | Arnica tincture (70%) 1:10 | 1213A-02398 | 1       |
| Euro OTC | Arnica tincture (70%) 1:10 | 1211003-01  | 4       |
| Euro OTC | Arnica tincture (70%) 1:10 | 120404601   | 1       |
| Euro OTC | Arnica tincture (70%) 1:10 | 1204046-01  | 4       |
| Euro OTC | Arnica tincture (70%) 1:10 | 1306038-01  | 1       |
| Euro OTC | Arnica tincture (70%) 1:10 | 1112029-01  | 1       |
| Lamotte  | Arnica tincture (70%) 1:10 | 5139400     | 1       |
| Teofarma | Arnica tincture (70%) 1:10 | 144301      | 1       |

| Supplier                 | Substance                         | Batch    | Spectra |
|--------------------------|-----------------------------------|----------|---------|
| Caelo                    | Basil oil                         | 13153601 | 1       |
| Caelo                    | Belladonna tincture, standardi... | 11322611 | 2       |
| Caelo                    | Belladonna tincture, standardi... | 12315101 | 1       |
| Caelo                    | Belladonna tincture, standardi... | 12315104 | 2       |
| Caelo                    | Belladonna tincture, standardi... | 12315111 | 2       |
| Caelo                    | Belladonna tincture, standardi... | 13273004 | 1       |
| Caelo                    | Belladonna tincture, standardi... | 11322615 | 1       |
| Caelo                    | Benzalkonium chloride             | 12033403 | 2       |
| Caelo                    | Benzalkonium chloride             | 12033411 | 1       |
| Caelo                    | Benzalkonium chloride             | 13307902 | 1       |
| Caelo                    | Benzalkonium chloride             | 13070201 | 1       |
| Caelo                    | Benzalkonium chloride             | 13070206 | 6       |
| Caesar & Loretz GmbH,... | Benzalkonium chloride             | 12033407 | 2       |
| Sanacorp                 | Benzalkonium chloride             | 10190002 | 1       |
| apomix                   | Benzalkonium chloride solution... | 4a210515 | 1       |
| apomix                   | Benzalkonium chloride solution... | 6B060912 | 1       |
| apomix                   | Benzalkonium chloride solution... | 3A170413 | 2       |
| apomix                   | Benzalkonium chloride solution... | 2B070313 | 1       |
| apomix                   | Benzalkonium chloride solution... | 4A110713 | 2       |
| Caelo                    | Benzoic lard (stabilised)         | 12063902 | 1       |

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| Supplier              | Substance                         | Batch     | Spectra |
|-----------------------|-----------------------------------|-----------|---------|
| apomix                | Betamethasone valerate 1%         | 10B060613 | 1       |
| Anzag/04.04.2013      | Betamethasone valerate 1%         | 3B280213  | 1       |
| apomix                | Betamethasone valerate 1%         | 9B160413  | 1       |
| apomix                | Betamethasone valerate 1%         | 13C031213 | 1       |
| Ichthyol              | Betamethason-V 1.22% Cordes® RK   | 11D001    | 56      |
| Ichthyol              | Betamethason-V 1.22% Cordes® RK   | 11D01     | 1       |
| Ichthyol              | Betamethason-V 1.22% Cordes® RK   | 11D035    | 99      |
| Ichthyol              | Betamethason-V 1.22% Cordes® RK   | 11/2015   | 1       |
| Ichthyol/Jenne        | Betamethason-V 1.22% Cordes® RK   | 12D015    | 24      |
| Ichthyol/Jenne        | Betamethason-V 1.22% Cordes® RK   | 12D015    | 2       |
| Maros                 | Bitter candytuft fresh plant t... | 5408      | 1       |
| Maros                 | Bitter candytuft fresh plant t... | 5433      | 1       |
| Caelo                 | Bitter orange tincture (70%) 1:5  | 27072013  | 1       |
| Caelo                 | Bitter orange tincture (70%) 1:5  | 13003302  | 1       |
| Caelo                 | Bitter orange tincture (70%) 1:5  | 12231906  | 2       |
| Caelo                 | Bitter orange tincture (70%) 1:5  | 13003301  | 1       |
| Caelo                 | Bitter orange tincture (70%) 1:5  | 13003309  | 1       |
| Gehe                  | Bitter orange tincture (70%) 1:5  | 11187211  | 1       |
| Gehrlicher/Gehrlicher | Burnet root mother tincture       | U3600     | 1       |

| Supplier        | Substance                    | Batch         | Spectra |
|-----------------|------------------------------|---------------|---------|
| Caelo           | Calendula mother tincture    | 12117313      | 1       |
| Caelo           | Calendula oil, fat           | 12189901      | 1       |
| Caelo           | Calendula oil, fat           | 11274801      | 2       |
| Caelo           | Calendula oil, fat           | 11183102      | 1       |
| Caelo           | Calendula oil, fat           | 12216901      | 2       |
| Caelo           | Calendula oil, fat           | 13185402      | 4       |
| Caelo           | Calendula oil, fat           | 14001004      | 2       |
| Caelo           | Calendula oil, fat           | 13251002      | 3       |
| Caelo           | Calendula oil, fat           | 12373103      | 1       |
| Caelo           | Calendula oil, fat           | 13069603      | 1       |
| Caelo           | Calendula oil, fat           | 12373101      | 2       |
| Caelo           | Calendula oil, fat           | 12006802      | 3       |
| Caelo           | Calendula oil, fat           | 122116904     | 1       |
| Caelo           | Calendula oil, fat           | 13251002/1    | 1       |
| Caelo           | Calendula oil, fat           | 13355701      | 1       |
| Caelo           | Calendula oil, fat           | 13185401      | 2       |
| Caelo           | Calendula oil, fat           | 12373102      | 3       |
| Caelo           | Calendula oil, fat           | 13355702      | 2       |
| Caesar u Loretz | Calendula oil, fat           | 13251004      | 1       |
| Caelo           | Calendula oil, fat           | 13251003      | 4       |
| Klenk           | Calendula oil, fat           | 12308503      | 1       |
| Caelo           | Calendula oil, fat           | 12189903      | 2       |
| Caelo           | Calendula oil, fat           | 12216904      | 1       |
| Caelo           | Calendula oil, fat           | 12308502      | 2       |
| Caelo           | Calendula oil, fat           | 13069601      | 1       |
| Taoasis         | Calendula oil, fat           | 119426-108734 | 1       |
| Taoasis         | Calendula oil, fat           | 119943-110316 | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 10260111      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 11143803      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 11332710      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 12117305      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 12117308      | 2       |
| Caelo           | Calendula tincture (70%) 1:5 | 11332702      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 19061311      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 13142803      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 12117320      | 1       |
| Caelo           | Calendula tincture (70%) 1:5 | 13142802      | 2       |
| Caelo           | Calendula tincture (70%) 1:5 | 12117311      | 1       |

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| Supplier                 | Substance                    | Batch       | Spectra |
|--------------------------|------------------------------|-------------|---------|
| Caelo                    | Calendula tincture (70%) 1:5 | 12117301    | 3       |
| Caelo                    | Calendula tincture (70%) 1:5 | 12117310    | 2       |
| Caelo                    | Calendula tincture (70%) 1:5 | 12117312    | 3       |
| Caelo                    | Calendula tincture (70%) 1:5 | 12117313    | 1       |
| Caelo                    | Calendula tincture (70%) 1:5 | 12117317    | 5       |
| Caelo                    | Calendula tincture (70%) 1:5 | 13142804    | 7       |
| Anzag 27.12.12 ek:5,19   | Camphor oil 10%              | 12269502    | 10      |
| Berkel AHK               | Camphor oil 10%              | 15028001    | 3       |
| Caelo                    | Camphor oil 10%              | 14139202    | 2       |
| Caelo                    | Camphor oil 10%              | 15028003    | 1       |
| Caelo                    | Camphor oil 10%              | 14139201    | 1       |
| Caelo                    | Camphor oil 10%              | 18082015A   | 1       |
| Caelo                    | Camphor oil 10%              | 15028002    | 1       |
| Caelo                    | Camphor oil 10%              | 15028003    | 1       |
| Caelo                    | Camphor oil 10%              | 15338202    | 2       |
| Caelo                    | Camphor oil 10%              | 15338201    | 1       |
| Caelo                    | Camphor oil 10%              | 15338202    | 1       |
| Caelo                    | Camphor oil 10%              | 16085205    | 1       |
| Caelo                    | Camphor oil 10%              | 12269501    | 1       |
| Caelo                    | Camphor oil 10%              | 13317401    | 4       |
| Caelo                    | Camphor oil 10%              | 13043901    | 2       |
| Caelo                    | Camphor oil 10%              | 15208001    | 1       |
| Caelo                    | Camphor oil 10%              | 13317402    | 10      |
| Caelo                    | Camphor oil 10%              | 15338201    | 1       |
| Caelo                    | Camphor oil 10%              | 16085201    | 2       |
| L12                      | Camphor oil 10%              | 16085202    | 2       |
| Midas                    | Camphor oil 10%              | 17003105    | 3       |
| Euro OTC                 | Camphor oil 10%              | 15338204    | 2       |
| phönix                   | Camphor oil 10%              | 7/AKD57     | 1       |
| Caelo                    | Camphor oil 10%              | 14139202    | 4       |
| Caelo                    | Camphor oil 10%              | 15028004    | 2       |
| Caelo                    | Camphor oil 10%              | 15338205    | 1       |
| Sanacorp                 | Camphor oil 10%              | 7/AKD4      | 1       |
| Caelo                    | Carbomer gel 1%              | 1102D002    | 1       |
| Fagron                   | Carbomer gel 1%              | 1211D010    | 3       |
| Fagron                   | Carbomer gel 1%              | 1309D002    | 1       |
| Fagron                   | Carbomer gel 1%              | 1302D002    | 7       |
| Fagron                   | Carbomer gel 1%              | 1309D001    | 1       |
| Caelo                    | Carotene (ca. 4m IU)         | 19186005    | 1       |
| Caelo                    | Carotene (ca. 4m IU)         | 19091603    | 1       |
| Caelo                    | Carotene (ca. 4m IU)         | 13008404    | 1       |
| Caelo                    | Carotene (ca. 4m IU)         | 17192406    | 2       |
| Caelo                    | Carotene (ca. 4m IU)         | 19044803    | 5       |
| Caelo                    | Carotene (ca. 4m IU)         | 18086105    | 3       |
| Resena/Anzag             | Carotene (ca. 4m IU)         | 1204-3534   | 1       |
| AHD                      | Castor oil, hydrated         | 278661      | 1       |
| Anzag 19.12.2012         | Castor oil, hydrated         | 273882      | 3       |
| Anzag 29.04.13 ek: 3,... | Castor oil, hydrated         | 13096304    | 1       |
| Bombastus                | Castor oil, hydrated         | 266593      | 1       |
| Bombastus                | Castor oil, hydrated         | 269565      | 3       |
| Bombastus                | Castor oil, hydrated         | 270580      | 5       |
| Bombastus                | Castor oil, hydrated         | 264468      | 1       |
| Bombastus                | Castor oil, hydrated         | 26956512-13 | 1       |
| Bombastus                | Castor oil, hydrated         | 275938      | 1       |
| Bombastus                | Castor oil, hydrated         | 271754      | 2       |
| Bombastus                | Castor oil, hydrated         | 266591      | 1       |
| Bombastus                | Castor oil, hydrated         | 272591      | 1       |
| Bombastus                | Castor oil, hydrated         | 255179      | 1       |
| Caelo                    | Castor oil, hydrated         | 8061201     | 1       |
| Caelo                    | Castor oil, hydrated         | 16071201    | 1       |

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| Supplier         | Substance                         | Batch       | Spectra |
|------------------|-----------------------------------|-------------|---------|
| Caelo            | Castor oil, hydrated              | 11260604    | 1       |
| Caelo            | Castor oil, hydrated              | 4101201     | 1       |
| Caelo            | Castor oil, hydrated              | 12114603    | 3       |
| Caelo            | Castor oil, hydrated              | 25011301    | 1       |
| Caelo            | Castor oil, hydrated              | 14199604    | 1       |
| Caelo            | Castor oil, hydrated              | 14101703    | 1       |
| Caelo            | Castor oil, hydrated              | 11359502    | 2       |
| Caelo            | Castor oil, hydrated              | 12114606    | 1       |
| Caelo            | Castor oil, hydrated              | 11359508    | 6       |
| Caelo            | Castor oil, hydrated              | 12071101    | 1       |
| Caelo            | Castor oil, hydrated              | 11359507    | 1       |
| Caelo            | Castor oil, hydrated              | 12114605    | 2       |
| Caelo            | Castor oil, hydrated              | 11260603    | 2       |
| Caelo            | Castor oil, hydrated              | 11260609    | 1       |
| EuRho            | Castor oil, hydrated              | 1212008-01  | 1       |
| Euro OTC         | Castor oil, hydrated              | 1112002-02  | 1       |
| Euro OTC         | Castor oil, hydrated              | 1109001-01  | 1       |
| Euro OTC         | Castor oil, hydrated              | 1910212009  | 1       |
| Euro OTC         | Castor oil, hydrated              | 1202041-02  | 1       |
| Euro OTC         | Castor oil, hydrated              | 1512212009  | 1       |
| Euro OTC         | Castor oil, hydrated              | 1206039-01  | 2       |
| Euro OTC         | Castor oil, hydrated              | 120204-01   | 1       |
| Euro OTC         | Castor oil, hydrated              | 1206039-02  | 2       |
| Fagron           | Castor oil, hydrated              | 10L02-N03   | 1       |
| Gehe             | Castor oil, hydrated              | 1311012     | 1       |
| Bombastus        | Castor oil, hydrated              | 273390      | 13      |
| H.Lamotte/Noweda | Castor oil, hydrated              | 5280301     | 2       |
| H.Lamotte/Noweda | Castor oil, hydrated              | 123384      | 1       |
| Caelo            | Castor oil, hydrated              | 11359501    | 2       |
| Caelo            | Castor oil, hydrated              | 12114602    | 3       |
| lamotte          | Castor oil, hydrated              | 5188401     | 2       |
| Lamotte / Gehe   | Castor oil, hydrated              | 5138701     | 2       |
| Noweda           | Castor oil, hydrated              | 268877      | 1       |
| Euro OTC         | Castor oil, hydrated              | 2507213553  | 1       |
| Phoenix          | Castor oil, hydrated              | 11325205    | 2       |
| Phoenix          | Castor oil, hydrated              | 12071107    | 1       |
| Phönix Gotha     | Castor oil, hydrated              | 12H29-N04   | 2       |
| Phönix Gotha     | Castor oil, hydrated              | 12H29-N04   | 1       |
| Caelo            | Castor oil, hydrated              | 12042103    | 2       |
| Caelo            | Cayenne pepper tincture, stand... | 13072013    | 1       |
| Caelo            | Cayenne pepper tincture, stand... | 11102425    | 1       |
| Caelo            | Cayenne pepper tincture, stand... | 11102419    | 1       |
| Caelo            | Cayenne pepper tincture, stand... | 12207111    | 2       |
| Phönix           | Cayenne pepper tincture, stand... |             | 1       |
| Bombastus        | Chinese cinnamon oil              | 263892      | 1       |
| Bombastus        | Chinese cinnamon oil              | 262660      | 1       |
| Bombastus        | Chinese cinnamon oil              | 269558      | 1       |
| Nachprüfung      | Chinese cinnamon oil              |             | 1       |
| Caelo            | Cinchona bark tincture, compos... | 13069808    | 1       |
| Maros/Maros      | Cistus tincture 1:5               | 11027812    | 1       |
| apomix           | Clobetasol propionate 0,5%        | 1A20213     | 1       |
| apomix           | Clobetasol propionate 0,5%        | 13A131113   | 1       |
| apomix           | Clobetasol propionate 0,5%        | 6A070513    | 1       |
| ichthyol         | Clobetasol 0.5% Cordes® RK        | 5112M-03390 | 1       |
| ichthyol         | Clobetasol 0.5% Cordes® RK        | 1713M-03390 | 1       |
| Ichthyol         | Clobetasol 0.5% Cordes® RK        | 11D003      | 12      |
| Ichthyol         | Clobetasol 0.5% Cordes® RK        | 9D035       | 1       |
| Ichthyol         | Clobetasol 0.5% Cordes® RK        | 11D034      | 24      |
| Ichthyol         | Clobetasol 0.5% Cordes® RK        | 10D024      | 1       |
| Ichthyol         | Clobetasol 0.5% Cordes® RK        | 12d012      | 1       |

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| Supplier             | Substance                              | Batch        | Spectra |
|----------------------|----------------------------------------|--------------|---------|
| Ichtyol              | Clobetasol 0.5% Cordes <sup>®</sup> RK | 12D012       | 14      |
| Caelo                | Coal tar solution                      | 11319204     | 5       |
| Caelo                | Coal tar solution                      | 9345509      | 2       |
| Caelo                | Coal tar solution                      | 9345510      | 1       |
| Caelo                | Coal tar solution                      | 9345406      | 1       |
| Caelo                | Coal tar solution                      | 27071207     | 1       |
| Caelo                | Coal tar solution                      | 113192017    | 1       |
| Caelo                | Coal tar solution                      | 12286103     | 23      |
| Caelo                | Coal tar solution                      | 13193703     | 4       |
| Caelo                | Coal tar solution                      | 13193713     | 2       |
| Caelo                | Coal tar solution                      | 14331403     | 1       |
| Caelo                | Coal tar solution                      | 14331401     | 1       |
| Caelo                | Coal tar solution                      | 14331402     | 1       |
| Caelo                | Coal tar solution                      | 14331509     | 1       |
| Caelo                | Coal tar solution                      | 14331506     | 1       |
| Caelo                | Coal tar solution                      | 15203703     | 1       |
| Caelo                | Coal tar solution                      | 11319207     | 10      |
| Caelo                | Coal tar solution                      | 90391069     | 2       |
| Caelo                | Coal tar solution                      | 15203704     | 1       |
| Caelo                | Coal tar solution                      | 11319209     | 1       |
| Caelo                | Coal tar solution                      | 9039201      | 1       |
| Caelo                | Coal tar solution                      | 11319203     | 1       |
| Caelo                | Coal tar solution                      | 24131-01799  | 1       |
| Caesar & Loretz GmbH | Coal tar solution                      | 72816068     | 1       |
| Euro OTC             | Coal tar solution                      | 1110031-01   | 6       |
| Euro OTC             | Coal tar solution                      | 1110031-03   | 1       |
| Euro OTC             | Coal tar solution                      | 1110031      | 2       |
| Euro OTC             | Coal tar solution                      | 1307027-01   | 2       |
| Fagron               | Coal tar solution                      | 11F21-N01    | 3       |
| Fagron               | Coal tar solution                      | 20230712-6   | 1       |
| Fagron               | Coal tar solution                      | 12L05-N02    | 4       |
| Fagron               | Coal tar solution                      | 13H06-N02    | 9       |
| Fagron               | Coal tar solution                      | 16102013B    | 1       |
| Fagron               | Coal tar solution                      | 13H06N02     | 1       |
| Fagron               | Coal tar solution                      | 18061301     | 1       |
| Fagron               | Coal tar solution                      | 13I26-N02    | 1       |
| Fagron               | Coal tar solution                      | 2011.07.0288 | 2       |
| Fagron               | Coal tar solution                      | 12E08-N01    | 3       |
| Fagron               | Coal tar solution                      | 4513E1799    | 1       |
| Fagron               | Coal tar solution                      | 11/05-N12    | 1       |
| Fagron               | Coal tar solution                      | 12E08-N08    | 1       |
| Fagron               | Coal tar solution                      | 12H28-N05    | 1       |
| Fiebig               | Coal tar solution                      | 9345501      | 3       |
| Gehe                 | Coal tar solution                      | 701972-0001  | 1       |
| Gehe                 | Coal tar solution                      | 12A20-N04    | 1       |
| Krieger              | Coal tar solution                      | 11319212     | 4       |
| Euro OTC             | Coal tar solution                      | 1110031-02   | 6       |
| Phönix               | Coal tar solution                      | 12105-n02    | 1       |
| Phönix               | Coal tar solution                      | 12F19-N08    | 3       |
| Phönix               | Coal tar solution                      | 11B14-N04    | 1       |
| Retest               | Coal tar solution                      | 11D01-N04    | 1       |
| Caelo                | Coconut oil, hardened                  | 613E-07004   | 1       |
| Caelo                | Coconut oil, hardened                  | 11379511     | 1       |
| Caelo                | Coconut oil, hardened                  | 11379510     | 2       |
| Caelo                | Coconut oil, hardened                  | 11379517     | 1       |
| Caelo / Noweda       | Coconut oil, hardened                  | 13010808     | 1       |
| Caelo                | Comfrey root tincture, cleaned...      | 11121314     | 2       |
| Caelo                | Comfrey root tincture, cleaned...      | 12054008     | 1       |
| Caelo                | Comfrey root tincture, cleaned...      | 12054012     | 2       |
| Caelo                | Comfrey root tincture, cleaned...      | 12054016     | 1       |

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| Supplier | Substance                         | Batch       | Spectra |
|----------|-----------------------------------|-------------|---------|
| Caelo    | Comfrey tincture, cleaned of p... | 11121406    | 1       |
| Caelo    | Comfrey tincture, cleaned of p... | 14298513    | 1       |
| Caelo    | Comfrey tincture, cleaned of p... | 12177001    | 3       |
| Caelo    | Comfrey tincture, cleaned of p... | 12177005    | 1       |
| Caelo    | Comfrey tincture, cleaned of p... | 4512E-02482 | 1       |

| Supplier | Substance                         | Batch    | Spectra |
|----------|-----------------------------------|----------|---------|
| apomix   | Dexamethasone 1% (non-ionic, h... | 4A270513 | 1       |
| apomix   | Dexamethasone 1% (non-ionic, h... | 2A220313 | 1       |
| Caelo    | Dimethyl isosorbide               | 16170901 | 1       |
| Caelo    | Dimethyl isosorbide               | 16170902 | 12      |
| Caelo    | Dimethyl isosorbide               | 17169801 | 1       |

| Supplier       | Substance                        | Batch    | Spectra |
|----------------|----------------------------------|----------|---------|
| Caelo          | Food colorant blue (E131)        | 12322306 | 1       |
| Caelo          | Food colorant blue (E131)        | 12038601 | 1       |
| Caelo          | Food colorant blue (E131)        | 13212405 | 1       |
| Caelo          | Food colorant green (E102; E1... | 13020105 | 1       |
| Caelo          | Food colorant red (E124)         | 13020001 | 1       |
| Caelo          | Food colorant red (E124)         | 13020002 | 1       |
| Caelo          | Food colorant red (E124)         | 13020005 | 1       |
| Caelo          | Food colorant yellow (E102; E... | 12022212 | 1       |
| Caelo          | Food colorant yellow (E102; E... | 13075706 | 1       |
| Anzag/ Fischar | Formic acid 85%                  |          | 1       |
| Caelo          | Formic acid 85%                  | 10343801 | 1       |
| Caelo          | Formic acid 85%                  | 13373301 | 1       |
| Hedinger       | Formic acid 85%                  | 383338   | 1       |
| Hedinger       | Formic acid 85%                  | 170912   | 1       |
| Caelo          | Formic acid 85%                  | 16239301 | 1       |

| Supplier                 | Substance                  | Batch       | Spectra |
|--------------------------|----------------------------|-------------|---------|
| Ichthyol                 | Gentamicin 1% Cordes® RK   | 10D026      | 33      |
| Ichthyol                 | Gentamicin 1% Cordes® RK   | 10d026      | 1       |
| Ichthyol                 | Gentamicin 1% Cordes® RK   | 12D010      | 28      |
| Ichthyol-Gesellschaft... | Gentamicin 1% Cordes® RK   | 9D002       | 1       |
| Caelo                    | Gentian tincture (70%) 1:5 | 11220506    | 1       |
| Caelo                    | Gentian tincture (70%) 1:5 | 11220504    | 1       |
| Caelo                    | Gentian tincture (70%) 1:5 | 4109M-02442 | 1       |
| Caelo                    | Gentian tincture (70%) 1:5 | 12035507    | 5       |
| Caelo                    | Gentian tincture (70%) 1:5 | 13036405    | 1       |
| Caelo                    | Gentian tincture (70%) 1:5 | 300711      | 1       |
| Caesar&lorenz,Phoenix    | Gentian tincture (70%) 1:5 | 13036409    | 2       |
| Caesar/Noweda            | Gentian tincture (70%) 1:5 | 13036408    | 1       |
| Nachprüfung              | Gentian tincture (70%) 1:5 | 411E02442   | 1       |
| Phönix Gotha             | Gentian tincture (70%) 1:5 | 10334601    | 1       |
| Caelo                    | Ginger tincture (70%) 1:5  | 11053812    | 1       |
| Caelo                    | Ginger tincture (70%) 1:5  | 11323810    | 1       |

| Supplier | Substance                         | Batch      | Spectra |
|----------|-----------------------------------|------------|---------|
| Caelo    | Hawthorn tincture of leaf and ... | 12211008   | 1       |
| Caelo    | Horse chestnut seed liquid ext... | 12293604   | 1       |
| Caelo    | Horse chestnut seed liquid ext... | 11194611   | 2       |
| Caelo    | Horse chestnut seed tincture      | 12295308   | 1       |
| apomix   | Hydrogen peroxide solution 3%     | 231A160513 | 1       |
| apomix   | Hydrogen peroxide solution 3%     | 6A070114   | 1       |

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| Supplier                 | Substance                      | Batch              | Spectra |
|--------------------------|--------------------------------|--------------------|---------|
| apomix                   | Hydrogen peroxide solution 3%  | 6A080116           | 1       |
| apomix                   | Hydrogen peroxide solution 3%  | 227A160513         | 1       |
| apomix                   | Hydrogen peroxide solution 3%  | 472A160913         | 1       |
| apomix                   | Hydrogen peroxide solution 3%  | 67A300113          | 1       |
| apomix                   | Hydrogen peroxide solution 3%  | 447A050913         | 1       |
| apomix                   | Hydrogen peroxide solution 3%  | 546A251013         | 1       |
| Caelo                    | Hydrogen peroxide solution 3%  | 341A160713         | 2       |
| Caelo                    | Hydrogen peroxide solution 3%  | 12D17-M05          | 2       |
| Defektur 05.11,2013      | Hydrogen peroxide solution 3%  | 2013-11-05Defektur | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13K07-M04          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 12I06-M05          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13A02-M10          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13D05-M04          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13G09-M07          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13G09-M03          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13G12-M06          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13G12-M09          | 1       |
| Fagron                   | Hydrogen peroxide solution 3%  | 13A02-M13          | 1       |
| Fischar                  | Hydrogen peroxide solution 3%  | 6303042A           | 1       |
| GEHE                     | Hydrogen peroxide solution 3%  |                    | 10      |
| GEHE                     | Hydrogen peroxide solution 3%  | H216091/1          | 1       |
| Hedinger                 | Hydrogen peroxide solution 3%  | 301205             | 1       |
| Hedinger                 | Hydrogen peroxide solution 3%  | 301208             | 1       |
| Hedinger                 | Hydrogen peroxide solution 3%  | 301210             | 2       |
| Hedinger                 | Hydrogen peroxide solution 3%  | 301207             | 1       |
| Hedinger                 | Hydrogen peroxide solution 3%  | 301212             | 1       |
| Hedinger                 | Hydrogen peroxide solution 3%  | 301211             | 1       |
| Hedinger/AHD             | Hydrogen peroxide solution 3%  | 61010B             | 1       |
| Herbeta Arzneimittel     | Hydrogen peroxide solution 3%  | 15061202           | 1       |
| Hergestellt am 03.07.... | Hydrogen peroxide solution 3%  | 2013-07-03C        | 1       |
| Hubertus Apo             | Hydrogen peroxide solution 3%  | 240513             | 1       |
| Hubertus Apo             | Hydrogen peroxide solution 3%  | 100913             | 1       |
| Hubertus Apotheke        | Hydrogen peroxide solution 3%  | 130114             | 1       |
| Hubertus Apotheke        | Hydrogen peroxide solution 3%  | 5082014            | 1       |
| PKH / Gehe               | Hydrogen peroxide solution 3%  | 12D27-M09          | 1       |
| PKH / Gehe               | Hydrogen peroxide solution 3%  | 12D26-M05          | 1       |
| PKH / Gehe               | Hydrogen peroxide solution 3%  | 12I06-M07          | 2       |
| PKH / Gehe               | Hydrogen peroxide solution 3%  | 12I04-M09          | 1       |
| PKH / Gehe               | Hydrogen peroxide solution 3%  | 13A02-M09          | 3       |
| PKH GmbH                 | Hydrogen peroxide solution 3%  | 487A161012         | 1       |
| PKH GmbH/Anzag           | Hydrogen peroxide solution 3%  | 485A121012         | 1       |
| stumpf                   | Hydrogen peroxide solution 3%  | 280A060712         | 1       |
| Anzag                    | Hydrogen peroxide solution 30% | 61007B             | 7       |
| Anzag/Fischar            | Hydrogen peroxide solution 30% | 6313035            | 2       |
| Caelo                    | Hydrogen peroxide solution 30% | 610093             | 1       |
| Caelo                    | Hydrogen peroxide solution 30% | 12091302           | 1       |
| Caelo                    | Hydrogen peroxide solution 30% | 61010b             | 1       |
| fischar                  | Hydrogen peroxide solution 30% | 6312072            | 3       |
| fischar                  | Hydrogen peroxide solution 30% | 6312082            | 2       |
| fischar                  | Hydrogen peroxide solution 30% | 6313072            | 2       |
| Fischar                  | Hydrogen peroxide solution 30% | 6311092            | 3       |
| Fischar                  | Hydrogen peroxide solution 30% | 6312061            | 1       |
| Fischar                  | Hydrogen peroxide solution 30% | 6312073            | 2       |
| Fischar                  | Hydrogen peroxide solution 30% | 6312081            | 2       |
| Fischar                  | Hydrogen peroxide solution 30% | 6312077            | 1       |
| Fischar                  | Hydrogen peroxide solution 30% | 631109             | 1       |
| Fischar                  | Hydrogen peroxide solution 30% | 6313025            | 2       |
| Fischar                  | Hydrogen peroxide solution 30% | 6313061            | 5       |
| Fischar                  | Hydrogen peroxide solution 30% | 6314018            | 1       |
| Fischar                  | Hydrogen peroxide solution 30% | 6314021            | 2       |

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| Supplier                 | Substance                         | Batch       | Spectra |
|--------------------------|-----------------------------------|-------------|---------|
| Fischar                  | Hydrogen peroxide solution 30%    | 6315084     | 1       |
| Fischar 25.06.2013 Al... | Hydrogen peroxide solution 30%    | 6313034     | 1       |
| Fischar/AHD              | Hydrogen peroxide solution 30%    | 6313062     | 1       |
| Fischar/Anzag            | Hydrogen peroxide solution 30%    | 6313064     | 2       |
| Fischar/G                | Hydrogen peroxide solution 30%    | 6313033     | 2       |
| Fischar/G                | Hydrogen peroxide solution 30%    | 6313093     | 2       |
| Fischar/Gehe             | Hydrogen peroxide solution 30%    | 6313102     | 1       |
| Fischar/GEHE/16.04.2013  | Hydrogen peroxide solution 30%    | 6312114     | 3       |
| Fischar/GUMO             | Hydrogen peroxide solution 30%    | 6313027     | 7       |
| /02.08.2...              |                                   |             |         |
| Fischar/Sanacorp         | Hydrogen peroxide solution 30%    | 6312111     | 1       |
| Fischbar                 | Hydrogen peroxide solution 30%    | 4101202     | 1       |
| Gehe                     | Hydrogen peroxide solution 30%    | 6312074     | 3       |
| Gehe/Fischar/11.12.2012  | Hydrogen peroxide solution 30%    | 6312105     | 8       |
| GEHE/Fischar/12.06.2012  | Hydrogen peroxide solution 30%    | 6312012     | 3       |
| Gehe/Fischar11.07.2012   | Hydrogen peroxide solution 30%    | 6312051     | 7       |
| Hedinger                 | Hydrogen peroxide solution 30%    | 61006B      | 1       |
| Hedinger                 | Hydrogen peroxide solution 30%    | 61005B      | 2       |
| Hedinger                 | Hydrogen peroxide solution 30%    | 61010B      | 21      |
| Hedinger                 | Hydrogen peroxide solution 30%    | 61011B      | 24      |
| Hedinger                 | Hydrogen peroxide solution 30%    | 16092013A   | 1       |
| Hedinger                 | Hydrogen peroxide solution 30%    | 210913H202  | 1       |
| Hedinger                 | Hydrogen peroxide solution 30%    | 8111302     | 1       |
| Hedinger                 | Hydrogen peroxide solution 30%    | 61003B      | 2       |
| Hedinger                 | Hydrogen peroxide solution 30%    | 610128      | 1       |
| HEDINGER                 | Hydrogen peroxide solution 30%    | 601008B     | 1       |
| Hedinger / Gehe          | Hydrogen peroxide solution 30%    | (061b)061b  | 2       |
| Hedinger / Gehe          | Hydrogen peroxide solution 30%    | 64044B      | 1       |
| Hedinger Jenne           | Hydrogen peroxide solution 30%    | 61009B      | 21      |
| Hedinger/Anzag           | Hydrogen peroxide solution 30%    | 4413A-01720 | 1       |
| Hedinger/Anzag           | Hydrogen peroxide solution 30%    | 61008B      | 19      |
| 21.07...                 |                                   |             |         |
| Noweda/Hedinger          | Hydrogen peroxide solution 30%    | 61012B      | 8       |
| Otto Fischar             | Hydrogen peroxide solution 30%    | 6313101     | 1       |
| Otto Fischar / Noweda    | Hydrogen peroxide solution 30%    | 6314011     | 1       |
| Otto Fischar gmbh        | Hydrogen peroxide solution 30%    | 6314113     | 1       |
| Otto Fischar gmbh        | Hydrogen peroxide solution 30%    | 6315031     | 1       |
| Otto Fischar GmbH        | Hydrogen peroxide solution 30%    | 6312021     | 2       |
| Otto Fischar GmbH&       | Hydrogen peroxide solution 30%    | 6313055     | 5       |
| Co...                    |                                   |             |         |
| Phönix                   | Hydrogen peroxide solution 30%    | 6313073     | 2       |
| Caelo                    | Hydrogen peroxide solution 30%    |             | 1       |
| apomix                   | Hydrophilic metronidazole crea... | 7B180713    | 5       |
| apomix                   | Hydrophilic metronidazole crea... | 6B120613    | 5       |
| apomix                   | Hydrophilic metronidazole crea... | 11201113    | 1       |
| AMH Niemann GmbH &       | Hydrophilic metronidazole crea... | 4190413     | 1       |
| Co...                    |                                   |             |         |
| AMH Niemann              | Hydrophilic metronidazole crea... | 5B170414    | 1       |
| GmbH+Co Kg               |                                   |             |         |
| amv niemann gmbh&co      | Hydrophilic metronidazole crea... | 4B060515    | 1       |
| kg                       |                                   |             |         |
| Anzag                    | Hydrophilic metronidazole crea... | 11B201113   | 2       |
| apomix                   | Hydrophilic metronidazole crea... | 11B221112   | 2       |
| apomix                   | Hydrophilic metronidazole crea... | 5B020513    | 6       |
| apomix                   | Hydrophilic metronidazole crea... | 9B091013    | 2       |
| apomix                   | Hydrophilic metronidazole crea... | 10C141013   | 1       |
| apomix                   | Hydrophilic metronidazole crea... | 1B190112    | 1       |
| apomix                   | Hydrophilic metronidazole crea... | 2B220212    | 2       |
| apomix                   | Hydrophilic metronidazole crea... | 4B270412    | 1       |
| apomix                   | Hydrophilic metronidazole crea... | 9B041012    | 2       |

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| Supplier                | Substance                         | Batch       | Spectra |
|-------------------------|-----------------------------------|-------------|---------|
| apomix                  | Hydrophilic metronidazole crea... | 8418213     | 2       |
| apomix                  | Hydrophilic metronidazole crea... | 8B110912    | 4       |
| apomix                  | Hydrophilic metronidazole crea... | 10B251012   | 3       |
| apomix                  | Hydrophilic metronidazole crea... | 1B030113    | 4       |
| apomix                  | Hydrophilic metronidazole crea... | 3B140313    | 4       |
| apomix                  | Hydrophilic metronidazole crea... | 2B220213    | 5       |
| apomix                  | Hydrophilic metronidazole crea... | 6B310512    | 3       |
| apomix                  | Hydrophilic metronidazole crea... | 7B200712    | 5       |
| apomix                  | Hydrophilic metronidazole crea... | 8B290813    | 3       |
| apomix                  | Hydrophilic metronidazole crea... | 11B20113    | 1       |
| apomix                  | Hydrophilic metronidazole crea... | 12B111213   | 1       |
| Brückenapotheke         | Hydrophilic metronidazole crea... | 3113Q-07001 | 1       |
| Brückenapotheke         | Hydrophilic metronidazole crea... | 3313M-07001 | 1       |
| Brückenapotheke         | Hydrophilic metronidazole crea... | 3913E-07001 | 1       |
| Brückenapotheke         | Hydrophilic metronidazole crea... | 5013A-07001 | 1       |
| Brückenapotheke         | Hydrophilic metronidazole crea... | 414M-07001  | 1       |
| Brücken-Apotheke        | Hydrophilic metronidazole crea... | 4613M-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 3212M-03387 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 3412M-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 35121-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 3712Q-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 4012A-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 4112E-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 4612E-03387 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 4812E-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 4912Q-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 813A-07001  | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 1613a-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 1813E-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 1813Q-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 1913A-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 2513q-07001 | 1       |
| Defektur                | Hydrophilic metronidazole crea... | 2713E-07001 | 1       |
| Eigenherstellung        | Hydrophilic metronidazole crea... | 912Q-07001  | 1       |
| Gehe                    | Hydrophilic metronidazole crea... | 2512Q-07001 | 2       |
| Gehe                    | Hydrophilic metronidazole crea... | 5112Q-07001 | 1       |
| Gehe                    | Hydrophilic metronidazole crea... | 1013Q-07001 | 1       |
| Gehe                    | Hydrophilic metronidazole crea... | 1213E-07001 | 2       |
| Gehe                    | Hydrophilic metronidazole crea... | 2813M-07001 | 1       |
| Gehe                    | Hydrophilic metronidazole crea... | 3613E-07001 | 1       |
| Gehe                    | Hydrophilic metronidazole crea... | 4813E-07001 | 1       |
| Gehe                    | Hydrophilic metronidazole crea... | 5513E-03387 | 1       |
| Gehe                    | Hydrophilic metronidazole crea... | 114M-07001  | 1       |
| Phönix Gotha            | Hydrophilic metronidazole crea... | 4B190413    | 6       |
| Caelo                   | Hydrophobic triclosan cream 1%... | S0211201.1  | 1       |
| Caelo                   | Hydrophobic triclosan cream 1%... | S011503.1   | 1       |
| Infectopharm/Gehe       | Hydrophobic triclosan cream 1%... | S021201.    | 1       |
| Infectopharm            | Hydrophobic triclosan cream 1%... | S031101.1   | 1       |
| Infectopharm            | Hydrophobic triclosan cream 1%... | 20160712-1  | 1       |
| Infectopharm            | Hydrophobic triclosan cream 1%... | S091202.1   | 7       |
| Infectopharm            | Hydrophobic triclosan cream 1%... | S091203.1   | 8       |
| InfectoPharm            | Hydrophobic triclosan cream 1%... | S091103.1   | 3       |
| InfectoPharm / 04.09... | Hydrophobic triclosan cream 1%... | S091104.1   | 1       |
| Infectopharm,AHC        | Hydrophobic triclosan cream 1%... | S101304.1   | 1       |
| InfectoPharm/GEHE       | Hydrophobic triclosan cream 1%... | S.091203.1  | 1       |
| InfectoPharm/Phoenix    | Hydrophobic triclosan cream 1%... | S021201.1   | 4       |
| Phönix Gotha            | Hydrophobic triclosan cream 1%... | S091201.1   | 1       |
| Sanacorp, 1303.12       | Hydrophobic triclosan cream 1%... | S091102.1   | 1       |
| EK:...                  |                                   |             |         |
| Spangro/Infectopharm    | Hydrophobic triclosan cream 1%... | S041301.1   | 4       |

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| Supplier             | Substance                            | Batch      | Spectra |
|----------------------|--------------------------------------|------------|---------|
| Anzag                | Hydrophobic triclosan cream 2%...    | S021202.1  | 5       |
| Anzag/Infectopharm   | Hydrophobic triclosan cream 2%...    | S091206.1  | 10      |
| Caelo                | Hydrophobic triclosan cream 2%...    | 2111310005 | 1       |
| Caelo                | Hydrophobic triclosan cream 2%...    | 3131-07001 | 1       |
| Caesar & Loretz GmbH | Hydrophobic triclosan cream 2%...    | S041303.1  | 3       |
| Hedinger / Stumpf    | Hydrophobic triclosan cream 2%...    | S101209.1  | 13      |
| infectopharm         | Hydrophobic triclosan cream 2%...    | S041302.1  | 3       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S021201.1  | 2       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S091109.1  | 2       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S0212041   | 1       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S101207.1  | 8       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S101208.1  | 12      |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | 5101209.1  | 1       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | s1012091   | 1       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S041301.1  | 7       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S04131011  | 1       |
| Infectopharm         | Hydrophobic triclosan cream 2%...    | S031502.1  | 1       |
| InfectoPharm / Gehe  | Hydrophobic triclosan cream 2%...    | S0413041   | 1       |
| Infectopharm, Noweda | Hydrophobic triclosan cream 2%...    | S021203.1  | 4       |
| Infectopharm, Noweda | Hydrophobic triclosan cream 2%...    | S0231204.1 | 1       |
| Infectopharm/AHD     | Hydrophobic triclosan cream 2%...    | S1012209.1 | 1       |
| InfectoPharm/Phönix  | Hydrophobic triclosan cream 2%...    | 1101410005 | 1       |
| Phönix Gotha         | Hydrophobic triclosan cream 2%...    | 561069     | 1       |
| Phönix/InfectoPharm  | Hydrophobic triclosan cream 2%...    | S021204.1  | 7       |
| Phönix/InfectoPharm  | Hydrophobic triclosan cream 2%...    | S021205.1  | 5       |
| Sanacorp             | Hydrophobic triclosan cream 2%...    | S031105.1  | 1       |
| Alliance             | Hydroxyethylcellulose gel (con. ...) | 13190401   | 10      |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 11341701   | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 20B230712  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 6B090312   | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 24B070912  | 2       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 5B150213   | 3       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 9B120413   | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 12B260413  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 13B260413  | 4       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 11B260413  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 16B310513  | 3       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 27B081113  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 6D230514   | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 21C090813  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 2B270112   | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 9C200412   | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 14B080612  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 17B060712  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 5B090312   | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 19B080713  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 10C120413  | 1       |
| apomix               | Hydroxyethylcellulose gel (con. ...) | 18B080713  | 2       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 16061204   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 15067801   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 11341501   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 22061204   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 12071701   | 2       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 20071204   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 11363401   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 14081202   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 14081203   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 12128201   | 2       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 11341801   | 1       |
| Caelo                | Hydroxyethylcellulose gel (con. ...) | 12128001   | 4       |

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| Supplier | Substance                         | Batch    | Spectra |
|----------|-----------------------------------|----------|---------|
| Caelo    | Hydroxyethylcellulose gel (con... | 12128202 | 2       |
| Caelo    | Hydroxyethylcellulose gel (con... | 25091209 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 2101201  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 2101203  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 17101201 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 17101206 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 17101207 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 26101205 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 12244002 | 4       |
| Caelo    | Hydroxyethylcellulose gel (con... | 10111202 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 5121205  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 21121201 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 12320601 | 3       |
| Caelo    | Hydroxyethylcellulose gel (con... | 29011301 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13021302 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13009501 | 10      |
| Caelo    | Hydroxyethylcellulose gel (con... | 1219401  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13009301 | 4       |
| Caelo    | Hydroxyethylcellulose gel (con... | 26031306 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 23041305 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 11264501 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 6051303  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13084404 | 13      |
| Caelo    | Hydroxyethylcellulose gel (con... | 6061307  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 6061308  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 29061301 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 30071301 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13190901 | 3       |
| Caelo    | Hydroxyethylcellulose gel (con... | 1319401  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 4091303  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 8101303  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 15101311 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13190701 | 4       |
| Caelo    | Hydroxyethylcellulose gel (con... | 14111307 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 14111308 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 21111304 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 3786917  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 6121301  | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13286401 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 11011402 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 24011402 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13286801 | 2       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13393301 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 14066401 | 2       |
| Caelo    | Hydroxyethylcellulose gel (con... | 14066301 | 3       |
| Caelo    | Hydroxyethylcellulose gel (con... | 14200101 | 2       |
| Caelo    | Hydroxyethylcellulose gel (con... | 15067901 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 16127002 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 12219201 | 4       |
| Caelo    | Hydroxyethylcellulose gel (con... | 12209201 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13084402 | 12      |
| Caelo    | Hydroxyethylcellulose gel (con... | 13393201 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13009303 | 3       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13286101 | 7       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13286201 | 5       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13084403 | 10      |
| Caelo    | Hydroxyethylcellulose gel (con... | 12071401 | 1       |
| Caelo    | Hydroxyethylcellulose gel (con... | 12351501 | 3       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13190801 | 5       |
| Caelo    | Hydroxyethylcellulose gel (con... | 13286301 | 3       |

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| Supplier                   | Substance                            | Batch     | Spectra |
|----------------------------|--------------------------------------|-----------|---------|
| Caelo                      | Hydroxyethylcellulose gel (con. ...) | 3286101   | 1       |
| Fagron                     | Hydroxyethylcellulose gel (con. ...) | 13009401  | 3       |
| Fagron                     | Hydroxyethylcellulose gel (con. ...) | 12351401  | 1       |
| Gehe                       | Hydroxyethylcellulose gel (con. ...) | 22b070912 | 1       |
| Caelo                      | Hydroxyethylcellulose gel (con. ...) | 12351502  | 3       |
| Caelo                      | Hydroxyethylcellulose gel (con. ...) | 12320602  | 1       |
| Caelo                      | Hydroxyethylcellulose gel (con. ...) | 13286601  | 5       |
| Caelo                      | Hydroxyethylcellulose gel (con. ...) | 12071501  | 2       |
| Phönix                     | Hydroxyethylcellulose gel (con. ...) | 13286702  | 1       |
| Phönix Gotha               | Hydroxyethylcellulose gel (con. ...) | 12244003  | 4       |
| Phönix Gotha               | Hydroxyethylcellulose gel (con. ...) | 12320501  | 8       |
| PKH Halle                  | Hydroxyethylcellulose gel (con. ...) | 3B240113  | 1       |
| Sanacorp                   | Hydroxyethylcellulose gel (con. ...) | 12127901  | 2       |
| Sanacorp                   | Hydroxyethylcellulose gel (con. ...) | 12219401  | 6       |
| Sanacorp                   | Hydroxyethylcellulose gel (con. ...) | 12309303  | 9       |
| Sanacorp                   | Hydroxyethylcellulose gel (con. ...) | 13190501  | 8       |
| Caelo                      | Hydroxyethylcellulose gel (con. ...) | 12219501  | 5       |
| Sanacorp/ PKH Halle        | Hydroxyethylcellulose gel (con. ...) | 8B050412  | 1       |
| Sanacorp/ PKH Halle        | Hydroxyethylcellulose gel (con. ...) | 10B200412 | 1       |
| Caelo                      | Hydroxyethylcellulose gel (con. ...) | 12219302  | 4       |
| AMH Niemann GmbH & Co. ... | Hydroxyethylcellulose gel 4%         | 7B040313  | 1       |
| AMH Niemann GmbH & Co. ... | Hydroxyethylcellulose gel 4%         | 13B310513 | 1       |
| AMH-Niemann GmbH & Co. ... | Hydroxyethylcellulose gel 4%         | 2C270112  | 1       |
| AMH-Niemann GmbH & Co. ... | Hydroxyethylcellulose gel 4%         | 1B270112  | 1       |
| AMH-Niemann GmbH & Co. ... | Hydroxyethylcellulose gel 4%         | 6C090312  | 1       |
| AMH-Niemann GmbH & Co. ... | Hydroxyethylcellulose gel 4%         | 10B200412 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 17B080713 | 2       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 14B310513 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 5B060717  | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 19B141011 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 22B281011 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 5B090312  | 3       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 15B060712 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 14B080612 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 26B301112 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 6B040313  | 2       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 16B080713 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 21C060913 | 2       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 11B120413 | 1       |
| apomix                     | Hydroxyethylcellulose gel 4%         | 19B090813 | 1       |
| Caesar & Loretz/ Noweda    | Hydroxyethylcellulose gel 4%         | 5B150213  | 1       |
| PKH Halle/ Alliance H.     | Hydroxyethylcellulose gel 4%         | 18B090813 | 4       |

| Supplier | Substance       | Batch    | Spectra |
|----------|-----------------|----------|---------|
| Caelo    | Iodine tincture | 9356601  | 1       |
| Caelo    | Iodine tincture | 5021308  | 1       |
| Caelo    | Iodine tincture | 12285902 | 1       |
| Caelo    | Iodine tincture | 12285901 | 1       |
| Caelo    | Iodine tincture | 12285903 | 1       |
| Caelo    | Iodine tincture | 11303104 | 1       |
| Caelo    | Iodine tincture | 28061302 | 1       |
| Caelo    | Iodine tincture | 1071303  | 1       |

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| Supplier | Substance       | Batch    | Spectra |
|----------|-----------------|----------|---------|
| Caelo    | Iodine tincture | 2101302  | 1       |
| Caelo    | Iodine tincture | 13193501 | 1       |
| Caelo    | Iodine tincture | 14111309 | 1       |
| Caelo    | Iodine tincture | 13193502 | 1       |
| Caelo    | Iodine tincture | 24011405 | 1       |
| Caelo    | Iodine tincture | 5021402  | 1       |
| Caelo    | Iodine tincture | 12285906 | 3       |
| Fagron   | Iodine tincture | 11309402 | 1       |
| Caelo    | Iodine tincture | 13193503 | 1       |

| Supplier                 | Substance            | Batch    | Spectra |
|--------------------------|----------------------|----------|---------|
| Otto Fischar GmbH & C... | Lactic acid 80% L(+) | 20020271 | 1       |
| Phönix Gotha             | Lactic acid 80% L(+) | 2002071  | 2       |
| Caelo                    | Lard                 | 11263707 | 1       |
| Caelo                    | Lard                 | 11263714 | 1       |
| Caelo                    | Lard                 | 11379606 | 1       |
| Caelo                    | Lard                 | 11263706 | 1       |
| Caelo                    | Lard                 | 11263715 | 1       |
| Caelo                    | Lard                 | 11379605 | 2       |
| Caesar&lorenz,Phoenix    | Lard                 | 11095310 | 1       |
| Caelo                    | Lavender spirit      | 13166502 | 1       |
| Caelo                    | Lavender spirit      | 13300803 | 2       |
| dhu                      | Lavender spirit      | 1041012  | 4       |
| Caelo                    | Lime water           | 13028602 | 1       |

| Supplier  | Substance                          | Batch         | Spectra |
|-----------|------------------------------------|---------------|---------|
| Caelo     | Macadamia oil, refined             | 13012104      | 1       |
| Caelo     | Macadamia oil, refined             | 13012106      | 1       |
| Caelo     | Macadamia oil, refined             | 14179304      | 2       |
| Caelo     | Macadamia oil, refined             | 16074404      | 1       |
| Caelo     | Macadamia oil, refined             | 17176507      | 1       |
| Caelo     | Macadamia oil, refined             | 17055604      | 1       |
| Primavera | Macadamia oil, refined             | 58C24         | 1       |
| Spinnrad  | Macadamia oil, refined             | 117301241     | 1       |
| Taoasis   | Macadamia oil, refined             | 128991        | 1       |
| Taoasis   | Macadamia oil, refined             | 4976601-92844 | 1       |
| Maros     | Marian thistle fruit mother ti...  | U3762         | 2       |
| Caelo     | Marian thistle seed tincture (...) | 11061110      | 1       |
| Caelo     | Marian thistle seed tincture (...) | 12043822      | 1       |
| Caelo     | Marian thistle seed tincture (...) | 13044304      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 13044206      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 9061201       | 1       |
| Caelo     | Matricaria flower tincture (70...  | 3081201       | 1       |
| Caelo     | Matricaria flower tincture (70...  | 24091208      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 11011303      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 11011307      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 11269917      | 2       |
| Caelo     | Matricaria flower tincture (70...  | 11269920      | 4       |
| Caelo     | Matricaria flower tincture (70...  | 3051310       | 1       |
| Caelo     | Matricaria flower tincture (70...  | 11269911      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 13142803      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 13044202      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 12111305      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 14078402      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 11269924      | 1       |
| Caelo     | Matricaria flower tincture (70...  | 11269905      | 1       |

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| Supplier                 | Substance                                 | Batch      | Spectra |
|--------------------------|-------------------------------------------|------------|---------|
| Caelo                    | Matricaria liquid extract                 | 11303606   | 2       |
| Caelo                    | Matricaria liquid extract                 | 12254801   | 2       |
| Caelo                    | Matricaria liquid extract                 | 12360303   | 2       |
| Caelo                    | Matricaria liquid extract                 | 12360310   | 3       |
| Caelo                    | Matricaria liquid extract                 | 10382713   | 1       |
| Caelo                    | Matricaria liquid extract                 | 12360306   | 1       |
| Maros                    | Matricaria liquid extract                 | 6990       | 3       |
| aliance healthcare       | Matricaria oil, fat                       | 13204306   | 2       |
| Caelo                    | Matricaria oil, fat                       | 11261506   | 1       |
| Caelo                    | Matricaria oil, fat                       | 12189803   | 2       |
| Caelo                    | Matricaria oil, fat                       | 12372903   | 5       |
| Caelo                    | Matricaria oil, fat                       | 1218903    | 1       |
| Caesar & Lorenz          | Matricaria oil, fat                       | 13204304   | 2       |
| Maros                    | Melissa leaf liquid extract 1:1           | 6399       | 3       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 10105412   | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 12206201   | 3       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 11102812   | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 12206205   | 4       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 11011305   | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 3051308    | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 12206214   | 6       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 1206214    | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 27111307   | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 5121303    | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 12233609   | 2       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 1233609    | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 1223612    | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 12233612   | 1       |
| Caelo                    | Melissa leaf tincture (70%) 1:5           | 12206218   | 5       |
| Caelo                    | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 18D014     | 1       |
| Gehe                     | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 13D004A    | 1       |
| Gehe                     | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 13D004B    | 1       |
| Ichthyol                 | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 130004     | 2       |
| Ichthyol                 | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 14D001     | 1       |
| Ichthyol Gesellschaft    | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 12D011     | 5       |
| Ichthyol- Gesellschaft   | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 13D013     | 7       |
| ICHTHYOL/ahp             | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 13d004     | 1       |
| Ichthyol/Gehe            | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 13D004     | 29      |
| Sanacorp/Ichthyol        | Methoxsalen 0.006% Cordes <sup>®</sup> RK | 13D013     | 1       |
| AMH Niemann              | Methylrosanilinium chloride so...         | 3A060612   | 1       |
| AMH Niemann GmbH & Co... | Methylrosanilinium chloride so...         | 1b140213   | 1       |
| Anzag                    | Methylrosanilinium chloride so...         | 5A200712   | 1       |
| Anzag                    | Methylrosanilinium chloride so...         | 1A140213   | 2       |
| apomix                   | Methylrosanilinium chloride so...         | 2B260413   | 1       |
| apomix                   | Methylrosanilinium chloride so...         | 2B290312   | 1       |
| apomix                   | Methylrosanilinium chloride so...         | 1B260413   | 1       |
| apomix                   | Methylrosanilinium chloride so...         | 4B200712   | 1       |
| Leyhs/Noweda             | Methylrosanilinium chloride so...         | 124141     | 1       |
| Phoenix (PKH Halle)      | Methylrosanilinium chloride so...         | 4A200712   | 1       |
| apomix                   | Metronidazole 10% (non-ionic, ...         | 48170413   | 1       |
| apomix                   | Metronidazole 10% (non-ionic, ...         | 5b150513   | 1       |
| apomix                   | Metronidazole 10% (non-ionic, ...         | 38110313   | 1       |
| apomix                   | Metronidazole 10% (non-ionic, ...         | 5B150513   | 1       |
| apomix                   | Metronidazole 10% (non-ionic, ...         | 3B070417   | 1       |
| Spangropharm             | Metronidazole 10% (non-ionic, ...         | 8B211013   | 3       |
| Phoenix (PKH Halle)      | Metronidazole 10% (non-ionic, ...         | 11B251012  | 1       |
| Phoenix (PKH Halle)      | Metronidazole 10% (non-ionic, ...         | 1B020113   | 1       |
| Caelo                    | Myrrh tincture (90%) 1:5                  | 11019810   | 1       |
| Caelo                    | Myrrh tincture (90%) 1:5                  | 3101212460 | 1       |

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| Supplier           | Substance                | Batch      | Spectra |
|--------------------|--------------------------|------------|---------|
| Caelo              | Myrrh tincture (90%) 1:5 | 2704212460 | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 11260916   | 3       |
| Caelo              | Myrrh tincture (90%) 1:5 | 24081209   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 11019809   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 11260918   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 1910211095 | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197103   | 2       |
| Caelo              | Myrrh tincture (90%) 1:5 | 20111214   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197104   | 2       |
| Caelo              | Myrrh tincture (90%) 1:5 | 20101012-1 | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197105   | 10      |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197106   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 2002312460 | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197205   | 4       |
| Caelo              | Myrrh tincture (90%) 1:5 | 2913M2460  | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197303   | 15      |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197305   | 7       |
| Caelo              | Myrrh tincture (90%) 1:5 | 13273303   | 4       |
| Caelo              | Myrrh tincture (90%) 1:5 | 13273404   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 13273308   | 4       |
| Caelo              | Myrrh tincture (90%) 1:5 | 14244206   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 15110504   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 11260909   | 3       |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197107   | 2       |
| Caelo              | Myrrh tincture (90%) 1:5 | 12197112   | 2       |
| Caelo              | Myrrh tincture (90%) 1:5 | 13273301   | 5       |
| Caelo              | Myrrh tincture (90%) 1:5 | 13273302   | 8       |
| Caelo              | Myrrh tincture (90%) 1:5 | 11260914   | 3       |
| Caelo              | Myrrh tincture (90%) 1:5 | 230312     | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 45132U2460 | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 614M2460   | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 11260908   | 1       |
| Caesar/Noweda      | Myrrh tincture (90%) 1:5 | 12197204   | 2       |
| Hetterich/Teofarma | Myrrh tincture (90%) 1:5 | 139101     | 1       |
| Noweda             | Myrrh tincture (90%) 1:5 | 1219104    | 1       |
| Caelo              | Myrrh tincture (90%) 1:5 | 133273301  | 1       |

| Supplier | Substance                      | Batch    | Spectra |
|----------|--------------------------------|----------|---------|
| Caelo    | Nettle root tincture (70%) 1:5 | 11187409 | 1       |
| Caelo    | Nettle root tincture (70%) 1:5 | 12341302 | 1       |
| Caelo    | Nettle tincture (70%) 1:5      | 1108810  | 1       |
| Caelo    | Nettle tincture (70%) 1:5      | 11108810 | 1       |

| Supplier | Substance                    | Batch    | Spectra |
|----------|------------------------------|----------|---------|
| Anzag    | Opium tincture, standardised | 12006212 | 17      |
| Caelo    | Opium tincture, standardised | 12162608 | 1       |
| Caelo    | Opium tincture, standardised | 12380302 | 1       |
| Caelo    | Opium tincture, standardised | 13144005 | 2       |
| Caelo    | Opium tincture, standardised | 13144004 | 1       |
| Caelo    | Opium tincture, standardised | 13394902 | 1       |
| Caelo    | Opium tincture, standardised | 5005712  | 6       |
| Caelo    | Opium tincture, standardised | 12162606 | 1       |
| Caelo    | Opium tincture, standardised | 22031302 | 1       |
| Caelo    | Opium tincture, standardised | 30031301 | 1       |
| Caelo    | Opium tincture, standardised | 8061301  | 1       |
| Caelo    | Opium tincture, standardised | 3071303  | 1       |
| Caelo    | Opium tincture, standardised | 25071302 | 1       |

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| Supplier                 | Substance                     | Batch         | Spectra |
|--------------------------|-------------------------------|---------------|---------|
| Caelo                    | Opium tincture, standardised  | 12121305      | 1       |
| Caelo                    | Opium tincture, standardised  | 16121304      | 1       |
| Caelo                    | Opium tincture, standardised  | 10011404      | 1       |
| Caelo                    | Opium tincture, standardised  | 24011406      | 1       |
| Caelo                    | Opium tincture, standardised  | 13260602      | 1       |
| Caelo                    | Opium tincture, standardised  | 14108504      | 1       |
| Caelo                    | Opium tincture, standardised  | 14108510      | 1       |
| Caelo                    | Opium tincture, standardised  | 6009916       | 1       |
| Caelo                    | Opium tincture, standardised  | 16330406      | 1       |
| Caelo                    | Opium tincture, standardised  | 17227201      | 1       |
| Caelo                    | Opium tincture, standardised  | 12380307      | 1       |
| Caelo                    | Opium tincture, standardised  | 13144011      | 1       |
| Caelo                    | Opium tincture, standardised  | 12162602      | 1       |
| Eigenherstellung         | Opium tincture, standardised  | 70613PML01    | 2       |
| Fagron                   | Opium tincture, standardised  | 9006012/Maros | 1       |
| Gehe                     | Opium tincture, standardised  | 6006713       | 28      |
| Gehe                     | Opium tincture, standardised  | 5007714       | 1       |
| Gehe                     | Opium tincture, standardised  | 6007814       | 2       |
| Gehe                     | Opium tincture, standardised  | 7007914       | 1       |
| Gehe/Maros               | Opium tincture, standardised  | 11006112      | 16      |
| Maros                    | Opium tincture, standardised  | 4005612       | 3       |
| Maros                    | Opium tincture, standardised  | 8005812       | 7       |
| Maros                    | Opium tincture, standardised  | 9006012       | 15      |
| Maros                    | Opium tincture, standardised  | 15031302      | 1       |
| Maros                    | Opium tincture, standardised  | 1006313       | 15      |
| Maros                    | Opium tincture, standardised  | 13071303      | 1       |
| Maros                    | Opium tincture, standardised  | 2004511       | 1       |
| Maros                    | Opium tincture, standardised  | 11007213      | 8       |
| Maros                    | Opium tincture, standardised  | 4007614       | 3       |
| Maros                    | Opium tincture, standardised  | 3007514       | 2       |
| Maros                    | Opium tincture, standardised  | 5008715       | 2       |
| Maros                    | Opium tincture, standardised  | 11008214      | 1       |
| Maros                    | Opium tincture, standardised  | 7008915       | 1       |
| Maros                    | Opium tincture, standardised  | 8009015       | 2       |
| Maros                    | Opium tincture, standardised  | 10009115      | 2       |
| Maros                    | Opium tincture, standardised  | 2009416       | 2       |
| Maros                    | Opium tincture, standardised  | 3009616       | 1       |
| Maros                    | Opium tincture, standardised  | 4009716       | 1       |
| MAROS                    | Opium tincture, standardised  | 3005512       | 1       |
| MAROS                    | Opium tincture, standardised  | 4010817       | 1       |
| Maros Arznei GmbH        | Opium tincture, standardised  | 8006913       | 25      |
| Maros Arznei GmbH        | Opium tincture, standardised  | 11007113      | 8       |
| MAROS Arznei GmbH        | Opium tincture, standardised  | 7006813       | 16      |
| Maros Arznei GmbH/Anzag  | Opium tincture, standardised  | 2005412       | 1       |
| Maros/Gehe               | Opium tincture, standardised  | 5006613       | 27      |
| Maros/Gehe               | Opium tincture, standardised  | 10007013      | 11      |
| Maros/N/010.06.13/PZN... | Opium tincture, standardised  | 4006513       | 32      |
| Maros/Phoenix            | Opium tincture, standardised  | 60066713      | 1       |
| Noweda                   | Opium tincture, standardised  | 1106112       | 2       |
| Caelo                    | Opium tincture, standardised  | 13144010      | 2       |
| Phönix                   | Opium tincture, standardised  | 2006413       | 23      |
| sanacorp                 | Opium tincture, standardised  | 9005912       | 3       |
| Sanacorp                 | Opium tincture, standardised  | 60006713      | 1       |
| Caelo                    | Orange flower oil, artificial | 11232005      | 3       |
| Caelo                    | Orange flower oil, artificial | 13154801      | 1       |
| Caelo                    | Orange flower oil, artificial | 13121302      | 1       |
| Caelo                    | Orange flower oil, artificial | 15344904      | 1       |
| Caelo                    | Orange flower oil, artificial | 13154804      | 1       |
| Noweda                   | Orange flower oil, artificial | 10267805      | 1       |

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continued from previous page

| Supplier               | Substance                     | Batch    | Spectra |
|------------------------|-------------------------------|----------|---------|
| Caelo                  | Orange flower oil, artificial |          | 1       |
| Anzag 26.11.12 ek:3,35 | Orange flower water           | 12171703 | 1       |
| Caelo                  | Orange flower water           | 1235606  | 1       |
| Caelo                  | Orange flower water           | 11327301 | 2       |
| Caelo                  | Orange flower water           | 12119103 | 1       |
| Caelo                  | Orange flower water           | 12359606 | 3       |
| Caelo                  | Orange flower water           | 1339301  | 1       |
| Caelo                  | Orange flower water           | 13339301 | 1       |
| Caelo                  | Orange flower water           | 14156804 | 1       |
| Caelo                  | Orange flower water           | 12328604 | 2       |
| Caelo                  | Orange flower water           | 12328602 | 1       |
| Caelo                  | Orange flower water           | 13339302 | 2       |
| Caelo                  | Orange flower water           | 13057302 | 2       |
| Caelo                  | Orange flower water           | 13096605 | 3       |
| Sanacorp               | Orange flower water           | AKD34    | 1       |
| Caelo                  | Orange flower water           | 12359605 | 2       |
| AMH Niemann/G          | Oxytetracycline ointment SR   | 2C160212 | 1       |
| AMH Niemann/G          | Oxytetracycline ointment SR   | 4C300712 | 1       |
| AMH Niemann/G          | Oxytetracycline ointment SR   | 1B200313 | 1       |
| apomix                 | Oxytetracycline ointment SR   | 1A160212 | 1       |
| Defektur               | Oxytetracycline ointment SR   | 49/12    | 1       |
| Defektur               | Oxytetracycline ointment SR   | 55/12    | 1       |
| Defektur               | Oxytetracycline ointment SR   | 8/13     | 1       |
| Defektur               | Oxytetracycline ointment SR   | 12/13    | 1       |
| Defektur               | Oxytetracycline ointment SR   | 25/13    | 1       |
| Defektur               | Oxytetracycline ointment SR   | 41/13    | 1       |
| Defektur               | Oxytetracycline ointment SR   | 43/13    | 1       |
| Defektur               | Oxytetracycline ointment SR   | 50/13    | 1       |
| Pharmachem             | Oxytetracycline ointment SR   | 230113   | 1       |
| Pharmachem             | Oxytetracycline ointment SR   | 140212   | 2       |

| Supplier              | Substance             | Batch        | Spectra |
|-----------------------|-----------------------|--------------|---------|
| Gehrlicher            | Pansy mother tincture | RU1775       | 1       |
| ACM                   | Paraffin, liquid      | KNC2106J14   | 1       |
| ACM                   | Paraffin, liquid      | KNC2160J14   | 1       |
| AHD                   | Paraffin, liquid      | 171707002/01 | 1       |
| AHD                   | Paraffin, liquid      | 1506005-02   | 9       |
| AHD                   | Paraffin, liquid      | 1710025-01   | 30      |
| AHD                   | Paraffin, liquid      | 1000002996   | 2       |
| AHD                   | Paraffin, liquid      | 100002996    | 1       |
| AHD                   | Paraffin, liquid      | 17321510     | 22      |
| AHD                   | Paraffin, liquid      | 181770005    | 1       |
| Euro OTC              | Paraffin, liquid      | 160703-01    | 1       |
| Caelo                 | Paraffin, liquid      | 15293204     | 16      |
| Caelo                 | Paraffin, liquid      | 17062001     | 52      |
| Allergika Pharma GmbH | Paraffin, liquid      | 12/10        | 1       |
| Allergika Pharma GmbH | Paraffin, liquid      | 8/06         | 1       |
| Allergika Pharma GmbH | Paraffin, liquid      | 18/112023    | 1       |
| Caelo                 | Paraffin, liquid      | 16082904     | 22      |
| anzag                 | Paraffin, liquid      | 1509011-01   | 9       |
| Anzag                 | Paraffin, liquid      | 1810002-01   | 35      |
| Caelo                 | Paraffin, liquid      | 14059708     | 6       |
| Caelo                 | Paraffin, liquid      | 14202507     | 9       |
| Euro OTC              | Paraffin, liquid      | 1257028      | 2       |
| Beiersdorf            | Paraffin, liquid      | 30841410     | 1       |
| Bombastus             | Paraffin, liquid      | 298396       | 2       |
| Bombastus             | Paraffin, liquid      | 300061       | 2       |
| Bombastus             | Paraffin, liquid      | 266032       | 1       |
| Bombastus             | Paraffin, liquid      | 260652       | 1       |

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continued from previous page

| Supplier  | Substance        | Batch           | Spectra |
|-----------|------------------|-----------------|---------|
| Bombastus | Paraffin, liquid | 263350          | 1       |
| Bombastus | Paraffin, liquid | 272590          | 2       |
| Bombastus | Paraffin, liquid | 281540          | 2       |
| Bombastus | Paraffin, liquid | 14187601        | 1       |
| Bombastus | Paraffin, liquid | 288827          | 2       |
| Bombastus | Paraffin, liquid | 290824          | 2       |
| Bombastus | Paraffin, liquid | 292137          | 2       |
| Bombastus | Paraffin, liquid | 294568          | 1       |
| Bombastus | Paraffin, liquid | 295576          | 1       |
| Bombastus | Paraffin, liquid | 295576          | 4       |
| Bombastus | Paraffin, liquid | 308476          | 9       |
| Bombastus | Paraffin, liquid | 18000358        | 7       |
| Bombastus | Paraffin, liquid | 18005175        | 8       |
| Bombastus | Paraffin, liquid | 19001235        | 5       |
| Bombastus | Paraffin, liquid | 146(18000358)   | 1       |
| Bombastus | Paraffin, liquid | 147(18002494)   | 1       |
| Bombastus | Paraffin, liquid | 148(18002494)   | 1       |
| Bombastus | Paraffin, liquid | 149(18005175)   | 1       |
| Bombastus | Paraffin, liquid | 150(18005175)   | 1       |
| Bombastus | Paraffin, liquid | 151(19001235)   | 1       |
| Bombastus | Paraffin, liquid | 281540          | 1       |
| Bombastus | Paraffin, liquid | 19004134        | 1       |
| Bombastus | Paraffin, liquid | 274958          | 7       |
| Bombastus | Paraffin, liquid | 284273          | 1       |
| Bombastus | Paraffin, liquid | 284273          | 2       |
| Bombastus | Paraffin, liquid | 293385          | 2       |
| Bombastus | Paraffin, liquid | 142(308476)     | 1       |
| Bombastus | Paraffin, liquid | 144(18000358)   | 1       |
| Bombastus | Paraffin, liquid | 306312          | 5       |
| Bombastus | Paraffin, liquid | 143(310779)     | 1       |
| Bombastus | Paraffin, liquid | 17360403        | 17      |
| Bombastus | Paraffin, liquid | 301968          | 2       |
| Bombastus | Paraffin, liquid | 301958          | 1       |
| Bombastus | Paraffin, liquid | 6861849         | 1       |
| Bombastus | Paraffin, liquid | 310779          | 7       |
| Caelo     | Paraffin, liquid | 11354102        | 9       |
| Caelo     | Paraffin, liquid | 17321507        | 4       |
| Caelo     | Paraffin, liquid | 1817702         | 1       |
| Caelo     | Paraffin, liquid | 10162009        | 1       |
| Caelo     | Paraffin, liquid | 11207702        | 2       |
| Caelo     | Paraffin, liquid | 9320905         | 1       |
| Caelo     | Paraffin, liquid | 11263606        | 3       |
| Caelo     | Paraffin, liquid | 10071202        | 1       |
| Caelo     | Paraffin, liquid | 2111202         | 1       |
| Caelo     | Paraffin, liquid | 221108111F30-NO | 1       |
| Caelo     | Paraffin, liquid | 12042205        | 6       |
| Caelo     | Paraffin, liquid | 20210312-4      | 1       |
| Caelo     | Paraffin, liquid | 14011303        | 1       |
| Caelo     | Paraffin, liquid | 1601312050      | 1       |
| Caelo     | Paraffin, liquid | 12227701        | 8       |
| Caelo     | Paraffin, liquid | 11092703        | 1       |
| Caelo     | Paraffin, liquid | 715I-02050      | 1       |
| Caelo     | Paraffin, liquid | 19021302        | 1       |
| Caelo     | Paraffin, liquid | 12324304        | 2       |
| Caelo     | Paraffin, liquid | 10162002        | 1       |
| Caelo     | Paraffin, liquid | 10364703        | 1       |
| Caelo     | Paraffin, liquid | 2103312050      | 1       |
| Caelo     | Paraffin, liquid | 12227610        | 1       |
| Caelo     | Paraffin, liquid | 1913Q-02050     | 1       |
| Caelo     | Paraffin, liquid | 13005805        | 15      |

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continued from previous page

| Supplier | Substance        | Batch     | Spectra |
|----------|------------------|-----------|---------|
| Caelo    | Paraffin, liquid | 1234307   | 1       |
| Caelo    | Paraffin, liquid | 0000000   | 1       |
| Caelo    | Paraffin, liquid | 11071302  | 1       |
| Caelo    | Paraffin, liquid | 3213Q2050 | 1       |
| Caelo    | Paraffin, liquid | 12227602  | 1       |
| Caelo    | Paraffin, liquid | 13005205  | 1       |
| Caelo    | Paraffin, liquid | 13005806  | 1       |
| Caelo    | Paraffin, liquid | 13232903  | 8       |
| Caelo    | Paraffin, liquid | 83054508  | 1       |
| Caelo    | Paraffin, liquid | 13232902  | 14      |
| Caelo    | Paraffin, liquid | 27011405  | 1       |
| Caelo    | Paraffin, liquid | 16061203  | 1       |
| Caelo    | Paraffin, liquid | 10062014A | 1       |
| Caelo    | Paraffin, liquid | 10071403  | 1       |
| Caelo    | Paraffin, liquid | 40956810  | 1       |
| Caelo    | Paraffin, liquid | 14059701  | 8       |
| Caelo    | Paraffin, liquid | 14059708  | 4       |
| Caelo    | Paraffin, liquid | 14044504  | 2       |
| Caelo    | Paraffin, liquid | 14059703  | 3       |
| Caelo    | Paraffin, liquid | 14059703  | 5       |
| Caelo    | Paraffin, liquid | 14044507  | 3       |
| Caelo    | Paraffin, liquid | 13248006  | 2       |
| Caelo    | Paraffin, liquid | 14059701  | 1       |
| Caelo    | Paraffin, liquid | 14141408  | 1       |
| Caelo    | Paraffin, liquid | 1420509   | 2       |
| Caelo    | Paraffin, liquid | 14011514  | 1       |
| Caelo    | Paraffin, liquid | 7315971   | 1       |
| Caelo    | Paraffin, liquid | 14035904  | 1       |
| Caelo    | Paraffin, liquid | 14163804  | 2       |
| Caelo    | Paraffin, liquid | 14357203  | 12      |
| Caelo    | Paraffin, liquid | 14305904  | 1       |
| Caelo    | Paraffin, liquid | 13103308  | 1       |
| Caelo    | Paraffin, liquid | 15106101  | 7       |
| Caelo    | Paraffin, liquid | 14163807  | 3       |
| Caelo    | Paraffin, liquid | 4091515   | 1       |
| Caelo    | Paraffin, liquid | 151060104 | 1       |
| Caelo    | Paraffin, liquid | 25092015  | 1       |
| Caelo    | Paraffin, liquid | 15106109  | 2       |
| Caelo    | Paraffin, liquid | 15293203  | 17      |
| Caelo    | Paraffin, liquid | 15106107  | 16      |
| Caelo    | Paraffin, liquid | 15293205  | 29      |
| Caelo    | Paraffin, liquid | 15106107  | 1       |
| Caelo    | Paraffin, liquid | 152345083 | 1       |
| Caelo    | Paraffin, liquid | 15293202  | 15      |
| Caelo    | Paraffin, liquid | 15293201  | 12      |
| Caelo    | Paraffin, liquid | 13232902  | 1       |
| Caelo    | Paraffin, liquid | 13103309  | 3       |
| Caelo    | Paraffin, liquid | 15336703  | 15      |
| Caelo    | Paraffin, liquid | 15923205  | 1       |
| Caelo    | Paraffin, liquid | 15293202  | 1       |
| Caelo    | Paraffin, liquid | 15234504  | 1       |
| Caelo    | Paraffin, liquid | 1593205   | 1       |
| Caelo    | Paraffin, liquid | 15336702  | 2       |
| Caelo    | Paraffin, liquid | 15234506  | 6       |
| Caelo    | Paraffin, liquid | 15429606  | 1       |
| Caelo    | Paraffin, liquid | 15230601  | 1       |
| Caelo    | Paraffin, liquid | 1235465   | 1       |
| Caelo    | Paraffin, liquid | 17293204  | 1       |
| Caelo    | Paraffin, liquid | 160829    | 1       |
| Caelo    | Paraffin, liquid | 16149802  | 26      |

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| Supplier | Substance        | Batch            | Spectra |
|----------|------------------|------------------|---------|
| Caelo    | Paraffin, liquid | 15429610         | 1       |
| Caelo    | Paraffin, liquid | 16082908         | 21      |
| Caelo    | Paraffin, liquid | 1604009-01       | 13      |
| Caelo    | Paraffin, liquid | Test1234         | 1       |
| Caelo    | Paraffin, liquid | 16149801         | 28      |
| Caelo    | Paraffin, liquid | 1608294          | 1       |
| Caelo    | Paraffin, liquid | 15429611         | 1       |
| Caelo    | Paraffin, liquid | 16171002         | 4       |
| Caelo    | Paraffin, liquid | 16171001         | 20      |
| Caelo    | Paraffin, liquid | 16238803         | 19      |
| Caelo    | Paraffin, liquid | 16171003         | 1       |
| Caelo    | Paraffin, liquid | 16238804         | 2       |
| Caelo    | Paraffin, liquid | 160822907        | 1       |
| Caelo    | Paraffin, liquid | 161710           | 1       |
| Caelo    | Paraffin, liquid | 9041705          | 1       |
| Caelo    | Paraffin, liquid | 16171009         | 2       |
| Caelo    | Paraffin, liquid | 16238808         | 25      |
| Caelo    | Paraffin, liquid | 16171008         | 7       |
| Caelo    | Paraffin, liquid | 12345            | 1       |
| Caelo    | Paraffin, liquid | 16171010         | 2       |
| Caelo    | Paraffin, liquid | 16E30-B05-325889 | 5       |
| Caelo    | Paraffin, liquid | 16238815         | 7       |
| Caelo    | Paraffin, liquid | 17062001         | 4       |
| Caelo    | Paraffin, liquid | 17047606         | 1       |
| Caelo    | Paraffin, liquid | 17047604         | 2       |
| Caelo    | Paraffin, liquid | 12312            | 1       |
| Caelo    | Paraffin, liquid | 15111739         | 1       |
| Caelo    | Paraffin, liquid | 17062005         | 29      |
| Caelo    | Paraffin, liquid | 17062007         | 44      |
| Caelo    | Paraffin, liquid | 17321501         | 80      |
| Caelo    | Paraffin, liquid | 17196002         | 2       |
| Caelo    | Paraffin, liquid | 17196001         | 19      |
| Caelo    | Paraffin, liquid | 170620055518     | 1       |
| Caelo    | Paraffin, liquid | 17D28-B01-340148 | 4       |
| Caelo    | Paraffin, liquid | 17J02-B01-343565 | 4       |
| Caelo    | Paraffin, liquid | 30041805         | 1       |
| Caelo    | Paraffin, liquid | 18048103         | 5       |
| Caelo    | Paraffin, liquid | 17360401         | 1       |
| Caelo    | Paraffin, liquid | 17321505         | 33      |
| Caelo    | Paraffin, liquid | 180718P          | 1       |
| Caelo    | Paraffin, liquid | 18048104         | 1       |
| Caelo    | Paraffin, liquid | 17360405         | 2       |
| Caelo    | Paraffin, liquid | 1000007838       | 5       |
| Caelo    | Paraffin, liquid | 15121804         | 1       |
| Caelo    | Paraffin, liquid | 18I13-B01        | 1       |
| Caelo    | Paraffin, liquid | 17360412         | 1       |
| Caelo    | Paraffin, liquid | 18080510         | 1       |
| Caelo    | Paraffin, liquid | 18177007         | 42      |
| Caelo    | Paraffin, liquid | 17360411         | 1       |
| Caelo    | Paraffin, liquid | 1817705          | 1       |
| Caelo    | Paraffin, liquid | 19010302         | 66      |
| Caelo    | Paraffin, liquid | 18177008         | 45      |
| Caelo    | Paraffin, liquid | 18177003         | 2       |
| Caelo    | Paraffin, liquid | 17360416         | 1       |
| Caelo    | Paraffin, liquid | 19010302         | 1       |
| Caelo    | Paraffin, liquid | 17360419         | 1       |
| Caelo    | Paraffin, liquid | P-598            | 1       |
| Caelo    | Paraffin, liquid | 10910302         | 1       |
| Caelo    | Paraffin, liquid | 17360420         | 1       |
| Caelo    | Paraffin, liquid | 173600414        | 1       |

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continued from previous page

| Supplier | Substance        | Batch                 | Spectra |
|----------|------------------|-----------------------|---------|
| Caelo    | Paraffin, liquid | 1901303               | 1       |
| Caelo    | Paraffin, liquid | 19010313              | 8       |
| Caelo    | Paraffin, liquid | 19010315              | 9       |
| Caelo    | Paraffin, liquid | 190100307             | 1       |
| Caelo    | Paraffin, liquid | 19010310              | 1       |
| Caelo    | Paraffin, liquid | 19010316              | 3       |
| Caelo    | Paraffin, liquid | 19120303              | 1       |
| Caelo    | Paraffin, liquid | 192559004             | 6       |
| Caelo    | Paraffin, liquid | 192559007             | 2       |
| Caelo    | Paraffin, liquid | 192559011             | 2       |
| Caelo    | Paraffin, liquid | CH-B17321401          | 1       |
| Caelo    | Paraffin, liquid | 13390606              | 1       |
| Caelo    | Paraffin, liquid | 12109603              | 2       |
| Caelo    | Paraffin, liquid | 13390604              | 1       |
| Caelo    | Paraffin, liquid | 14059705              | 1       |
| Caelo    | Paraffin, liquid | 17321401-20180206Ma7  | 1       |
| Caelo    | Paraffin, liquid | 12227609              | 3       |
| Caelo    | Paraffin, liquid | 14163807              | 22      |
| Caelo    | Paraffin, liquid | 170620008             | 1       |
| Caelo    | Paraffin, liquid | 17321509              | 43      |
| Caelo    | Paraffin, liquid | 1608204               | 1       |
| Caelo    | Paraffin, liquid | Ch.-B.: 19010302      | 1       |
| Caelo    | Paraffin, liquid | B18177008             | 1       |
| Caelo    | Paraffin, liquid | 11H04-N02             | 1       |
| Caelo    | Paraffin, liquid | 15106102              | 2       |
| Caelo    | Paraffin, liquid | 18177001              | 79      |
| Caelo    | Paraffin, liquid | 1205033-01            | 1       |
| Caelo    | Paraffin, liquid | 16238808(1)           | 1       |
| Caelo    | Paraffin, liquid | 16238808(2)           | 1       |
| Caelo    | Paraffin, liquid | 16238808(3)           | 1       |
| Caelo    | Paraffin, liquid | 16238808(4)           | 1       |
| Caelo    | Paraffin, liquid | 15336704              | 18      |
| Caelo    | Paraffin, liquid | 19120301P-200602-6    | 1       |
| Caelo    | Paraffin, liquid | 13050102              | 20      |
| Caelo    | Paraffin, liquid | 16149801, 20161112Ma7 | 1       |
| Caelo    | Paraffin, liquid | 18177004              | 50      |
| Caelo    | Paraffin, liquid | 1811Q-02050           | 1       |
| Caelo    | Paraffin, liquid | 15106104              | 12      |
| Caelo    | Paraffin, liquid | 18177005              | 67      |
| Caelo    | Paraffin, liquid | 15299201              | 1       |
| Caelo    | Paraffin, liquid | 14202509              | 5       |
| Caelo    | Paraffin, liquid | 13390602              | 1       |
| Caelo    | Paraffin, liquid | 12102101              | 9       |
| Caelo    | Paraffin, liquid | 13131704              | 1       |
| Caelo    | Paraffin, liquid | 14202509              | 6       |
| Caelo    | Paraffin, liquid | 14357203              | 1       |
| Caelo    | Paraffin, liquid | 1960017               | 1       |
| Caelo    | Paraffin, liquid | 17047610              | 2       |
| Caelo    | Paraffin, liquid | 113544102             | 1       |
| Caelo    | Paraffin, liquid | 1437205               | 1       |
| Caelo    | Paraffin, liquid | 17062002              | 9       |
| Caelo    | Paraffin, liquid | 1135412               | 1       |
| Caelo    | Paraffin, liquid | 17321401              | 31      |
| Caelo    | Paraffin, liquid | 191203003             | 1       |
| Caelo    | Paraffin, liquid | 14141406              | 1       |
| Caelo    | Paraffin, liquid | 14305904              | 7       |
| Caelo    | Paraffin, liquid | 3613A-02050           | 1       |
| Caelo    | Paraffin, liquid | 15429603              | 15      |
| Caelo    | Paraffin, liquid | 1721503               | 1       |
| Caelo    | Paraffin, liquid | 145(18000358)         | 1       |

continued on the next page

continued from previous page

| Supplier | Substance        | Batch            | Spectra |
|----------|------------------|------------------|---------|
| Caelo    | Paraffin, liquid | 12H27-N01        | 10      |
| Caelo    | Paraffin, liquid | 1304010-01       | 4       |
| Caelo    | Paraffin, liquid | 214U-02050       | 1       |
| Caelo    | Paraffin, liquid | 13248007         | 8       |
| Caelo    | Paraffin, liquid | 13390601         | 7       |
| Caelo    | Paraffin, liquid | 1309022-02       | 2       |
| Caelo    | Paraffin, liquid | 14134601         | 1       |
| Caelo    | Paraffin, liquid | 14357204         | 4       |
| Caelo    | Paraffin, liquid | 16/080/P         | 1       |
| Caelo    | Paraffin, liquid | 15234505         | 2       |
| Caelo    | Paraffin, liquid | 1607039-01       | 1       |
| Caelo    | Paraffin, liquid | 16238812         | 3       |
| Caelo    | Paraffin, liquid | 13321401         | 1       |
| Caelo    | Paraffin, liquid | 17321506         | 55      |
| Caelo    | Paraffin, liquid | 17360404         | 4       |
| Caelo    | Paraffin, liquid | 1817004          | 1       |
| Caelo    | Paraffin, liquid | 19271402         | 5       |
| Caelo    | Paraffin, liquid | 1114U02050       | 1       |
| Caelo    | Paraffin, liquid | 19010303         | 36      |
| Caelo    | Paraffin, liquid | 17321503         | 46      |
| Caelo    | Paraffin, liquid | 14357204         | 14      |
| Caelo    | Paraffin, liquid | 150600501        | 3       |
| Caelo    | Paraffin, liquid | 1322902          | 1       |
| Caelo    | Paraffin, liquid | 14163804         | 9       |
| Caelo    | Paraffin, liquid | 1307007-01       | 1       |
| Caelo    | Paraffin, liquid | 14357201         | 1       |
| Caelo    | Paraffin, liquid | 15293209         | 1       |
| Caelo    | Paraffin, liquid | 12324307         | 1       |
| Caelo    | Paraffin, liquid | 16082905         | 18      |
| Caelo    | Paraffin, liquid | 16149806         | 2       |
| Caelo    | Paraffin, liquid | 161001701        | 1       |
| Caelo    | Paraffin, liquid | 16238809         | 1       |
| Caelo    | Paraffin, liquid | 170105185        | 1       |
| Caelo    | Paraffin, liquid | 17062009         | 1       |
| Caelo    | Paraffin, liquid | 518Q-02050       | 1       |
| Caelo    | Paraffin, liquid | 17062008         | 1       |
| Caelo    | Paraffin, liquid | 16255101         | 1       |
| Caelo    | Paraffin, liquid | 16238802         | 1       |
| Caelo    | Paraffin, liquid | 16238806         | 57      |
| Caelo    | Paraffin, liquid | 16238807         | 10      |
| Caelo    | Paraffin, liquid | 1628806          | 1       |
| Caelo    | Paraffin, liquid | 16238813         | 16      |
| Caelo    | Paraffin, liquid | 1732506          | 1       |
| Caelo    | Paraffin, liquid | 800308301        | 1       |
| Caelo    | Paraffin, liquid | 19010307         | 17      |
| Caelo    | Paraffin, liquid | 19120304         | 1       |
| Caelo    | Paraffin, liquid | 271214A          | 1       |
| Caelo    | Paraffin, liquid | 1435905          | 2       |
| Caelo    | Paraffin, liquid | 14D24-B05-295022 | 10      |
| Caelo    | Paraffin, liquid | 14357205         | 10      |
| Caelo    | Paraffin, liquid | 14D24B05-295022  | 1       |
| Caelo    | Paraffin, liquid | 16082907         | 20      |
| Caelo    | Paraffin, liquid | 160820907        | 1       |
| Caelo    | Paraffin, liquid | CH: 201LEK:5,31  | 1       |
| Caelo    | Paraffin, liquid | 2316E-02050      | 1       |
| Caelo    | Paraffin, liquid | 16228808         | 1       |
| Caelo    | Paraffin, liquid | 16238860         | 1       |
| Caelo    | Paraffin, liquid | 17321506         | 1       |
| Caelo    | Paraffin, liquid | 18177002         | 27      |
| Caelo    | Paraffin, liquid | 4817M-02050      | 1       |

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continued from previous page

| Supplier                 | Substance        | Batch              | Spectra |
|--------------------------|------------------|--------------------|---------|
| Caelo                    | Paraffin, liquid | 17360409           | 20      |
| Caelo                    | Paraffin, liquid | 19010303           | 1       |
| Caelo                    | Paraffin, liquid | 192559003          | 5       |
| Caelo                    | Paraffin, liquid | 13232901           | 15      |
| Caelo                    | Paraffin, liquid | 13131705           | 17      |
| Caelo                    | Paraffin, liquid | 12295601           | 1       |
| Caelo                    | Paraffin, liquid | 12324306           | 1       |
| Caelo                    | Paraffin, liquid | 13390602           | 20      |
| Caelo                    | Paraffin, liquid | 14044507           | 4       |
| Caelo                    | Paraffin, liquid | 13390604           | 1       |
| Caelo                    | Paraffin, liquid | 14202507           | 2       |
| Caelo                    | Paraffin, liquid | 14141408           | 2       |
| Caelo                    | Paraffin, liquid | 15106109           | 10      |
| Caelo                    | Paraffin, liquid | 180104101          | 1       |
| Caelo                    | Paraffin, liquid | 170476             | 1       |
| Caelo                    | Paraffin, liquid | 417A-02050         | 1       |
| Caelo                    | Paraffin, liquid | 192559012          | 1       |
| Caelo                    | Paraffin, liquid | 20002999003        | 1       |
| Caelo                    | Paraffin, liquid | 4112M-02048        | 1       |
| Caelo                    | Paraffin, liquid | 2213A-02050        | 1       |
| Caesar & Loretz / All... | Paraffin, liquid | 18048102           | 32      |
| Caesar & Loretz GmbH     | Paraffin, liquid | 5425               | 1       |
| Caesar & Loretz GmbH     | Paraffin, liquid | 19010301           | 1       |
| Caesar & Loretz GmbH     | Paraffin, liquid | 19010304           | 27      |
| Caesar & Loretz GmbH     | Paraffin, liquid | 17360414           | 16      |
| Caesar & Loretz GmbH     | Paraffin, liquid | 19120301           | 5       |
| Caesar & Loretz GmbH     | Paraffin, liquid | 191203010          | 1       |
| Caesar & Loretz GmbH     | Paraffin, liquid | 20002999004        | 1       |
| Caesar & Loretz GmbH     | Paraffin, liquid | 20004108007        | 1       |
| Caesar & Loretz GmbH/... | Paraffin, liquid | 17360415           | 3       |
| Calo                     | Paraffin, liquid | 15429603           | 1       |
| Cealo                    | Paraffin, liquid | 1300805            | 1       |
| Devesa/ Phönix           | Paraffin, liquid | 14D24-B05-295022   | 1       |
| Eigenherstellung         | Paraffin, liquid | 130712HML01        | 1       |
| Eigenherstellung         | Paraffin, liquid | 291012HJK01        | 1       |
| Eigenherstellung         | Paraffin, liquid | 150413HML01        | 1       |
| Eigenherstellung         | Paraffin, liquid | Hergest.am13.05.13 | 1       |
| Eigenherstellung         | Paraffin, liquid | 261113HML01        | 1       |
| Eigenherstellung         | Paraffin, liquid | 150114HML01        | 1       |
| Eigenherstellung         | Paraffin, liquid | 60614HJK01         | 1       |
| Eigenherstellung         | Paraffin, liquid | 210714H01          | 1       |
| Eigenherstellung         | Paraffin, liquid | 11214HAS01         | 1       |
| Eigenherstellung         | Paraffin, liquid | 260115ML01         | 1       |
| Eigenherstellung         | Paraffin, liquid | 100615HJK01        | 1       |
| Eigenherstellung         | Paraffin, liquid | 240715HML01        | 1       |
| EuRho                    | Paraffin, liquid | 1207022-01         | 4       |
| EuRho                    | Paraffin, liquid | 1803023-01         | 1       |
| EuRho / Noweda           | Paraffin, liquid | 131102401          | 4       |
| EuRho/Gehe               | Paraffin, liquid | 90901              | 1       |
| EuRho/Now                | Paraffin, liquid | 1802016-01         | 25      |
| Euro OTC                 | Paraffin, liquid | 1108033-01         | 1       |
| Euro OTC                 | Paraffin, liquid | 1412010-01         | 4       |
| Euro OTC                 | Paraffin, liquid | 1509011-01         | 1       |
| Euro OTC                 | Paraffin, liquid | 1404010-01         | 3       |
| Euro OTC                 | Paraffin, liquid | 1311024/01         | 1       |
| Euro OTC                 | Paraffin, liquid | 1503046-01         | 13      |
| Euro OTC                 | Paraffin, liquid | 1102009-01         | 1       |
| Euro OTC                 | Paraffin, liquid | 1203042-01         | 4       |
| Euro OTC                 | Paraffin, liquid | 1211026-01         | 7       |

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continued from previous page

| Supplier | Substance        | Batch               | Spectra |
|----------|------------------|---------------------|---------|
| Euro OTC | Paraffin, liquid | 1211027-01          | 12      |
| Euro OTC | Paraffin, liquid | 1303031-01          | 11      |
| Euro OTC | Paraffin, liquid | 120802101           | 1       |
| Euro OTC | Paraffin, liquid | 130303101           | 1       |
| Euro OTC | Paraffin, liquid | 2911028-01          | 1       |
| Euro OTC | Paraffin, liquid | 22101402            | 1       |
| Euro OTC | Paraffin, liquid | 1404009-01          | 5       |
| Euro OTC | Paraffin, liquid | 140900701           | 1       |
| Euro OTC | Paraffin, liquid | 1412010-01          | 8       |
| Euro OTC | Paraffin, liquid | 1602026-01          | 20      |
| Euro OTC | Paraffin, liquid | 1511300-01          | 1       |
| Euro OTC | Paraffin, liquid | 1607039-01          | 19      |
| Euro OTC | Paraffin, liquid | 1704023-01          | 7       |
| Euro OTC | Paraffin, liquid | 1704023-0108598729  | 1       |
| Euro OTC | Paraffin, liquid | 1704023             | 1       |
| Euro OTC | Paraffin, liquid | 143577              | 1       |
| Euro OTC | Paraffin, liquid | 18100201            | 1       |
| Euro OTC | Paraffin, liquid | 1264597             | 3       |
| Euro OTC | Paraffin, liquid | 18100001-01         | 1       |
| Euro OTC | Paraffin, liquid | P-18021921/...25-01 | 1       |
| Euro OTC | Paraffin, liquid | 1909010-01          | 3       |
| Euro OTC | Paraffin, liquid | 190901001           | 1       |
| Euro OTC | Paraffin, liquid | 144484              | 1       |
| Euro OTC | Paraffin, liquid | 174023-01           | 1       |
| Euro OTC | Paraffin, liquid | 141180              | 1       |
| Euro OTC | Paraffin, liquid | 160202601           | 1       |
| Euro OTC | Paraffin, liquid | 1311024-01          | 13      |
| Euro OTC | Paraffin, liquid | 170608P/1610017-01  | 1       |
| Euro OTC | Paraffin, liquid | 1810002_01          | 1       |
| Euro OTC | Paraffin, liquid | 144404              | 1       |
| Euro OTC | Paraffin, liquid | 1506021-01          | 1       |
| Euro OTC | Paraffin, liquid | 17133-01            | 1       |
| Euro OTC | Paraffin, liquid | 1707002-01          | 20      |
| Euro OTC | Paraffin, liquid | 139845              | 2       |
| Euro OTC | Paraffin, liquid | 1110014-01          | 4       |
| Euro OTC | Paraffin, liquid | 121102701           | 1       |
| Euro OTC | Paraffin, liquid | 1404009-01          | 11      |
| Euro OTC | Paraffin, liquid | 1501016-01          | 5       |
| Euro OTC | Paraffin, liquid | 1604009-01          | 1       |
| Euro OTC | Paraffin, liquid | 160703901           | 1       |
| Euro OTC | Paraffin, liquid | 1701052-01          | 9       |
| Euro OTC | Paraffin, liquid | 150600502           | 1       |
| Euro OTC | Paraffin, liquid | 170900201           | 2       |
| Euro OTC | Paraffin, liquid | 1255801             | 1       |
| Euro OTC | Paraffin, liquid | 1511030-01          | 23      |
| Euro OTC | Paraffin, liquid | 1801041-01          | 29      |
| Euro OTC | Paraffin, liquid | 1904026-01          | 11      |
| Euro OTC | Paraffin, liquid | 130902201           | 1       |
| Euro OTC | Paraffin, liquid | 1608007-01          | 8       |
| Euro OTC | Paraffin, liquid | 1709002-01          | 12      |
| Euro OTC | Paraffin, liquid | 190404026-01        | 1       |
| Euro OTC | Paraffin, liquid | 1909016-01          | 1       |
| Euro OTC | Paraffin, liquid | 1902012-01          | 4       |
| Euro OTC | Paraffin, liquid | 171002501           | 1       |
| Euro OTC | Paraffin, liquid | 140400901           | 1       |
| Euro OTC | Paraffin, liquid | 1511029-01          | 8       |
| Euro OTC | Paraffin, liquid | 1304010-01          | 3       |
| Euro OTC | Paraffin, liquid | 170105201           | 2       |
| Euro OTC | Paraffin, liquid | 142430              | 3       |
| Euro OTC | Paraffin, liquid | 1309022-01          | 2       |

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continued from previous page

| Supplier       | Substance        | Batch            | Spectra |
|----------------|------------------|------------------|---------|
| Euro OTC       | Paraffin, liquid | 133888           | 1       |
| Euro OTC       | Paraffin, liquid | 137491           | 1       |
| Euro OTC       | Paraffin, liquid | 18110002-01      | 1       |
| Euro OTC       | Paraffin, liquid | 1901011-01       | 30      |
| Euro OTC       | Paraffin, liquid | 196310           | 1       |
| Euro OTC       | Paraffin, liquid | 1311024-01       | 1       |
| Euro OTC       | Paraffin, liquid | 1706017-01       | 6       |
| Euro OTC       | Paraffin, liquid | 1810002-02       | 1       |
| Euro OTC       | Paraffin, liquid | 1810001-01       | 17      |
| Euro OTC       | Paraffin, liquid | 1307007-01       | 14      |
| Euro Pharma    | Paraffin, liquid | 150101601        | 2       |
| Euro/ Sanacorp | Paraffin, liquid | 1409007-01       | 1       |
| Euro/Gehe      | Paraffin, liquid | 1604045-01       | 12      |
| Euro OTC       | Paraffin, liquid | 1407042-01       | 9       |
| Euro OTC       | Paraffin, liquid | 1106009-01       | 1       |
| Euro OTC       | Paraffin, liquid | 16238802         | 35      |
| Euro OTC       | Paraffin, liquid | 1606032-01       | 16      |
| Euro OTC       | Paraffin, liquid | 1701033-01       | 28      |
| Euro OTC       | Paraffin, liquid | 1802016-1        | 1       |
| Euro OTC       | Paraffin, liquid | 1610017-01       | 19      |
| Euro OTC       | Paraffin, liquid | 16020026-01      | 1       |
| Euro OTC       | Paraffin, liquid | 17044023-01      | 1       |
| Euro OTC       | Paraffin, liquid | 140401001        | 2       |
| Fagron         | Paraffin, liquid | 14D24-B05        | 3       |
| Fagron         | Paraffin, liquid | 1004C014         | 1       |
| Fagron         | Paraffin, liquid | 11L19-N01        | 1       |
| Fagron         | Paraffin, liquid | 12H27-N01        | 1       |
| Fagron         | Paraffin, liquid | 13A30-N11        | 19      |
| Fagron         | Paraffin, liquid | 11co8-no7        | 1       |
| Fagron         | Paraffin, liquid | 13A3010          | 2       |
| Fagron         | Paraffin, liquid | 959561           | 5       |
| Fagron         | Paraffin, liquid | 13E28-N02        | 14      |
| Fagron         | Paraffin, liquid | 13E28-N02        | 1       |
| Fagron         | Paraffin, liquid | 13G24N12         | 1       |
| Fagron         | Paraffin, liquid | 13H02-B02        | 1       |
| Fagron         | Paraffin, liquid | 13L17-B01-289491 | 5       |
| Fagron         | Paraffin, liquid | 13L17-B01-289493 | 2       |
| Fagron         | Paraffin, liquid | 13G24N12         | 1       |
| Fagron         | Paraffin, liquid | 13L17-B01-289492 | 2       |
| Fagron         | Paraffin, liquid | 11L19-N01        | 1       |
| Fagron         | Paraffin, liquid | 14D24-B05-295014 | 3       |
| Fagron         | Paraffin, liquid | 12H27-N01        | 1       |
| Fagron         | Paraffin, liquid | 12-23-n03        | 1       |
| Fagron         | Paraffin, liquid | 1005070          | 1       |
| Fagron         | Paraffin, liquid | 14d24-b05-295022 | 1       |
| Fagron         | Paraffin, liquid | 13117-b01-289492 | 1       |
| Fagron         | Paraffin, liquid | 13a30-n11        | 1       |
| Fagron         | Paraffin, liquid | 110816-2         | 1       |
| Fagron         | Paraffin, liquid | 16a27-b01-323777 | 1       |
| Fagron         | Paraffin, liquid | 16A27B01323777   | 1       |
| Fagron         | Paraffin, liquid | 16E30-B05        | 2       |
| Fagron         | Paraffin, liquid | 17D28-B01        | 2       |
| Fagron         | Paraffin, liquid | 17J02-B01-345372 | 4       |
| Fagron         | Paraffin, liquid | 18B19-B06        | 1       |
| Fagron         | Paraffin, liquid | 18B19-B09        | 1       |
| Fagron         | Paraffin, liquid | 18B19B09351592   | 1       |
| Fagron         | Paraffin, liquid | 12170            | 1       |
| Fagron         | Paraffin, liquid | 29137            | 1       |
| Fagron         | Paraffin, liquid | 13L17-B01-289491 | 3       |
| Fagron         | Paraffin, liquid | 18B19-B09-351592 | 1       |

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| Supplier                      | Substance        | Batch             | Spectra |
|-------------------------------|------------------|-------------------|---------|
| Fagron                        | Paraffin, liquid | 13L17-B01         | 3       |
| Fagron                        | Paraffin, liquid | 1198738           | 2       |
| Fagron                        | Paraffin, liquid | 16K09-B06-332237  | 6       |
| Fagron                        | Paraffin, liquid | B05-295022        | 1       |
| Fagron                        | Paraffin, liquid | 16E30-B05-324041  | 2       |
| Fagron                        | Paraffin, liquid | 14D24-B05-295023  | 15      |
| Fagron                        | Paraffin, liquid | 18I13-B01-355278  | 1       |
| Fagron                        | Paraffin, liquid | 13C19-N09         | 3       |
| Fagron                        | Paraffin, liquid | 123586            | 4       |
| Fagron                        | Paraffin, liquid | 14d24-b05-295023  | 2       |
| Fagron                        | Paraffin, liquid | 2415-02050        | 1       |
| Fagron                        | Paraffin, liquid | 14D24-B05         | 4       |
| Fagron                        | Paraffin, liquid | 941435            | 1       |
| Fagron                        | Paraffin, liquid | 14D24_B05_295023  | 1       |
| Fagron                        | Paraffin, liquid | 1153092           | 3       |
| Fagron                        | Paraffin, liquid | 1254062           | 3       |
| Fagron                        | Paraffin, liquid | 18/13-B01-355278  | 1       |
| Fagron                        | Paraffin, liquid | 4413M2050         | 1       |
| Fagron                        | Paraffin, liquid | 13L-B01-289491    | 1       |
| Fagron                        | Paraffin, liquid | 16E30-B05-327577  | 10      |
| Fagron                        | Paraffin, liquid | 1806004-01        | 24      |
| Fagron                        | Paraffin, liquid | 15B16-B03-304611  | 10      |
| Fagron                        | Paraffin, liquid | 15234502          | 16      |
| Fagron                        | Paraffin, liquid | 14D24-B05-295023  | 1       |
| Fagron                        | Paraffin, liquid | 16E30B05327577    | 2       |
| Fagron                        | Paraffin, liquid | 17J02B01-345372   | 1       |
| Fagron                        | Paraffin, liquid | 18B19-B06-347311  | 1       |
| Fagron                        | Paraffin, liquid | 18B19-B09-347311  | 1       |
| Fagron                        | Paraffin, liquid | 13G24-N12         | 7       |
| Fagron                        | Paraffin, liquid | 13117-B01-289492  | 1       |
| Fagron                        | Paraffin, liquid | 14357205          | 1       |
| Fagron                        | Paraffin, liquid | 1179735           | 3       |
| Fagron                        | Paraffin, liquid | 13L17-B01-289493  | 2       |
| fargon                        | Paraffin, liquid | 196310            | 1       |
| Fiebig                        | Paraffin, liquid | 17010331          | 1       |
| Fagron                        | Paraffin, liquid | 196310-0004       | 1       |
| Euro OTC                      | Paraffin, liquid | 170402023-01      | 2       |
| Euro OTC                      | Paraffin, liquid | 1801041-01(143577 | 1       |
| Euro OTC                      | Paraffin, liquid | 1806004-01/145179 | 1       |
| Fagron                        | Paraffin, liquid | 1105054           | 2       |
| Fagron                        | Paraffin, liquid | 1126261           | 2       |
| fragon                        | Paraffin, liquid |                   | 2       |
| Gatt-Koller                   | Paraffin, liquid | 1802936           | 1       |
| Gatt-Koller                   | Paraffin, liquid | 1802836           | 1       |
| Gatt-Koller                   | Paraffin, liquid | 1900504           | 1       |
| Gatt-Koller                   | Paraffin, liquid | 1900893           | 1       |
| Gehe                          | Paraffin, liquid | 12227601          | 1       |
| Gehe                          | Paraffin, liquid | 13103309          | 17      |
| Gehe                          | Paraffin, liquid | 14305905          | 9       |
| Gehe                          | Paraffin, liquid | 19271401          | 6       |
| Caelo                         | Paraffin, liquid | 1313705           | 2       |
| Gehe-Henry                    | Paraffin, liquid | 1000002995        | 11      |
| Caelo                         | Paraffin, liquid | 170620078         | 1       |
| geprüft am 20.11.2013         | Paraffin, liquid | 2013-11-20        | 1       |
| H.Lamotte/Sanacorp            | Paraffin, liquid | 10526938          | 1       |
| Hänseler                      | Paraffin, liquid | 2019040428        | 1       |
| Hansen & Rosen-<br>thal/No... | Paraffin, liquid | 16A27-B01         | 3       |
| Henry Lamotte                 | Paraffin, liquid | 123393            | 3       |
| Henry Lamotte                 | Paraffin, liquid | 5863401           | 9       |

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continued from previous page

| Supplier                 | Substance        | Batch            | Spectra |
|--------------------------|------------------|------------------|---------|
| Henry Lamotte            | Paraffin, liquid | 8003083001       | 26      |
| Henry Lamotte Gmbh, M... | Paraffin, liquid | 79460            | 1       |
| Henry Lamotte Oels GmbH  | Paraffin, liquid | 123393           | 4       |
| Henry Lamotte oils GmbH  | Paraffin, liquid | 123743           | 30      |
| Henry Lamotte Oils GmbH  | Paraffin, liquid | 5098101          | 1       |
| Henry Lamotte Oils GmbH  | Paraffin, liquid | 5593601          | 19      |
| Henry Lamotte Oils Gm... | Paraffin, liquid | 13148606         | 1       |
| Henry Lamotte Olis       | Paraffin, liquid | 2x5367601        | 1       |
| Henry Lamotte Olis Gm... | Paraffin, liquid | 5593601          | 22      |
| Henry Lamotte/Sanacorp   | Paraffin, liquid | 1313703          | 1       |
| Ichthyol-Gesellschaft... | Paraffin, liquid | 1542903          | 1       |
| Jenne                    | Paraffin, liquid | 181000201        | 1       |
| Euro OTC                 | Paraffin, liquid | 261113PML01      | 1       |
| Kögl                     | Paraffin, liquid | 3862511164716    | 1       |
| Kögl                     | Paraffin, liquid | 26702170717      | 1       |
| Kögl                     | Paraffin, liquid | 88903171317      | 1       |
| Kögl                     | Paraffin, liquid | 175705172217     | 1       |
| Kögl                     | Paraffin, liquid | 1700810          | 1       |
| Kögl                     | Paraffin, liquid | 11701629         | 1       |
| Kögl                     | Paraffin, liquid | 1702112          | 2       |
| Kögl                     | Paraffin, liquid | 1800712          | 1       |
| Kögl                     | Paraffin, liquid | 1801030          | 1       |
| Kögl                     | Paraffin, liquid | 1801918          | 1       |
| Kögl                     | Paraffin, liquid | 1802726          | 2       |
| Caelo                    | Paraffin, liquid | 16282801         | 1       |
| Caelo                    | Paraffin, liquid | 1702007          | 1       |
| Laborchemie Apolda/Je... | Paraffin, liquid | 12345            | 1       |
| Lamotte                  | Paraffin, liquid | 123075           | 7       |
| Lamotte/Phoenix          | Paraffin, liquid | 8003683001       | 1       |
| Lamotte/Phoenix          | Paraffin, liquid | 1000010844       | 1       |
| Merck                    | Paraffin, liquid | K15810032        | 1       |
| Noweda                   | Paraffin, liquid | 122875           | 5       |
| Noweda                   | Paraffin, liquid | 1208021-01       | 5       |
| Noweda                   | Paraffin, liquid | 1404009-09       | 1       |
| Noweda                   | Paraffin, liquid | 17D28-B01-353241 | 5       |
| Caelo                    | Paraffin, liquid | 17360410         | 1       |
| Noweda/Bomnastus         | Paraffin, liquid | 303806           | 9       |
| Caelo                    | Paraffin, liquid | 17047603         | 19      |
| Euro OTC                 | Paraffin, liquid | 1407042-01       | 5       |
| Fagron                   | Paraffin, liquid | 1220239          | 1       |
| Euro OTC                 | Paraffin, liquid | 1506005-01       | 1       |
| Euro OTC                 | Paraffin, liquid | 1404010-01       | 2       |
| Euro OTC                 | Paraffin, liquid | 1511030-01       | 1       |
| Euro OTC                 | Paraffin, liquid | 18060004         | 1       |
| Euro OTC                 | Paraffin, liquid | 130401001        | 1       |
| Ph.Eur.                  | Paraffin, liquid | 6861849          | 2       |
| Phoenix                  | Paraffin, liquid | 12042202         | 17      |
| Phoenix                  | Paraffin, liquid | 16082906         | 16      |
| Phoenix                  | Paraffin, liquid | 3124             | 1       |
| Phoenix                  | Paraffin, liquid | 17j02-B01-343565 | 1       |
| Phoenix                  | Paraffin, liquid | 18002494         | 8       |

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| Supplier                    | Substance                       | Batch             | Spectra |
|-----------------------------|---------------------------------|-------------------|---------|
| Phoenix                     | Paraffin, liquid                | 16K09-B06-331721  | 3       |
| Phoenix                     | Paraffin, liquid                | 3414              | 1       |
| Fagron                      | Paraffin, liquid                | 12J23-N03         | 4       |
| Euro OTC                    | Paraffin, liquid                | 181002-01         | 3       |
| Phonix                      | Paraffin, liquid                | 18B19-B19-347311  | 1       |
| PHÖNIX                      | Paraffin, liquid                | 17062008          | 26      |
| Fagron                      | Paraffin, liquid                | 959561            | 1       |
| Caelo                       | Paraffin, liquid                | 17062001/2051017  | 1       |
| Fagron                      | Paraffin, liquid                | 13L17-B01-289492  | 3       |
| Phönix/Henry                | Paraffin, liquid                | 5367601           | 36      |
| Sanacorp                    | Paraffin, liquid                | 12324307          | 23      |
| Sanacorp                    | Paraffin, liquid                | 59/AKD4           | 1       |
| Caelo                       | Paraffin, liquid                | 13232901ok        | 1       |
| Caelo                       | Paraffin, liquid                | 14305905          | 3       |
| Caelo                       | Paraffin, liquid                | 15293201          | 1       |
| Caelo                       | Paraffin, liquid                | 57/AD1            | 1       |
| Caelo                       | Paraffin, liquid                | 58/AKD55          | 1       |
| Caelo                       | Paraffin, liquid                | 59/AKD2           | 1       |
| Fagron                      | Paraffin, liquid                | 16A27-B01-323777  | 14      |
| Spinnrad                    | Paraffin, liquid                | 13103308          | 1       |
| Euro OTC                    | Paraffin, liquid                | 1506005-01        | 13      |
| Fagron                      | Paraffin, liquid                | 17/J02-B01-345372 | 1       |
| Übungszwecke                | Paraffin, liquid                | 180104101720      | 1       |
| Euro OTC                    | Paraffin, liquid                | 125071            | 1       |
| Caelo                       | Peanut oil, hydrated            | 10206801          | 2       |
| Caelo                       | Peanut oil, hydrated            | 11266904          | 1       |
| Caelo                       | Peanut oil, hydrated            | 11300302          | 1       |
| Caelo                       | Peanut oil, hydrated            | 12298203          | 1       |
| Caelo                       | Peanut oil, hydrated            | 12298204          | 2       |
| Caelo                       | Peanut oil, hydrated            | 13172801          | 2       |
| Caelo                       | Peanut oil, hydrated            | 12298206          | 4       |
| Caelo                       | Peanut oil, hydrated            | 12298205          | 2       |
| Caelo                       | Peanut oil, hydrated            | 13172803          | 4       |
| Phönix Gotha                | Peanut oil, hydrated            | 12230701          | 2       |
| Maros                       | Peppermint leaf mother tincture | RU2432            | 2       |
| Caelo                       | Peppermint spirit 80.2%         | 11185901          | 1       |
| Caelo                       | Peppermint spirit 80.2%         | 11339501          | 1       |
| Caelo                       | Peppermint spirit 80.2%         | 11185902          | 1       |
| Caelo                       | Peppermint spirit 80.2%         | 12327202          | 2       |
| Caesar&Loretz<br>GmbH/An... | Peppermint spirit 80.2%         | 13252802          | 1       |
| Caelo                       | Peppermint tincture (70%) 1:5   | 9089503           | 1       |
| Caelo                       | Peppermint tincture (70%) 1:5   | 10106507          | 1       |
| Caelo                       | Peppermint tincture (70%) 1:5   | 9089504           | 1       |
| Caelo                       | Peppermint tincture (70%) 1:5   | 24091206          | 1       |
| Caelo                       | Peppermint tincture (70%) 1:5   | 11207414          | 3       |
| Caelo                       | Peppermint tincture (70%) 1:5   | 12293409          | 1       |
| Maros                       | Peppermint tincture (70%) 1:5   | RU2432            | 1       |
| Caelo                       | Peru balsam, original           | 131966609         | 1       |
| Caelo                       | Peru balsam, original           | 11150808          | 2       |
| Caelo                       | Peru balsam, original           | 13196609          | 1       |
| Caelo                       | Peru balsam, original           | 11025902          | 1       |
| Caelo                       | Peru balsam, original           | 12020602          | 2       |
| Caelo                       | Peru balsam, original           | 12302411          | 5       |
| Caelo                       | Peru balsam, original           | 12302413          | 1       |
| Caelo                       | Peru balsam, original           | 13196606          | 1       |
| Caelo                       | Peru balsam, original           | 13196606          | 1       |
| Caelo                       | Peru balsam, original           | Retest            | 1       |
| Caelo                       | Peru balsam, original           | 13196609          | 1       |
| Fagron                      | Peru balsam, original           | 9G03-N09          | 1       |

continued on the next page

continued from previous page

| Supplier                   | Substance                          | Batch             | Spectra |
|----------------------------|------------------------------------|-------------------|---------|
| Fagron                     | Peru balsam, original              | 12K30-N02         | 2       |
| Fagron                     | Peru balsam, original              | 12H29-N010432/549 | 1       |
| Fagron                     | Peru balsam, original              | 13G11-N05         | 1       |
| Fagron                     | Peru balsam, original              | 12A20-N13         | 2       |
| Fagron                     | Peru balsam, original              | 11G22-N06         | 2       |
| Fagron                     | Peru balsam, original              | 3913E-01162       | 1       |
| Fagron                     | Peru balsam, original              | 2215I-01162       | 1       |
| Nachprüfung                | Peru balsam, original              | 12020602          | 1       |
| Phönix Gotha               | Peru balsam, original              | 10C30-N07         | 1       |
| s.Prüfprotokoll            | Peru balsam, original              | s.Prüfprotokoll   | 1       |
| Caelo                      | Peru balsam, original              | 12020611          | 4       |
| Caelo                      | Plantain herb liquid extract (...) | 11332621          | 1       |
| Caelo                      | Plantain herb liquid extract (...) | 13008706          | 1       |
| Caelo                      | Plantain herb liquid extract (...) | 13008703          | 2       |
| Caesar & Loretz            | Plantain herb liquid extract (...) | 13008704          | 1       |
| Caesar & Loretz/<br>Noweda | Plantain herb liquid extract (...) | 11332620          | 1       |
| Caesar & Loretz/<br>Noweda | Plantain herb liquid extract (...) | 11332613          | 2       |
| Caesar & Loretz/<br>Noweda | Plantain herb liquid extract (...) | 11332616          | 1       |
| Caesar & Loretz/<br>Noweda | Plantain herb liquid extract (...) | 11332611          | 1       |
| Caesar & Loretz/<br>Noweda | Plantain herb liquid extract (...) | 13008708          | 2       |
| apomix                     | Prednisolone 1% (non-ionic hyd...  | 3A160813          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 14377411          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 12086102          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 12086105          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 13347601          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 13347613          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 12086101          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 12086115          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 12086113          | 1       |
| Caelo                      | Propolis liquid extract 10% (i...  | 14377408          | 1       |
| Caelo                      | Propolis tincture (96%)            | 11269516          | 1       |
| Caelo                      | Propolis tincture (96%)            | 11269511          | 1       |
| Caelo                      | Propolis tincture (96%)            | 12206322          | 1       |
| Caelo                      | Propolis tincture (96%)            | 11269521          | 1       |
| Caelo                      | Propolis tincture (96%)            | 10305414          | 1       |
| Caesar/Lorenz              | Propolis tincture (96%)            | 12206319          | 1       |
| müller                     | Propolis tincture (96%)            | 131206            | 1       |
| Bomba/AHD                  | Propolis tincture 20%              | 280337            | 2       |

| Supplier      | Substance                   | Batch       | Spectra |
|---------------|-----------------------------|-------------|---------|
| Caelo         | Ratanhia tincture (70%) 1:5 | 11292802    | 4       |
| Caelo         | Ratanhia tincture (70%) 1:5 | 12255401    | 6       |
| Caelo         | Ratanhia tincture (70%) 1:5 | 12255403    | 2       |
| Caelo         | Ratanhia tincture (70%) 1:5 | 14101305    | 1       |
| Caelo         | Ratanhia tincture (70%) 1:5 | 13051205    | 1       |
| Caelo         | Ratanhia tincture (70%) 1:5 | 13051206    | 3       |
| Caelo         | Ratanhia tincture (70%) 1:5 | CH:008/0913 | 1       |
| Caelo         | Ratanhia tincture (70%) 1:5 | 11204310    | 1       |
| Caesar/Noweda | Ratanhia tincture (70%) 1:5 | 13051210    | 1       |
| Noweda        | Ratanhia tincture (70%) 1:5 | 12255406    | 1       |
| Caelo         | Rose water                  | 12342405    | 1       |
| Caelo         | Rose water                  | 12185405    | 3       |
| Caelo         | Rose water                  | 12288903    | 7       |
| Caelo         | Rose water                  | 12299801    | 2       |

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| Supplier          | Substance                        | Batch      | Spectra |
|-------------------|----------------------------------|------------|---------|
| Caelo             | Rose water                       | 1021301    | 1       |
| Caelo             | Rose water                       | 12288902   | 2       |
| Caelo             | Rose water                       | 12342407   | 2       |
| Caelo             | Rose water                       | 13137302   | 2       |
| Caelo             | Rose water                       | 12299803   | 1       |
| Caelo             | Rose water                       | 12342406   | 2       |
| Caelo             | Rose water                       | 13137303   | 1       |
| Caelo             | Rose water                       | 31101305   | 1       |
| Caelo             | Rose water                       | 13306603   | 6       |
| Caelo             | Rose water                       | 13306604   | 8       |
| Caelo             | Rose water                       | 13137307   | 1       |
| Caelo             | Rose water                       | 15253701   | 1       |
| Caelo             | Rose water                       | 13137305   | 6       |
| Caelo             | Rose water                       | 1234201    | 1       |
| Caelo             | Rose water                       | 1317302    | 1       |
| Caelo             | Rose water                       | 12342404   | 1       |
| Caelo             | Rose water                       | 12342402   | 1       |
| Caelo             | Rose water                       | 13343604   | 2       |
| Caelo             | Rose water                       | 12K26-N10  | 4       |
| Caelo             | Rose water                       | 12C27-N05  | 1       |
| Caelo             | Rose water                       | 11355401   | 1       |
| Caelo             | Rose water                       | 12123203   | 1       |
| Caelo             | Rose water                       | 12299802   | 6       |
| Caelo             | Rose water                       | 13255902   | 4       |
| Fagron            | Rose water                       | 12H20-N09  | 3       |
| Fagron            | Rose water                       | 13B01-N01  | 3       |
| Fagron            | Rose water                       | 12H-20-N09 | 1       |
| Fagron            | Rose water                       | 737724     | 1       |
| Caelo             | Rose water                       | 12342401   | 2       |
| Otto Fischar GmbH | Rose water                       | 5354081    | 1       |
| Caelo             | Rose water                       | 11286005   | 1       |
| Caelo             | Rosemary leaf tincture (70%) 1:5 | 9135008    | 1       |
| Caelo             | Rosemary leaf tincture (70%) 1:5 | 140613     | 1       |
| Caelo             | Rosemary leaf tincture (70%) 1:5 | 9135005    | 1       |

| Supplier | Substance                         | Batch       | Spectra |
|----------|-----------------------------------|-------------|---------|
| Caelo    | Sage leaf liquid extract (55%)... | 11372206    | 1       |
| Caelo    | Sage leaf liquid extract (55%)... | 11372217    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 9345011     | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 12196602    | 6       |
| Caelo    | Sage tincture (70%) 1:10          | 4111M-02476 | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 1120910     | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 11220910    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 11220909    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 12196607    | 3       |
| Caelo    | Sage tincture (70%) 1:10          | 11220911    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 12196611    | 8       |
| Caelo    | Sage tincture (70%) 1:10          | 1219661     | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 12196609    | 3       |
| Caelo    | Sage tincture (70%) 1:10          | 13125503    | 3       |
| Caelo    | Sage tincture (70%) 1:10          | 27111308    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 13125504    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 13125513    | 3       |
| Caelo    | Sage tincture (70%) 1:10          | 13125509    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 14078111    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 15081804    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 1120912     | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 13125505    | 1       |
| Caelo    | Sage tincture (70%) 1:10          | 12196612    | 3       |

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| <b>Supplier</b>       | <b>Substance</b>                | <b>Batch</b>       | <b>Spectra</b> |
|-----------------------|---------------------------------|--------------------|----------------|
| apomix                | Searing paste SR                | 9B280613           | 2              |
| apomix                | Searing paste SR                | 3B180213           | 1              |
| apomix                | Searing paste SR                | 14B240913          | 3              |
| apomix                | Searing paste SR                | 15B211013          | 1              |
| apomix                | Searing paste SR                | 12B150813          | 2              |
| apomix                | Searing paste SR                | 11B010813          | 1              |
| apomix                | Searing paste SR                | 5B110413           | 1              |
| Taoasis               | Siam benzoin                    | 541389-111081      | 1              |
| Caelo                 | Siam benzoin tincture (90%) 1:5 | 1228119            | 1              |
| Phönix                | Siam benzoin tincture (90%) 1:5 | 12228107           | 1              |
| Hedinger / Sanacorp   | Sodium hypochlorite solution 3% | 46386              | 1              |
| Hedinger / Gehe       | Sodium hypochlorite solution 3% | 46375              | 1              |
| Hedinger / Phönix     | Sodium hypochlorite solution 3% | 46392              | 1              |
| Caelo                 | Sodium lactate solution 60%     | 131000701          | 1              |
| Euro OTC              | Sodium lactate solution 60%     | 1310007-01         | 27             |
| Euro OTC              | Sodium lactate solution 60%     | 1212004-01         | 2              |
| Caelo                 | Spearmint water                 | 13184503           | 1              |
| Bombastus             | St. John's wort oil             | 272178             | 1              |
| Bombastus             | St. John's wort oil             | 275674             | 1              |
| Bombastus             | St. John's wort oil             | 279926             | 1              |
| Bombastus             | St. John's wort oil             | 282275             | 1              |
| Bombastus             | St. John's wort oil             | 283368             | 1              |
| Bombastus             | St. John's wort oil             | 293138             | 1              |
| Caelo                 | St. John's wort oil             | 2061205            | 1              |
| Caelo                 | St. John's wort oil             | 10380614           | 1              |
| Caelo                 | St. John's wort oil             | 11205309           | 5              |
| Caelo                 | St. John's wort oil             | 2071201            | 1              |
| Caelo                 | St. John's wort oil             | 11372104           | 4              |
| Caelo                 | St. John's wort oil             | 28091204           | 1              |
| Caelo                 | St. John's wort oil             | 12293904           | 5              |
| Caelo                 | St. John's wort oil             | 1501302            | 1              |
| Caelo                 | St. John's wort oil             | 12293911           | 8              |
| Caelo                 | St. John's wort oil             | 12293902           | 1              |
| Caelo                 | St. John's wort oil             | 12293903           | 1              |
| Caelo                 | St. John's wort oil             | 13155804           | 11             |
| Caelo                 | St. John's wort oil             | 13155802           | 3              |
| Caelo                 | St. John's wort oil             | 12292904           | 1              |
| Caelo                 | St. John's wort oil             | 5346791            | 1              |
| Caelo                 | St. John's wort oil             | 13252506           | 1              |
| Caelo                 | St. John's wort oil             | 14130405           | 1              |
| Caelo                 | St. John's wort oil             | 13389218           | 1              |
| Caelo                 | St. John's wort oil             | 15358606           | 1              |
| Caelo                 | St. John's wort oil             | 15358605           | 1              |
| Caelo                 | St. John's wort oil             | 16037003           | 1              |
| Caelo                 | St. John's wort oil             | 12076913           | 7              |
| Caelo                 | St. John's wort oil             | 12193404           | 1              |
| Caelo                 | St. John's wort oil             | 11372102           | 2              |
| Caelo                 | St. John's wort oil             | 13065106           | 3              |
| Caelo                 | St. John's wort oil             | 12076912           | 2              |
| Caelo                 | St. John's wort oil             | 12076904           | 1              |
| Caelo                 | St. John's wort oil             | 13155803           | 1              |
| Caelo                 | St. John's wort oil             | 12293919           | 2              |
| Caelo                 | St. John's wort oil             | 12293918           | 4              |
| Fagron                | St. John's wort oil             | 12L17-N15          | 1              |
| Fagron                | St. John's wort oil             | 5346701            | 4              |
| Fagron                | St. John's wort oil             | 12A30-N09          | 1              |
| Fagron                | St. John's wort oil             | 13A30-N09          | 1              |
| henry                 | St. John's wort oil             | 5803902            | 1              |
| Henry Lamotte         | St. John's wort oil             | 5442802            | 1              |
| HenryLamotte/Sanacorp | St. John's wort oil             | 5308402-3457312120 | 1              |

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| Supplier              | Substance                         | Batch         | Spectra |
|-----------------------|-----------------------------------|---------------|---------|
| Lamotte               | St. John's wort oil               | 5171601       | 6       |
| Lamotte               | St. John's wort oil               | 5346702       | 11      |
| Lamotte / Sanacorp    | St. John's wort oil               | 517601        | 1       |
| Lamotte Sanacorp      | St. John's wort oil               | 5308402       | 5       |
| Lamotte/Noweda        | St. John's wort oil               | 4959702       | 5       |
| Maros                 | St. John's wort oil               | 9758          | 1       |
| Maros                 | St. John's wort oil               | 97583x        | 1       |
| Caelo                 | St. John's wort oil               | 13065104      | 6       |
| Caelo                 | St. John's wort oil               | 12076905      | 2       |
| primavera             | St. John's wort oil               | 12106131      | 1       |
| Primavera             | St. John's wort oil               | 25508131      | 1       |
| Purren Apotheke       | St. John's wort oil               | 11205311      | 1       |
| Sanacorp              | St. John's wort oil               | 13252505      | 6       |
| Caelo                 | St. John's wort oil               | 12293917      | 4       |
| Caelo                 | St. John's wort oil               | 13065105      | 9       |
| Taoasis               | St. John's wort oil               | 145646-103095 | 1       |
| Taoasis               | St. John's wort oil               | 12312-109683  | 1       |
| Taoasis               | St. John's wort oil               | 123212-110835 | 1       |
| Taoasis               | St. John's wort oil               | 123212-111876 | 1       |
| Taoasis GmbH          | St. John's wort oil               | 150822-107470 | 1       |
| Caelo                 | St. John's wort tincture (70%)... | 11195213      | 1       |
| Caelo                 | St. John's wort tincture (70%)... | 11195217      | 1       |
| Caelo                 | St. John's wort tincture (70%)... | 122377006     | 1       |
| Caelo                 | St. John's wort tincture (70%)... | 11091303      | 1       |
| Caelo                 | St. John's wort tincture (70%)... | 12237708      | 1       |
| Caelo                 | St. John's wort tincture (70%)... | 12237706      | 1       |
| Caelo                 | St. John's wort tincture (70%)... | 11195216      | 2       |
| Caelo                 | St. John's wort tincture (70%)... | 12237709      | 1       |
| Caelo                 | Standardised cayenne pepper ex... | 12053902      | 2       |
| Nachprüfung           | Standardised cayenne pepper ex... | 2413M-03232   | 1       |
| Maros/direkt/07.05.13 | Strophanthus seed mother tinct... | 4029013       | 1       |
| Maros/direkt/15.01.14 | Strophanthus seed mother tinct... | 1031014       | 3       |
| Maros/direkt/21.10.13 | Strophanthus seed mother tinct... | 10030413      | 2       |
| Maros/direkt/28.02.14 | Strophanthus seed mother tinct... | 2031214       | 4       |
| Maros/Maros           | Strophanthus seed mother tinct... | 6029813       | 2       |

| Supplier                 | Substance                     | Batch    | Spectra |
|--------------------------|-------------------------------|----------|---------|
| Caelo                    | Texapon <sup>®</sup> CS paste | 12292006 | 1       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 12292007 | 1       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 15177804 | 3       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 15177806 | 1       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 1577804  | 1       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 16268904 | 1       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 16268903 | 1       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 16268907 | 2       |
| Caelo                    | Texapon <sup>®</sup> CS paste | 16268909 | 2       |
| Caelo                    | Theriac                       | 1121206  | 1       |
| Caelo                    | Theriac                       | 11121203 | 1       |
| Caelo                    | Theriac                       | 12067207 | 2       |
| Caelo                    | Theriac                       | 13187201 | 3       |
| Caelo                    | Theriac                       | 12067201 | 2       |
| Caelo                    | Theriac                       | 12067214 | 1       |
| Caelo                    | Theriac                       | 12067205 | 1       |
| Fiebig 23.10.12 ek:6,... | Theriac                       | 12067202 | 1       |
| Phönix                   | Theriac                       | 12067210 | 1       |
| Caelo                    | Thyme liquid extract          | 11090508 | 1       |
| Caelo                    | Thyme liquid extract          | 13036502 | 2       |
| Caelo                    | Thyme liquid extract          | 100312   | 1       |
| Caelo                    | Thyme liquid extract          | 12072102 | 2       |

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| Supplier        | Substance                         | Batch             | Spectra |
|-----------------|-----------------------------------|-------------------|---------|
| Caelo           | Thyme liquid extract              | 13036516          | 1       |
| Caelo           | Thyme liquid extract              | 1313M-01420       | 1       |
| Caesar & Loretz | Thyme liquid extract              | 12197005          | 2       |
| Maros           | Thyme liquid extract              | 1156              | 1       |
| Noweda          | Thyme liquid extract              | 10198605          | 1       |
| Caelo           | Thyme tincture (70%) 1:5          | 10043113          | 1       |
| Caelo           | Thyme tincture (70%) 1:5          | 21031311          | 1       |
| Caelo           | Thyme tincture (70%) 1:5          | 18101304          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13263004          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13263007          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 11061207          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 3101212484        | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 1910212484        | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 4212E-02484       | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 12255204          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 11278309          | 2       |
| Caelo           | Tormentil tincture (70%) 1:5      | 2103312484        | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13003018          | 3       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13263003          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13003003          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 11278310          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13003010          | 2       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13003012          | 5       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13003009          | 3       |
| Caelo           | Tormentil tincture (70%) 1:5      | 3713Q2484         | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 614M2484          | 1       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13003002          | 2       |
| Caelo           | Tormentil tincture (70%) 1:5      | 13003008          | 1       |
| Caelo           | Tretinoin solution 3.33mg/ml      | 11K09-N-03        | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 12C08-N14         | 4       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 19061306          | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 13C28-N01         | 10      |
| Fagron          | Tretinoin solution 3.33mg/ml      | 1308D002          | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 1501D004          | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 1108D001          | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 13C25-N01         | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 1204D004          | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 1308D00213/11-N04 | 1       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 12G05-N15         | 6       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 13/11-N04         | 2       |
| Fagron          | Tretinoin solution 3.33mg/ml      | 13I11-N04         | 6       |
| apomix          | Triamcinolone acetonide 1% (no... | 9C111212          | 1       |
| apomix          | Triamcinolone acetonide 1% (no... | 6A260813          | 2       |
| apomix          | Triamcinolone acetonide 1% (no... | 5A290713          | 2       |
| apomix          | Triamcinolone acetonide 1% (no... | 10A051213         | 1       |
| apomix          | Triamcinolone acetonide 1% (no... | 8A190913          | 1       |
| apomix          | Triamcinolone acetonide 1% (no... | 7A170913          | 2       |
| apomix          | Triamcinolone acetonide 1% (no... | 3A110613          | 1       |
| apomix          | Triamcinolone acetonide 1% (no... | 4A040713          | 1       |
| Caelo           | Triamcinolone acetonide concen... | 12301201          | 2       |
| Caelo           | Triamcinolone acetonide concen... | 1332501           | 1       |
| Caelo           | Triamcinolone acetonide concen... | 13184701          | 6       |
| Caelo           | Triamcinolone acetonide concen... | 13275801          | 4       |
| Defektur        | Triamcinolone acetonide concen... | 3813Q             | 1       |
| Defektur        | Triamcinolone acetonide concen... | 4213E             | 1       |
| Defektur        | Triamcinolone acetonide concen... | 4713A             | 1       |
| Defektur        | Triamcinolone acetonide concen... | 4913Q             | 1       |
| Fagron          | Triamcinolone acetonide concen... | 214Q              | 1       |
| Phönix          | Triamcinolone acetonide concen... | 13029801          | 2       |

| Supplier             | Substance                         | Batch               | Spectra |
|----------------------|-----------------------------------|---------------------|---------|
| Caelo                | Valerian tincture (70%) 1:5       | 16030101            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 11254309            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 11379201            | 3       |
| Caelo                | Valerian tincture (70%) 1:5       | 12113002            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12030902            | 2       |
| Caelo                | Valerian tincture (70%) 1:5       | 6099.99.99          | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12113004            | 3       |
| Caelo                | Valerian tincture (70%) 1:5       | 12196203            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 11011308            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 11379204            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12030904            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12294002            | 3       |
| Caelo                | Valerian tincture (70%) 1:5       | 12294008            | 2       |
| Caelo                | Valerian tincture (70%) 1:5       | 13003206            | 6       |
| Caelo                | Valerian tincture (70%) 1:5       | 13003205            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 13094503            | 2       |
| Caelo                | Valerian tincture (70%) 1:5       | 13094506            | 2       |
| Caelo                | Valerian tincture (70%) 1:5       | 13052601            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 18101302            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 8011423             | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 14353011            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 13184905            | 4       |
| Caelo                | Valerian tincture (70%) 1:5       | 11187103            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12196204            | 4       |
| Caelo                | Valerian tincture (70%) 1:5       | 12294007            | 4       |
| Caelo                | Valerian tincture (70%) 1:5       | 1309505             | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12030908            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12113005            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 13094507            | 5       |
| Caelo                | Valerian tincture (70%) 1:5       | 13094505            | 7       |
| Caelo                | Valerian tincture (70%) 1:5       | 13094505-3380319003 | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 13349203            | 1       |
| Cheplapharm          | Valerian tincture (70%) 1:5       | 70713               | 1       |
| Arzneimit...         |                                   |                     |         |
| Euro OTC             | Valerian tincture (70%) 1:5       | 1301003-01          | 2       |
| Euro OTC             | Valerian tincture (70%) 1:5       | 1304041-01          | 2       |
| Noweda               | Valerian tincture (70%) 1:5       | F1300052            | 1       |
| Noweda               | Valerian tincture (70%) 1:5       | F1300146            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 11379203            | 1       |
| Phönix Gotha         | Valerian tincture (70%) 1:5       | 11254302            | 1       |
| Caelo                | Valerian tincture (70%) 1:5       | 12196210            | 2       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 10316605            | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 1117801             | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 12132902            | 2       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 11178109            | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 12132904            | 3       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 12132906            | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 1013Q-02565         | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 12132910            | 2       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 13057002            | 4       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 3815926             | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 130577002           | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 13296208            | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 11178101            | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 12132906            | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 12132910            | 4       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 120404301           | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 13057003            | 1       |
| Caelo                | Vitamin A-palmitate (ca. 1 m I... | 13296206            | 1       |
| Caesar & Loretz GmbH | Vitamin A-palmitate (ca. 1 m I... | 10316605            | 1       |

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| Supplier         | Substance                         | Batch                | Spectra |
|------------------|-----------------------------------|----------------------|---------|
| Euro OTC         | Vitamin A-palmitate (ca. 1 m I... | 1204043-01           | 4       |
| Euro OTC         | Vitamin A-palmitate (ca. 1 m I... | 1310030-01           | 1       |
| EUro/AHD         | Vitamin A-palmitate (ca. 1 m I... | 1211032-01           | 3       |
| Euro OTC         | Vitamin A-palmitate (ca. 1 m I... | 1305003-01           | 3       |
| Fagron           | Vitamin A-palmitate (ca. 1 m I... | UT12110078           | 1       |
| Fagron           | Vitamin A-palmitate (ca. 1 m I... | 12J16-N03            | 1       |
| Fagron           | Vitamin A-palmitate (ca. 1 m I... | 13F26-N08            | 5       |
| Fagron           | Vitamin A-palmitate (ca. 1 m I... | 13C19-N12            | 5       |
| Gehe             | Vitamin A-palmitate (ca. 1 m I... | 11178101             | 3       |
| Gehe             | Vitamin A-palmitate (ca. 1 m I... | 1110018-01           | 1       |
| Gehe             | Vitamin A-palmitate (ca. 1 m I... | 11178103             | 2       |
| GEHE             | Vitamin A-palmitate (ca. 1 m I... | 12132902             | 4       |
| gehe 28.11.2013  | Vitamin A-palmitate (ca. 1 m I... | 13057007             | 2       |
| Caelo            | Vitamin A-palmitate (ca. 1 m I... | 13057002             | 1       |
| Euro OTC         | Vitamin A-palmitate (ca. 1 m I... | 1305003-01-342631115 | 1       |
| Phönix           | Vitamin A-palmitate (ca. 1 m I... | 12132904             | 3       |
| Euro OTC         | Vitamin A-palmitate (ca. 1 m I... | 1211032-01           | 3       |
| Audor Pharma     | Vitamin F liposomes               | AP207152FL           | 1       |
| Audor Pharma     | Vitamin F liposomes               | AP302038FL           | 1       |
| Eigenherstellung | Vitamin F liposomes               | AP307176FL           | 1       |

| Supplier                      | Substance                         | Batch         | Spectra |
|-------------------------------|-----------------------------------|---------------|---------|
| Caelo                         | Witch hazel bark liquid extrac... | 13044104      | 1       |
| Caelo                         | Witch hazel bark liquid extrac... | 11165602      | 1       |
| Caelo                         | Witch hazel bark liquid extrac... | 13044102      | 3       |
| Caelo                         | Witch hazel bark liquid extrac... | 11165605      | 1       |
| Caelo                         | Witch hazel bark liquid extrac... | 13044106      | 1       |
| Caelo                         | Witch hazel bark water            | 12376901      | 3       |
| Caelo                         | Witch hazel bark water            | 13324411      | 1       |
| Caelo                         | Witch hazel bark water            | 11238904      | 1       |
| Caelo                         | Witch hazel bark water            | 11238906      | 3       |
| Caelo                         | Witch hazel bark water            | 12196906      | 4       |
| Caelo                         | Witch hazel bark water            | 11062814      | 1       |
| Caelo                         | Witch hazel bark water            | 12196905      | 4       |
| Caelo                         | Witch hazel bark water            | 11238910      | 1       |
| Caelo                         | Witch hazel bark water            | 1219608       | 1       |
| Caelo                         | Witch hazel bark water            | 12196908      | 3       |
| Caelo                         | Witch hazel bark water            | 12376907      | 9       |
| Caelo                         | Witch hazel bark water            | 12376906      | 2       |
| Caelo                         | Witch hazel bark water            | 12376905      | 2       |
| Caelo                         | Witch hazel bark water            | 12376912      | 2       |
| Caelo                         | Witch hazel bark water            | 12376918      | 3       |
| Caelo                         | Witch hazel bark water            | 13324403      | 7       |
| Caelo                         | Witch hazel bark water            | 12376912Caelo | 1       |
| Caelo                         | Witch hazel bark water            | 14093305      | 2       |
| Caelo                         | Witch hazel bark water            | 14093309      | 2       |
| Caelo                         | Witch hazel bark water            | 15430206      | 1       |
| Caelo                         | Witch hazel bark water            | 13324401      | 1       |
| Caelo                         | Witch hazel bark water            | 12376916      | 1       |
| Caelo                         | Witch hazel bark water            | 12376909      | 3       |
| Caelo                         | Witch hazel bark water            | 12359605      | 1       |
| Fiebig ek:5.69EUR<br>10.08... | Witch hazel bark water            | 11238911      | 2       |
| Hedinger                      | Witch hazel bark water            | 20153B        | 2       |
| Spinnrad/Phoenix              | Witch hazel bark water            | 413310062     | 1       |
| Caelo                         | Witch hazel leaf liquid extrac... | 27081302      | 1       |
| Caelo                         | Witch hazel leaf liquid extrac... | 11060505      | 1       |
| Caelo                         | Witch hazel leaf liquid extrac... | 12095402      | 1       |
| Caelo                         | Witch hazel leaf liquid extrac... | 12165010      | 1       |

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| Supplier                  | Substance                         | Batch       | Spectra |
|---------------------------|-----------------------------------|-------------|---------|
| Caelo                     | Witch hazel leaf liquid extrac... | 31031404    | 1       |
| Caelo                     | Witch hazel leaf liquid extrac... | 16071401    | 1       |
| Caelo                     | Witch hazel leaf liquid extrac... | 14112302    | 1       |
| Caelo                     | Witch hazel leaf liquid extrac... | 12165007    | 1       |
| Caelo                     | Witch hazel leaf liquid extrac... | 15397406    | 1       |
| Noweda                    | Witch hazel leaf liquid extrac... | 12095405    | 1       |
| Sanacorp                  | Witch hazel leaf liquid extrac... | 13112003    | 1       |
| 12370401                  | Wool alcohol cream DAB/SR         | 12370401    | 11      |
| Bombastus                 | Wool alcohol cream DAB/SR         | 1900019     | 1       |
| Bombastus                 | Wool alcohol cream DAB/SR         | 1900024     | 1       |
| 18023501                  | Wool alcohol cream DAB/SR         | 18023501    | 31      |
| A.H. 25.06.13 ek: 9,75EUR | Wool alcohol cream DAB/SR         | 13145501    | 7       |
| apomix                    | Wool alcohol cream DAB/SR         | 35A260516   | 1       |
| Caelo                     | Wool alcohol cream DAB/SR         | 18005985    | 3       |
| AHD                       | Wool alcohol cream DAB/SR         | 14356301    | 1       |
| AHD / Leyh                | Wool alcohol cream DAB/SR         | 153711      | 1       |
| Bombastus                 | Wool alcohol cream DAB/SR         | 3020333     | 1       |
| Bombastus                 | Wool alcohol cream DAB/SR         | 288355      | 2       |
| apomix                    | Wool alcohol cream DAB/SR         | 33A150415   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 41A020513   | 2       |
| Euro OTC                  | Wool alcohol cream DAB/SR         | 39A150514   | 4       |
| apomix                    | Wool alcohol cream DAB/SR         | 46A011116   | 5       |
| apomix                    | Wool alcohol cream DAB/SR         | 5A220217    | 3       |
| apomix                    | Wool alcohol cream DAB/SR         | 49A031116   | 3       |
| Alliance Health 06.03...  | Wool alcohol cream DAB/SR         | 14362102    | 6       |
| Alliance Healthcare       | Wool alcohol cream DAB/SR         | 275909      | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 69A080814   | 1       |
| Caelo                     | Wool alcohol cream DAB/SR         | 13172103    | 11      |
| Caelo                     | Wool alcohol cream DAB/SR         | 20001085001 | 2       |
| AMH Nie-mann/Sanacorp     | Wool alcohol cream DAB/SR         | 5A040419    | 4       |
| Anzag                     | Wool alcohol cream DAB/SR         | 11226402    | 1       |
| Anzag                     | Wool alcohol cream DAB/SR         | 12122201    | 1       |
| Anzag                     | Wool alcohol cream DAB/SR         | 13145801    | 11      |
| Anzag                     | Wool alcohol cream DAB/SR         | 282749      | 2       |
| Anzag                     | Wool alcohol cream DAB/SR         | 13145901    | 1       |
| Anzag                     | Wool alcohol cream DAB/SR         | 151500002   | 1       |
| Anzag 30.01.2019          | Wool alcohol cream DAB/SR         | 18241501    | 23      |
| Caelo                     | Wool alcohol cream DAB/SR         | 12308001    | 7       |
| apomix                    | Wool alcohol cream DAB/SR         | 22A200213   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 27A180315   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 58A100615   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 96A111115   | 3       |
| apomix                    | Wool alcohol cream DAB/SR         | 20A010316   | 2       |
| apomix                    | Wool alcohol cream DAB/SR         | 3A270116    | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 40A080816   | 5       |
| apomix                    | Wool alcohol cream DAB/SR         | 14A280617   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 14A130618   | 3       |
| apomix                    | Wool alcohol cream DAB/SR         | 27A211118   | 5       |
| apomix                    | Wool alcohol cream DAB/SR         | 2A120219    | 4       |
| apomix                    | Wool alcohol cream DAB/SR         | 7A210519    | 2       |
| apomix                    | Wool alcohol cream DAB/SR         | 20A070212   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 21A070212   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 32A070312   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 33A070312   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 51A070512   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 69A100712   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 62A200612   | 1       |
| apomix                    | Wool alcohol cream DAB/SR         | 96A161012   | 1       |

continued on the next page

continued from previous page

| Supplier | Substance                 | Batch      | Spectra |
|----------|---------------------------|------------|---------|
| apomix   | Wool alcohol cream DAB/SR | 104A291012 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 103A291012 | 4       |
| apomix   | Wool alcohol cream DAB/SR | 101A291012 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 3A160113   | 2       |
| apomix   | Wool alcohol cream DAB/SR | 90A021012  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 98A241012  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 20A120213  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 109A191112 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 39A180413  | 3       |
| apomix   | Wool alcohol cream DAB/SR | 56A300713  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 19A120213  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 33A080413  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 72A270913  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 56A270613  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 101A191213 | 2       |
| apomix   | Wool alcohol cream DAB/SR | 1A020114   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 41A150514  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 41A150515  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 61A080714  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 83A290914  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 96A181114  | 4       |
| apomix   | Wool alcohol cream DAB/SR | 92A281014  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 100A021214 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 108A301214 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 13A050215  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 64A250715  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 74A130815  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 32A120416  | 3       |
| apomix   | Wool alcohol cream DAB/SR | 5A280116   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 37A040716  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 19A010316  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 50A011216  | 4       |
| apomix   | Wool alcohol cream DAB/SR | 6A230217   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 15A280617  | 4       |
| apomix   | Wool alcohol cream DAB/SR | 18A070817  | 8       |
| apomix   | Wool alcohol cream DAB/SR | 25A231117  | 4       |
| apomix   | Wool alcohol cream DAB/SR | 3A110118   | 2       |
| apomix   | Wool alcohol cream DAB/SR | 11A050418  | 7       |
| apomix   | Wool alcohol cream DAB/SR | 12A070518  | 6       |
| apomix   | Wool alcohol cream DAB/SR | 20A240718  | 6       |
| apomix   | Wool alcohol cream DAB/SR | 22A200818  | 5       |
| apomix   | Wool alcohol cream DAB/SR | 1A150119   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 88A231013  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 57A300614  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 6A220115   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 72-A190814 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 41A230415  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 46A27515   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 69A120815  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 100A191213 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 64A300714  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 4A220115   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 42A290816  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 81A100915  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 23A200818  | 3       |
| apomix   | Wool alcohol cream DAB/SR | 11A040719  | 3       |
| apomix   | Wool alcohol cream DAB/SR | 13A070518  | 7       |
| apomix   | Wool alcohol cream DAB/SR | 8A030418   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 17A230718  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 24A091018  | 5       |

continued on the next page



continued from previous page

| Supplier | Substance                 | Batch      | Spectra |
|----------|---------------------------|------------|---------|
| apomix   | Wool alcohol cream DAB/SR | 21A200818  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 25A101018  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 21A280214  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 33A010414  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 48A110614  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 85A300914  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 13A180214  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 25a170316  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 6a230217   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 65A060715  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 15A160216  | 3       |
| apomix   | Wool alcohol cream DAB/SR | 36A250516  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 39A050716  | 9       |
| apomix   | Wool alcohol cream DAB/SR | 48A021116  | 3       |
| apomix   | Wool alcohol cream DAB/SR | 45A041016  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 8A060317   | 3       |
| apomix   | Wool alcohol cream DAB/SR | 9A260417   | 3       |
| apomix   | Wool alcohol cream DAB/SR | 4A110118   | 2       |
| apomix   | Wool alcohol cream DAB/SR | 7A130218   | 3       |
| apomix   | Wool alcohol cream DAB/SR | 10A040418  | 14      |
| apomix   | Wool alcohol cream DAB/SR | 15A130618  | 7       |
| apomix   | Wool alcohol cream DAB/SR | 18A230718  | 6       |
| apomix   | Wool alcohol cream DAB/SR | 6A210519   | 5       |
| apomix   | Wool alcohol cream DAB/SR | 69A080814  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 9A050215   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 41A150514  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 13A010617  | 6       |
| apomix   | Wool alcohol cream DAB/SR | 28A191218  | 5       |
| apomix   | Wool alcohol cream DAB/SR | 13A150216  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 10A030719  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 92A111115  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 1A120117   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 3A010217   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 22A300817  | 4       |
| apomix   | Wool alcohol cream DAB/SR | 15A30618   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 15A136018  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 4A060319   | 2       |
| apomix   | Wool alcohol cream DAB/SR | 102A091215 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 16A130618  | 4       |
| apomix   | Wool alcohol cream DAB/SR | 66A060715  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 89A041113  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 4546233    | 1       |
| apomix   | Wool alcohol cream DAB/SR | 104A111214 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 50A110614  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 15A230215  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 37A220415  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 87A061015  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 104A091215 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 10A270417  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 16A290617  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 16A070817  | 2       |
| apomix   | Wool alcohol cream DAB/SR | 27a211118  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 6A120218   | 3       |
| apomix   | Wool alcohol cream DAB/SR | 108A191112 | 1       |
| apomix   | Wool alcohol cream DAB/SR | 5A200114   | 1       |
| apomix   | Wool alcohol cream DAB/SR | 78A160913  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 93A111115  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 34A250516  | 7       |
| apomix   | Wool alcohol cream DAB/SR | 11A270417  | 1       |
| apomix   | Wool alcohol cream DAB/SR | 90A221014  | 1       |

continued on the next page



continued from previous page

| Supplier            | Substance                 | Batch      | Spectra |
|---------------------|---------------------------|------------|---------|
| apomix              | Wool alcohol cream DAB/SR | 75A130815  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 42a290816  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 81A260913  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 20A270214  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 12A040214  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 81A290914  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 105A301214 | 1       |
| apomix              | Wool alcohol cream DAB/SR | 17A230215  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 62A250615  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 77A260815  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 301311     | 2       |
| apomix              | Wool alcohol cream DAB/SR | 38A050716  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 44A041016  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 2A120117   | 6       |
| apomix              | Wool alcohol cream DAB/SR | 20A070817  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 3A1101118  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 6A21019    | 1       |
| apomix              | Wool alcohol cream DAB/SR | 43A200515  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 47A040613  | 3       |
| apomix              | Wool alcohol cream DAB/SR | 5A220115   | 1       |
| apomix              | Wool alcohol cream DAB/SR | 14A180215  | 4       |
| apomix              | Wool alcohol cream DAB/SR | 89A291015  | 3       |
| apomix              | Wool alcohol cream DAB/SR | 90A291015  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 87A141014  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 99A021214  | 1       |
| apomix              | Wool alcohol cream DAB/SR | 36A220415  | 2       |
| apomix              | Wool alcohol cream DAB/SR | 64A250615  | 2       |
| apomix              | Wool alcohol cream DAB/SR | 31A110416  | 2       |
| apomix              | Wool alcohol cream DAB/SR | 24A221117  | 4       |
| apomix              | Wool alcohol cream DAB/SR | 1A070116   | 1       |
| apomix              | Wool alcohol cream DAB/SR | 3A130219   | 8       |
| Apotheke zum Zirkel | Wool alcohol cream DAB/SR | 519E-01371 | 3       |
| Beiersdorf/Alliance | Wool alcohol cream DAB/SR | 51630108WA | 1       |
| Spangropharm        | Wool alcohol cream DAB/SR | 83730208WA | 1       |
| Bombast/spangro     | Wool alcohol cream DAB/SR | 18000770   | 9       |
| Bombastus           | Wool alcohol cream DAB/SR | 291432     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 288354     | 2       |
| Bombastus           | Wool alcohol cream DAB/SR | 291479     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 291477     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 291478     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 296133     | 3       |
| Bombastus           | Wool alcohol cream DAB/SR | 311459     | 3       |
| Bombastus           | Wool alcohol cream DAB/SR | 267043     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 265304     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 267046     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 269832     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 270038     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 270033     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 270033     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 273631     | 2       |
| Bombastus           | Wool alcohol cream DAB/SR | 271811     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 270721     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 272263     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 275987     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 274628     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 274348     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 274630     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 274349     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 274347     | 1       |
| Bombastus           | Wool alcohol cream DAB/SR | 276219     | 2       |

continued on the next page

continued from previous page

| Supplier  | Substance                 | Batch   | Spectra |
|-----------|---------------------------|---------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 275917  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 275911  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 274634  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 275990  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 276214  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 275991  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 275918  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277096  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278742  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277206  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278745  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 277855  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 277771  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 276212  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277097  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 27771   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277204  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278827  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278831  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 277208  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278744  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 279875  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 280390  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 282239  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 280386  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 282685  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 282684  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 282750  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 282246  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284447  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 283575  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 282748  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 284577  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284951  | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 284582  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 285872  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 285874  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 287093  | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 285875  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 286235  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 287087  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 2846336 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 288446  | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 287176  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289384  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 288443  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 289623  | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 289622  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289622  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291272  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291265  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291479  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291350  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291476  | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 291352  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 291264  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291349  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 285872  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289391  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 293067  | 1       |

continued on the next page

continued from previous page

| Supplier  | Substance                 | Batch    | Spectra |
|-----------|---------------------------|----------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 294270   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | Test1234 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 293064   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 293066   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289491   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 294333   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 296127   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 296134   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 296131   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 296130   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 296132   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 297413   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 297527   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 288260   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 297412   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 295464   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 298813   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 295465   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 297411   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 299784   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 299783   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 299226   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 299786   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 297523   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 300835   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 301312   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 298672   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 299229   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 300836   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 302030   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 299785   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 301309   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 300576   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 301883   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 303010   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 299235   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 301890   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 295532   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 302029   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 301880   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 303528   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 301887   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 301888   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 3029972  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 30297    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 301306   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 303525   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 6862317  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 302967   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 304432   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 303526   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 303527   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 306211   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 304433   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 306082   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 304431   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 60089704 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 306090   | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 306214   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 306088   | 3       |

continued on the next page

continued from previous page

| Supplier  | Substance                 | Batch    | Spectra |
|-----------|---------------------------|----------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 306213   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 307613   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 3068180  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 306816   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 307284   | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 307621   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 308303   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 307623   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 307622   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 308304   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 308306   | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 60080303 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 307289   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 308316   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 310579   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 308313   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 308683   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 310582   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 307283   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 308685   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 308309   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 308321   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 308312   | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 310585   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 308315   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 311449   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 308311   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 307281   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 310584   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 311529   | 10      |
| Bombastus | Wool alcohol cream DAB/SR | 311456   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 311451   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 309641   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 309639   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 311523   | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 17002210 | 11      |
| Bombastus | Wool alcohol cream DAB/SR | 311527   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 311457   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 17002209 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 18000764 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 17002205 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 17005148 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18001373 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18002542 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 17002204 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18001380 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18001378 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18001376 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 230718A  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 250718A  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18002412 | 9       |
| Bombastus | Wool alcohol cream DAB/SR | 18003998 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18004058 | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 18002408 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18004015 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18004059 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18004062 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18006134 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 19000027 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18006647 | 5       |

continued on the next page

continued from previous page

| Supplier  | Substance                 | Batch    | Spectra |
|-----------|---------------------------|----------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 18006845 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 19000026 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19000021 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 6862292  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19000020 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19001825 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19001838 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18002535 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19002147 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 19003091 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 19004081 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 20001948 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289390   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18000762 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18004060 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18006646 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 270723   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 272127   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 267154   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 292695   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 299227   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278828   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 282242   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 284580   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 287179   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 288442   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 291348   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 295460   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 297528   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 285867   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284450   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 295462   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 304429   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18000750 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18006642 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18004717 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19001830 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 308302   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 307285   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18001377 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 294273   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 299780   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18004719 | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 306087   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002549 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19001832 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 311452   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 311453   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18002546 | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 18002545 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 311524   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18004002 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 289393   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 310578   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18006839 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 18004056 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289395   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 305256   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 306212   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002537 | 2       |

continued on the next page

continued from previous page

| Supplier  | Substance                 | Batch    | Spectra |
|-----------|---------------------------|----------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 295528   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 295534   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 298815   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 300833   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19000168 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 279020   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 281506   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 288261   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 294527   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 298679   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 299234   | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 304435   | 11      |
| Bombastus | Wool alcohol cream DAB/SR | 294272   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18000768 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 294330   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002543 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 310573   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002540 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 301889   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18006838 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 270730   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 274849   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284947   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 284948   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 289632   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 273634   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 279877   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 302964   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 304421   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 300831   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284451   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 285868   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 289394   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289395   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289088   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289489   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 295529   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18002550 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19000163 | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 286237   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 40/14    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18002552 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 19000022 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 19001833 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284445   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 287085   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 292769   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 298678   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 19003088 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 60080302 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 294529   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 300581   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 293069   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 291352   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289487   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 294271   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 302970   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 19001839 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19002149 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19002152 | 2       |

continued on the next page



continued from previous page

| Supplier  | Substance                 | Batch    | Spectra |
|-----------|---------------------------|----------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 302969   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19001836 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 269924   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 272259   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 274629   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278749   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284446   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 285817   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 288441   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 17002202 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18000758 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18000760 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19000015 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19001826 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18004061 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18002547 | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18004057 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 306219   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 306822   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 17002147 | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 279019   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 288259   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 288260   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289088   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 280988   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289620   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 306089   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002553 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18004720 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 19002141 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 298817   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 298677   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 305261   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 311455   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 17002207 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 283574   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277097   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 282754   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 278832   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284579   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 293063   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 300583   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 301891   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 17002149 | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 19002145 | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 276216   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277769   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 306818   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 19003089 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 302031   | 9       |
| Bombastus | Wool alcohol cream DAB/SR | 302966   | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 19002142 | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 20000661 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278824   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 281504   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 279870   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 47/14    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 298674   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 295537   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 306820   | 2       |

continued on the next page



continued from previous page

| Supplier  | Substance                 | Batch      | Spectra |
|-----------|---------------------------|------------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 307626     | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 309636     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 307616     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 418M-03938 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 311454     | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 311447     | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18000757   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002416   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 18004000   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 17002203   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18004722   | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 18006645   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 19000166   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 60089702   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19002148   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 19002146   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18001375   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18002538   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 310580     | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18000769   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 295536     | 11      |
| Bombastus | Wool alcohol cream DAB/SR | 305257     | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18004013   | 10      |
| Bombastus | Wool alcohol cream DAB/SR | 19001827   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 297530     | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 306083     | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 3083301    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 310581     | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 17002208   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 19001834   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 307624     | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 306215     | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 308684     | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18006644   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18006842   | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 269927     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 272257     | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 273633     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 274631     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 275913     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277770     | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 285869     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 28/7175    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 300577     | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 298814     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 301885     | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 301305     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 306080     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18000765   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 18001374   | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18002539   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002541   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002536   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18004055   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 18004715   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18006648   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 18004714   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19000020   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19001828   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19000167   | 2       |

continued on the next page

continued from previous page

| Supplier  | Substance                 | Batch     | Spectra |
|-----------|---------------------------|-----------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 19001831  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19003084  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19002150  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19003085  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19004267  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19005760  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19005503  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 4a110118  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 284636    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19000019  | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 19000024  | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 19000165  | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 299231    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 299230    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 298668    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19000170  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 19003122  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 279021    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 286234    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 288350    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289091    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 291347    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 292693    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 294532    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 294332    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 300578    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 306085    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 305254    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 307617    | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 307618    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 308686    | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 308310    | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 311448    | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 311528    | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 307620    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18002411  | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 18002415  | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18003997  | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 19002144  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19004261  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 298816    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 298812    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 299782    | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 300837    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 300834    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 305260    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 306084    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 307286    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 306817    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 17002146  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 17002212  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18003999  | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18002406  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 191230111 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 305255    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 307282    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 274683    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 278829    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 281503    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 286238    | 1       |

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| Supplier  | Substance                 | Batch     | Spectra |
|-----------|---------------------------|-----------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 280391    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289087    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 288259    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 289396    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291433    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291479    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 292694    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 295463    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 295218    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 297526    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 299787    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 303529    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 303524    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 311450    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18000767  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18004063  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 108002412 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 1800762   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19000169  | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 19000018  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19003092  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 190991109 | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 289091    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 308689    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 310577    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18002413  | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 18006843  | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 19000025  | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 277854    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 292697    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 301892    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 17197320  | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 19001835  | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 17002150  | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 265303    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 267799    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 270035    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 270037    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 273637    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 273636    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277093    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 278833    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 297531    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 297529    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 297533    | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 299233    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 299232    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 300579    | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 302033    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 304437    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 304436    | 12      |
| Bombastus | Wool alcohol cream DAB/SR | 306217    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 305259    | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 308301    | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 308688    | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 308687    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 308314    | 7       |
| Bombastus | Wool alcohol cream DAB/SR | 310585    | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 311458    | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 17002211  | 4       |

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continued from previous page

| Supplier  | Substance                 | Batch      | Spectra |
|-----------|---------------------------|------------|---------|
| Bombastus | Wool alcohol cream DAB/SR | 18002544   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 18002548   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18004014   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18002551   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 18004724   | 9       |
| Bombastus | Wool alcohol cream DAB/SR | 18006840   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 19000161   | 11      |
| Bombastus | Wool alcohol cream DAB/SR | 19001841   | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 19005758   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 20003760   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 291267     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 277856     | 3       |
| Bombastus | Wool alcohol cream DAB/SR | 308307     | 8       |
| Bombastus | Wool alcohol cream DAB/SR | 311525     | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18004718   | 6       |
| Bombastus | Wool alcohol cream DAB/SR | 18004725   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 17002148   | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18000763   | 5       |
| Bombastus | Wool alcohol cream DAB/SR | 298676     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 299228     | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 307619     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 18000766   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18004716   | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 284943     | 1       |
| Bombastus | Wool alcohol cream DAB/SR | 301308     | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 18006641   | 2       |
| Bombastus | Wool alcohol cream DAB/SR | 302032     | 4       |
| Bombastus | Wool alcohol cream DAB/SR | 302972     | 8       |
| Caelo     | Wool alcohol cream DAB/SR | 12240502   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 13061501   | 14      |
| Caelo     | Wool alcohol cream DAB/SR | 1306804    | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 13279502   | 4       |
| Caelo     | Wool alcohol cream DAB/SR | 14046501   | 4       |
| Caelo     | Wool alcohol cream DAB/SR | 14170801   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 14246201   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 20161102-2 | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 15361601   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 16313002   | 12      |
| Caelo     | Wool alcohol cream DAB/SR | 17156102   | 7       |
| Caelo     | Wool alcohol cream DAB/SR | 18104401   | 23      |
| Caelo     | Wool alcohol cream DAB/SR | 18241401   | 54      |
| Caelo     | Wool alcohol cream DAB/SR | 18262501   | 23      |
| Caelo     | Wool alcohol cream DAB/SR | 11228001   | 2       |
| Caelo     | Wool alcohol cream DAB/SR | 11356201   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 11356501   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 12001301   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 12106001   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 12030601   | 2       |
| Caelo     | Wool alcohol cream DAB/SR | 1117601    | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 12056401   | 2       |
| Caelo     | Wool alcohol cream DAB/SR | 11226401   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 12106401   | 3       |
| Caelo     | Wool alcohol cream DAB/SR | 11226301   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 12036501   | 7       |
| Caelo     | Wool alcohol cream DAB/SR | 12122002   | 3       |
| Caelo     | Wool alcohol cream DAB/SR | 12122101   | 4       |
| Caelo     | Wool alcohol cream DAB/SR | 12106701   | 2       |
| Caelo     | Wool alcohol cream DAB/SR | 12000301   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 11356001   | 1       |
| Caelo     | Wool alcohol cream DAB/SR | 25091204   | 1       |

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| Supplier | Substance                 | Batch        | Spectra |
|----------|---------------------------|--------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 1212202      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12205701     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 12269201     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 1226901      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12205801     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 12036402     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 11171501     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12036601     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 12101602     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12205402     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 12205501     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12123501     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 12307401     | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 2112217035   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 20101112-1   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12259701     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 12307103     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 12307601     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 12122001     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 23021303     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12351901     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 13029503     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 12036301     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 12307102     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13068503     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13068601     | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 12259802     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 115A171212   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13061601     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 1913Q-01371  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13062201     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | E-090413-3   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13145202     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 13068701     | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 13145701     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 12370401     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 9071301      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13172001     | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 13029502     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13061401     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 13081303     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13261801     | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 12101304     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 269213261801 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1327901      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13279101     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 13172105     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 13369601     | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 13289403     | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 13369401     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 13280801     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 1118962      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 9011407      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13394103     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13369601     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14362201     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 13394102     | 21      |
| Caelo    | Wool alcohol cream DAB/SR | 14033202     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 13394201     | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 13172102     | 1       |

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continued from previous page

| Supplier | Substance                 | Batch     | Spectra |
|----------|---------------------------|-----------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 9041402   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14092601  | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 14092502  | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 14045801  | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 14046201  | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 284638    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1373801   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14092501  | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 14166901  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14164201  | 14      |
| Caelo    | Wool alcohol cream DAB/SR | 14046381  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14162503  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14162502  | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 14164201  | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 14246501  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14169101  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14126801  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14170801  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14216601  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14092501  | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 14246401  | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 14169101  | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 13369401  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 289089    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 23101405  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14246101  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14246301  | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 14216902  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14259402  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14259601  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14246201  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14259401  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14164201  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14246501  | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 14246101  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14259801  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14092601  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14216902  | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 1426401   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15011504  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295402  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 21105102  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295901  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14296001  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14259801  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 1424501   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14362301  | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 14295401  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295401  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14295601  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14356303  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295601  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15017501  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 142960001 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13394101  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14356501  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15017601  | 21      |
| Caelo    | Wool alcohol cream DAB/SR | 14170901  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1429501   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14356501  | 1       |

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continued from previous page

| Supplier | Substance                 | Batch           | Spectra |
|----------|---------------------------|-----------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 1435601         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15017601        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14296001        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 1456302         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295801        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15132101        | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 15073601        | 19      |
| Caelo    | Wool alcohol cream DAB/SR | 15017601        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15149801        | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 1071503         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14259701        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15017901        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15174201        | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 1515101         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15073801        | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 15149802        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15149802        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15226301        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15266001        | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 15174302        | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 15266201        | 14      |
| Caelo    | Wool alcohol cream DAB/SR | 15259701        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15174105        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15150101        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15260102        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | alt:0415I-01371 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15259901        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15266101        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15259801        | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 15259801        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15360901        | 16      |
| Caelo    | Wool alcohol cream DAB/SR | 15361001        | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 15268501        | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 15360901        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15361101        | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 15268302        | 38      |
| Caelo    | Wool alcohol cream DAB/SR | 15268601        | 16      |
| Caelo    | Wool alcohol cream DAB/SR | 2767            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16008103        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15361501        | 18      |
| Caelo    | Wool alcohol cream DAB/SR | 16024501        | 11      |
| Caelo    | Wool alcohol cream DAB/SR | 16008103        | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 16008001        | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 15361301        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16007802        | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 160245          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16024601        | 11      |
| Caelo    | Wool alcohol cream DAB/SR | 15361201        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16008201        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16024403        | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 16024502        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 152683021       | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16090501        | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 80616-10        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16089902        | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 2808            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16090401        | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 16157901        | 26      |
| Caelo    | Wool alcohol cream DAB/SR | 16008401        | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 16090601        | 1       |

continued on the next page



continued from previous page

| Supplier | Substance                 | Batch            | Spectra |
|----------|---------------------------|------------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 16024401         | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 16090101         | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 16177701         | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 201310           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16157901         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1608992          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16158102         | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 16340902         | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 16090001         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1609041          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 161177701        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1600841          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16157802         | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 303530           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 16177401         | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 16157801         | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 16112201         | 11      |
| Caelo    | Wool alcohol cream DAB/SR | 160912ECA        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16158001         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16157501         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16007701         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16199101         | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 16282301         | 36      |
| Caelo    | Wool alcohol cream DAB/SR | 16199301         | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 116282301        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16090601         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 2890             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 161776           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16278201         | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 16198401         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16312901         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16249003         | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 16340701         | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 16312902         | 14      |
| Caelo    | Wool alcohol cream DAB/SR | 16198901         | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 16344301         | 23      |
| Caelo    | Wool alcohol cream DAB/SR | 16341001         | 21      |
| Caelo    | Wool alcohol cream DAB/SR | 16282301         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1634080101098277 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1709202          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 306819           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 17039201         | 20      |
| Caelo    | Wool alcohol cream DAB/SR | 17039601         | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 16344101         | 20      |
| Caelo    | Wool alcohol cream DAB/SR | 170390301        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17039202         | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 16177801         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17040001         | 16      |
| Caelo    | Wool alcohol cream DAB/SR | 1703991          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 170394015292     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17039501         | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 17104702         | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 17102602         | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 5081702          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 163441           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 171202701        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17102901         | 11      |
| Caelo    | Wool alcohol cream DAB/SR | 17148701         | 20      |
| Caelo    | Wool alcohol cream DAB/SR | 17104703         | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 17155901         | 31      |

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| Supplier | Substance                 | Batch            | Spectra |
|----------|---------------------------|------------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | Chargeergänzen!! | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17128502         | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 17094001         | 19      |
| Caelo    | Wool alcohol cream DAB/SR | 17102801         | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 17178301         | 26      |
| Caelo    | Wool alcohol cream DAB/SR | 171559015364     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 310583           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 17197303         | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 17149101         | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 17228702         | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 17187601         | 15      |
| Caelo    | Wool alcohol cream DAB/SR | 171973202        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 308305           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17187902         | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 17179301         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17187901         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17016001         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17284701         | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 17284802         | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 18012201         | 43      |
| Caelo    | Wool alcohol cream DAB/SR | 171877015454     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17848022x        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18012303         | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 17264801         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18012401         | 19      |
| Caelo    | Wool alcohol cream DAB/SR | 17284401         | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 17352401         | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 1724802          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1728402          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17264301         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18069601         | 29      |
| Caelo    | Wool alcohol cream DAB/SR | 3051810          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 181541           | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 18012701         | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 17149001         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18098201         | 19      |
| Caelo    | Wool alcohol cream DAB/SR | 18086902         | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 18104101         | 23      |
| Caelo    | Wool alcohol cream DAB/SR | 1806502          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18189602         | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 18104302         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18104001         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18192303         | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 18262404         | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 18241201         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18262601         | 22      |
| Caelo    | Wool alcohol cream DAB/SR | 18262301         | 49      |
| Caelo    | Wool alcohol cream DAB/SR | 18262403         | 20      |
| Caelo    | Wool alcohol cream DAB/SR | 18006042         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18311102         | 23      |
| Caelo    | Wool alcohol cream DAB/SR | 18331901         | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 18262801         | 20      |
| Caelo    | Wool alcohol cream DAB/SR | 19011001         | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 19058004         | 19      |
| Caelo    | Wool alcohol cream DAB/SR | 19040701         | 22      |
| Caelo    | Wool alcohol cream DAB/SR | 19058001         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19115501         | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 190408001        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19115701         | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 90408011         | 1       |

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| Supplier | Substance                 | Batch                | Spectra |
|----------|---------------------------|----------------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 491780011            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19178101             | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 19226101             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19226202             | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 19000767001          | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 19000768001          | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 19267401             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 20001069001          | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 20001467001          | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 20001066001          | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 20001086002          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 20001086001          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 20001084001          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 20001461001          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12001201             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17227401             | 29      |
| Caelo    | Wool alcohol cream DAB/SR | 19177801             | 3       |
| Caelo    | Wool alcohol cream DAB/SR | CH-B:18104302        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 11356301             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 120307010            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13369801             | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 15260001             | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 298675               | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15361301             | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 15150002             | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13145601             | 15      |
| Caelo    | Wool alcohol cream DAB/SR | 19115601             | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13289301             | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 14113201             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16007702             | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 16090301             | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 16090002             | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 4718E-01371          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14046002             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17284501             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12307901             | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14126801             | 14      |
| Caelo    | Wool alcohol cream DAB/SR | 14167101             | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14259701             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1416903              | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14362401             | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 15259802             | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 16340801             | 47      |
| Caelo    | Wool alcohol cream DAB/SR | 1940601              | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15360802             | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 16340703             | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 18104002             | 16      |
| Caelo    | Wool alcohol cream DAB/SR | 20001067001          | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 20001466001          | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19005762             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15150001             | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 163123101            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 20170419ECA/16312902 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17039701             | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 19118801             | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 14045901             | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14259501             | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15174103             | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 16014302             | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 18170303             | 24      |

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| Supplier | Substance                 | Batch        | Spectra |
|----------|---------------------------|--------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 275988       | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 296128       | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 19259503     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 12056402     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13280601     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295701     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 15268402     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 29/AKD12     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16278301     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 17149201     | 20      |
| Caelo    | Wool alcohol cream DAB/SR | 17197302     | 75      |
| Caelo    | Wool alcohol cream DAB/SR | 18069603     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 15174105     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14164001     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 13190203     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18086901     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 273635       | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 274635       | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14216601     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 12106102     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 12351801     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17094102     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 1900076701   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13068601     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1118956      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12259702     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 12307301     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13061701     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13062301     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 13145301     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 1526601      | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15266501     | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 12307701     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 13369701     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 14167101     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14295502     | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 19226301     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 19259601     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12260101     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 12307501     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 15132101     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15132301     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15149902     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18023403     | 18      |
| Caelo    | Wool alcohol cream DAB/SR | 13061901     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 14295801     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14046401     | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 21(19115401) | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13279201     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14092401     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15268303     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15268401     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14046101     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15150101     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 12260401     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13373701     | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 13066501     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13068501     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14216901     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13394103     | 1       |

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| Supplier | Substance                 | Batch              | Spectra |
|----------|---------------------------|--------------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 16177601           | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 13373601           | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 14167001           | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14259601           | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 13145201           | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 16120801           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 16345801           | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 17149002           | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 171128ECA/17149002 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13172104           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14356402           | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 17178402           | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 1211901            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1703401            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18023401           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 3284               | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18311101           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16353902           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 16344102           | 13      |
| Caelo    | Wool alcohol cream DAB/SR | PE113              | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14107602           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 417A-01371         | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19199004           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18104301           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14169101           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295502           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 1718A-01371        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1098277            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13029504           | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 1314570            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13261701           | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 13322801           | 22      |
| Caelo    | Wool alcohol cream DAB/SR | 13369402           | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13373903           | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 306086             | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 17094201           | 26      |
| Caelo    | Wool alcohol cream DAB/SR | 1718701            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17197301/5580      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18086301           | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 18086401           | 37      |
| Caelo    | Wool alcohol cream DAB/SR | 18170501           | 41      |
| Caelo    | Wool alcohol cream DAB/SR | 19212101           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 18192302           | 37      |
| Caelo    | Wool alcohol cream DAB/SR | 19068902           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14164101           | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 1339401            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14045602           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13373501           | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14169201           | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14259402           | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14356302           | 22      |
| Caelo    | Wool alcohol cream DAB/SR | 14356601           | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 15260102           | 26      |
| Caelo    | Wool alcohol cream DAB/SR | 15360902           | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 2716Q-01371        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 4917I-01371        | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18002414           | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 18005983           | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 1814002            | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18241202           | 9       |

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| Supplier | Substance                 | Batch        | Spectra |
|----------|---------------------------|--------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 19118803     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 11356601     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18241603     | 14      |
| Caelo    | Wool alcohol cream DAB/SR | 18262701     | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 19057902     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 19118901     | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 13061402     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14246201     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 9115701      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13369501     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15361201     | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 12209001     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 11226201     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13062101     | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 13029502     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 13061801     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13145201     | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13171901     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 13394101     | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 13373801     | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 14113201     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 37A090414    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14246501     | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 14163901     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295901     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14362301     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14356301     | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 14216601     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14356402     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15022201     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 14356401     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15132301     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15073701     | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 15259901     | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 16312901     | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 1640801      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19A070817    | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 17198302     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 17188001     | 18      |
| Caelo    | Wool alcohol cream DAB/SR | 17156601     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1728701      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 173524002    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18104302     | 56      |
| Caelo    | Wool alcohol cream DAB/SR | 18241402     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 1824202      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1826301      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19212101     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 12260002     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 12307201     | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 614E1371     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18001379     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 13279001     | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 17284301     | 51      |
| Caelo    | Wool alcohol cream DAB/SR | 17197301     | 23      |
| Caelo    | Wool alcohol cream DAB/SR | 1787701      | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12208902     | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 20(17156102) | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19212201     | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14046501     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19000612003  | 1       |

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| Supplier | Substance                 | Batch     | Spectra |
|----------|---------------------------|-----------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 19000023  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 19058002  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 18094502  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 18104201  | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 19267302  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 19177701  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1912101   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1336901   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13013201  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 288265    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14216901  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14296001  | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 14092401  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15073502  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 15132301  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 15226301  | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 15259701  | 29      |
| Caelo    | Wool alcohol cream DAB/SR |           | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 16007901  | 30      |
| Caelo    | Wool alcohol cream DAB/SR | 16024301  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 16120802  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 17039401  | 40      |
| Caelo    | Wool alcohol cream DAB/SR | 17102701  | 51      |
| Caelo    | Wool alcohol cream DAB/SR | 17187801  | 68      |
| Caelo    | Wool alcohol cream DAB/SR | 18012302  | 22      |
| Caelo    | Wool alcohol cream DAB/SR | 17228703  | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 18096001  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18098301  | 52      |
| Caelo    | Wool alcohol cream DAB/SR | 18147502  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18258202  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 1804301   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18241401  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 18331903  | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 1826701   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1904061   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 191115402 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19040601  | 33      |
| Caelo    | Wool alcohol cream DAB/SR | 9040701   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15360801  | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 12056202  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13279401  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14045702  | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 14170801  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 14362201  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15073301  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15150001  | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 16014303  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16177401  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16158101  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16345802  | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 17039801  | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 17039301  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 17352402  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 17352403  | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 18098101  | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 18086903  | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 18189603  | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 18258203  | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 18241601  | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 18295604  | 4       |

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continued from previous page

| Supplier | Substance                 | Batch       | Spectra |
|----------|---------------------------|-------------|---------|
| Caelo    | Wool alcohol cream DAB/SR | 19068903    | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 309640      | 6       |
| Caelo    | Wool alcohol cream DAB/SR | 16177603    | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 15017901    | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 1015E-01371 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12205401    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 12259901    | 3       |
| Caelo    | Wool alcohol cream DAB/SR | 13013202    | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 13145401    | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 13190202    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13279601    | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 2x13279201  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13169401    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 13280701    | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 13279701    | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 13190201    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14046001    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14169201    | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 14164101    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 114163901   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14246102    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 415A-01371  | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 14295301    | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15022201    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15017502    | 11      |
| Caelo    | Wool alcohol cream DAB/SR | 15017701    | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 15174301    | 5       |
| Caelo    | Wool alcohol cream DAB/SR | 15361402    | 22      |
| Caelo    | Wool alcohol cream DAB/SR | 15361601    | 8       |
| Caelo    | Wool alcohol cream DAB/SR | 15361701    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 15360901    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1608001     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16007801    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16024501    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 16199004    | 25      |
| Caelo    | Wool alcohol cream DAB/SR | 16199201    | 10      |
| Caelo    | Wool alcohol cream DAB/SR | 16199401    | 9       |
| Caelo    | Wool alcohol cream DAB/SR | 17039301    | 27      |
| Caelo    | Wool alcohol cream DAB/SR | 17148901    | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 17187701    | 47      |
| Caelo    | Wool alcohol cream DAB/SR | 17156101    | 2       |
| Caelo    | Wool alcohol cream DAB/SR | 2417Q-01371 | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18012301    | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 180235-01   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18003802    | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 18098001    | 25      |
| Caelo    | Wool alcohol cream DAB/SR | 18144001    | 17      |
| Caelo    | Wool alcohol cream DAB/SR | 171797302   | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 1719730     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18144003    | 23      |
| Caelo    | Wool alcohol cream DAB/SR | 18094402    | 4       |
| Caelo    | Wool alcohol cream DAB/SR | 18192401    | 26      |
| Caelo    | Wool alcohol cream DAB/SR | 18241302    | 18      |
| Caelo    | Wool alcohol cream DAB/SR | 19011002    | 12      |
| Caelo    | Wool alcohol cream DAB/SR | 18104901    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 18241301    | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19058003    | 7       |
| Caelo    | Wool alcohol cream DAB/SR | 1915301     | 1       |
| Caelo    | Wool alcohol cream DAB/SR | 19040801    | 13      |
| Caelo    | Wool alcohol cream DAB/SR | 19115301    | 31      |

continued on the next page

continued from previous page

| Supplier             | Substance                 | Batch               | Spectra |
|----------------------|---------------------------|---------------------|---------|
| Caelo                | Wool alcohol cream DAB/SR | 19177802            | 2       |
| Caelo                | Wool alcohol cream DAB/SR | 14259701            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 14362501            | 11      |
| Caelo                | Wool alcohol cream DAB/SR | 17284801            | 20      |
| Caelo                | Wool alcohol cream DAB/SR | 14216701            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 180696015657        | 2       |
| Caelo                | Wool alcohol cream DAB/SR | 180983015714        | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 13279201-3433311180 | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 13281003            | 4       |
| Caelo                | Wool alcohol cream DAB/SR | 14166901ok          | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 14162502            | 5       |
| Caelo                | Wool alcohol cream DAB/SR | 14170901            | 3       |
| Caelo                | Wool alcohol cream DAB/SR | 14166901            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 1416901             | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 14216701            | 4       |
| Caelo                | Wool alcohol cream DAB/SR | 14246301            | 3       |
| Caelo                | Wool alcohol cream DAB/SR | 14259801            | 5       |
| Caelo                | Wool alcohol cream DAB/SR | 14216701            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 14295601            | 4       |
| Caelo                | Wool alcohol cream DAB/SR | 14092501            | 2       |
| Caelo                | Wool alcohol cream DAB/SR | 14295701            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 1456601             | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 15017501            | 3       |
| Caelo                | Wool alcohol cream DAB/SR | 15073502            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 15174104            | 21      |
| Caelo                | Wool alcohol cream DAB/SR | 1529701             | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 15268/601           | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 16007701            | 16      |
| Caelo                | Wool alcohol cream DAB/SR | 16090702            | 25      |
| Caelo                | Wool alcohol cream DAB/SR | 16090201            | 6       |
| Caelo                | Wool alcohol cream DAB/SR | 165158001           | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 16177502            | 15      |
| Caelo                | Wool alcohol cream DAB/SR | 16278101            | 4       |
| Caelo                | Wool alcohol cream DAB/SR | 17102603            | 14      |
| Caelo                | Wool alcohol cream DAB/SR | 17197903            | 2       |
| Caelo                | Wool alcohol cream DAB/SR | 171560014           | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 17284402            | 6       |
| Caelo                | Wool alcohol cream DAB/SR | 18069602            | 10      |
| Caelo                | Wool alcohol cream DAB/SR | 18094301            | 61      |
| Caelo                | Wool alcohol cream DAB/SR | 18083603            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 18144101            | 16      |
| Caelo                | Wool alcohol cream DAB/SR | 18241301            | 20      |
| Caelo                | Wool alcohol cream DAB/SR | 19011005            | 19      |
| Caelo                | Wool alcohol cream DAB/SR | 19040602            | 15      |
| Caelo                | Wool alcohol cream DAB/SR | 13394101            | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 16344202            | 4       |
| Caelo                | Wool alcohol cream DAB/SR | 5017A-07003         | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 1806303             | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 1904601             | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 29131-01371         | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 1113E-01371         | 1       |
| Caelo                | Wool alcohol cream DAB/SR | 16177602            | 28      |
| Caelo                | Wool alcohol cream DAB/SR | 15260102            | 1       |
| Caesar & Lorenz GmbH | Wool alcohol cream DAB/SR | 1631301             | 1       |
| Caesar & Loretz GmbH | Wool alcohol cream DAB/SR | 12209101            | 2       |
| Caesar & Loretz GmbH | Wool alcohol cream DAB/SR | 14295901            | 1       |
| Caesar & Loretz GmbH | Wool alcohol cream DAB/SR | 15017801            | 1       |
| Caesar & Loretz GmbH | Wool alcohol cream DAB/SR | 15073701            | 1       |
| Caesar & Loretz GmbH | Wool alcohol cream DAB/SR | 15266501            | 1       |
| Caesar & Loretz GmbH | Wool alcohol cream DAB/SR | 18262402            | 1       |

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| Supplier                 | Substance                 | Batch       | Spectra |
|--------------------------|---------------------------|-------------|---------|
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 182331902   | 1       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19115402    | 15      |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19118802    | 10      |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 18298201    | 1       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19115401    | 15      |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19147201    | 1       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19178001    | 2       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19177901    | 3       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19212302    | 2       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 19258601    | 1       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 20001068001 | 1       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 20001065001 | 2       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 20001462001 | 1       |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 16249002    | 1       |
| ...                      |                           |             |         |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 17104701    | 2       |
| ...                      |                           |             |         |
| Caesar & Loretz GmbH     | Wool alcohol cream DAB/SR | 13373701    | 1       |
| ...                      |                           |             |         |
| Caesar & Loretz GmbH,... | Wool alcohol cream DAB/SR | 11276102    | 5       |
| Caesar & Loretz GmbH,... | Wool alcohol cream DAB/SR | 12000201    | 2       |
| Caesar & Loretz GmbH/... | Wool alcohol cream DAB/SR | 18295602    | 3       |
| Caesar & Loretz GmbH/... | Wool alcohol cream DAB/SR | 19177601    | 3       |
| Caesar&Loretz            | Wool alcohol cream DAB/SR | 17040101    | 2       |
| Caesar&lorenz,Phoenix    | Wool alcohol cream DAB/SR | 13068504    | 17      |
| Caesar&Loretz/Caesar&... | Wool alcohol cream DAB/SR | 15266301    | 6       |
| Caesar und Loretz GmbH   | Wool alcohol cream DAB/SR | 19177701    | 14      |
| Cealo                    | Wool alcohol cream DAB/SR | 17148702    | 6       |
| Celo                     | Wool alcohol cream DAB/SR | 16008301    | 1       |
| Defektur                 | Wool alcohol cream DAB/SR | 3817I-01371 | 1       |
| Devesa                   | Wool alcohol cream DAB/SR | 12106601    | 1       |
| Euro OTC                 | Wool alcohol cream DAB/SR | 221014      | 1       |
| Euro OTC                 | Wool alcohol cream DAB/SR | 17284502    | 14      |
| Euro OTC                 | Wool alcohol cream DAB/SR | 43A041016   | 2       |
| Euro OTC                 | Wool alcohol cream DAB/SR | 17156002    | 9       |
| Euro OTC                 | Wool alcohol cream DAB/SR | 279873      | 1       |
| Euro OTC                 | Wool alcohol cream DAB/SR | 17284601    | 22      |
| Fagron                   | Wool alcohol cream DAB/SR | 16199003    | 2       |
| Fagron                   | Wool alcohol cream DAB/SR | 18012501    | 30      |
| Fagron                   | Wool alcohol cream DAB/SR | 18012601    | 25      |
| Fagron                   | Wool alcohol cream DAB/SR | 18002409    | 5       |
| Fagron                   | Wool alcohol cream DAB/SR | 311526      | 2       |
| Fagron                   | Wool alcohol cream DAB/SR | 12370202    | 3       |
| Fagron                   | Wool alcohol cream DAB/SR | 111114a     | 1       |
| Fiebig                   | Wool alcohol cream DAB/SR | 16008201    | 10      |
| Fiebig                   | Wool alcohol cream DAB/SR | 18094502    | 66      |
| Caelo                    | Wool alcohol cream DAB/SR | 163443/1    | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 267155      | 2       |
| Gehe                     | Wool alcohol cream DAB/SR | 270032      | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 270037      | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 80A010812   | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 269933      | 2       |
| Gehe                     | Wool alcohol cream DAB/SR | 272254      | 2       |
| Gehe                     | Wool alcohol cream DAB/SR | 272253      | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 95A161012   | 1       |

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continued from previous page

| Supplier                 | Substance                 | Batch            | Spectra |
|--------------------------|---------------------------|------------------|---------|
| Gehe                     | Wool alcohol cream DAB/SR | 274686           | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 277207           | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 32A080413        | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 274684           | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 279876           | 3       |
| Gehe                     | Wool alcohol cream DAB/SR | 13279002         | 5       |
| Gehe                     | Wool alcohol cream DAB/SR | 72A270813        | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 282240           | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 282245           | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 280493           | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 47a040613        | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 15266101         | 7       |
| Gehe                     | Wool alcohol cream DAB/SR | 16008103         | 24      |
| Gehe                     | Wool alcohol cream DAB/SR | 16313101         | 42      |
| Gehe                     | Wool alcohol cream DAB/SR | 1719302          | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 18094302         | 2       |
| Gehe                     | Wool alcohol cream DAB/SR | 18086501         | 1       |
| Gehe                     | Wool alcohol cream DAB/SR | 182414101        | 1       |
| GEHE                     | Wool alcohol cream DAB/SR | 305253           | 6       |
| GEHE                     | Wool alcohol cream DAB/SR | 303523           | 3       |
| GEHE                     | Wool alcohol cream DAB/SR | 308308           | 2       |
| GEHE                     | Wool alcohol cream DAB/SR | 18170401         | 35      |
| Caelo                    | Wool alcohol cream DAB/SR | 14162502         | 1       |
| Bombastus                | Wool alcohol cream DAB/SR | 289490           | 1       |
| Gehe 21.08.14            | Wool alcohol cream DAB/SR | 287175           | 1       |
| GEHE 24.02.2014          | Wool alcohol cream DAB/SR | 13373801         | 1       |
| Bombastus                | Wool alcohol cream DAB/SR | 302968           | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 181439001        | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 14216801         | 5       |
| Bombastus                | Wool alcohol cream DAB/SR | 288443           | 3       |
| apomix                   | Wool alcohol cream DAB/SR | 8A290114         | 1       |
| apomix                   | Wool alcohol cream DAB/SR | 19A270214        | 1       |
| apomix                   | Wool alcohol cream DAB/SR | 4A020217         | 3       |
| apomix                   | Wool alcohol cream DAB/SR | 2A100118         | 5       |
| apomix                   | Wool alcohol cream DAB/SR | 87A141014        | 1       |
| apomix                   | Wool alcohol cream DAB/SR | 62A090714        | 2       |
| apomix                   | Wool alcohol cream DAB/SR | 28A210313        | 2       |
| apomix                   | Wool alcohol cream DAB/SR | 82A260913        | 1       |
| GEHE/B0mbastus/04.14     | Wool alcohol cream DAB/SR | 285870           | 3       |
| Bombastus                | Wool alcohol cream DAB/SR | 288351           | 1       |
| Bombastus                | Wool alcohol cream DAB/SR | 301310           | 3       |
| Bombastus                | Wool alcohol cream DAB/SR | 304428           | 5       |
| Bombastus                | Wool alcohol cream DAB/SR | 18006643         | 5       |
| Bombastus                | Wool alcohol cream DAB/SR | 19001840         | 3       |
| Bombastus                | Wool alcohol cream DAB/SR | 19003086         | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 12370601         | 9       |
| Caelo                    | Wool alcohol cream DAB/SR | 12370203         | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 14046101         | 2       |
| Caelo                    | Wool alcohol cream DAB/SR | 16157801/1041016 | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 1230317          | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 17039901         | 7       |
| Caelo                    | Wool alcohol cream DAB/SR | 1241017/17155901 | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 18170302         | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 18004062  091/19 | 1       |
| Caelo                    | Wool alcohol cream DAB/SR | 19000768002      | 1       |
| GH: ...                  | Wool alcohol cream DAB/SR |                  | 1       |
| Heidinger/ Noweda        | Wool alcohol cream DAB/SR | 1804401          | 1       |
| ichthyol                 | Wool alcohol cream DAB/SR | 297414           | 1       |
| Ichthyol Gesellschaft... | Wool alcohol cream DAB/SR | 14362501         | 1       |
| Ichthyol-Gesellschaft    | Wool alcohol cream DAB/SR | 11288302         | 1       |

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| Supplier                  | Substance                 | Batch          | Spectra |
|---------------------------|---------------------------|----------------|---------|
| Caelo                     | Wool alcohol cream DAB/SR | 19000501       | 14      |
| Kehr                      | Wool alcohol cream DAB/SR | 18000771       | 1       |
| Caelo                     | Wool alcohol cream DAB/SR | 17094002       | 18      |
| Caelo                     | Wool alcohol cream DAB/SR | 170400001      | 1       |
| Leyh                      | Wool alcohol cream DAB/SR | 182851, 183641 | 1       |
| Leyh /Sanacorp            | Wool alcohol cream DAB/SR | 154421         | 1       |
| Leyh /Sanacorp            | Wool alcohol cream DAB/SR | 162631         | 3       |
| Leyh /Sanacorp            | Wool alcohol cream DAB/SR | 170231         | 1       |
| leyh Pharma               | Wool alcohol cream DAB/SR | 172411         | 6       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 170651         | 2       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 164441         | 1       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 171851         | 2       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 172821         | 1       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 173821         | 3       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 180231         | 6       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 181741         | 2       |
| Leyh Pharma               | Wool alcohol cream DAB/SR | 190921         | 3       |
| Leyh Pharma / Al-lianc... | Wool alcohol cream DAB/SR | 181011         | 3       |
| Leyh Pharma / Al-lianc... | Wool alcohol cream DAB/SR | 182851         | 3       |
| Leyh Pharma / Al-lianc... | Wool alcohol cream DAB/SR | 182241         | 3       |
| Leyh Pharma / Al-lianc... | Wool alcohol cream DAB/SR | 183641         | 3       |
| Leyh Pharma / Al-lianc... | Wool alcohol cream DAB/SR | 8004134002     | 1       |
| Leyh Pharma GmbH          | Wool alcohol cream DAB/SR | 151831         | 3       |
| Leyh Pharma GmbH          | Wool alcohol cream DAB/SR | 163741         | 1       |
| Leyh Pharma GmbH          | Wool alcohol cream DAB/SR | 171311         | 2       |
| Leyh Pharma GmbH          | Wool alcohol cream DAB/SR | 194021         | 1       |
| Leyh Pharma GmbH, 15...   | Wool alcohol cream DAB/SR | 162411         | 2       |
| Leyh Pharma/Noweda        | Wool alcohol cream DAB/SR | 160551         | 2       |
| Leyh Pharma/Noweda        | Wool alcohol cream DAB/SR | 161211         | 1       |
| Leyh Pharma/Noweda        | Wool alcohol cream DAB/SR | 161531         | 1       |
| Leyh Pharma/Noweda        | Wool alcohol cream DAB/SR | 192841         | 1       |
| Leyh Pharma/Phoenix       | Wool alcohol cream DAB/SR | 191931         | 2       |
| Leyh Pharma/Sanacorp      | Wool alcohol cream DAB/SR | 142031         | 1       |
| Leyh Pharma/Sanacorp      | Wool alcohol cream DAB/SR | 144951         | 1       |
| Leyh Pharma/Sanacorp      | Wool alcohol cream DAB/SR | 150411         | 1       |
| Leyh/Noweda               | Wool alcohol cream DAB/SR | 152321         | 2       |
| Leytt Pharma / Al-lian... | Wool alcohol cream DAB/SR | 174511         | 4       |
| Midas                     | Wool alcohol cream DAB/SR | 16322301       | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 282241         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 282244         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 14295402       | 2       |
| Noweda                    | Wool alcohol cream DAB/SR | 291431         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 291478         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 294529         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 295530         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 294333         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 295530         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 298673         | 1       |
| Noweda                    | Wool alcohol cream DAB/SR | 17156001       | 32      |
| Noweda                    | Wool alcohol cream DAB/SR | 19000401       | 56      |
| Caelo                     | Wool alcohol cream DAB/SR | 13008202       | 1       |
| Bombastus                 | Wool alcohol cream DAB/SR | 271812         | 1       |
| Bombastus                 | Wool alcohol cream DAB/SR | 289620         | 1       |

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| Supplier                  | Substance                 | Batch            | Spectra |
|---------------------------|---------------------------|------------------|---------|
| apomix                    | Wool alcohol cream DAB/SR | 5A290113         | 2       |
| Bombastus                 | Wool alcohol cream DAB/SR | 286236           | 2       |
| Caelo                     | Wool alcohol cream DAB/SR | 12260402         | 13      |
| Caelo                     | Wool alcohol cream DAB/SR | 13272601         | 1       |
| Caelo                     | Wool alcohol cream DAB/SR | 14259401         | 2       |
| Caelo                     | Wool alcohol cream DAB/SR | 14259601         | 7       |
| Caelo                     | Wool alcohol cream DAB/SR | 14200702         | 2       |
| Caelo                     | Wool alcohol cream DAB/SR | 1429501          | 1       |
| Caelo                     | Wool alcohol cream DAB/SR | 15329403         | 1       |
| Caelo                     | Wool alcohol cream DAB/SR | 16090501         | 34      |
| Caelo                     | Wool alcohol cream DAB/SR | 16158001         | 33      |
| Caelo                     | Wool alcohol cream DAB/SR | 16158101         | 16      |
| Caelo                     | Wool alcohol cream DAB/SR | 18143091         | 1       |
| Euro OTC                  | Wool alcohol cream DAB/SR | 2507217035       | 1       |
| Otto Fischar GmbH & C...  | Wool alcohol cream DAB/SR | 294533           | 10      |
| P.W.Beyvers GmbH, Phönix  | Wool alcohol cream DAB/SR | 15A230215        | 1       |
| Pharmachem                | Wool alcohol cream DAB/SR | 190816           | 13      |
| Pharmachem                | Wool alcohol cream DAB/SR | 190417           | 8       |
| Pharmachem                | Wool alcohol cream DAB/SR | 291217           | 15      |
| Pharmachem / Al-liance... | Wool alcohol cream DAB/SR | 290818           | 6       |
| Pharmachem Anzag          | Wool alcohol cream DAB/SR | 260413           | 3       |
| Pharmachem GmbH           | Wool alcohol cream DAB/SR | 110913           | 2       |
| pharmachem gmbh co kg...  | Wool alcohol cream DAB/SR | 31215            | 8       |
| Pharmachem/Noweda         | Wool alcohol cream DAB/SR | 260419           | 1       |
| Pharmachem/Phoenix        | Wool alcohol cream DAB/SR | 184511           | 3       |
| Pharmachem/Phönix         | Wool alcohol cream DAB/SR | 110614           | 1       |
| Phoenix                   | Wool alcohol cream DAB/SR | 14A180214        | 1       |
| Phoenix                   | Wool alcohol cream DAB/SR | 3025             | 1       |
| Phoenix                   | Wool alcohol cream DAB/SR | 3085             | 1       |
| Phoenix (Pharmachem P...  | Wool alcohol cream DAB/SR | 260712           | 3       |
| Phoenix Goettin           | Wool alcohol cream DAB/SR | 15017801         | 4       |
| Caelo                     | Wool alcohol cream DAB/SR | 14216903         | 2       |
| Caelo                     | Wool alcohol cream DAB/SR | 18012201/2110418 | 1       |
| Caelo                     | Wool alcohol cream DAB/SR | 13145901         | 5       |
| Phönix                    | Wool alcohol cream DAB/SR | 13279301         | 7       |
| Phönix                    | Wool alcohol cream DAB/SR | 14295502         | 1       |
| Phönix                    | Wool alcohol cream DAB/SR | 1098283          | 1       |
| Phönix                    | Wool alcohol cream DAB/SR | 307288           | 1       |
| Phönix                    | Wool alcohol cream DAB/SR | 17002145         | 5       |
| Phönix                    | Wool alcohol cream DAB/SR | 18023402         | 35      |
| Phönix                    | Wool alcohol cream DAB/SR | 3137             | 1       |
| Phönix                    | Wool alcohol cream DAB/SR | 3157             | 1       |
| Phönix                    | Wool alcohol cream DAB/SR | 6861192          | 1       |
| Phönix                    | Wool alcohol cream DAB/SR | 18086502         | 19      |
| Phönix                    | Wool alcohol cream DAB/SR | 18241602         | 45      |
| Phönix                    | Wool alcohol cream DAB/SR | 18004726         | 3       |
| Phönix                    | Wool alcohol cream DAB/SR | 18006844         | 6       |
| Phönix                    | Wool alcohol cream DAB/SR | 1900168          | 1       |
| PHÖNIX                    | Wool alcohol cream DAB/SR | 17178201         | 22      |
| Bombastus                 | Wool alcohol cream DAB/SR | 17002206         | 8       |
| Bombastus                 | Wool alcohol cream DAB/SR | 18002410         | 4       |
| Bombastus                 | Wool alcohol cream DAB/SR | 19000162         | 3       |
| Phönix Gotha              | Wool alcohol cream DAB/SR | 12036403         | 2       |
| Phönix Gotha              | Wool alcohol cream DAB/SR | 12352001         | 4       |
| Phönix Gotha              | Wool alcohol cream DAB/SR | 311522           | 1       |

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| Supplier                     | Substance                   | Batch            | Spectra |
|------------------------------|-----------------------------|------------------|---------|
| Phönix Gotha                 | Wool alcohol cream DAB/SR   | 18001371         | 1       |
| Phönix Gotha                 | Wool alcohol cream DAB/SR   | 18002407         | 1       |
| Phönix Gotha                 | Wool alcohol cream DAB/SR   | 18006837         | 1       |
| Phönix Gotha                 | Wool alcohol cream DAB/SR   | 19000158         | 2       |
| Caelo                        | Wool alcohol cream DAB/SR   | 17148201         | 1       |
| Bombastus                    | Wool alcohol cream DAB/SR   | 18004001         | 7       |
| Bombastus                    | Wool alcohol cream DAB/SR   | 19000160         | 9       |
| Caelo                        | Wool alcohol cream DAB/SR   | 13272601         | 3       |
| Caelo                        | Wool alcohol cream DAB/SR   | 153671601        | 1       |
| Caelo                        | Wool alcohol cream DAB/SR   | 16008301         | 12      |
| Caelo                        | Wool alcohol cream DAB/SR   | 16277902         | 10      |
| Caelo                        | Wool alcohol cream DAB/SR   | 16344201         | 43      |
| Caelo                        | Wool alcohol cream DAB/SR   | 2120817/17039401 | 1       |
| PKH GmbH, Ph                 | Wool alcohol cream DAB/SR   | 1A160119         | 7       |
| 21.02.19                     |                             |                  |         |
| PKH GmbH, Phönix             | Wool alcohol cream DAB/SR   | 57A100615        | 1       |
| PKH Halle                    | Wool alcohol cream DAB/SR   | 19A240718        | 7       |
| PKH Halle/AHD                | Wool alcohol cream DAB/SR   | 23A181017        | 2       |
| PKH Halle/Noweda             | Wool alcohol cream DAB/SR   | 21A290817        | 6       |
| Raben-Apotheke Milde-<br>nau | Wool alcohol cream DAB/SR   | 38A150514        | 1       |
| Raben-Apotheke Milde-<br>nau | Wool alcohol cream DAB/SR   | 45A260514        | 3       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 12307801         | 6       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 14002801         | 13      |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 22/AKD2          | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 287183           | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 288264           | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 25/AKD3          | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 13172102         | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 27/AKD4          | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | ch. -B28/AKD10   | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 1529802          | 1       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 16090703         | 2       |
| Sanacorp                     | Wool alcohol cream DAB/SR   | 18086302         | 33      |
| Caelo                        | Wool alcohol cream DAB/SR   | 13146001         | 6       |
| Caelo                        | Wool alcohol cream DAB/SR   | 14046502         | 4       |
| Caelo                        | Wool alcohol cream DAB/SR   | 14246301         | 1       |
| Caelo                        | Wool alcohol cream DAB/SR   | 15149902         | 1       |
| Caelo                        | Wool alcohol cream DAB/SR   | 15266001         | 1       |
| Caelo                        | Wool alcohol cream DAB/SR   | 15149801         | 2       |
| Caelo                        | Wool alcohol cream DAB/SR   | 15260001         | 1       |
| Caelo                        | Wool alcohol cream DAB/SR   | 16277903         | 12      |
| Caelo                        | Wool alcohol cream DAB/SR   | 18086303         | 14      |
| Bombastus                    | Wool alcohol cream DAB/SR   | 268902           | 1       |
| Bombastus                    | Wool alcohol cream DAB/SR   | 270725           | 2       |
| Bombastus                    | Wool alcohol cream DAB/SR   | 282751           | 4       |
| Bombastus                    | Wool alcohol cream DAB/SR   | 282753           | 2       |
| Caelo                        | Wool alcohol cream DAB/SR   | 14362201         | 14      |
| Caelo                        | Wool alcohol cream DAB/SR   | 12056301         | 1       |
| Caelo                        | Wool alcohol cream DAB/SR   | 22/AKD52         | 1       |
| Caelo                        | Wool alcohol cream DAB/SR   | 18143901         | 57      |
| Caelo                        | Wool alcohol cream DAB/SR   | 15266401         | 6       |
| Bombastus                    | Wool alcohol cream DAB/SR   | 306218           | 5       |
| Taoasis                      | Wool alcohol cream DAB/SR   | 81/12            | 1       |
| VDL 28.04;Preis:4,34         | Wool alcohol cream DAB/SR   | 14033202;15R05   | 1       |
| Caelo                        | Wormwood tincture (70%) 1:5 | 92780419         | 1       |
| Caelo                        | Wormwood tincture (70%) 1:5 | 10260210         | 2       |
| Caelo                        | Wormwood tincture (70%) 1:5 | 11145005         | 1       |
| Caelo                        | Wormwood tincture (70%) 1:5 | 12237901         | 1       |

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| Supplier     | Substance                   | Batch    | Spectra |
|--------------|-----------------------------|----------|---------|
| Caelo        | Wormwood tincture (70%) 1:5 | 12237902 | 1       |
| Caelo        | Wormwood tincture (70%) 1:5 | 12237907 | 1       |
| Caelo        | Wormwood tincture (70%) 1:5 | 12237905 | 4       |
| Phönix Gotha | Wormwood tincture (70%) 1:5 | 10010909 | 1       |

| Supplier | Substance       | Batch    | Spectra |
|----------|-----------------|----------|---------|
| Caelo    | Ylang-ylang oil | 23011502 | 1       |
| Caelo    | Ylang-ylang oil | 14192905 | 1       |
| Caelo    | Ylang-ylang oil | 15101104 | 1       |

| Supplier         | Substance                         | Batch      | Spectra |
|------------------|-----------------------------------|------------|---------|
| Caelo            | Zinc ointment DAB                 | 11271001   | 1       |
| Bombastus        | Zinc ointment DAB                 | 30071602   | 1       |
| Bombastus        | Zinc ointment DAB                 | 275313     | 4       |
| Bombastus        | Zinc ointment DAB                 | 282182     | 1       |
| Bombastus        | Zinc ointment DAB                 | 277335     | 2       |
| Bombastus        | Zinc ointment DAB                 | 274127     | 1       |
| Caelo            | Zinc ointment DAB                 | 16101202   | 1       |
| Caelo            | Zinc ointment DAB                 | 12042503   | 3       |
| Caelo            | Zinc ointment DAB                 | 20270912-5 | 1       |
| Caelo            | Zinc ointment DAB                 | 12343602   | 9       |
| Caelo            | Zinc ointment DAB                 | 7031303    | 1       |
| Caelo            | Zinc ointment DAB                 | 12098402   | 4       |
| Caelo            | Zinc ointment DAB                 | 12101302   | 1       |
| Caelo            | Zinc ointment DAB                 | 13072702   | 1       |
| Caelo            | Zinc ointment DAB                 | 13257003   | 1       |
| Caelo            | Zinc ointment DAB                 | 13393903   | 1       |
| Caelo            | Zinc ointment DAB                 | 13257001   | 11      |
| Caelo            | Zinc ointment DAB                 | 11367501   | 3       |
| Caelo            | Zinc ointment DAB                 | 1234602    | 1       |
| Caelo            | Zinc ointment DAB                 | 12042502   | 1       |
| apomix           | Zinc oxide cream 25% SR (NRF 1... | 7B270513   | 1       |
| apomix           | Zinc oxide cream 25% SR (NRF 1... | 13B230813  | 1       |
| apomix           | Zinc oxide cream 25% SR (NRF 1... | 4A100413   | 1       |
| apomix           | Zinc oxide cream 25% SR (NRF 1... | 15B230913  | 1       |
| Bombastus        | Zinc oxide cream 25% SR (NRF 1... | 272491     | 1       |
| Bombastus        | Zinc oxide cream 25% SR (NRF 1... | 276966     | 3       |
| Bombastus        | Zinc oxide cream 25% SR (NRF 1... | 281755     | 3       |
| Bombastus        | Zinc oxide cream 25% SR (NRF 1... | 272490     | 1       |
| Bombastus        | Zinc oxide cream 25% SR (NRF 1... | 279248     | 1       |
| Caelo            | Zinc oxide cream 25% SR (NRF 1... | 13A040912  | 3       |
| Caelo            | Zinc oxide cream 25% SR (NRF 1... | 279250     | 2       |
| Caelo            | Zinc oxide cream 25% SR (NRF 1... | 2795250    | 1       |
| Pharmachem       | Zinc oxide cream 25% SR (NRF 1... | 110112     | 1       |
| PharmaChem       | Zinc oxide cream 25% SR (NRF 1... | 150513     | 1       |
| Phönix Gotha     | Zinc oxide cream 25% SR (NRF 1... | 276963     | 1       |
| PKH GmbH         | Zinc oxide cream 25% SR (NRF 1... | 2B080113   | 1       |
| Anzag            | Zinc oxide lotion, aqueous DAC    | 12309601   | 6       |
| Anzag 08.03.2013 | Zinc oxide lotion, aqueous DAC    | 13018401   | 16      |
| Bombastus        | Zinc oxide lotion, aqueous DAC    | 274933     | 1       |
| Bombastus        | Zinc oxide lotion, aqueous DAC    | 281537     | 1       |
| Bombastus        | Zinc oxide lotion, aqueous DAC    | 284632     | 1       |
| Caelo            | Zinc oxide lotion, aqueous DAC    | 10082601   | 1       |
| Caelo            | Zinc oxide lotion, aqueous DAC    | 3101217039 | 1       |
| Caelo            | Zinc oxide lotion, aqueous DAC    | 12065203   | 1       |
| Caelo            | Zinc oxide lotion, aqueous DAC    | 12065401   | 1       |
| Caelo            | Zinc oxide lotion, aqueous DAC    | 12211501   | 8       |

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continued from previous page

| Supplier             | Substance                      | Batch        | Spectra |
|----------------------|--------------------------------|--------------|---------|
| Caelo                | Zinc oxide lotion, aqueous DAC | 711217039    | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 4121204      | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12197103     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12211802     | 4       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 28121204     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 20310812-3   | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12307902     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12309802     | 11      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12309702     | 6       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 1230951      | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 10131-01815  | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 19041309     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 6061301      | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 2713M1815    | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 11281301     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 11071303     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13087701     | 19      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13139402     | 12      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 24101311     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13283101     | 10      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12111306     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13282901     | 16      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 20122013F    | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 24122013A    | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13283103     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 15061201     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 14010502     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 14116701     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 14010602     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13282701     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 14275002     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 15003201     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 15154301     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 15273502     | 2       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 16003202     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 16003302     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 14010501     | 3       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12309701     | 4       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13087501     | 12      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13139301     | 16      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13018801     | 7       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13282801     | 5       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 132801       | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 11329903     | 2       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12211701     | 15      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12211401     | 6       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13018803     | 5       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 12065301     | 8       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13087601     | 23      |
| Caelo                | Zinc oxide lotion, aqueous DAC | 11184601     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 11281401     | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 1109779      | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13283002     | 7       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 1319601      | 2       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13024401     | 5       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 13139302     | 5       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 112814101    | 1       |
| Caelo                | Zinc oxide lotion, aqueous DAC | 38112A-01815 | 1       |
| Caesar & Loretz GmbH | Zinc oxide lotion, aqueous DAC | 12309501     | 32      |
| Caesar & Loretz GmbH | Zinc oxide lotion, aqueous DAC | 13405901     | 4       |

continued on the next page

continued from previous page

| Supplier                 | Substance                      | Batch            | Spectra |
|--------------------------|--------------------------------|------------------|---------|
| Calo                     | Zinc oxide lotion, aqueous DAC | 14211601         | 1       |
| Fagron                   | Zinc oxide lotion, aqueous DAC | 4213Q-01815      | 1       |
| Fagron                   | Zinc oxide lotion, aqueous DAC | 13K19-T02-014523 | 1       |
| Fagron                   | Zinc oxide lotion, aqueous DAC | 10H19-T01-000747 | 1       |
| Finze                    | Zinc oxide lotion, aqueous DAC | 12065501         | 5       |
| Gehe                     | Zinc oxide lotion, aqueous DAC | 12211402         | 8       |
| Caelo                    | Zinc oxide lotion, aqueous DAC | 13139601         | 23      |
| Henry Lamotte            | Zinc oxide lotion, aqueous DAC | 60480            | 1       |
| Henry Lamotte GmbH/Ho... | Zinc oxide lotion, aqueous DAC | 5289300          | 3       |
| henry lamotte oils gmbh  | Zinc oxide lotion, aqueous DAC | 6000083002       | 1       |
| henry lamotte oils gmbh  | Zinc oxide lotion, aqueous DAC | 90616-1          | 1       |
| Henry Lamotte Oils Gmbh  | Zinc oxide lotion, aqueous DAC | 600320602        | 1       |
| Henry Lamotte Oils, A... | Zinc oxide lotion, aqueous DAC | 5375600          | 12      |
| Henry Lamotte/ 24.04...  | Zinc oxide lotion, aqueous DAC | 1221401          | 1       |
| Caelo                    | Zinc oxide lotion, aqueous DAC | 11329902         | 1       |
| lamotte                  | Zinc oxide lotion, aqueous DAC | 6003206002       | 2       |
| Lamotte                  | Zinc oxide lotion, aqueous DAC | 5163600          | 2       |
| Lamotte                  | Zinc oxide lotion, aqueous DAC | 5099300          | 1       |
| Lamotte                  | Zinc oxide lotion, aqueous DAC | 5216200          | 1       |
| Lamotte                  | Zinc oxide lotion, aqueous DAC | 60460            | 1       |
| Lamotte                  | Zinc oxide lotion, aqueous DAC | 5651500          | 1       |
| Lamotte                  | Zinc oxide lotion, aqueous DAC | 5735500          | 3       |
| Lamotte / Gehe           | Zinc oxide lotion, aqueous DAC | 5321300          | 10      |
| Lamotte / Gehe           | Zinc oxide lotion, aqueous DAC | 5517400          | 12      |
| Lamotte/ Finze           | Zinc oxide lotion, aqueous DAC | 5563300          | 2       |
| Noweda                   | Zinc oxide lotion, aqueous DAC | 1211701          | 1       |
| Caelo                    | Zinc oxide lotion, aqueous DAC | 13283001         | 3       |
| Noweda/Lamotte           | Zinc oxide lotion, aqueous DAC | 5447800          | 9       |
| Phoenix                  | Zinc oxide lotion, aqueous DAC | 4010501          | 1       |
| Phönix                   | Zinc oxide lotion, aqueous DAC | 11329801         | 2       |
| Sanacorp                 | Zinc oxide lotion, aqueous DAC | AKD33            | 1       |
| apomix                   | Zinc oxide oil DAC             | 26C190911        | 1       |
| Bombastus                | Zinc oxide oil DAC             | 260696           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 269651           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 273970           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 273972           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 269765           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 278159           | 6       |
| Bombastus                | Zinc oxide oil DAC             | 282083           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 286041           | 2       |
| Bombastus                | Zinc oxide oil DAC             | 301565           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 274182           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 273971           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 269650           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 263248           | 1       |
| Bombastus                | Zinc oxide oil DAC             | 279564           | 1       |
| Caelo                    | Zinc oxide oil DAC             | 2612M-02026      | 1       |
| Caelo                    | Zinc oxide oil DAC             | 12160101         | 1       |
| Caelo                    | Zinc oxide oil DAC             | 12004701         | 2       |
| Caelo                    | Zinc oxide oil DAC             | 12289801         | 1       |
| Caelo                    | Zinc oxide oil DAC             | 13307202         | 1       |
| Caelo                    | Zinc oxide oil DAC             | 14032701         | 2       |
| Caelo                    | Zinc oxide oil DAC             | 15170902         | 1       |
| Caelo                    | Zinc oxide oil DAC             | 15173002         | 1       |
| Caelo                    | Zinc oxide oil DAC             | 16093002         | 1       |
| Caelo                    | Zinc oxide oil DAC             | 12289802         | 3       |

continued on the next page

continued from previous page

| Supplier                   | Substance                   | Batch     | Spectra |
|----------------------------|-----------------------------|-----------|---------|
| Caelo                      | Zinc oxide oil DAC          | 12004601  | 2       |
| Caelo                      | Zinc oxide oil DAC          | 12160002  | 1       |
| Caelo                      | Zinc oxide oil DAC          | 13069701  | 13      |
| Caelo                      | Zinc oxide oil DAC          | 13196501  | 2       |
| Gehe                       | Zinc oxide oil DAC          | 275086    | 2       |
| Gehe                       | Zinc oxide oil DAC          | 279563    | 3       |
| Gehe                       | Zinc oxide oil DAC          | 275085    | 1       |
| Gehe                       | Zinc oxide oil DAC          | 282085    | 1       |
| Gehe                       | Zinc oxide oil DAC          | 289826    | 1       |
| lamotte/Gehe               | Zinc oxide oil DAC          | 13196401  | 4       |
| pharmachem                 | Zinc oxide oil DAC          | 90512     | 1       |
| Phönix                     | Zinc oxide oil DAC          | 1C010212  | 1       |
| Phönix                     | Zinc oxide oil DAC          | 286040    | 1       |
| apomix                     | Zinc oxide oil DAC          | 26B190911 | 1       |
| Caelo                      | Zinc oxide oil DAC          | 12128602  | 2       |
| vdl                        | Zinc oxide oil DAC          | 12351702  | 5       |
| Anzag                      | Zinc oxide oil SR 90        | 15B100912 | 1       |
| apomix                     | Zinc oxide oil SR 90        | 6B150413  | 1       |
| Bombastus                  | Zinc oxide oil SR 90        | 6858379   | 1       |
| Bombastus                  | Zinc oxide oil SR 90        | 273973    | 6       |
| Bombastus                  | Zinc oxide oil SR 90        | 277647    | 1       |
| Pharmachem                 | Zinc oxide oil SR 90        | 20712     | 1       |
| Pharmachem                 | Zinc oxide oil SR 90        | 260412    | 1       |
| Pharmachem                 | Zinc oxide oil SR 90        | 150413    | 1       |
| Pharmachem                 | Zinc oxide oil SR 90        | 30712     | 1       |
| Pharmachem                 | Zinc oxide oil SR 90        | 160413    | 1       |
| Pharmachem Anzag           | Zinc oxide oil SR 90        | 140513    | 1       |
| Pharmachem GmbH            | Zinc oxide oil SR 90        | 61112     | 1       |
| pharmachen                 | Zinc oxide oil SR 90        | 30045100  | 1       |
| Pharmachern/AHD            | Zinc oxide oil SR 90        | 160122    | 1       |
| Bombastus                  | Zinc oxide paste SR90       | 273833    | 1       |
| Bombastus                  | Zinc oxide paste SR90       | 266450    | 1       |
| Bombastus                  | Zinc oxide paste SR90       | 279384    | 1       |
| Bombastus                  | Zinc oxide paste SR90       | 279387    | 1       |
| Bombastus                  | Zinc oxide paste SR90       | 276198    | 1       |
| Bombastus                  | Zinc oxide paste SR90       | 276200    | 3       |
| Bombastus                  | Zinc oxide paste SR90       | 256014    | 1       |
| Caelo                      | Zinc oxide paste SR90       | 244154    | 1       |
| Caelo                      | Zinc oxide paste SR90       | Test2     | 1       |
| Gehe                       | Zinc oxide paste SR90       | 264198    | 1       |
| Gehe                       | Zinc oxide paste SR90       | 266451    | 1       |
| Gehe                       | Zinc oxide paste SR90       | 268240    | 1       |
| Gehe                       | Zinc oxide paste SR90       | 270919    | 1       |
| Gehe                       | Zinc oxide paste SR90       | 276199    | 2       |
| Gehe                       | Zinc oxide paste SR90       | 279386    | 1       |
| Caelo                      | Zinc oxide paste SR90       | 271195    | 1       |
| AMH Niemann GmbH & Co. ... | Zinc oxide paste, soft SR90 | 25A310712 | 2       |
| AMH Niemann GmbH & Co. KG  | Zinc oxide paste, soft SR90 | 21B210612 | 1       |
| AMH/ Sanacorp              | Zinc oxide paste, soft SR90 | 43B150811 | 1       |
| Anzag                      | Zinc oxide paste, soft SR90 | 12121501  | 1       |
| apomix                     | Zinc oxide paste, soft SR90 | 34A231012 | 1       |
| apomix                     | Zinc oxide paste, soft SR90 | 3A090113  | 1       |
| apomix                     | Zinc oxide paste, soft SR90 | 4A090113  | 3       |
| apomix                     | Zinc oxide paste, soft SR90 | 12B140313 | 1       |
| apomix                     | Zinc oxide paste, soft SR90 | 6A110213  | 2       |
| Bombastus                  | Zinc oxide paste, soft SR90 | 265452    | 1       |
| Bombastus                  | Zinc oxide paste, soft SR90 | 273330    | 2       |
| Bombastus                  | Zinc oxide paste, soft SR90 | 271192    | 2       |

continued on the next page

continued from previous page

| Supplier                 | Substance                         | Batch       | Spectra |
|--------------------------|-----------------------------------|-------------|---------|
| Bombastus                | Zinc oxide paste, soft SR90       | 273328      | 3       |
| Bombastus                | Zinc oxide paste, soft SR90       | 275031      | 2       |
| Bombastus                | Zinc oxide paste, soft SR90       | 275030      | 4       |
| Bombastus                | Zinc oxide paste, soft SR90       | 273326      | 1       |
| Bombastus                | Zinc oxide paste, soft SR90       | 277663      | 2       |
| Bombastus                | Zinc oxide paste, soft SR90       | 279586      | 4       |
| Bombastus                | Zinc oxide paste, soft SR90       | 281586      | 2       |
| Bombastus                | Zinc oxide paste, soft SR90       | 271196      | 2       |
| Bombastus                | Zinc oxide paste, soft SR90       | 273329      | 4       |
| Caelo                    | Zinc oxide paste, soft SR90       | 12366801    | 1       |
| Gehe                     | Zinc oxide paste, soft SR90       | 260912      | 1       |
| Pharmachem               | Zinc oxide paste, soft SR90       | 70512       | 1       |
| Phoenix (Pharmachem P... | Zinc oxide paste, soft SR90       | 191112      | 1       |
| Bombastus                | Zinc oxide paste, soft SR90       | 277662      | 1       |
| Caelo                    | Zinc oxide shaking mixture, et... | 12261701    | 1       |
| Caelo                    | Zinc oxide shaking mixture, et... | 13080201    | 3       |
| Caelo                    | Zinc oxide shaking mixture, et... | 13244001    | 1       |
| Caelo                    | Zinc oxide shaking mixture, et... | 1308021     | 1       |
| Caelo                    | Zinc oxide shaking mixture, et... | 1324401     | 1       |
| Bombastus                | Zinc paste DAB                    | 278272      | 3       |
| Bombastus                | Zinc paste DAB                    | 27113603-15 | 1       |
| Bombastus                | Zinc paste DAB                    | 271133      | 1       |
| Bombastus                | Zinc paste DAB                    | 271136      | 1       |
| Bombastus                | Zinc paste DAB                    | 276144      | 3       |
| Bombastus                | Zinc paste DAB                    | 276143      | 1       |
| Bombastus                | Zinc paste DAB                    | 276141      | 1       |
| Bombastus                | Zinc paste DAB                    | 276145      | 1       |
| Bombastus                | Zinc paste DAB                    | 276146      | 2       |
| Bombastus                | Zinc paste DAB                    | 278861      | 1       |
| Bombastus                | Zinc paste DAB                    | 276604      | 1       |
| Bombastus                | Zinc paste DAB                    | 278865      | 1       |
| Bombastus                | Zinc paste DAB                    | 278863      | 1       |
| Bombastus                | Zinc paste DAB                    | 278270      | 1       |
| Bombastus                | Zinc paste DAB                    | 282037      | 1       |
| Bombastus                | Zinc paste DAB                    | 284662      | 1       |
| Bombastus                | Zinc paste DAB                    | 287850      | 1       |
| Bombastus                | Zinc paste DAB                    | 290176      | 1       |
| Bombastus                | Zinc paste DAB                    | 291718      | 2       |
| Bombastus                | Zinc paste DAB                    | 278273      | 3       |
| Bombastus                | Zinc paste DAB                    | 278274      | 3       |
| Bombastus                | Zinc paste DAB                    | 278864      | 3       |
| Bombastus                | Zinc paste DAB                    | 62/13       | 1       |
| Bombastus                | Zinc paste DAB                    | 273894      | 1       |
| Bombastus                | Zinc paste DAB                    | 271138      | 2       |
| Bombastus                | Zinc paste DAB                    | 280733      | 2       |
| Bombastus                | Zinc paste DAB                    | 280732      | 1       |
| Bombastus                | Zinc paste DAB                    | 271134      | 1       |
| Caelo                    | Zinc paste DAB                    | 1321903     | 1       |
| Caelo                    | Zinc paste DAB                    | 11321701    | 3       |
| Caelo                    | Zinc paste DAB                    | 11290901    | 1       |
| Caelo                    | Zinc paste DAB                    | 12206501    | 9       |
| Caelo                    | Zinc paste DAB                    | 12066102    | 1       |
| Caelo                    | Zinc paste DAB                    | 20271012-1  | 1       |
| Caelo                    | Zinc paste DAB                    | 10345201    | 3       |
| Caelo                    | Zinc paste DAB                    | 20021310    | 1       |
| Caelo                    | Zinc paste DAB                    | 903312054   | 1       |
| Caelo                    | Zinc paste DAB                    | 12206401    | 3       |
| Caelo                    | Zinc paste DAB                    | 12271702    | 9       |
| Caelo                    | Zinc paste DAB                    | 13043401    | 19      |

continued on the next page

continued from previous page

| Supplier             | Substance            | Batch       | Spectra |
|----------------------|----------------------|-------------|---------|
| Caelo                | Zinc paste DAB       | 31051302    | 1       |
| Caelo                | Zinc paste DAB       | 10245901    | 2       |
| Caelo                | Zinc paste DAB       | 13201801    | 22      |
| Caelo                | Zinc paste DAB       | 11321702    | 1       |
| Caelo                | Zinc paste DAB       | 14011402    | 1       |
| Caelo                | Zinc paste DAB       | 14092301    | 1       |
| Caelo                | Zinc paste DAB       | 13201201    | 1       |
| Caelo                | Zinc paste DAB       | 14201201    | 1       |
| Caelo                | Zinc paste DAB       | 14293302    | 1       |
| Caelo                | Zinc paste DAB       | 16013302    | 1       |
| Caelo                | Zinc paste DAB       | 16068501    | 1       |
| Caelo                | Zinc paste DAB       | 12271601    | 9       |
| Caelo                | Zinc paste DAB       | 13043301    | 4       |
| Caelo                | Zinc paste DAB       | 18162502    | 1       |
| Caelo                | Zinc paste DAB       | 19030401    | 1       |
| Caelo                | Zinc paste DAB       | 19049201    | 1       |
| Caelo                | Zinc paste DAB       | 13201701    | 1       |
| Caelo                | Zinc paste DAB       | 11290801    | 2       |
| Caelo                | Zinc paste DAB       | 12147801    | 12      |
| Caelo                | Zinc paste DAB       | 19093102    | 1       |
| Caelo                | Zinc paste DAB       | 19166001    | 1       |
| Caelo                | Zinc paste DAB       | 13345301    | 1       |
| Caelo                | Zinc paste DAB       | 11364102    | 3       |
| Caelo                | Zinc paste DAB       | 12262301    | 2       |
| Caelo                | Zinc paste DAB       | 13345202    | 1       |
| Caelo                | Zinc paste DAB       | 15121-02054 | 1       |
| Caesar & Loretz GmbH | Zinc paste DAB       | 281972      | 1       |
| Bombastus            | Zinc paste DAB       | 271135      | 2       |
| Fagron               | Zinc paste DAB       | 273893      | 1       |
| Fagron               | Zinc paste DAB       | 12I06-T01   | 1       |
| Fiebig               | Zinc paste DAB       | 268489      | 1       |
| Noweda               | Zinc paste DAB       | 276606      | 1       |
| phönix               | Zinc paste DAB       | 12147903    | 1       |
| Sanacorp             | Zinc paste DAB       | 13043502    | 3       |
| Sanacorp             | Zinc paste DAB       | 13201903    | 1       |
| Sanacorp             | Zinc paste DAB       | 13345101    | 7       |
| Wasserfuhr           | Zinc paste DAB       | 12169401    | 1       |
| Alliance Health      | Zinc paste, soft DAB | 278229      | 4       |
| Alliance Healthcare  | Zinc paste, soft DAB | 281118      | 1       |
| Anzag                | Zinc paste, soft DAB | 12121501    | 1       |
| Anzag                | Zinc paste, soft DAB | 14023301    | 4       |
| Anzag 18.10.12       | Zinc paste, soft DAB | 12121401    | 3       |
| apomix               | Zinc paste, soft DAB | 13A040912   | 1       |
| apomix               | Zinc paste, soft DAB | 41B051212   | 1       |
| bom                  | Zinc paste, soft DAB | 286902      | 1       |
| Bombastus            | Zinc paste, soft DAB | 265457      | 1       |
| Bombastus            | Zinc paste, soft DAB | 267515      | 1       |
| Bombastus            | Zinc paste, soft DAB | 271195      | 2       |
| Bombastus            | Zinc paste, soft DAB | 270465      | 3       |
| Bombastus            | Zinc paste, soft DAB | 5216300     | 4       |
| Bombastus            | Zinc paste, soft DAB | 271194      | 1       |
| Bombastus            | Zinc paste, soft DAB | 271340      | 3       |
| Bombastus            | Zinc paste, soft DAB | 274972      | 2       |
| Bombastus            | Zinc paste, soft DAB | 273701      | 1       |
| Bombastus            | Zinc paste, soft DAB | 274971      | 1       |
| Bombastus            | Zinc paste, soft DAB | 271341      | 2       |
| Bombastus            | Zinc paste, soft DAB | 276540      | 3       |
| Bombastus            | Zinc paste, soft DAB | 276536      | 1       |
| Bombastus            | Zinc paste, soft DAB | 274973      | 1       |
| Bombastus            | Zinc paste, soft DAB | 275948      | 1       |

continued on the next page



continued from previous page

| Supplier  | Substance            | Batch      | Spectra |
|-----------|----------------------|------------|---------|
| Bombastus | Zinc paste, soft DAB | 280233     | 1       |
| Bombastus | Zinc paste, soft DAB | 276538     | 2       |
| Bombastus | Zinc paste, soft DAB | 280234     | 1       |
| Bombastus | Zinc paste, soft DAB | 278226     | 1       |
| Bombastus | Zinc paste, soft DAB | 280235     | 1       |
| Bombastus | Zinc paste, soft DAB | 281117     | 1       |
| Bombastus | Zinc paste, soft DAB | 282863     | 1       |
| Bombastus | Zinc paste, soft DAB | 270516     | 2       |
| Bombastus | Zinc paste, soft DAB | 278228     | 2       |
| Bombastus | Zinc paste, soft DAB | 281116     | 2       |
| Bombastus | Zinc paste, soft DAB | 282861     | 1       |
| Bombastus | Zinc paste, soft DAB | 267590     | 1       |
| Bombastus | Zinc paste, soft DAB | 282859     | 1       |
| Bombastus | Zinc paste, soft DAB | 293485     | 1       |
| Bombastus | Zinc paste, soft DAB | 281122     | 4       |
| Bombastus | Zinc paste, soft DAB | 267591     | 1       |
| Bombastus | Zinc paste, soft DAB | 278227     | 1       |
| Bombastus | Zinc paste, soft DAB | 278223     | 1       |
| Bombastus | Zinc paste, soft DAB | 276539     | 3       |
| Bombastus | Zinc paste, soft DAB | 281121     | 2       |
| Bombastus | Zinc paste, soft DAB | 262918     | 1       |
| Bombastus | Zinc paste, soft DAB | 266383     | 1       |
| Bombastus | Zinc paste, soft DAB | 271344     | 2       |
| Bombastus | Zinc paste, soft DAB | 274978     | 3       |
| Bombastus | Zinc paste, soft DAB | 276537     | 1       |
| Caelo     | Zinc paste, soft DAB | 28031401   | 1       |
| Caelo     | Zinc paste, soft DAB | 2101212055 | 1       |
| Caelo     | Zinc paste, soft DAB | 11099003   | 1       |
| Caelo     | Zinc paste, soft DAB | 11269701   | 2       |
| Caelo     | Zinc paste, soft DAB | 1403212055 | 1       |
| Caelo     | Zinc paste, soft DAB | 11202101   | 1       |
| Caelo     | Zinc paste, soft DAB | 11338501   | 2       |
| Caelo     | Zinc paste, soft DAB | 208212055  | 1       |
| Caelo     | Zinc paste, soft DAB | 11338401   | 1       |
| Caelo     | Zinc paste, soft DAB | 12068901   | 2       |
| Caelo     | Zinc paste, soft DAB | 1212401    | 1       |
| Caelo     | Zinc paste, soft DAB | 12121302   | 2       |
| Caelo     | Zinc paste, soft DAB | 711212055  | 1       |
| Caelo     | Zinc paste, soft DAB | 17111203   | 1       |
| Caelo     | Zinc paste, soft DAB | 12207801   | 1       |
| Caelo     | Zinc paste, soft DAB | 12207901   | 8       |
| Caelo     | Zinc paste, soft DAB | 12208101   | 6       |
| Caelo     | Zinc paste, soft DAB | 213E-02055 | 1       |
| Caelo     | Zinc paste, soft DAB | 1601312055 | 1       |
| Caelo     | Zinc paste, soft DAB | 12271301   | 4       |
| Caelo     | Zinc paste, soft DAB | 6021305    | 1       |
| Caelo     | Zinc paste, soft DAB | 12271401   | 10      |
| Caelo     | Zinc paste, soft DAB | 12366801   | 12      |
| Caelo     | Zinc paste, soft DAB | 13026901   | 20      |
| Caelo     | Zinc paste, soft DAB | 13026702   | 8       |
| Caelo     | Zinc paste, soft DAB | 12366703   | 1       |
| Caelo     | Zinc paste, soft DAB | 13027001   | 8       |
| Caelo     | Zinc paste, soft DAB | 11061301   | 1       |
| Caelo     | Zinc paste, soft DAB | 13088701   | 22      |
| Caelo     | Zinc paste, soft DAB | 2713E2055  | 1       |
| Caelo     | Zinc paste, soft DAB | 12206201   | 1       |
| Caelo     | Zinc paste, soft DAB | 13088901   | 12      |
| Caelo     | Zinc paste, soft DAB | 13089001   | 13      |
| Caelo     | Zinc paste, soft DAB | 8081301    | 1       |
| Caelo     | Zinc paste, soft DAB | 13203501   | 12      |

continued on the next page



continued from previous page

| Supplier             | Substance            | Batch       | Spectra |
|----------------------|----------------------|-------------|---------|
| Caelo                | Zinc paste, soft DAB | 70913WZP    | 1       |
| Caelo                | Zinc paste, soft DAB | 13203301    | 16      |
| Caelo                | Zinc paste, soft DAB | 13088/01    | 1       |
| Caelo                | Zinc paste, soft DAB | 13088602    | 1       |
| Caelo                | Zinc paste, soft DAB | 13203401    | 11      |
| Caelo                | Zinc paste, soft DAB | 13203701    | 2       |
| Caelo                | Zinc paste, soft DAB | 13316301    | 23      |
| Caelo                | Zinc paste, soft DAB | 14111313    | 1       |
| Caelo                | Zinc paste, soft DAB | 13316601    | 6       |
| Caelo                | Zinc paste, soft DAB | 13387801    | 5       |
| Caelo                | Zinc paste, soft DAB | 14023601    | 1       |
| Caelo                | Zinc paste, soft DAB | 14023801    | 1       |
| Caelo                | Zinc paste, soft DAB | 14023701    | 3       |
| Caelo                | Zinc paste, soft DAB | 14117801    | 1       |
| Caelo                | Zinc paste, soft DAB | 14173201    | 1       |
| Caelo                | Zinc paste, soft DAB | 1417601     | 1       |
| Caelo                | Zinc paste, soft DAB | 14023401    | 1       |
| Caelo                | Zinc paste, soft DAB | 14173001    | 2       |
| Caelo                | Zinc paste, soft DAB | 14181702    | 1       |
| Caelo                | Zinc paste, soft DAB | 14172901    | 1       |
| Caelo                | Zinc paste, soft DAB | 14296301    | 1       |
| Caelo                | Zinc paste, soft DAB | 15005202    | 1       |
| Caelo                | Zinc paste, soft DAB | 15072701    | 3       |
| Caelo                | Zinc paste, soft DAB | 15073001    | 1       |
| Caelo                | Zinc paste, soft DAB | 15072901    | 1       |
| Caelo                | Zinc paste, soft DAB | 16001201    | 3       |
| Caelo                | Zinc paste, soft DAB | 16042101    | 1       |
| Caelo                | Zinc paste, soft DAB | 13036901    | 1       |
| Caelo                | Zinc paste, soft DAB | 12308307    | 1       |
| Caelo                | Zinc paste, soft DAB | 12208001    | 7       |
| Caelo                | Zinc paste, soft DAB | 12366701    | 10      |
| Caelo                | Zinc paste, soft DAB | 63075606    | 1       |
| Caelo                | Zinc paste, soft DAB | 12069001    | 4       |
| Caelo                | Zinc paste, soft DAB | 13026801    | 7       |
| Caelo                | Zinc paste, soft DAB | 19007401    | 1       |
| Caelo                | Zinc paste, soft DAB | 19035701    | 1       |
| Caelo                | Zinc paste, soft DAB | 12271501    | 10      |
| Caelo                | Zinc paste, soft DAB | 13316701    | 1       |
| Caelo                | Zinc paste, soft DAB | 414U-02055  | 1       |
| Caelo                | Zinc paste, soft DAB | 16121901    | 1       |
| Caelo                | Zinc paste, soft DAB | 1212601     | 1       |
| Caelo                | Zinc paste, soft DAB | 13388001    | 3       |
| Caelo                | Zinc paste, soft DAB | 12208201    | 7       |
| Caelo                | Zinc paste, soft DAB |             | 2       |
| Caelo                | Zinc paste, soft DAB | 13089101    | 5       |
| Caelo                | Zinc paste, soft DAB | 18136601    | 1       |
| Caelo                | Zinc paste, soft DAB | 13316401    | 6       |
| Caelo                | Zinc paste, soft DAB | 3413E-02055 | 1       |
| Caesar & Loretz GmbH | Zinc paste, soft DAB | 11269601    | 2       |
| ...                  |                      |             |         |
| Defektur             | Zinc paste, soft DAB | 54/12       | 1       |
| Defektur             | Zinc paste, soft DAB | 11/13       | 1       |
| Defektur             | Zinc paste, soft DAB | 32/13       | 1       |
| Defektur             | Zinc paste, soft DAB | 56/13       | 1       |
| Euro OTC             | Zinc paste, soft DAB | 1211014-01  | 7       |
| Euro OTC             | Zinc paste, soft DAB | 214I-02055  | 1       |
| Euro OTC             | Zinc paste, soft DAB | 13211014-01 | 1       |
| Euro OTC             | Zinc paste, soft DAB | 1310019-01  | 2       |
| Euro OTC             | Zinc paste, soft DAB | 121014-01   | 1       |
| Euro OTC             | Zinc paste, soft DAB | 1009043-01  | 3       |

continued on the next page

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| Supplier                | Substance                            | Batch            | Spectra |
|-------------------------|--------------------------------------|------------------|---------|
| Euro OTC                | Zinc paste, soft DAB                 | 1108059-01       | 4       |
| Fagron                  | Zinc paste, soft DAB                 | 12/26-T03        | 1       |
| Fagron                  | Zinc paste, soft DAB                 | 12J26-T03        | 6       |
| Fagron                  | Zinc paste, soft DAB                 | 4113A-02055      | 1       |
| Fagron                  | Zinc paste, soft DAB                 | 10D15-T01        | 1       |
| Fagron                  | Zinc paste, soft DAB                 | 13H13-T05-006158 | 1       |
| Gehe                    | Zinc paste, soft DAB                 | 11338801         | 4       |
| Gehe                    | Zinc paste, soft DAB                 | 12068801         | 6       |
| Gehe                    | Zinc paste, soft DAB                 | 11338601         | 2       |
| Gehe                    | Zinc paste, soft DAB                 | 130112           | 1       |
| Gehe                    | Zinc paste, soft DAB                 | 12A250412        | 1       |
| Bombastus               | Zinc paste, soft DAB                 | 271343           | 2       |
| Bombastus               | Zinc paste, soft DAB                 | 270463           | 2       |
| Henry Lamotte           | Zinc paste, soft DAB                 | 5375700          | 3       |
| Henry Lamotte Oils GmbH | Zinc paste, soft DAB                 | 5374900          | 5       |
| Caelo                   | Zinc paste, soft DAB                 | 5316600          | 4       |
| Lamotte                 | Zinc paste, soft DAB                 | 5517500          | 1       |
| lamotte/Noweda          | Zinc paste, soft DAB                 | 5447900          | 4       |
| Pharmachem Anzag        | Zinc paste, soft DAB                 | 191112           | 1       |
| Phoenix                 | Zinc paste, soft DAB                 | 281120           | 1       |
| Phönix                  | Zinc paste, soft DAB                 | 13040201         | 10      |
| Phönix                  | Zinc paste, soft DAB                 | 278225           | 1       |
| Phönix                  | Zinc paste, soft DAB                 | 13316501         | 8       |
| Phönix Gotha            | Zinc paste, soft DAB                 | 12069101         | 3       |
| Phönix Gotha            | Zinc paste, soft DAB                 | 12271502         | 4       |
| Phönix Gotha            | Zinc paste, soft DAB                 | 13088801         | 9       |
| Caelo                   | Zinc paste, soft DAB                 | 12121601         | 9       |
| Caelo                   | Zinc paste, soft DAB                 | 1268901          | 1       |
| Sanacorp                | Zinc paste, soft DAB                 | 273704           | 2       |
| Sanacorp                | Zinc paste, soft DAB                 | 274979           | 1       |
| Caelo                   | Zinc paste, soft DAB                 | 11338001         | 1       |
| Caelo                   | Zinc paste, soft DAB                 | 12068701         | 4       |
| Bombastus               | Zinc paste, soft DAB                 | 278671           | 1       |
| Caelo                   | Zinc paste, soft DAB                 | 13004101         | 1       |
| Caelo                   | Zinc paste, soft DRF (stabilis. ...) | 13094201         | 2       |
| Caelo                   | Zinc paste, soft DRF (stabilis. ...) | 12160302         | 1       |
| Caelo                   | Zinc paste, soft DRF (stabilis. ...) | 12378402         | 1       |

## Appendix D: Requirements of validation

In order to ensure adherence to the safe scientific status, the individual methods for manufacturing and testing must be validated under certain circumstances (compare § 34 para. 1 no. 3, § 35 para. 1 no. 4 and para. 4 sentence 1 no. 2 b, para. 6 sentence 3 *ApoBetrO* [Pharmacies Rules and Regulations]). The *ApoBetrO* [Pharmacies Rules and Regulations] incorporates a legal definition in § 1 a para. 16 (quotation translated):

*“Validation is the provision of documented proof which with a high degree of safety documents that, via a specific process or standard work process, a medicinal product is manufactured and tested, which is in accordance with previously determined quality features.”*

Validation documentation can be used to prove that methods or devices which are not described in the Pharmacopoeia within the meaning of § 6 para. 1 sentence 3 *ApBetrO* [Pharmacies Rules and Regulations] achieve the same results as those in the Pharmacopoeia. On the other hand, with the requirements of the demanded validation it must be observed whether the respective testing method is already incorporated in the Pharmacopoeia.

NIR spectroscopy as a general testing method need not be validated in accordance with the express ruling in the *Ph. Eur. Section 1.1* [3], as it is already described in *Section 2.2.40* of the *Ph. Eur.* as an area of application for the identification of raw materials.

However, a special validation requirement exists for the reference database. This requirement is met with the existing document. Further requirements or rules as to how this proof must be furnished do not exist. It is required that the processes guarantee the same results as the methods and devices in the Pharmacopoeia [17].

Carrying out identity tests with *Apo-Ident* is therefore also possible if the NIR spectroscopy process is not required in the Pharmacopoeia monograph of the substance for identity testing. All NIR analyses with *Apo-Ident* prove several, often all molecule groups and are therefore comparable with a series of individual, targeted chemical proofs [4]. Therefore, the identity proof with *Apo-Ident* replaces the monograph test series (with two or more test combinations).

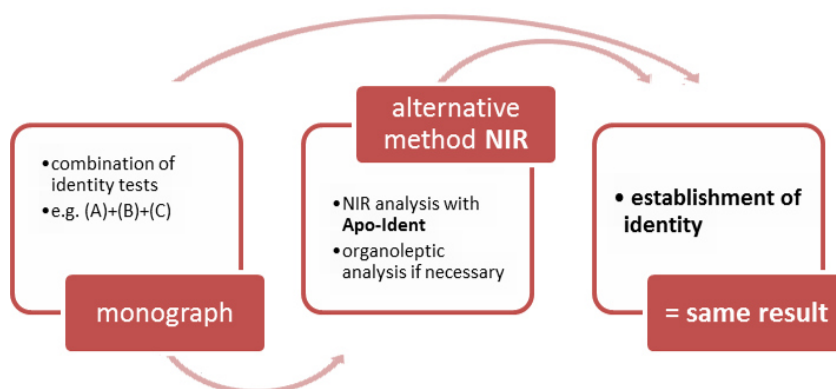


**Figure 2:** The combination of tests of the monograph is replaced by the alternative method NIR spectroscopy using *Apo-Ident*. This is permissible because both test procedures result in the establishment of the identity of the raw material.

With this validation documentation, proof is furnished that identical results are achieved with *Apo-Ident* and Pharmacopoeia methods, i.e. confirmation of the identity of the raw material [2].

## ***Appendix E: Conformity of Apo-Ident with the European pharmacopeia***

According to *Ph. Eur. Section 2.2.40*, NIR spectroscopy is basically suitable for: “Identification of agents, excipients, dosage forms, intermediate manufacturing products, chemical raw materials and packaging materials” ([3], quotation translated).

The fact that *Apo-Ident* meets the further criteria of the European Pharmacopoeia under the headings in *Section 2.2.40*

- Apparatus
- Measurement methods
- Sample preparation and presentation
- Testing the functionality of the instrument
- Identification and characterisation (qualitative analysis)
- Quantitative analysis
- Ongoing model evaluation
- Transfer of databases
- Data storage

can be proven based on the *HiperScan GmbH* documentation of “Meeting 2.2.40 *Ph. Eur.* by *Apo-Ident*” [4].

## ***Appendix F: Addition to the second-stage models***

As described in the general part of the *Apo-Ident* validation documentation, in the section [Model creation procedure and validation runs](#), under 2. *Generating the chemometric models (calibration)* in *f*), it is possible to create a further chemometric model for certain substances (second-stage model) and to undertake the assessment in several steps.

### **Substances in second-stage models**

In the substance class *APIs & excipients, liquid/semi-solid (with analysis certificate)*, a distinction is made between the following substances in the listed second-stage models:

#### **Submodell - Submodel 06**

2-ethylhexyl laurate  
Base cream DAC  
Eucerin<sup>®</sup> cum Aqua  
Lanette<sup>®</sup> ointment (conserved)  
Non-ionic hydrophil ointment  
Squalane  
Wool alcohol cream DAB  
Wool alcohol cream SR

#### **Submodell - Submodel 10**

Lauromacrogol 400  
Macrogol 20 glycerol monostearate type II  
Macrogol 4 lauryl ether  
Macrogol 8 stearate type I  
Macrogolglycerol hydroxystearate 40  
Macrogolglycerol ricinoleate  
Polysorbate 20  
Polysorbate 60  
Polysorbate 80

#### **Submodell - Submodel 16**

Cinnamon bark oil, artificial  
Cinnamon bark oil, Ceylon



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## Index

- (s)-Lactic acid, [21](#)  
 $\alpha$ -Tocopherol, [2259](#)  
 1,3-Butandiolum, *see* 1,3-butanediol, [33](#)  
 1,3-butanediol, [33](#)  
 2-Ethylhexylis lauras, *see* 2-ethylhexyl laurate, [37](#)  
 2-ethylhexyl laurate, [37](#)
- Abwaschbare Salbengrundlage (NRF S.31), *see* Paraffin classification, [1393](#)  
 Acetic acid 30%, [47](#)  
 Acetic acid 99%, [53](#)  
 Acetone, [61](#)  
 Acetonum, *see* Acetone, [61](#)  
 Acidum (s)-lacticum, *see* (s)-Lactic acid, [21](#)  
 Acidum aceticum dilutum 30%, *see* Acetic acid 30%, [47](#)  
 Acidum aceticum glaciale, *see* Acetic acid 99%, [53](#)  
 Acidum glycolicum 70%, *see* Glycolic acid 70%, [743](#)  
 Acidum L (+)-lacticum 20%, *see* Dextrorotary lactic acid 20%, [541](#)  
 Acidum oleicum, *see* Oleic acid, [1383](#)  
 Acidum salicylicum cum vaselino 50 per centum, *see* Salicylic acid 50% (paraffin), [1741](#)  
 Acorus oil, [79](#)  
 Adeps lanae, *see* Softisan<sup>®</sup> 378 / Wool fat, [1807](#)  
 Aether, *see* Ether, [623](#)  
 Alcohol isopropylicus, *see* Isopropyl alcohol, [979](#)  
 Alcohol isopropylicus 70%, *see* Isopropyl alcohol 70%, [1033](#)  
 Alkohol benzylicus, *see* Benzyl alcohol, [269](#)  
 all-rac- $\alpha$ -Tocopherol, *see*  $\alpha$ -Tocopherol, [2259](#)  
 All-rac-alpha-tocopheryl acetate, [85](#)  
 Almond oil, refined, *see* Triglycerides, [1929](#)  
 Althae sirupus (konserviert), *see* Syrups, [1887](#)  
 Aluminii acetatis tartratis solutio, *see* Water and aqueous solutions, [2151](#)  
 Aluminium acetotartrate solution, *see* Water and aqueous solutions, [2151](#)  
 Amygdalae oleum raffinatum, *see* Triglycerides, [1929](#)  
 Angelica root oil, [95](#)  
 Anionic hydrophilic cream DAB, *see* Hydrophilic ointments, [781](#)  
 Anionic hydrophilic cream SR (NRF p.27), *see* Hydrophilic ointments, [781](#)  
 Anionic hydrophilic cream with propylene glycol, *see* Hydrophilic ointments, [781](#)  
 Anionic hydrophic cream without preservatives, *see* Hydrophilic ointments, [781](#)  
 Anise oil, *see* Anise oil / Star aniseed oil, [101](#)  
 Anise oil / Star aniseed oil, [101](#)  
 Anisi aetheroleum, *see* Anise oil / Star aniseed oil, [101](#)  
 Anisi stellati aetheroleum, *see* Anise oil / Star aniseed oil, [101](#)  
 Apricot kernel oil, refined, *see* Triglycerides, [1929](#)  
 Aqua, *see* Water and aqueous solutions, [2151](#)  
 Aqueous salicylic acid 50% (non-ionic, hydrophilic cream SR), [109](#)  
 Aurantii dulcis aetheroleum, *see* Citrus oils, [393](#)  
 Avocado oil, refined, *see* Triglycerides, [1929](#)
- Base cream DAC, [119](#)  
 Base cream, diluted, *see* Hydrophilic ointments, [781](#)  
 Base cream, hydrophobic DAC, *see* Hydrophilic ointments, [781](#)  
 Basis Cordes<sup>®</sup> RK, [243](#)  
 Benzalkonii chloridi solutio 50%, *see* Benzalkonium chloride solution 50%, [263](#)  
 Benzalkonium chloride solution 50%, [263](#)  
 Benzinum DAB, *see* Petroleum ether DAB, [1591](#)  
 Benzyl alcohol, [269](#)  
 Benzyl benzoate, [275](#)  
 Benzyl nicotinate, [281](#)  
 Benzylis benzoas, *see* Benzyl benzoate, [275](#)  
 Benzylis nicotinas, *see* Benzyl nicotinate, [281](#)  
 Bergamot oil, [287](#)  
 Bitter orange oil, *see* Citrus oils, [393](#)  
 Bitter-fennel fruit oil, [293](#)  
 Borage oil, refined, stabilised, *see* Triglycerides, [1929](#)  
 Butyrospermi parkii adeps raffinatus, *see* Triglycerides, [1929](#)
- Cajeput (essentiell oil), [299](#)  
 Camphor oil 20%, [305](#)  
 Camphor ointment, [311](#)  
 Camphor spirit, [315](#)  
 Caraway oil, [323](#)  
 Carthami oleum raffinatum, *see* Triglycerides, [1929](#)  
 Carvi aetheroleum, *see* Caraway oil, [323](#)  
 Caryophylli floris aetheroleum, *see* Clove oil, [411](#)

- Castor oil, refined, *see* Castor oil, virgin / Sorbitan- and glycerol monooleate, [331](#)
- Castor oil, virgin, *see* Castor oil, virgin / Sorbitan- and glycerol monooleate, [331](#)
- Castor oil, virgin / Sorbitan- and glycerol monooleate, [331](#)
- Cedar leaf oil, [357](#)
- Cedar wood oil, [361](#)
- Cetiol® HE, [367](#)
- Cherry syrup (conserved), *see* Syrups, [1887](#)
- Chest elixir, *see* Wines, [2227](#)
- Chlorhexidine digluconate solution, *see* Water and aqueous solutions, [2151](#)
- Chlorhexidini digluconatis solutio, *see* Water and aqueous solutions, [2151](#)
- Cineole, [373](#)
- Cineolum, *see* Cineole, [373](#)
- Cinnamomi zeylanici corticis aetheroleum, *see* Cinnamon bark oil, Ceylon, [381](#)
- Cinnamon bark oil, artificial, [377](#)
- Cinnamon bark oil, Ceylon, [381](#)
- Citri reticulatae aetheroleum, *see* Mandarin oil, [1305](#)
- Citric oil, *see* Citrus oils, [393](#)
- Citronella oil, [387](#)
- Citronellae aetheroleum, *see* Citronella oil, [387](#)
- Citrus oils, [393](#)
- Clary sage oil, *see* Lavender oil / Clary sage oil, [1147](#)
- Clotrimazole 10% Cordes® RK, [405](#)
- Clove oil, [411](#)
- Coal tar spirit SR, [421](#)
- Codliver oil (type A), *see* Triglycerides, [1929](#)
- Collodion 4%, [429](#)
- Condurango wine, *see* Wines, [2227](#)
- Cooling cream / Cooling cream with rose oil, [435](#)
- Cooling cream DAB, *see* Cooling cream / Cooling cream with rose oil, [435](#)
- Cooling ointment DAB 6, *see* Cooling cream / Cooling cream with rose oil, [435](#)
- Cordes® base solution, [493](#)
- Coriander oil, [497](#)
- Coriandri aetheroleum, *see* Coriander oil, [497](#)
- Corn oil, refined, *see* Triglycerides, [1929](#)
- Cremor basalis, *see* Base cream DAC, [119](#)
- Cremor basalis hydrophobicus, *see* Hydrophilic ointments, [781](#)
- Cypress oil, *see* Wood oils, [2237](#)
- Decyl oleate, *see* Triglycerides, [1929](#)
- Decylis oleas, *see* Triglycerides, [1929](#)
- Dehydrol® LS 2, *see* Macrogol-2-laurylether, [1273](#)
- Dexpanthenol, [503](#)
- Dexpanthenol concentrate 50%, [529](#)
- Dexpanthenolum, *see* Dexpanthenol, [503](#)
- Dextrorotary lactic acid 20%, [541](#)
- Dimethyl sulfoxide, [547](#)
- Dimethylis sulfoxidum, *see* Dimethyl sulfoxide, [547](#)
- Dimeticon 100 / 350 / 1000, [561](#)
- Dimeticone 100, *see* Dimeticon 100 / 350 / 1000, [561](#)
- Dimeticone 1000, *see* Dimeticon 100 / 350 / 1000, [561](#)
- Dimeticone 350, *see* Dimeticon 100 / 350 / 1000, [561](#)
- Dimeticonum 100, *see* Dimeticon 100 / 350 / 1000, [561](#)
- Dimeticonum 1000, *see* Dimeticon 100 / 350 / 1000, [561](#)
- Dimeticonum 350, *see* Dimeticon 100 / 350 / 1000, [561](#)
- Dwarf pine oil, [569](#)
- Emulsifying hydrophobic base gel DAC, *see* Paraffin classification, [1393](#)
- Emulsio basalis hydrophilica, *see* Hydrophilic base emulsion (NRF p.25), [763](#)
- Ethanol 90%, [577](#)
- Ethanol 96%, [593](#)
- Ethanolum 90% rein / vergällt, *see* Ethanol 90%, [577](#)
- Ethanolum 96%, *see* Ethanol 96%, [593](#)
- Ether, [623](#)
- Ethyl acetate, [633](#)
- Ethylis acetat, *see* Ethyl acetate, [633](#)
- Eucalypti aetheroleum, *see* Eucalyptus oil / Rosemary oil, [639](#)
- Eucalyptus oil, *see* Eucalyptus oil / Rosemary oil, [639](#)
- Eucalyptus oil / Rosemary oil, [639](#)
- Eucerin® cum Aqua, *see* Wool alcohols creams, [2243](#)
- Eugenol, [657](#)
- Eugenolum, *see* Eugenol, [657](#)
- Evening primrose oil, refined, *see* Triglycerides, [1929](#)
- Eye ointment, emulsifying DAC, *see* Paraffin classification, [1393](#)
- Eye paraffin, *see* Paraffin classification, [1393](#)
- Fennel honey (conserved), *see* Syrups, [1887](#)
- Flaxseed oil, native, *see* Triglycerides, [1929](#)
- Foeniculi amari fructus aetheroleum, *see* Bitter-fennel fruit oil, [293](#)
- Fortified wine, *see* Wines, [2227](#)
- Gel basis Audor®, *see* Wines, [2227](#)
- Gel Cordes®, [663](#)

- Gelatum basalis hydrophobicum, *see* Paraffin classification, [1393](#)
- Gelatum basalis hydrophobicum emulsificans, *see* Paraffin classification, [1393](#)
- Geranium oil, genuine, [669](#)
- Glucose syrup, [675](#)
- Glucose syrup GE 40%, *see* Glucose syrup, [675](#)
- Glucosum liquidum, *see* Glucose syrup, [675](#)
- Glycerine ointment (conserved), [681](#)
- Glycerol, [687](#)
- Glycerol 85%, [697](#)
- Glycerolum, *see* Glycerol, [687](#)
- Glycerolum 85%, *see* Glycerol 85%, [697](#)
- Glycolic acid 70%, [743](#)
- Grape seed oil, refined, *see* Triglycerides, [1929](#)
- Grapefruit oil, *see* Citrus oils, [393](#)
- Guaiazulene 25%, water-soluble, [749](#)
- Helianthi annui oleum raffinatum, *see* Triglycerides, [1929](#)
- Honey, *see* Honeys, [757](#)
- Honeys, [757](#)
- Hydrated liniment SR/DAC (NRF p.40), *see* Liniment ointments, [1165](#)
- Hydrophilic base emulsion (NRF p.25), [763](#)
- Hydrophilic cream, non-ionic SR (NRF p.26), *see* Hydrophilic ointments, [781](#)
- Hydrophilic cream, non-ionic without preservatives SR, *see* Hydrophilic ointments, [781](#)
- Hydrophilic ointment DAB, *see* Paraffin classification, [1393](#)
- Hydrophilic ointments, [781](#)
- Hydrophobic base gel DAC, *see* Paraffin classification, [1393](#)
- Hydroxyethyl salicylate, [973](#)
- Hydroxyethylis salicylas, *see* Hydroxyethyl salicylate, [973](#)
- Iecoris aselli oleum A, *see* Triglycerides, [1929](#)
- int-rac- $\alpha$ -Tocopherolum, *see*  $\alpha$ -Tocopherol, [2259](#)
- int-rac-alpha-Tocopherylis acetate, *see* All-rac-alpha-tocopheryl acetate, [85](#)
- Ipecacuanha syrup (NRF 19.1), *see* Syrups, [1887](#)
- Isopropyl alcohol, [979](#)
- Isopropyl alcohol 70%, [1033](#)
- Isopropyl myristate, [1085](#)
- Isopropyl palmitate, [1095](#)
- Isopropylis myristas, *see* Isopropyl myristate, [1085](#)
- Isopropylis palmitas, *see* Isopropyl palmitate, [1095](#)
- Jojoba Oil, native, *see* Triglycerides, [1929](#)
- Juniper oil, [1105](#)
- Juniper wood oil, *see* Wood oils, [2237](#)
- Juniperi aetheroleum, *see* Juniper oil, [1105](#)
- Juniperi ligni etheroleum, *see* Wood oils, [2237](#)
- Lanae alcoholum unguentum, *see* Paraffin classification, [1393](#)
- Lanae alcoholum unguentum aquosum DAB, *see* Wool alcohols creams, [2243](#)
- Lanette® ointment (conserved), [1111](#)
- Lanolin DAB, [1121](#)
- Lanolinum DAB, *see* Lanolin DAB, [1121](#)
- Laurel oil, *see* Triglycerides, [1929](#)
- Lauri oleum, *see* Triglycerides, [1929](#)
- Lauromacrogol 400, *see* Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40, [1213](#)
- Lauromacrogolum 400, *see* Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40, [1213](#)
- Lavandulae aetheroleum, *see* Lavender oil / Clary sage oil, [1147](#)
- Lavender oil, *see* Lavender oil / Clary sage oil, [1147](#)
- Lavender oil / Clary sage oil, [1147](#)
- Lecithinum e sojae, liquidus, *see* Triglycerides, [1929](#)
- Limonis aetheroleum, *see* Citrus oils, [393](#)
- Lini oleum virginale, *see* Triglycerides, [1929](#)
- Liniment ointments, [1165](#)
- Linimentum aquosum N (NRF S. 39), *see* Liniment ointments, [1165](#)
- Linimentum aquosum SR/DAC (NRF S.40), *see* Liniment ointments, [1165](#)
- Lipo Lotio Cordes®, [1209](#)
- Liquiritiae succi elixir, *see* Wines, [2227](#)
- Liquorice juice purified, diluted, *see* Wines, [2227](#)
- Lotio Cordes®, *see* Wines, [2227](#)
- Macrogol 20 glycerol monostearate type II, *see* Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Macrogol 20 glyceroli monostearas, *see* Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Macrogol 4 lauryl ether, *see* Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40, [1213](#)
- Macrogol 4 lauryl ether / Lauromacrogol 400 / Macrogolglycerol hydroxystearate 40, [1213](#)
- Macrogol 8 stearate type I, [1259](#)
- Macrogol ointment, [1265](#)
- Macrogol-2-laurylether, [1273](#)

- Macroglycerol hydroxystearate 40, *see*  
 Macrogol 4 lauryl ether /  
 Lauromacrogol 400 /  
 Macroglycerol hydroxystearate  
 40, [1213](#)
- Macroglycerol ricinoleate, [1279](#)
- Macroglyceroli hydroxystearas, *see*  
 Macrogol 4 lauryl ether /  
 Lauromacrogol 400 /  
 Macroglycerol hydroxystearate  
 40, [1213](#)
- Macroglyceroli ricinoleas, *see*  
 Macroglycerol ricinoleate, [1279](#)
- Macrogoli aether laurilicus, *see* Macrogol 4  
 lauryl ether / Lauromacrogol 400 /  
 Macroglycerol hydroxystearate  
 40, [1213](#)
- Macrogoli unguentum DAC, *see* Macrogol  
 ointment, [1265](#)
- Macrogols 300, [1285](#)
- Macrogols 400, [1291](#)
- Macrogolum 400, *see* Macrogols 400, [1291](#)
- Mandarin oil, [1305](#)
- Marshmallow syrup (conserved), *see* Syrups,  
[1887](#)
- Matricaria oil, rich in (-)-alpha-bisabolol,  
[1309](#)
- Maydis oleum raffinatum, *see* Triglycerides,  
[1929](#)
- Mel, *see* Honey, [757](#)
- Mel foeniculi (konserviert), *see* Syrups, [1887](#)
- Mel rosatum, *see* Honey, [757](#)
- Melaleuca aetheroleum, *see* Tea tree oil, [1915](#)
- Melissa oil, [1315](#)
- Menthae arvensis aetheroleum partim  
 mentholum depletum, *see* Mint oil /  
 Peppermint oil, [1333](#)
- Menthae crispae aetheroleum, *see* Spearmint  
 oil, [1859](#)
- Menthae piperitae aetheroleum, *see* Mint oil  
 / Peppermint oil, [1333](#)
- Methyl salicylate, [1321](#)
- Methylis salicylas, *see* Methyl salicylate, [1321](#)
- Metronidazole 25% in white petrolatum, [1327](#)
- Mint oil, *see* Mint oil / Peppermint oil, [1333](#)
- Mint oil / Peppermint oil, [1333](#)
- Myrtle oil, [1347](#)
- Natrii (s)-lactatis solutio 50%, *see*  
 Sodium-(s)-lactate solution 50%,  
[1773](#)
- Non-ionic hydrophil ointment, [1353](#)
- Non-ionic hydrophil ointment, conserved, *see*  
 Non-ionic hydrophil ointment, [1353](#)
- Non-ionic hydrous liniment SR/DAC (NRF  
 P. 39), *see* Liniment ointments, [1165](#)
- Octyldodecanol, [1367](#)
- Octyldodecanolum, *see* Octyldodecanol, [1367](#)
- Oculentum emulsificans DAC, *see* Paraffin  
 classification, [1393](#)
- Oenotherae oleum raffinatum, *see*  
 Triglycerides, [1929](#)
- Oleic acid, [1383](#)
- Oleum angelicae (e radice), *see* Angelica root  
 oil, [95](#)
- Oleum arachidis raffinatum, *see* Triglycerides,  
[1929](#)
- Oleum aurantii pericarpium, *see* Citrus oils, [393](#)
- Oleum boraginis raffinatum, *see*  
 Triglycerides, [1929](#)
- Oleum Cajeputi artificiale, *see* Cajeput  
 (essentielle oil), [299](#)
- Oleum calami rectific., *see* Acorus oil, [79](#)
- Oleum camphoratum 20%, *see* Camphor oil  
 20%, [305](#)
- Oleum cedri e fol. aether., *see* Cedar leaf oil,  
[357](#)
- Oleum chamomillae, *see* Matricaria oil, rich  
 in (-)-alpha-bisabolol, [1309](#)
- Oleum Cinnamomi artificiale, *see* Cinnamon  
 bark oil, artificial, [377](#)
- Oleum citri paradisi artificiale, *see* Citrus oils,  
[393](#)
- Oleum citrus bergamia, *see* Bergamot oil, [287](#)
- Oleum cucurbita semen, *see* Triglycerides,  
[1929](#)
- Oleum cupressi, *see* Wood oils, [2237](#)
- Oleum geranii verum, *see* Geranium oil,  
 genuine, [669](#)
- Oleum juglandis raffinatum, *see* Triglycerides,  
[1929](#)
- Oleum neutrale, *see* Triglycerides,  
 medium-chain, [2077](#)
- Oleum omega-3 18/12, *see* Triglycerides, [1929](#)
- Oleum persea americana raffinatum, *see*  
 Triglycerides, [1929](#)
- Oleum pruni armeniaca raffinatum, *see*  
 Triglycerides, [1929](#)
- Oleum rosae (verum / artificiale), *see* Rose oil  
 (genuine / artificial), [1725](#)
- Oleum salviae sclarea, *see* Lavender oil /  
 Clary sage oil, [1147](#)
- Oleyl oleate (stabilised), *see* Triglycerides,  
[1929](#)
- Oleylis oleas, *see* Triglycerides, [1929](#)
- Olivae oleum virginale, *see* Triglycerides, [1929](#)
- Olive oil, native, *see* Triglycerides, [1929](#)
- Omega-3-fish oil, *see* Triglycerides, [1929](#)
- Oral suspension base, *see* Water and aqueous  
 solutions, [2151](#)
- Oregano oil, [1387](#)
- Pantothenum 50%, *see* Dexpanthenol  
 concentrate 50%, [529](#)

- Paraffin classification, [1393](#)
- Paraffin, light liquid, *see* Paraffin classification, [1393](#)
- Paraffin, liquid, *see* Paraffin classification, [1393](#)
- Paraffin, white, *see* Paraffin classification, [1393](#)
- Paraffin, yellow, *see* Paraffin classification, [1393](#)
- Paraffinum liquidum, *see* Paraffin classification, [1393](#)
- Paraffinum perliquidum, *see* Paraffin classification, [1393](#)
- Pasta Cordes®, [1573](#)
- Peanut oil, refined, *see* Triglycerides, [1929](#)
- Peppermint oil, *see* Mint oil / Peppermint oil, [1333](#)
- Permethrin 25% solution, [1583](#)
- Petroleum ether DAB, [1591](#)
- Petroleum oil, not for internal use, [1617](#)
- Phenoxyethanol, [1623](#)
- Phenoxyethanolum, *see* Phenoxyethanol, [1623](#)
- Phytomenadione, [1627](#)
- Phytomenadionum, *see* Phytomenadione, [1627](#)
- Piceae aetheroleum, *see* Spruce needle oil, [1875](#)
- Pine silvestris oil, [1631](#)
- Pine tar, [1637](#)
- Pini pumilionis aetherolum, *see* Dwarf pine oil, [569](#)
- Pini silvestris aetheroleum, *see* Pine silvestris oil, [1631](#)
- Pix liquida, *see* Pine tar, [1637](#)
- Polyaethylenglycol-8-stearat, *see* Macrogol 8 stearate type I, [1259](#)
- Polyaethylenglycolum 300, *see* Macrogols 300, [1285](#)
- Polyhexanide solution 20%, [1641](#)
- Polysorbate 20, *see* Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Polysorbate 60, *see* Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Polysorbate 80, *see* Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Polysorbatum 20, *see* Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Polysorbatum 60, *see* Polysorbates / Macrogol 20 glycerol monostearate type II, [1651](#)
- Polysorbatum 80, *see* Polysorbates /
- Macrogol 20 glycerol monostearate type II, [1651](#)
- Potash soap DAC, [1667](#)
- Potash soap Ph.Helv., [1675](#)
- Propylene glycol, [1679](#)
- Propylenglycolum, *see* Propylene glycol, [1679](#)
- Psorisol base cream Audor®, [1719](#)
- Pumpkin seed oil, pressed, *see* Triglycerides, [1929](#)
- Rapae oleum raffinatum, *see* Triglycerides, [1929](#)
- Rapeseed oil, refined, *see* Triglycerides, [1929](#)
- Raspberry syrup (conserved), *see* Syrups, [1887](#)
- Ribwort plantain syrup (conserved), *see* Syrups, [1887](#)
- Ricini oleum raffinatum, *see* Castor oil, virgin / Sorbitan- and glycerol monooleate, [331](#)
- Ricini oleum virginale, *see* Castor oil, virgin / Sorbitan- and glycerol monooleate, [331](#)
- Rose honey, *see* Honeys, [757](#)
- Rose oil (genuine / artificial), [1725](#)
- Rosemary oil, *see* Eucalyptus oil / Rosmary oil, [639](#)
- Rosmarini aetheroleum, *see* Eucalyptus oil / Rosmary oil, [639](#)
- RRR- $\alpha$ -Tocopherol, *see*  $\alpha$ -Tocopherol, [2259](#)
- RRR- $\alpha$ -Tocopherolum, *see*  $\alpha$ -Tocopherol, [2259](#)
- Safflower oil, refined type I, *see* Triglycerides, [1929](#)
- Sage oil, [1733](#)
- Salicylic acid 50% (paraffin), [1741](#)
- Salicylic acid concentrate 10%, white paraffin basis, [1759](#)
- Salicylic acid concentrate 5%, white paraffin basis, [1763](#)
- Salviae officinalis aetherolea, *see* Sage oil, [1733](#)
- Sapo kalinus DAC, *see* Potash soap DAC, [1667](#)
- Sapo kalinus Ph.Helv., *see* Potash soap Ph.Helv., [1675](#)
- Sesame oil, refined, *see* Triglycerides, [1929](#)
- Sesami oleum raffinatum, *see* Triglycerides, [1929](#)
- Shea butter, refined, *see* Triglycerides, [1929](#)
- Simmondsiae cera vaginalis, *see* Triglycerides, [1929](#)
- Sirupus cerasi (konserviert), *see* Syrups, [1887](#)
- Sirupus ipecacuanhae, *see* Syrups, [1887](#)
- Sirupus plantaginis lanceolatae, *see* Syrups, [1887](#)
- Sirupus rubi idaei, *see* Syrups, [1887](#)



- Sirupus simplex, *see* Syrups, [1887](#)
- Skin care ointment W/L SR, *see* Hydrophilic ointments, [781](#)
- Skin care ointment W/L SR (without preservatives), *see* Hydrophilic ointments, [781](#)
- Sodium laureth sulfate solution 27%, [1767](#)
- Sodium laureth sulphate solution 27%, *see* Sodium laureth sulfate solution 27%, [1767](#)
- Sodium-(s)-lactate solution 50%, [1773](#)
- Soft ointment, [1785](#)
- Softisan® 378, *see* Softisan® 378 / Wool fat, [1807](#)
- Softisan® 378 / Wool fat, [1807](#)
- Softisan® 649, [1845](#)
- Soiae oleum raffinatum, *see* Triglycerides, [1929](#)
- Solutio natrii laurylaethersulfurici 27 %, *see* Sodium laureth sulfate solution 27%, [1767](#)
- Solutio polyhexanidi 20%, *see* Polyhexanide solution 20%, [1641](#)
- Sorbitan trioleate, [1851](#)
- Sorbitan- and glycerol monooleate, *see* Castor oil, virgin / Sorbitan- and glycerol monooleate, [331](#)
- Sorbitani trioleas, *see* Sorbitan trioleate, [1851](#)
- Sorbitol, liquid (non crystallising), *see* Syrups, [1887](#)
- Sorbitolum liquidum non cristallisabile, *see* Syrups, [1887](#)
- Soy lecithin, liquid, *see* Triglycerides, [1929](#)
- Soy oil, refined, *see* Triglycerides, [1929](#)
- Spearmint oil, [1859](#)
- Spirit of ether, [1865](#)
- Spirit soap, [1869](#)
- Spiritus aethereus, *see* Spirit of ether, [1865](#)
- Spiritus camphoratus, *see* Camphor spirit, [315](#)
- Spiritus picis lithanthracis SR, *see* Coal tar spirit SR, [421](#)
- Spiritus saponatus, *see* Spirit soap, [1869](#)
- Spruce needle oil, [1875](#)
- Squalane, [1881](#)
- Squalanum, *see* Squalane, [1881](#)
- Star anise oil, *see* Anise oil / Star aniseed oil, [101](#)
- Sugar syrup DAB, *see* Syrups, [1887](#)
- Sunflower oil, refined, *see* Triglycerides, [1929](#)
- Sweet orange oil , *see* Citrus oils, [393](#)
- Syrups, [1887](#)
- Tea tree oil, [1915](#)
- Terebinthinae aetheroleum, *see* Wood oils, [2237](#)
- Thyme oil, thymol type, [1921](#)
- Thymi typo thymolo aetheroleum, *see* Thyme oil, thymol type, [1921](#)
- Transdermal base cream, *see* Hydrophilic ointments, [781](#)
- Triglycerides, [1929](#)
- Triglycerides, medium-chain, [2077](#)
- Triglycerol diisostearate, [2121](#)
- Triglyceroli diisostearas, *see* Triglycerol diisostearate, [2121](#)
- Tritici aestivi oleum raffinatum, *see* Triglycerides, [1929](#)
- Turpentine oil, *see* Wood oils, [2237](#)
- Unguentum Acidi salicylici 10% c. Vaselineum album, *see* Salicylic acid concentrate 10%, white paraffin basis, [1759](#)
- Unguentum Acidi salicylici 5% c. Vaselineum album, *see* Salicylic acid concentrate 5%, white paraffin basis, [1763](#)
- Unguentum Alcoholum Lanae aquosum SR, *see* Wool alcohols creams, [2243](#)
- Unguentum alcoholum lanae SR, *see* Paraffin classification, [1393](#)
- Unguentum Alcoholum Lanae SR/DAC, *see* Paraffin classification, [1393](#)
- Unguentum camphoratum, *see* Camphor ointment, [311](#)
- Unguentum Cordes®, *see* Paraffin classification, [1393](#)
- Unguentum emulsificans aquosum cum propylenglycolum, *see* Hydrophilic ointments, [781](#)
- Unguentum emulsificans aquosum DAB, *see* Hydrophilic ointments, [781](#)
- Unguentum emulsificans aquosum N sine conservante SR, *see* Hydrophilic ointments, [781](#)
- Unguentum emulsificans aquosum N SR (NRF S. 26), *see* Hydrophilic ointments, [781](#)
- Unguentum emulsificans aquosum sine conservante, *see* Hydrophilic ointments, [781](#)
- Unguentum emulsificans aquosum SR (NRF S. 27), *see* Hydrophilic ointments, [781](#)
- Unguentum emulsificans DAB, *see* Paraffin classification, [1393](#)
- Unguentum emulsificans nonionicum aquosum DAB, *see* Non-ionic hydrophil ointment, [1353](#)
- Unguentum glycerini (konserviert), *see* Glycerine ointment (conserved), [681](#)
- Unguentum Lanette®, *see* Lanette® ointment (conserved), [1111](#)
- Unguentum leniens, *see* Cooling cream / Cooling cream with rose oil, [435](#)



- Unguentum leniens DAB 6, *see* Cooling cream / Cooling cream with rose oil, [435](#)
- Unguentum molle, *see* Soft ointment, [1785](#)
- Vaseline, white, *see* Paraffin classification, [1393](#)
- Vaseline, yellow, *see* Paraffin classification, [1393](#)
- Vaselinum album, *see* Paraffin classification, [1393](#)
- Vaselinum album pro opthalmicum, *see* Paraffin classification, [1393](#)
- Vaselinum flavum, *see* Paraffin classification, [1393](#)
- Verbena oil, nature-identical, [2127](#)
- Vinum condurangum, *see* Wines, [2227](#)
- Vinum liquorosum, *see* Wines, [2227](#)
- Viscous base solution (NRF p. 20), [2133](#)
- Vitis viniferae oleum raffinatum, *see* Triglycerides, [1929](#)
- Walnut oil, refined, *see* Triglycerides, [1929](#)
- Water, *see* Water and aqueous solutions, [2151](#)
- Water and aqueous solutions, [2151](#)
- Wheatgerm oil, refined, *see* Triglycerides, [1929](#)
- Wines, [2227](#)
- Wolff® base half-fat cream, *see* Hydrophilic ointments, [781](#)
- Wood oils, [2237](#)
- Wool alcohol cream DAB, *see* Wool alcohols creams, [2243](#)
- Wool alcohol cream SR, *see* Wool alcohols creams, [2243](#)
- Wool alcohol ointment DAB, *see* Paraffin classification, [1393](#)
- Wool alcohol ointment SR with white paraffin, *see* Paraffin classification, [1393](#)
- Wool alcohol ointment SR/DAC, *see* Paraffin classification, [1393](#)
- Wool alcohols creams, [2243](#)
- Wool fat, *see* Softisan® 378 / Wool fat, [1807](#)
- Wormwood oil, [2255](#)